

Information Management for z/OS Problem, Change, and Configuration Management

Version 7.1 SC31-8752-00



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Tivoli Information Management for z/OS Problem, Change, and Configuration Management

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Preface

This book explains how to use the Problem Management, Change Management, and Configuration Management facilities of Tivoli[®] Information Management for z/OS. You can use this book as an educational tool and as a user's guide.

There may be references in this publication to versions of Tivoli Information Management for z/OS's predecessor products. For example:

- TME 10[™] Information/Management Version 1.1
- Information/Management Version 6.3, Version 6.2, Version 6.1
- Tivoli Service Desk for OS/390[®] Version 1.2

Who Should Read This Guide

The prerequisites for using this book are that you understand how to use Tivoli Information Management for z/OS and that you are familiar with problem, change, and configuration management concepts. If you need a better understanding of Tivoli Information Management for z/OS, refer to the *Tivoli Information Management for z/OS User's Guide*.

This book is intended to help you learn how to manage problems, changes, and the configuration of the data processing system of your organization. It primarily contains step-by-step instructions on creating, updating, searching, and generating reports on problem, change, and configuration records.

Prerequisite and Related Documentation

The library for Tivoli Information Management for z/OS Version 7.1 consists of these publications. For a description of each, see "The Tivoli Information Management for z/OS Library" on page 347.

Tivoli Information Management for z/OS Application Program Interface Guide, SC31-8737-00

Tivoli Information Management for z/OS Client Installation and User's Guide, SC31-8738-00

Tivoli Information Management for z/OS Data Reporting User's Guide, SC31-8739-00

Tivoli Information Management for z/OS Desktop User's Guide, SC31-8740-00

Tivoli Information Management for z/OS Diagnosis Guide, GC31-8741-00

Tivoli Information Management for z/OS Guide to Integrating with Tivoli Applications, SC31-8744-00

Tivoli Information Management for z/OS Integration Facility Guide, SC31-8745-00

Tivoli Information Management for z/OS Licensed Program Specification, GC31-8746-00

Tivoli Information Management for z/OS Master Index, Glossary, and Bibliography, SC31-8747-00

Tivoli Information Management for z/OS Messages and Codes, GC31-8748-00

Tivoli Information Management for z/OS Operation and Maintenance Reference, SC31-8749-00

Tivoli Information Management for z/OS Panel Modification Facility Guide, SC31-8750-00

Tivoli Information Management for z/OS Planning and Installation Guide and Reference, GC31-8751-00

Tivoli Information Management for z/OS Problem, Change, and Configuration Management, SC31-8752-00

Tivoli Information Management for z/OS Program Administration Guide and Reference, SC31-8753-00

Tivoli Information Management for z/OS Reference Summary, SC31-8754-00

Tivoli Information Management for z/OS Terminal Simulator Guide and Reference, SC31-8755-00

Tivoli Information Management for z/OS User's Guide, SC31-8756-00

Tivoli Information Management for z/OS World Wide Web Interface Guide, SC31-8757-00

Note: Tivoli is in the process of changing product names. Products referenced in this manual may still be available under their old names (for example, TME 10 Enterprise Console instead of Tivoli Enterprise Console®).

What This Guide Contains

This book is divided into the following sections:

- "What You Need to Know Before Using Tivoli Information Management for z/OS" on page 1 explains some aspects of Tivoli Information Management for z/OS that you need to keep in mind as you use the rest of the book.
- The section on Problem Management begins with "Introducing Problem Management" on page 7, and subsequent chapters describe the problem management process and how to work with problem records.
- The section on Change Management begins with "Introducing Change Management" on page 41; subsequent chapters describe the change management process and how to work with change records.
- The section on Configuration Management begins with "Introducing Configuration Management" on page 75; it and the chapters following describe the configuration management process and how to work with configuration records.
- "Displaying Tivoli Information Management for z/OS Records" on page 241 begins a brief section which describes how to work with Tivoli Information Management for z/OS Records, and how to display, search, and print reports for problem, change, and configuration records.

How Information Is Presented in This Book

Commands such as END, CONTROL, RESUME, and FIELD appear in capital letters. Although not commands, the user responses YES and NO also appear in capital letters.

Some sample entries in this book contain two consecutive commas. These are *not* typographical errors: they are part of immediate response chains (IRCs). For more information on IRCs, refer to the *Tivoli Information Management for z/OS User's Guide*.

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The examples shown in this book assume that you are running under MASTER privilege class, which has master class authority. If you choose to follow the examples using your own data, use the master privilege class appropriate to your organization's implementation.

The panels represented in this book are base Tivoli Information Management for z/OS panels. They are not meant to be exact replicas of how the panels appear on the screen. The information is correct, but the spacing is not always exact.

The panels shown are examples of the panels as IBM® shipped them. Changes made by your organization are not taken into consideration.

Contacting Customer Support

For support inside the United States, for this or any other Tivoli product, contact Tivoli Customer Support in one of the following ways:

- Send e-mail to **support@tivoli.com**
- Call 1-800-TIVOLI8
- Navigate our Web site at http://www.support.tivoli.com

For support outside the United States, refer to your Customer Support Handbook for phone numbers in your country. The Customer Support Handbook is available online at http://www.support.tivoli.com.

When you contact Tivoli Customer Support, be prepared to provide identification information for your company so that support personnel can assist you more readily.

The latest downloads and fixes can be obtained at http://www.tivoli.com/infoman.

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What You Need to Know Before Using Tivoli Information Management for z/OS

Tivoli Information Management for z/OS observes certain conventions and provides certain services that apply to all types of records.

Data Security

After you define what aspects of your enterprise that Tivoli Information Management for z/OS is to handle and what types of data you need to collect, you should establish procedures for ensuring data security. Tivoli Information Management for z/OS provides two methods for securing data, privilege classes and record ownership. In addition, Tivoli Information Management for z/OS provides logical database partitioning which allows you to divide your database into partitions that are isolated from one another. Users can access only the records in partitions they are authorized for through their privilege class. Refer to the *Tivoli Information Management for z/OS Program Administration Guide and Reference* for more information on logical database partitioning.

Privilege Classes

Assigning a user to a privilege class authorizes that user to perform specific tasks and access certain facilities. Your organization does not have to use privilege classes, but it is recommended that you create at least a master privilege class. If you do not create a privilege class, all users have the authority to perform every task, including working with stored response chains (SRCs) and privilege class records.

You can authorize users to use Tivoli Information Management for z/OS data through privilege classes. A Tivoli Information Management for z/OS privilege class record identifies the privilege class to which a specific individual or group of individuals belongs. A user can perform only the functions permitted by that privilege class, such as accessing a database, making changes, or displaying and updating fields in records.

The first privilege class that you define to Tivoli Information Management for z/OS becomes the *master* class. This privilege class can perform all Tivoli Information Management for z/OS functions.

You can define a privilege class for either an individual or a group of users. Because it is often desirable for several users to have access to the same data (if they have similar or complementary job responsibilities), you might want to assign them to the same privilege class. For example, system operators and system programmers might share the same privilege class.

Record Ownership

Your organization can decide to control changes to data records through record ownership. The decision to use ownership for records is based on the amount of data security your organization needs. If it is important to limit the number of users who can update or delete a particular record, that record should be transferred to an owner with update or delete authority.

Tivoli Information Management for z/OS enables you to require that users in specified privilege classes approve changes before implementation. Approver privilege classes for the corresponding change request records should not have update authority. However, because Tivoli Information Management for z/OS neither restricts nor enforces the use of record ownership, it is your responsibility to establish your own standards and enforce those standards within your organization.

If you decide to use ownership, each privilege class to which a record can be transferred must be given update authority so that the record can be transferred to it. Once ownership is established, only users defined in the owning, the transfer-to, and the master privilege classes are authorized to update the record. Likewise, if a record is owned, only the master privilege class and the owning privilege class with delete authority can delete it.

To establish initial ownership of a record, a member of a privilege class with create or update authority for the record type must enter the name of the desired privilege class in the record's transfer-to field and file the record. Note that the record can be transferred only to a privilege class that has update authority. When the record is filed, the privilege class that created the record (if it is a new record) or updated the record is immediately assigned ownership.

If a user transfers the record to the user's current class, the transfer-to field is cleared when the record is filed. If a user transfers the record to a class other than the user's current class, Tivoli Information Management for z/OS clears the transfer-to field, and ownership of the record is reassigned when a member of the transfer-to privilege class accesses the record in update mode and subsequently files it.

If the user who creates a record does not specify an owner, any user with update authority for that record type can assign ownership of the record to himself at any time. Once ownership is assigned, only a user identified in the owning privilege class or the master privilege class can transfer ownership to another privilege class.

Features Common to All Records

Some areas of Tivoli Information Management for z/OS apply to all or most types of records.

Entry and Display Conventions

Tivoli Information Management for z/OS allows only certain values in many Tivoli Information Management for z/OS fields. If you enter a disallowed value for a field, an assisted-entry panel appears that describes allowable values and format for the field entry. In this case, Tivoli Information Management for z/OS does not return you to the prompting sequence until you enter an allowable value. If you need additional help to determine what is allowable, enter the **;HELP VALIDATE** command on the assisted-entry panel.

If you do not enter a value for a record identifier field, Tivoli Information Management for z/OS assigns its own identifier for the record.

Program messages can appear on Tivoli Information Management for z/OS panels with or without plus (+) signs attached. A plus sign *before* the message indicates that there are additional messages that are not currently displayed. A plus sign *after* the message indicates that there is additional text for the message that is not currently displayed. You can access the additional information by typing **help** on the command line and pressing Enter.

On many panels, you can enter some types of information more quickly by substituting an equal (=) sign. For example, to enter today's date into field 4 of the current panel, you can type 4,= on the command line and press Enter.

The List Processor and Line Commands

Some panel dialogs use the list processor program exit (BLG01396). The data entry panel appears as a table display, with distinct line command and data areas. Panel BLGLDVNA, Device Name Entry, is an example.

```
BLGLDVNA DEVICE NAME ENTRY LINE 1 OF 13

USE....List symbolic device names, installation defined.
FORM...AAAAAAAA - 1 to 8 alphanumeric positions.

RECORD: A01

RECORD: A01

RECORD: A01

Line Cmds: A=After B=Before C=Copy D=Delete E=Erase I=Insert
L=Line entry M=Move R=Repeat
Type DOWN, UP, LEFT, or RIGHT to scroll the panel, or type END to exit.
```

For those panels that use the list processor table panel, you can enter information on the panel in several ways:

- Move the cursor to the data area, type the data, and press Enter.
- Type I in the line command area next to where you want the data, type the data on the panel's command line, and press Enter.
- Use the LINECMD command with the L line command on the panel's command line (for example, **linecmd l**, **sample data**) to enter data into the current line. The current line of the table display is the top line that is visible in a list on the table panel. If you want to enter information on a particular line, you can use the DOWN and UP scroll commands to make that line the current line.

The L line command defaults to the first row of the first column on the table panel. If there are multiple columns on the table panel, you can use the L# command to enter data into a particular column. The # is the number of the column. For example, if there are two columns on the table panel, the leftmost column is column number 1 and the next column is column number 2.

If you need more information on the valid values for a column, you can use the L or L# line command with no data to cause the corresponding assisted-entry panel to appear. Type the l or l # line command in the line command area and press Enter, or type linecmd l or linecmd l# on the panel's command line area and press Enter.

You can use the A and R line commands on the last line of the row to expand it to hold more entries, if necessary. You can use the D line command on any line in the row to delete data from that line.

For more information on the list processor, refer to the *Tivoli Information Management for z/OS Panel Modification Facility Guide* .

Response Chains

Response chains eliminate the need to progress through the prompting sequence one panel at a time to enter data. You can enter immediate response chains (IRCs) at any time on the panel command line. Stored response chains (SRCs) are command macros that can be invoked from the Primary Options Menu command line. The *Tivoli Information Management for z/OS User's Guide* contains additional information about response chains.

Creating Records from Models

A model is a record that contains basic information common to a particular set of circumstances. The use of models minimizes data entry.

You can create as many models as you need. Copy an appropriate model and then modify the copy to describe a specific situation. Any user who has entry authority for the record type of the model can copy the model.

For problem and change records, you can simply create a template record and copy it as necessary. Because Configuration Management records can be linked to other records, Tivoli Information Management for z/OS provides data entry panels and functions specifically for model configuration records.

For more information about copying template records, refer to the *Tivoli Information Management for z/OS User's Guide*. For more information about configuration model records, see "Understanding Model Record Concepts" on page 129.

Record Updates

When you update records, you change or add data to existing records. There are several ways to update records:

- On the command line, type **update r** *rnid*, where *rnid* is the record identifier.
- Select option 7 from the Primary Options Menu or type **update** on the command line and press Enter, then select option 5 from the BLG1UT00 Utility panel.

You can also update records from a search results list, as follows:

■ Type the U (update) line command next to the record number on search results list display and press Enter.

■ Update multiple records on a search results list display by entering the UU (block update) line command next to the first and last records in the group of records you want to update. In the process, you sequentially update one record at a time within the block update.

Tivoli Information Management for z/OS maintains a history of changes for selected fields when you update records. You can view each of these changes, as well as the initial value of each field, using the history display for that record. See "History Display" on page 255 for more information.

When you file an updated problem, change request, or activity record, immediate notification occurs.

Notification Management Facility

You can monitor database activity by using the Notification Management facility. It performs two functions:

- The immediate notification feature informs you when a problem, change request, or activity record is entered or updated. If you have designated an assignee in the Assignee name field, Tivoli Information Management for z/OS notifies that assignee. Otherwise, Tivoli Information Management for z/OS notifies a default assignee.
- The problem escalation feature shows designated users a problem's status and priority until that problem is closed. If a problem record was created in a version of Tivoli Information Management for z/OS earlier than Version 4, the record does not contain the Escalation level field. This field is added, however, when you file the record in an installation of Tivoli Information Management for z/OS with a version number of 4 or greater.

You can tailor both of these functions to work within your problem management process. The *Tivoli Information Management for z/OS Program Administration Guide and Reference* has more information on notification management.

Special Fields

Tivoli Information Management for z/OS distinguishes certain data fields apart from the rest of the data in the record: journal fields for history display, and required fields. You can specify any Tivoli Information Management for z/OS field as a journal field. Journal fields are identified by the symbol <H>, which appear after the field name on a display panel.

When you file a record, Tivoli Information Management for z/OS completes certain fields automatically. These fields include:

- Date entered
- Time entered
- Entry privilege class
- Date last altered
- Time last altered
- User last altered
- Approval status for change

You cannot modify these fields, but you can display, search, or report them. Data entered in these fields is maintained chronologically in the history section of the record.

On some data entry panels, data must be collected for certain fields in order to maintain the record. These *required* fields are denoted by an <R> next to the field name.

Information About Your Installation That You Need to Know

Before you begin a Tivoli Information Management for z/OS session, check with your system administrator about the following items:

Defaults

You may set defaults in your profile to control the sessions, screens, data definitions, and output destinations. Tivoli Information Management for z/OS provides defaults for many of the fields. However, if you do not specify your output destination prior to printing a record or running a report, Tivoli Information Management for z/OS will prompt you for it at the appropriate time.

Privilege Classes

If your organization uses privilege classes to identify users, you must be a member of a privilege class to do many of the functions described in this book. If your user ID is included in several privilege classes, you must choose one to use for your session. If you have only one privilege class, Tivoli Information Management for z/OS automatically uses it.

Your Organization's Procedures

If your organization has modified panels, reports, or privilege classes, the panel flows in this book may differ from those on your system.

Prerequisite Information

For a full explanation of invocation, profiles, panels, and commands, refer to the *Tivoli* Information Management for z/OS User's Guide and the Tivoli Information Management for z/OS Program Administration Guide and Reference.



Introducing Problem Management

Tivoli Information Management for z/OS extends your ability to gather, organize and locate information about your data processing installation. Problem Management is an online Tivoli Information Management for z/OS facility that helps you document, review, monitor, and report problems with any hardware, software, procedure, or publication at your organization.

You can use Problem Management to create a record describing the nature of the problem, the system components the problem affects, the people whose authorization is needed to proceed with problem resolution, the people who need to be notified of the problem, and the date by which the problem must be fixed.

Most of the time, the information you initially supplied can be added to or changed during the course of problem resolution. Any additions and changes you make are then recorded in the problem record. You can retrieve and display such records whenever you need them.

Throughout the problem management process, the search function lets you identify selected problem records. For example, you can identify problems for which you are responsible, the problems that have special needs, or the problems that are to be fixed by a certain date. You can use the data that you have collected to analyze trends and anticipate potential problems.

Using the report function, you can display or print a report of the problem information you identify in a search. You can also monitor the status of problems by using the Notification Management facility.

This chapter describes what comprises a problem management system, and how to plan for and use the Problem Management facility.

A Problem Management System

Before you can use the Problem Management facility of Tivoli Information Management for z/OS, you need to define the mission and scope of your problem management system. The scope of the system is determined by the types of problems your organization plans to handle. The system can be comprehensive and handle problems involving:

- Hardware
- Software
- Environment
- Procedures
- Personnel
- Documentation

Or, it can be less comprehensive and handle only some of the above. You might want your system to include everything necessary to build a complete picture of the environment to be managed.

A problem management system consists of:

- People, whose goal is minimizing problems and disruptions to you as a user. Your organization assigns a problem manager and coordinator and defines their responsibilities as one of the first steps in setting up the problem management system.
- A process or method for controlling problems and for ensuring that problems are solved.
- Data that is used to track and resolve problems.
- Tools, such as the Problem Management facility of Tivoli Information Management for z/OS that can simplify many of the problem management tasks.

The following sections describe some guidelines you should consider when setting up a problem management system.

The Problem Control Process

During the initial planning stage, you need to define the procedures you want to use in resolving problems. These procedures should define guidelines for problem entry, problem handling, and problem management.

Problem Entry

Problem entry involves first being aware that a problem exists and then reporting and updating that problem. You recognize a problem through a message, observe differences in how the system or device operates, and run reports to highlight any problem trends. Problem reporting and updating involves documenting the problem and updating information as it becomes available.

Problem Handling

To establish standards for problem handling, you should define a process for identifying and isolating the cause of a problem (problem determination), what steps are needed to alleviate the problem condition (problem bypass and recovery), and how you plan to develop and apply the solution for the problem (problem resolution).

Problem Management

Managing problems involves monitoring how the organization handles problems and correcting the process as needed.

Data Requirements for Problem Management

The data requirements of your problem management system depend on the measurements, indicators, and reports you expect to produce. The amount of data you collect and the level of detail of that data must match the objectives of the management system. For example, if you record detail data and do not use it, the time and effort taken to record it is wasted. On the other hand, if you do not capture enough data, the lack of detailed information can keep you from taking full advantage of the capabilities of the system.

To determine the types of data to collect for problem management, consider not only the data you will use to produce reports, but also the data that you will use in problem determination and resolution. A problem management system is concerned with four types of data:

Descriptive Data

Descriptive data outlines what actually happened. It includes problem descriptions, activity descriptions, and other noncoded information. It cannot be used for building statistics or for comparison purposes, because there is no precision in the way it is constructed.

Problem Determination Data

Problem determination data is archived for historical purposes and often maintained in freeform and descriptive data. It is usually not reported in the management reports of the problem management system, but it must be collected and maintained if problems are to be resolved efficiently.

Use problem determination data to develop answers to the following questions:

- What failed?
- What can be done to recover from or bypass the failure?
- What can be done to fix the problem?

Tracking Data

Tracking data is information about what is happening to the problem. It includes information such as who the problem is currently assigned to, the current activity or phase, escalation level, and the status of the problem. It is the data primarily concerned with the management of the problem-solving process. It provides a chronological view of the problem to determine where, by whom, and how time is being spent. Immediate notification and problem escalation are two tracking tools available for your use.

Control Data

Control data is the set of standards used to measure the performance of the other elements of the system. It is presented in reports to show adherence to objectives. It is used in meetings to evaluate action plans. It is the basis for exception reports and escalation actions. Control data establishes the limits that guide the everyday running of the system. Immediate notification and problem escalation are two tools that help you control your problem management process.

Problem Priority and Severity

If your problem management system handles a large number of problems, you need to prioritize those problems to indicate relative urgency. Prioritizing can help ensure that the attention and resources devoted to a problem are consistent with its importance. Severity shows you how critical the failure is and the alternatives that are available. Severity remains the same throughout the life of the problem. Priority distinguishes between problems of the same severity.

The factors that influence priority and severity include, but are not limited to, the following:

- Duration of the outage
- Bypass availability
- Number of affected users

- Frequency of occurrence
- Business impact associated with the problem

Ideally, each of these factors will be reflected in the priority and severity scheme you develop.

Most organizations communicate the impact of a problem by assigning a severity code. The most critical problems are assigned a severity code of 1. Problems of lesser significance are assigned severity codes of 2, 3, or 4. In order for these codes to be meaningful, clear definitions of each severity level must be developed.

Once the priority for a problem is set, you can increase it if the problem is open for too long, if the outage is excessive, or if the problem recurs. Problem priorities are increased automatically by the problem escalation facility. Your management can also increase the priority based on individual problem review.

You can use the following definitions of severity and priority codes as a starting point for developing your own coding scheme. Depending on your organizational needs, you might want to combine priority and severity into one code.

Hardware Severity Codes

- 1: System or Component down Critical need, no alternative available
- 2: Component down Critical need, alternative available
- 3: Component down Normal maintenance, no critical need
- 4: Component usable Deferred maintenance, no critical need

Software Severity Codes

- 1: No bypass, no fallback available Critical operational impact (cannot be used)
- 2: No bypass, fallback available Critical operational impact (usable with severe restriction)
- 3: Bypass or fallback available Not critical (usable with limited function)
- 4: Degraded operation available Not critical (circumvention possible)

Priority Codes

Code 1

- Target resolution time exceeded by 200%
- Duration of outage exceeds standard by 200%
- Problem recurs more than 10 times
- Management judgment

Code 2

- Target resolution time exceeded by 100%
- Duration of outage exceeds standard by 100%
- Problem recurs more than 5 times
- Management judgment

Code 3

- Target resolution dates and times exceeded by 50%
- Duration of outage exceeds standard by 50%
- Problem recurs more than twice
- Management judgment

Testing Your Problem Management System

After you establish your problem management system, you need to implement, document, and test it. An approach for implementing a problem management system is first to install a complete, minimum system for a small group of users. The users that you select could be a group of system programmers, operators, or any group that is willing and prepared to use the product extensively.

These first users can help identify concerns with the test system and its procedures. They can also suggest additional modifications and educational requirements. After you have resolved the concerns of the first group, add a new group of users to the system and repeat this system evaluation process until all concerns have been resolved and all users are online.

Because attempting to implement any system across an entire organization at one time is usually impractical, phase the implementation. As the first phase of the problem management system implementation, you might select a narrow scope of problem types, locations, and causes for your system to manage.

As you develop confidence in the problem management system and refine its mechanisms, subsequent implementation phases can broaden the system's scope, adding new and more comprehensive classifications. A well-documented implementation phase design and plan should be followed to assure that each phase proceeds smoothly.

Summary

In summary, the following guidelines can help you define the mission and scope of your problem management system:

- Assign a problem manager and coordinator and define their responsibilities.
- Determine the types of problems you plan to handle.
- Define the procedures for problem entry, problem handling, and problem resolution.
- Develop an implementation plan and schedule.
- Develop a severity or priority scheme to help order problem resolution.
- Establish standards for key problem management activities.
- Establish criteria for use in immediate notification and problem escalation. For more information on this, refer to the *Tivoli Information Management for z/OS Program Administration Guide and Reference* and the *Tivoli Information Management for z/OS Panel Modification Facility Guide*.
- Identify required reports and their frequency of distribution.
- Determine report form requirements.
- Prepare a user's procedure manual and educate users.

Collecting Data for Problem Management

After you determine the types of problems you intend to manage, you should determine which fields within a problem record must be filled in.

Required Fields

When a problem is reported, Tivoli Information Management for z/OS requires that you enter data in the following fields:

- Reported by the name of the person creating the problem record
- Description a brief description of the problem
- Problem status the status of the problem indicated by a fixed code

When you close a problem, Tivoli Information Management for z/OS requires that you enter data in the following fields:

- Resolved by the name of the person who solved the problem
- Date closed the date the problem was closed
- Problem status the status of the problem indicated by code number
- Cause code the general reason for the problem

Problem Analysis

If problem analysis is one of your objectives, you should consider using the following fields:

- Key item affected to identify the major component, procedure, or environmental factor that is affected by the problem.
- Network name, System name, Program name, and Device name to identify those elements at your organization that are affected by the problem through their relationship with the key item affected.
- Date occurred and Time occurred to help you pinpoint the problem's environment. Date occurred is used in the problem calendar report.
- Locations of supplemental data to help you locate information valuable in problem debugging.
- Symptom and Resolution data to record the information gathered during problem analysis.

Problem Tracking

If problem tracking is one of your objectives, you should consider using the following fields. Tivoli Information Management for z/OS archives the values in several of these fields so you can maintain a problem status history.

- Assignee name, Assignee phone, Assignee department, Time assigned, Date assigned, Time started, and Date started, Time finished and Date finished, and Current phase to help you evaluate the responsiveness of assignees to problems.
- Vendor number and Vendor status to help you evaluate the responsiveness of vendors to your problems.
- Contact name and Contact phone to provide a source of further information about problem status.
- APAR number, PTF number, and IPCS number to relate your problem description to other applicable information.
- Fix available and Bypass available to indicate the existence of a solution or temporary bypass that you can apply to this problem or to a duplicate problem.
- Initial priority, Rerun time, Outage, and Network impact, System impact, Program impact, or Device impact to help you compile a schedule of problem assignments.

Duplicate Problem Recognition

If recognizing and recording duplicate problems is one of your objectives, you should consider using the following fields:

- Duplicate count and Original problem number to help you keep a count of duplicate problems.
- Symptom information to help you recognize duplicates more easily. For software problems, the minimum set of symptoms should include the error code, component name, and routine name. For hardware problems, the minimum set of symptoms should include the external symptom, device type, and device address.
- Resolution information to help you apply the same fix for a similar problem.

Using NetView® To Collect Data

MVS[™] organizations that have the NetView Hardware Monitor Interface or NetView Bridge Adapter can automatically have problem records created using data obtained by NetView as a system-detected or a NetView event. You can also use NetView to update the problem records with current data.

You should decide how you want to use the NetView Hardware Monitor Interface, or the NetView Bridge Adapter with the Tivoli Information Management for z/OS NetView-AutoBridge. You can allow all users to enter NetView data in the database, or you can identify the privilege class of those users who can create or update problem records. Optionally, you can identify the Tivoli Information Management for z/OS fields in which the data should be stored. The *Tivoli Information Management for z/OS Planning and Installation Guide and Reference* contains additional information; you may also wish to refer to the *Tivoli Information Management for z/OS Guide to Integrating with Tivoli Applications*.

Using the Problem Management Facility

The Problem Management facility of Tivoli Information Management for z/OS provides an online, automated way to implement your problem management system. You can use it to document and track a problem from its recognition to its resolution.

When reporting a problem with Problem Management, you can provide as little or as much information as you require. A problem can be described on one panel or on several panels, depending on your organization's data requirements.

When managing a problem, updating the problem information is an ongoing process. For example, you can keep track of the status, who is assigned to the problem, and individuals who have an interest in the problem. When a problem is resolved, you can update the problem record with resolution (fix) information and then close it. The problem remains in the database for historical or trend analysis reporting until it is deleted.

Throughout the problem control process, the search and report functions let you search, display, and report on selected problems. Through a database inquiry, you can:

- Identify problem records with certain characteristics, such as all problems reported by a particular person or all problems assigned to a particular person.
- Identify a problem as:
 - A duplicate of another problem by screening symptom and resolution data
 - Related to a specific part of the data processing environment

Using the Problem Management Facility

• Being fixed by a particular change request recorded in the common database

You can include problem data in reports so that you can monitor the status of problems, analyze trends, and perform outage analyses of the system and its components. Tivoli Information Management for z/OS lets you base the reports on one or more specific characteristics, such as open problems, high-priority problems, or vendor problems. You can also report exceptions by searching on a range of dates, assignment counts, or other criteria. You can run and print reports in batch mode or during an interactive session.

3

Reporting Problems

With Problem Management, you describe on one panel the reporter, the environment, and some symptoms of the problem. The primary use of this data is for problem determination and for communications with the problem reporter. It might be necessary for someone to contact the reporter and obtain more information about the problem, or, later, provide problem status or resolution.

This chapter describes how to create a problem record and how to enter reporter, status, symptom, and synopsis data.

Creating Problem Records

You create problem records by using the prompting sequences shown in the following examples. You can follow the flow of the panels by using either the sample data shown here or your own data.

Note to Readers

The following instructions and panels illustrate how to create a record using immediate response chains (IRCs). For more information about how to use IRCs to create records, refer to the *Tivoli Information Management for z/OS User's Guide*.

Entering Reporter Data

While testing program XMP1, Jones noted that the system displayed a message that did not appear to have any relationship to the response he had just made to a system prompt. He enters the following reporter data to report the problem:

- The person reporting the problem is JONES.
- Jones's department is PUBS.
- Jones's phone number is 555-7999.
- The problem status is INITIAL.
- The name of the program that was being tested is XMP1.
- The problem type is SOFTWARE.
- The initial priority of the problem is 03.
- The program failure impact is MEDIUM.
- The user problem number is PROB5.
- The description of the problem is INCORRECT ERROR MESSAGE.

Begin at the Primary Options Menu. To create a problem record, type **5,1** on the command line and press Enter.

BLG0EN20	PRIMARY OPTIONS MENU APPLICATION: MANAGEMENT
OPTIONS:	
2. 3. 4. 5. 6. 7. 8.	OVERVIEWDisplay general information and product enhancements. PROFILEDisplay or alter invocation or session defaults. APPLICATIONChange application, list available applications. CLASSChange current class, list available classes. ENTRYCreate a record. INQUIRYSearch for records. UTILITYCopy, display, print, delete, and update records. GLOSSARYDisplay a list of searchable words in the database. PMFModify or create panels.
	Select an option, enter a command, or type QUIT to exit.
	Tivoli Information Management for z/OS Version 7 Release 1 5697-SD9 (C) Copyright IBM Corp., 1981, 2001.
===> 5,1	

Supply whatever information is available to describe the problem. For this example, type the following on the command line and press Enter:

1,jones,2,pubs,3,555-7999,8,xmp1,13,software,14,initial

The information will appear on the screen.

BLG0B100	PROBLEM REPORTER EN	TRY PROBLEM:
Enter problem reporter d	ata; cursor placement	or input line entry allowed.
1. Reported by 2. Reporter dept 3. Reporter phone 4. Date occurred 5. Time occurred 6. Network name 7. System name 8. Program name 9. Device name 10. Key item affected 11. Date fix required 12. Time fix required	PUBS 14. 555-7999 15. 16. 17. 18. 19. XMP1 20. 21. 22. 23.	Problem type SOFTWARE Problem status <r> INITIAL User problem number Initial priority Outage Rerun time Network impact System impact Program impact Device impact User form number Location code Outage type</r>
25. Description <r> When you finish, type</r>		CEL to discard any changes.
===>		

Next, type the following on the command line and press Enter:

15,prob5,16,03,21,medium,25,incorrect error message

The information will appear on the screen. To save the data, type **end** and press Enter. You return to the Problem Summary panel.

BLG0B100	PROBLEM REPORTER EN	TRY PROBLEM: PROB5
Enter problem reporter da	ata; cursor placement	or input line entry allowed.
1. Reported by< 2. Reporter dept 3. Reporter phone 4. Date occurred 5. Time occurred 6. Network name 7. System name 8. Program name 9. Device name 10. Key item affected 11. Date fix required 12. Time fix required	PUBS 14. 555-7999 15. 16. 17. 18. 19. XMP1 20. 21. 22. 23.	Problem type SOFTWARE Problem status <r> INITIAL User problem number PROB5</r>
25. Description <r></r>		
wnen you finish, type	e END to save or CANC	EL to discard any changes.
===> end		

You can now do one of the following:

- Use option 1 to change the information you just entered.
- Use options 2 8 to add information to the problem record.
- Use option 9 to file the record.

The rest of the example in this chapter shows you how to add status, symptom, supplemental, and synopsis data to the record. You begin at the Problem Summary panel and return there at the end of each task.

Entering Status Data

Management has decided to assign the job of fixing the message problem to Smith, who is familiar with the message section of the XMP1 program code.

The following problem status data must be entered:

- Assign the problem to SMITH.
- Smith's department is DEV.
- Smith's phone number is 555-6790.
- The target date for completing a fix is 5 December 1996.

From the previous task, resume entry at the Problem Summary panel.

To add status data to the record, type 2 on the command line and press Enter.

BLG0BU00 PRO	BLEM SUMMARY	PROBLEM: PROB5	
Reported by JONES Assignee name	Current Current Owning p Entry pr Date ent	status	
Description		changes, or type CANCEL	
1. Reporter data. 2. Status data. 3. Close data. 4. Symptom data.	8. Freefor 9. File re	s data. m text.	
===> 2			

Supply status data for the record. For this example, type the following on the command line and press Enter:

1,smith,2,dev,3,555-6790,17,12/05/1996

To save the data, type **end** and press Enter. You return to the Problem Summary panel.

l. Assignee name SMITH	1 12 Problem	ctatus <d> INITIAL</d>		
2. Assignee dept DEV		phase		
3. Assignee phone 555-0		priority 03		
I. Transfer-to class		ent status		
5. Date opened		ent number		
5. Time opened		date	16	
7. Date assigned		arted		
3. Time assigned		arted	_	
Tracked by		nished		
). Tracker dept	21. Time fi	nished	_	
. Tracker phone	 22. Fix ava	ilable		
	23. Bypass	available		
	24. Repair	time		
		e/travel time		
	26. Custome	r PD time		

Entering Symptom Data

The Problem Symptom Data panel allows you to enter a symptom abstract and make selections to enter other types of symptom data. The symptom data dialog uses the list processor program exit (BLG01396) to collect symptom data.

Jones noted the following symptoms for this problem:

- The problem was detected during execution of program XMP1.
- The message code that was not valid was 406.

From the previous task, resume entry at the Problem Summary panel.

To add symptom data for this problem, type 4 on the command line and press Enter.

BLG0BU00	PROBLEM SUMMARY	PROBLEM: PROB5	
Reported by Assignee name Tracked by Network name. System name. Program name Device name. Key item affected	. SMITH Curren . Curren . Owning . Entry . XMP1 Date e . Time e	m status INITIAL t phase	
·	0, 0,	our changes, or type CANCEL	
1. Repo 2. Stat 3. Clos 4. Symp	rter data. 6. Sup us data. 7. Syn e data. 8. Fre tom data. 9. Fill	plemental data. opsis data. eform text. e record. ate solution and file record.	
===> 4			

To specify the program, type 12 and press Enter.

```
BLG0B402
                               PROBLEM SYMPTOM DATA
                                                                 PROBLEM: PROB5
Enter abstract data or make selection to enter other detail data.

    Symptom abstract...

                                         12. Program ID(s)
  2. Device name(s)
  Device type(s)
                                         13. Software level(s)
                                         14. Routine name(s)
  4. Feature name(s)
                                        15. Statement(s)
  5. Serial number(s)
                                        16. Operation code(s)
17. Abend code(s)
  6. Line/loop type(s)
 7. Loop ID(s)
8. Line/circuit number(s)
9. Line speed(s)
                                         18. Error code(s)
                                         Return code(s)
                                         20. Completion code(s)
                                         21. Message ID(s)
 10. External symptom(s)
                                         22. Publication(s)
 11. Environmental condition(s)
    When you finish, type END to save or CANCEL to discard any changes.
===> 12
```

Press the Tab key twice to move the cursor into the first field. Type **xmp1** and press Enter. The cursor returns to the command line.

To save the data, type end and press Enter.

To specify the incorrect message noted, type 21 and press Enter.

```
PROBLEM SYMPTOM DATA
                                                             PROBLEM: PROB5
Enter abstract data or make selection to enter other detail data.
 1. Symptom abstract...
                                     12. Program ID(s)
 Device name(s)
                                      Software level(s)
 Device type(s)
                                     14. Routine name(s)
  4. Feature name(s)
 Serial number(s)
                                     15. Statement(s)16. Operation code(s)
 6. Line/loop type(s)
                                      17. Abend code(s)
18. Error code(s)
 7. Loop ID(s)
 8. Line/circuit number(s)
                                      19. Return code(s)
 9. Line speed(s)
                                       20. Completion code(s)
                                       21. Message ID(s)
 10. External symptom(s)
                                       22. Publication(s)
 11. Environmental condition(s)
    When you finish, type END to save or CANCEL to discard any changes.
===> 21
```

Press the Tab key twice to move the cursor into the first field. Type **406** and press Enter. The cursor returns to the command line.

To save the data, type end and press Enter.

```
BLGLMSGC
                        MESSAGE IDENTITY ENTRY
                                                                   LINE 1 OF 13
USE....List message IDs issued.
FORM...AAAAAAAAAAA - 1 to 12 alphanumeric positions.
                                                                  RECORD: PROB5
    1.1
    1.1
    1.1
    . .
    1.1
    1.1
Line Cmds: A=After B=Before C=Copy D=Delete E=Erase I=Insert
             L=Line entry M=Move R=Repeat
 Type DOWN, UP, LEFT, or RIGHT to scroll the panel, or type END to exit.
===> end
```

Type **end** and press Enter to return to the Problem Summary panel after you have entered all the symptom data.

```
BLG0B402
                             PROBLEM SYMPTOM DATA
                                                             PROBLEM: PROB5
Enter abstract data or make selection to enter other detail data.

    Symptom abstract...

                                       12. Program ID(s)
 2. Device name(s)
 Device type(s)
                                      13. Software level(s)
                                      14. Routine name(s)
 Feature name(s)
                                      15. Statement(s)
 5. Serial number(s)
                                      16. Operation code(s)17. Abend code(s)
 6. Line/loop type(s)
 Loop ID(s)
                                      18. Error code(s)
 Line/circuit number(s)
                                       19. Return code(s)
 9. Line speed(s)
                                      20. Completion code(s)
                                       21. Message ID(s)
 10. External symptom(s)
                                       22. Publication(s)
 11. Environmental condition(s)
   When you finish, type END to save or CANCEL to discard any changes.
===> end
```

Entering Supplemental Data

Add supplemental information to the record to help the person assigned to fix the problem. In this example, Jones decided to indicate a probable cause of the program failure as SOFTWARE.

From the previous task, resume entry at the Problem Summary panel. To add supplemental data to the record, type 6 on the command line and press Enter.

BLG0BU00	PROBLEM SUMMAR	Y PROBLEM: PROB5	
Reported by Assignee name Tracked by Network name System name Program name. Device name. Key item affected	SMITH C	roblem status INITIAL urrent phase	
Description	owing, type END to s	SAGE ave your changes, or type CANCEL	
1. Repor 2. Statu 3. Close 4. Sympt	ter data. 6 Is data. 7 Is data. 8 Is om data. 9	. Supplemental data Synopsis data Freeform text File record Create solution and file record.	
===> 6			

Supply any supplemental information. For this example, type **23,software** on the command line and press Enter.

To save the data, type end and press Enter. You return to the Problem Summary panel.

	·		· •
BLG0B400	PROBLEM SUPPLEMENTA	L ENTRY PROBLEM: PROB5	
Enter documentation loca	ation/availability o	r any vendor related information.	
 Console output Output data Input data 	12	. Vendor status	
4. Source listing 5. Source 6. SMP listing	14 15	IPCS record number	
7. Trace data 8. Graph/Log data 9. Diagnostic output	17 18	EC number	
10. Operator form	20 22	Data set type Vendor PMR number Probable cause SOFTWARE	
21. Dump data set			-
When you finish, typ	pe END to save or CA	NCEL to discard any changes.	
===> end			

Entering Synopsis Data

Synopsis data provides an overview of the problem. In this example, Jones wants to add the name of the system cluster (TSOC) on which the failed program was executing. From the previous task, resume entry at the Problem Summary panel. To add synopsis data to the record, type 7 on the command line and press Enter.

BLG0BU00	PROBLEM SUMMARY	PROBLEM: PROB5	
Reported by	JONES Prob	lem status INITIAL	
Assignee name	SMITH Curr	ent phase	
Tracked by		ent priority 03	
Network name		ng priv. class	
System name		y priv. class	
Program name		entered	
Device name		entered	
Key item affected		last altered	
Select one of the foll to discard your change	owing, type END to save	your changes, or type CANCEL	
	ter data. 6.5		
	ıs data. 7. S		
		reeform text.	
	om data. 9. F	reate solution and file record.	
5. Resul	ution data. 10. (reace solution and life record.	
===> 7			

To indicate the cluster on which the problem occurred, type **14,tsoc** on the command line and press Enter. To save the data, type **end** and press Enter.

							_
(BLG0B50	00	PROBLEM SYNOPSIS	S ENTRY	PROBLEM:	M: PROB5	
	1. De	escription <r></r>	INCORRECT ERROR I	MESSAGE			
		eported by <r></r>		18. Current phase.			
		roblem type		19. Date assigned			
		rror code		20. Time assigned			
		ate opened		21. Date started			
		ime opened		22. Time started			
		nit priority		23. Date finished			
		ystem impact		24. Time finished			
		utage		25. Problem status.			
		etwork name		26. Resolved by			
		ystem name		27. Date closed			
		rogram name		28. Time closed			
		evice name		29. Duplicate count			
		luster name		30. Cause code			
	15. Ci	ircuit number		31. Original proble			
	16. As	ssignee name	SMITH	32. Fix change numb			
		racked by		33. Key item affect			
	Whe	en you finish, typ	oe END to save or	CANCEL to discard a	ny chang	inges.	
	===> en	nd					
/							

Entering Freeform Text

No example of adding freeform text (option 8) is provided in this panel flow. The freeform text entry panel does not present any specific fields to be completed, but it allows you to enter prose descriptions of any aspects of the problem on one or more panels. If you want to add freeform text, select option 8 from the Problem Summary panel and press Enter. Select the type of text to be entered from the BLG0B010 selection panel, then enter your text on the text entry panel.

When you enter all available data in the problem record, save the information by filing the record.

Type 9 on the command line and press Enter.

	PROBLEM SUMMARY	PROBLEM: PROB5
Reported byJ		m status INITIAL
Assignee name SI		t phase
Tracked by		t priority 03
Network name		priv. class
System name		priv. class
Program nameXI	MP1 Date e	ntered
Device name		ntered
Key item affected	Date I	ast altered
Select one of the follow to discard your changes.		our changes, or type CANCEL
to discard your changes.		
to discard your changes. 1. Reporte 2. Status	r data. 6. Sup data. 7. Syn	plemental data. opsis data.
to discard your changes. 1. Reporte 2. Status	r data. 6. Sup data. 7. Syn	plemental data.
to discard your changes. 1. Reporte 2. Status o 3. Close do 4. Symptom	r data. 6. Sup data. 7. Syn ata. 8. Fre data. 9. Fil	plemental data. opsis data. eform text. e record.
to discard your changes. 1. Reporte 2. Status o 3. Close do 4. Symptom	r data. 6. Sup data. 7. Syn ata. 8. Fre data. 9. Fil	plemental data. opsis data. eform text.
to discard your changes. 1. Reporte 2. Status o 3. Close do 4. Symptom	r data. 6. Sup data. 7. Syn ata. 8. Fre data. 9. Fil	plemental data. opsis data. eform text. e record.
to discard your changes. 1. Reporte 2. Status o 3. Close do 4. Symptom	r data. 6. Sup data. 7. Syn ata. 8. Fre data. 9. Fil	plemental data. opsis data. eform text. e record.

When you file the problem record, Tivoli Information Management for z/OS informs the assignee that the problem has been entered. In this example, assuming that assignee SMITH and Smith's user ID or e-mail address are in the USERS record, Smith is notified that problem record PROB5 has been entered. Tivoli Information Management for z/OS also fills in certain date/time fields, privilege class fields, and the problem's escalation level automatically. You cannot display the escalation level, nor can you print it on your problem management reports. You can, however, perform a freeform search on the prefix ESCL/.

A message appears on this panel confirming that the record was stored successfully.

This ends the example of creating a problem record.

```
BLG0EN20
                      --- PRIMARY OPTIONS MENU ---
                                                      APPLICATION: MANAGEMENT
OPTIONS:
      1. OVERVIEW......Display general information and product enhancements.
     2. PROFILE......Display or alter invocation or session defaults.
      3. APPLICATION....Change application, list available applications.
      4. CLASS......Change current class, list available classes.
      ENTRY......Create a record.
      6. INQUIRY.....Search for records.
      7. UTILITY......Copy, display, print, delete, and update records.
      8. GLOSSARY......Display a list of searchable words in the database.
      9. PMF......Modify or create panels.
          Select an option, enter a command, or type QUIT to exit.
          Tivoli Information Management for z/OS Version 7 Release 1
               5697-SD9 (C) Copyright IBM Corp., 1981, 2001.
BLG03058I Record PROB5 was stored successfully.
```

Updating Problem Records

After a problem is reported, it should be updated as new information becomes available until the problem is resolved. You do this using the update function of Tivoli Information Management for z/OS. By recording all problem activities as they occur, you create a retrievable history of the problem management process.

Updating reporter data lets you accurately track and monitor critical information like problem status (INITIAL or OPEN), problem description, and the date and time a fix is required.

Updating status data, such as target dates and assignee data as they become available, makes it easier to track the problem. You can also enter some indicators, such as estimates of risk, effort, and duration, that you can use to measure and control the performance of Problem Management.

Although you can update any type of problem data, the following instructions and panels illustrate how to update the reporter and status data for the problem record created in the previous chapter.

The reporter data is described in the list below, and the status data is described later. You can follow the flow of the panels using either the sample data shown here or your own data.

Note to Readers

The following instructions and panels illustrate how to update a record using immediate response chains (IRCs). For more information about how to use IRCs to update records, refer to the *Tivoli Information Management for z/OS User's Guide*.

Updating Reporter Data

The following reporter data has changed and needs to be updated:

- Jones's phone number is now 555-1985.
- Jones's department is now DEV.

Begin at the Primary Options Menu.

To update a problem record, type the following on the command line and press Enter:

7,5,1,5,2,prob5,,1

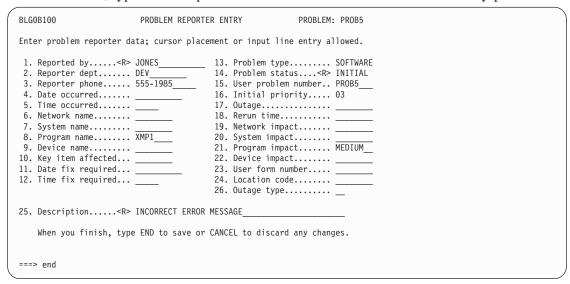
```
BLG0EN20
                      --- PRIMARY OPTIONS MENU ---
                                                      APPLICATION: MANAGEMENT
OPTIONS:
     1. OVERVIEW......Display general information and product enhancements.
     2. PROFILE......Display or alter invocation or session defaults.
     3. APPLICATION....Change application, list available applications.
     4. CLASS......Change current class, list available classes.
     ENTRY......Create a record.
     6. INQUIRY.....Search for records.
     7. UTILITY......Copy, display, print, delete, and update records.
     8. GLOSSARY......Display a list of searchable words in the database.
     9. PMF......Modify or create panels.
          Select an option, enter a command, or type QUIT to exit.
         Tivoli Information Management for z/OS Version 7 Release 1
               5697-SD9 (C) Copyright IBM Corp., 1981, 2001.
===> 7,5,1,5,2,prob5,,1
```

Supply new or changed reporter data.

For this example, type the following on the command line and press Enter:

2,dev,3,555-1985

To save the data, type end and press Enter. You return to the Problem Summary panel.



Updating Status Data

Smith fixed the problem. Smith decides to assign the problem to Harris for testing. The following data needs to be updated:

- The person tracking the problem is JONES.
- Jones's phone number is 555-1985.
- Jones's department is DEV.
- Assign the problem to HARRIS.
- Harris's phone number is 555-7099.
- Harris's department is PUBS.
- The current type of work in process for the problem is TEST.

■ The status is OPEN.

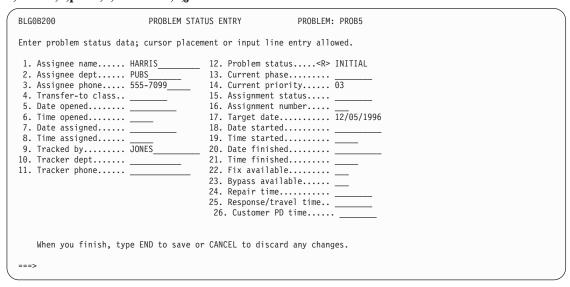
From the previous task, resume entry at the Problem Summary panel.

To update the problem status, type 2 on the command line and press Enter.

BLG0BU00	PROBLEM SUMMARY	PROBLEM: PR	10B5
Reported by Assignee name Tracked by Network name System name Program name. Device name. Key item affected	Curre Curre Curre	em status INIT nt phase	ER 77/1996
	wing, type END to save y	our changes, or type CAN	ICEL
2. Status 3. Close 4. Sympto	ter data. 6. Su s data. 7. Sy data. 8. Fr om data. 9. Fi		record.
===> 2			

Supply new or changed status data. For this example, type the following on the command line and press Enter:

1,harris,2,pubs,3,555-7099,9,jones



Next, type the following on the command line and press Enter:

10,dev,11,555-1985,12,open,13,test

To save the data, type end and press Enter. You return to the Problem Summary panel.

BLG0B200 PR0B	EM STATUS ENTRY PROBLEM: PROB5	
Enter problem status data; curso	placement or input line entry allowed.	
1. Assignee name HARRIS_ 2. Assignee dept PUBS 3. Assignee phone 555-7099 4. Transfer-to class 5. Date opened	14. Current priority 03 15. Assignment status	
When you finish, type END to	save or CANCEL to discard any changes.	
===> end		

When you have entered all available data in the problem record, save the information by filing the record. Type 9 on the command line and press Enter.

```
BLG0BU00
                          PROBLEM SUMMARY
Reported by...... JONES
                                      Problem status..... OPEN
Assignee name..... HARRIS
                                      Current phase..... TEST
Tracked by...... JONES
                                      Current priority..... 03
Network name.....
                                      Owning priv. class.....
System name.....XMP1
                                      Entry priv. class..... MASTER
                                      Date entered..... 08/27/1996
                                      Time entered....... 13:04
Date last altered...... 08/27/1996
Device name.....
Key item affected.....
Description...... INCORRECT ERROR MESSAGE
Select one of the following, type END to save your changes, or type {\sf CANCEL}
to discard your changes.
             1. Reporter data.
                                     Supplemental data.
             2. Status data.
3. Close data.
                                     7. Synopsis data.
                                    8. Freeform text.
             4. Symptom data.
                                     File record.

    Resolution data.
    Create solution and file record.

===> 9
```

A message appears on this panel confirming that the record was stored successfully.

To return to the Primary Options Menu, type end and press Enter.

```
BLG03058I Record PROB5 was stored successfully.

Enter UTILITY information; cursor placement or input line entry allowed.

1. Database.......<R> 5
2. Record ID.....<R> PROB5___

To start the function, press Enter without field modification.
```

When you file the problem record, Tivoli Information Management for z/OS informs the assignee that the problem record has been updated. In this example, assuming that assignee HARRIS and Harris' user ID or e-mail address are in the USERS record, Tivoli Information Management for z/OS informs Harris that problem record PROB5 has been updated. Tivoli Information Management for z/OS also fills in certain date and time fields automatically.

This ends the example of updating problem records.

```
BLG0EN20
                         --- PRIMARY OPTIONS MENU ---
                                                            APPLICATION: MANAGEMENT
OPTIONS:
      1. OVERVIEW......Display general information and product enhancements.
      2. PROFILE.......Display or alter invocation or session defaults.
3. APPLICATION....Change application, list available applications.

    CLASS......Change current class, list available classes.

      5. ENTRY......Create a record.
      6. INQUIRY......Search for records.
      7. UTILITY......Copy, display, print, delete, and update records.
      8. GLOSSARY......Display a list of searchable words in the database.
      9. PMF.....Modify or create panels.
            Select an option, enter a command, or type QUIT to exit.
          Tivoli Information Management for z/0S Version 7 Release 1
                 5697-SD9 (C) Copyright IBM Corp., 1981, 2001.
===>
```



Adding Resolution Data and Closing Problems

When a problem has been resolved, the person who fixes the problem should add resolution data indicating how the problem was solved, and then reassign the problem to the person reporting the problem so the person can verify that the problem is fixed before closing the problem record. Adding resolution data is essentially the same as updating the record for any other data type. Closing the record, however, imposes special requirements on the person doing the closing.

To close a record, you need close authority by privilege class to enter information in the following selection fields on the Problem Close Entry panel:

- 1. Resolved by
- 2. Resolver dept
- 3. Resolver phone
- 4. Resolver class
- 5. Date closed
- 6. Time closed
- 11. Cause code

If you do not have that authority to enter information in these fields, contact the system administrator at your installation.

Problem close data is useful primarily for historical purposes and to identify trends. The Problem Resolution Data panel allows you to enter a resolution abstract and make selections to enter other types of resolution data. The following instructions and panels illustrate how to add resolution data to a problem record. You can follow the flow of the panels by using either the sample data shown here or your own data.

Note to Readers

The following instructions and panels illustrate how to update records using immediate response chains (IRCs). For more information about how to use IRCs to update records, refer to the *Tivoli Information Management for z/OS User's Guide*.

Adding Resolution Data

Smith fixed the problem by changing an incorrect IF statement in the program. The following information can now be added:

- The program ID of the program that needed to be changed is XMP1.
- The software statement that needed to be changed is an IF statement.

Begin at the Primary Options Menu.

To add resolution data, type the following on the command line and press Enter:

7,5,1,5,2,prob5,,5

```
BLG0EN20
                      --- PRIMARY OPTIONS MENU ---
                                                      APPLICATION: MANAGEMENT
OPTIONS:
      1. OVERVIEW......Display general information and product enhancements.
      2. PROFILE......Display or alter invocation or session defaults.
      3. APPLICATION....Change application, list available applications.
      4. CLASS......Change current class, list available classes.
      ENTRY......Create a record.
      6. INQUIRY.....Search for records.
      7. UTILITY......Copy, display, print, delete, and update records.
      8. GLOSSARY......Display a list of searchable words in the database.
      9. PMF.....Modify or create panels.
          Select an option, enter a command, or type QUIT to exit.
          Tivoli Information Management for z/OS Version 7 Release 1
               5697-SD9 (C) Copyright IBM Corp., 1981, 2001.
===> 7,5,1,5,2,prob5,,5
```

The resolution data dialog uses the list processor program exit (BLG01396) to collect data. Table panels make it easy for you to enter new resolution data or update existing data.

To specify the program that needed to be changed, type 9 on the command line and press Enter.

```
BLG0B502
                         PROBLEM RESOLUTION DATA
                                                           PROBLEM: PROB5
Enter abstract data or make selection to enter other detail data.
  1. Resolution abstract... _
                                        9. Program ID(s)
 Device type(s)
  3. Item number(s)
                                       Software level(s)
  4. Card name(s)
                                       11. Routine name(s)
  5. Major unit(s)
                                       12. Field name(s)
                                       13. Statement(s)
  Minor unit(s)
                                       Register(s)
  Publication(s)
                                       15. Operation code(s)
                                       16. APAR(s)
  8. Environmental condition(s)
                                       17. PTF(s)
                                       18. User modification(s)
   When you finish, type END to save or CANCEL to discard any changes.
===> 9
```

The Program Identity Entry panel allows you to list base system or program component identifiers of the programs that were changed to correct the problem.

For this example, type **linecmd L,xmp1** on the command line and press Enter.

The data you typed appears in uppercase in the first field on the panel. To save the data, type **end** and press Enter.

```
BLGLPIDF
                           PROGRAM IDENTITY ENTRY
                                                                    LINE 1 OF 13
USE....List base system or program component identifiers.
FORM...AAAAAAAA - 1 to 9 alphanumeric positions.
                                                                    RECORD: PROB5
    1.1
    1.1
    1.1
    1.1
    1.1
    1.1
    1.1
    1.1
    1.1
    1.1
    . .
Line Cmds: A=After B=Before C=Copy D=Delete E=Erase I=Insert
             L=Line entry M=Move R=Repeat
 Type DOWN, UP, LEFT, or RIGHT to scroll the panel, or type END to exit.
===> end
```

To specify the software statement that needed to be changed, type 13 on the command line and press Enter.

The Software Statement Entry panel appears.

```
BLG0B502
                         PROBLEM RESOLUTION DATA
                                                           PROBLEM: PROB5
Enter abstract data or make selection to enter other detail data.
 1. Resolution abstract... _
 2. Device type(s)
                                        9. Program ID(s)
 Item number(s)
                                       Software level(s)
 4. Card name(s)
                                       11. Routine name(s)
 5. Major unit(s)
                                       12. Field name(s)
 Minor unit(s)
                                       13. Statement(s)
                                       14. Register(s)
 Publication(s)
                                        15. Operation code(s)
                                       16. APAR(s)
 8. Environmental condition(s)
                                        17. PTF(s)
                                        18. User modification(s)
   When you finish, type END to save or CANCEL to discard any changes.
```

The Software Statement Entry panel allows you to list commands, statement names, and parameters that were changed to resolve the problem.

For this example, press the tab key twice to move the cursor into the first field. Type **if** and press Enter.

To save the data, type end and press Enter. You return to the Problem Resolution panel.

If you want to add or update any other type of resolution data, you can make the appropriate selection from this panel. To save the resolution data, type **end** and press Enter. You return to the Problem Summary panel.

```
BLG0B502
                          PROBLEM RESOLUTION DATA
                                                             PROBLEM: PROB5
Enter abstract data or make selection to enter other detail data.

    Resolution abstract...

 2. Device type(s)
                                         9. Program ID(s)
 Item number(s)
                                         10. Software level(s)
                                        11. Routine name(s)
 4. Card name(s)
                                        12. Field name(s)
 5. Major unit(s)
 Minor unit(s)
                                        13. Statement(s)
                                         14. Register(s)
 7. Publication(s)
                                         15. Operation code(s)
                                         16. APAR(s)
                                         17. PTF(s)
 8. Environmental condition(s)
                                         18. User modification(s)
   When you finish, type END to save or CANCEL to discard any changes.
===> end
```

Updating Status Data

The problem is ready to be closed. Harris must transfer the problem back to Jones for closing. The following data needs to be updated:

- Assignee is now JONES.
- Jones's phone number is 555-1985.
- Jones's department is DEV.

From the previous task, resume entry at the Problem Summary panel.

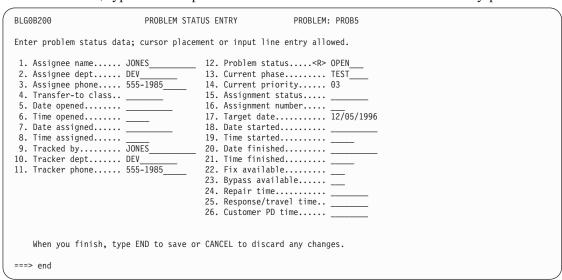
To update status data, type 2 on the command line and press Enter.

(BLG0BU00	PROBLEM SUMMARY	PROBLEM: PROB5	
	Reported by. JO Assignee name. HA Tracked by. JO Network name. System name. Program name. XM Device name. Key item affected.	RRIS Current NES Current 0wning Entry P1 Date Time ent Time ent	status OPEN ohase TEST oriority 03 riv. class MASTER ered 08/27/1996 ered 13:04 t altered 08/27/1996	
	Description IN	CORRECT ERROR MESSAGE		
	2. Status d 3. Close da 4. Symptom	data. 6. Suppl ata. 7. Synop ta. 8. Freef data. 9. File	emental data. sis data. orm text.	
	===> 2			,

Supply status information. For this example, type the following on the command line and press Enter:

1,jones,2,dev,3,555-1985

To save the data, type end and press Enter. You return to the Problem Summary panel.



Adding Close Data

Jones has tested the problem fix and agrees that the problem is corrected. Jones is ready to enter the following close data:

- The status is CLOSED.
- The problem was resolved by SMITH.
- Smith's phone number is 555-6790.
- Smith's department is DEV.
- The cause code was PROGRAM.
- The date closed was DECEMBER 4, 1996.

From the previous task, resume entry at the Problem Summary panel.

To add close data, type 3 on the command line and press Enter.

BLG0BU00	PROBLEM SUMM	ARY PROBLEM: PRO	DB5
Reported by Assignee name Tracked by Network name System name Program name Device name Key item affected	JONES JONES XMP1	Problem status OPEN Current phase TEST Current priority 03 Owning priv. class MASTE Entry priv. class MASTE Date entered 08/27 Time entered 13:04 Date last altered 08/27	ER 7/1996 I
	ring, type END to s	ESSAGE save your changes, or type CANC	CEL
2. Status 3. Close 4. Sympto	er data. data. data. m data.	6. Supplemental data.7. Synopsis data.8. Freeform text.9. File record.10. Create solution and file record.	ecord.
===> 3			

Supply the close data. For this example, type the following data on the command line and press Enter.

1,smith,2,dev,3,555-6790,5,12/04/1996,10,closed,11,program

To save the data, type end and press Enter.

BLG0B300 PR0BL	EM CLOSE ENTRY	PROBLEM: PROB5	
Enter problem closing data; curso	placement or input	line entry allowed.	
1. Resolved by <r> SMITH 2. Resolver dept 3. Resolver phone 555-6790 4. Resolver class 5. Date closed<r> 12/04/1996 6. Time closed 7. Total time 8. Duplicate count 9. Outage</r></r>	11. Cause cod 12. Program n 13. Device na 14. Original 15. Cause cha 16. Fix chang 17. Date rep. 18. Rerun tim	status <pre></pre>	
When you finish, type END to	save or CANCEL to di	scard any changes.	
===> end			

When you have entered all data, save it by filing the record. Type $\bf 9$ on the command line and press Enter.

BLG0BU00	PROBLEM SUMM	ARY	PROBLEM: PROB5	
Reported by	JONES JONES XMP1	Problem status Current phase Current priority Owning priv. class Entry priv. class Date entered Time entered Date last altered.	TEST 03 MASTER 08/27/1996 13:04	
Select one of the follor to discard your changes 1. Repor 2. Statu 3. Close 4. Sympt	wing, type END to : ter data. s data. data. om data.		ta.	
===> 9				

When you file the problem record, assuming that assignee JONES and Jones' user ID or e-mail address are in the USERS record, Tivoli Information Management for z/OS informs Jones that problem record PROB5 has been updated.

A message appears on this panel confirming that the record was stored successfully.

To return to the Primary Options Menu, type end and press Enter.

```
BLG1UT01 UTILITY ENTRY DIALOG UTILITY

Enter UTILITY information; cursor placement or input line entry allowed.

1. Database.........<R> 5
2. Record ID.....<R> PROB5___

To start the function, press Enter without field modification.

BLG03058I Record PROB5 was stored successfully.
===> end
```

This ends the example of updating a problem record.

```
BLG0EN20
                      --- PRIMARY OPTIONS MENU ---
                                                      APPLICATION: MANAGEMENT
OPTIONS:
     1. OVERVIEW......Display general information and product enhancements.
     2. PROFILE......Display or alter invocation or session defaults.
     3. APPLICATION....Change application, list available applications.
     4. CLASS......Change current class, list available classes.
     ENTRY......Create a record.
     6. INQUIRY.....Search for records.
     7. UTILITY......Copy, display, print, delete, and update records.
     8. GLOSSARY......Display a list of searchable words in the database.
     9. PMF......Modify or create panels.
          Select an option, enter a command, or type OUIT to exit.
         Tivoli Information Management for z/OS Version 7 Release 1
               5697-SD9 (C) Copyright IBM Corp., 1981, 2001.
```

Filing Solutions for Future Problems

Your Tivoli Information Management for z/OS program administrator may decide to set up a knowledge base of solutions that can be used to help solve new problems. A knowledge base can be useful to support help desk operations in your company. For example, you can use the text stored in your existing problem records to create solution records that analysts and users can search to help solve new problems. As new problems come in, help desk agents can apply solutions from problems that have already been reported and corrected. By reusing information this way, your help desk staff can operate more efficiently.

The indexing and searching of freeform text can be done through use of OS/390 Text Search, which is available with OS/390 and z/OS. Tivoli Information Management for z/OS uses the Text Search Engine component of OS/390 Text Search to index and search the freeform text data associated with problem records and other types of records in the database.

If you are using Tivoli Information Management for z/OS to support your problem management process, you should be aware that you can create solution records automatically while filing a problem record. On the BLG0BU00 Problem Summary panel, you can select option 10. Create solution and file record to accomplish this. You can also create solution records directly without having to go through problem record entry panels. However, you must have the proper "solution" authority to file solution records, and the records must contain the correct type of data and be in a CLOSED status. Also, your program administrator must have performed the necessary setup and customization work for Tivoli Information Management for z/OS to be used with OS/390 Text Search. For more information about using a knowledge base with Tivoli Information Management for z/OS, refer to the Tivoli Information Management for z/OS Program Administration Guide and Reference. General instructions on how to perform freeform text searches are also available in the Tivoli Information Management for z/OS User's Guide.

BLG0BU00	PROBLEM SUMMA	RY PROBL	EM: PROB5	
Reported by JON	IFS	Problem status	. CLOSED	
Assignee name JON		Current phase		
Tracked byJON		Current priority		
Network name		Owning priv. class		
System name		Intry priv. class		
Program nameXMP		Oate entered		
Device name		ime entered		
Key item affected		Oate last altered	. 08/27/1996	
Description INC	ORRECT ERROR ME	SSAGE		
Select one of the following	, type END to s	ive your changes, or ty	pe CANCEL	
to discard your changes.				
1. Reporter		. Supplemental data.		
2. Status da		'. Synopsis data.		
		3. Freeform text.		
	lata.			
5. Resolutio	on data. 1). Create solution and	file record.	
> 10				



Introducing Change Management

Change Management is an online facility for managing changes to hardware, software, documentation, and procedures within a data processing environment. You can use Change Management to track a change from the time you request it until it is either implemented or rejected.

When a change request is entered into the system, you can include specific completion dates. Your organization can plan these activities and indicate which parts of the system are affected, what resources are required for these changes, and what backup procedures might be needed. The change record can identify the problems it fixes and the system components it modifies.

You can schedule a change by date and identify by privilege class the names of people who must authorize the change before it occurs. Change approvers can then periodically search the database for change records requiring their approval.

After reviewing the change, the approvers can specify in the change record their approval or rejection of the requested change. Individuals who have a need to know of a change can be included as reviewers.

This chapter describes what comprises the change management system and how to plan for and use the Change Management facility.

A Change Management System

Before you can use the Change Management facility of Tivoli Information Management for z/OS, you must define the mission and scope of your change management system. The scope of your system is determined by the number of change types your organization plans to handle. The system can be comprehensive and handle changes involving:

- Hardware
- Software
- Procedures
- Documentation
- Environment.

Or, it can be less comprehensive and handle only some of these areas.

The components of a change management system are:

■ People who ensure that changes occur in the most orderly way possible to minimize disruption to users. Your organization's manager assigns a change manager and a coordinator and defines their responsibilities as one of the first steps in setting up the change management system.

- A process for controlling changes and ensuring that changes are implemented accurately and in a timely manner.
- Data that is identified, collected, tracked, and analyzed.
- Tools, such as Tivoli Information Management for z/OS and its Change Management facility, that provide an efficient method for controlling the change process.

The following sections describe guidelines you must consider when setting up a change management system for your organization.

The Change Control Process

The change management control process is the procedure used to implement changes. It consists of these main tasks:

- Requesting a change
 - Requesting a change involves creating a change request record that includes enough information about the proposed change for others to adequately assess and implement it.
- Evaluating and scheduling the change based on:
 - A technical assessment, which is an evaluation of the change based on technical feasibility, risk, and impact.
 - A business assessment, which is an evaluation of the change based on business timing, risk, and impact.
 - Management approval, which is the decision of whether or not to proceed with the change. If management approves the change, the earlier assessments can be used in determining the schedule.
- Tracking the change
 - Tracking the change involves test monitoring and organization monitoring.
 Test monitoring is done by tracking, documenting, and communicating test progress and results.
 - Organization monitoring is done by tracking, documenting, and communicating organization progress and results.
- Reviewing the change process
 Reviewing the change process includes reviewing the status of change requests and reviewing reports.

Data Requirements for Change Management

The data requirements of your change management system depend on the measurements, indicators, and reports you expect to produce. The amount of data you collect and the level of detail of that data must match the objectives of the management system.

For example, if detailed data is recorded and not used, the time and effort taken to record it is wasted. On the other hand, if you do not capture enough data, the lack of detailed information can keep you from taking full advantage of the system capabilities.

To determine the types of data you should collect for change management, consider not only the data that is used to produce the selected reports, but also the data that is used in the process of change assessment and installation. There are four types of data with which a change management system is concerned:

Descriptive Data

Descriptive data includes those items that describe what actually must happen. This data includes change descriptions, activity descriptions, and other noncoded information. This data cannot usually be used for building statistics or for comparison purposes because there is no precision in the way it is constructed.

Change Assessment Data

Change assessment data is used to develop answers to the following questions:

- What are the benefits of the change?
- What is the impact and risk of implementing the change?
- What needs to be done to back out of an unsuccessful change?

Change assessment data must be collected and maintained to evaluate the feasibility of changes.

Scheduling and Tracking Data

Scheduling and tracking data provides information about change activities, responsibilities, and timing. It includes such items as the current assignee, the current activity or phase, dates, and status of the change. It is the data primarily associated with the management of the change control process. It provides a chronological view of the change so you can identify and perform the activities necessary to implement the change.

Control Data

Control data is the set of standards used to measure the performance of the change management system. It is presented in reports to show adherence to objectives. It is used in meetings to evaluate action plans. It is the basis for exception reports. Control data establishes the limits that guide the everyday running of the system.

Change Categories

When properly defined and used, change categories are a powerful method of sorting out change implications. Changes range from those that are harmless and almost insignificant to those that, in the event of problems during and after implementation, could seriously disrupt service. Change categories also provide a method for helping management to allocate resources for implementing changes.

Management must consider these factors when categorizing changes:

Complexity

- Does the change pose new or unfamiliar challenges to its implementers?
- Does the change demand the involvement of various groups for its success?
- Will a combination of the above represent increased difficulty?

Dependencies

Are there prerequisites or corequisites associated with the change that suggest that other organizations should be involved throughout the implementation cycle?

Duration

Does the time it will take to make the change warrant significant management attention? For example, will the change be implemented in stages (migration)? Or can the change be implemented without significant impact on your organization?

Ease of Recovery

Will it be easy to restore the original status if the change does not meet defined criteria or if unforeseen problems arise?

Potential Impact

If the change implementation does not go as planned, what is the greatest effect that the change can have on planned services?

Potential Risk

Is there a possibility that the change can cause problems? Factors that affect risk are the education and training of the change implementers and users and the process required to allocate resources properly for implementation.

On the basis of these factors, changes can be divided into several categories, for example:

Category 1 — Major Impact

These changes are the most critical. They represent a combination of factors that will cause a major impact on the delivery of services if a change implementation failure occurs.

Category 2 — Significant Impact

These changes represent a risk of significant impact on the delivery of services if failure occurs.

Category 3 — Minor Impact

These changes will have a minor impact on services if problems occur.

Category 4 — No Impact

These changes will cause little or no impact during or after their implementation. They are entered primarily because of the need to maintain accurate inventory records of data processing resources.

In addition, within any of these categories, there can be changes that cannot be classified as normal. They are received too late to handle with normal procedures, or they are initiated on an immediate basis to correct problems that impact the delivery of service.

Once you categorize the change, you can identify the amount of lead time required to submit the change before the requested installation date. Lead time is the amount of time required to evaluate and adequately plan for change implementation. Lead time is measured from the time the change is requested until the change is actually installed, and varies with the category of change. A category 1 change requires more time for planning and coordinating than a category 2 change.

Testing Your Change Management System

After all modifications to your Change Management system are made and tested, you should make the system available to a small group of users. The users that you select could be a group of system programmers, operators, or a group that is willing and prepared to use the

system extensively. As the first users, they can help identify concerns. They can also suggest additional modifications and educational requirements.

After you have addressed the concerns of the first group, add a new group of users to the system and repeat the evaluation process until all concerns are resolved and all users are online.

The implementation should be phased because it is usually impractical to implement any system across an entire organization at one time. As the first phase of the implementation, you might select a narrow scope of simple change types. Then, as you develop confidence in the system and refine its mechanisms, you can add more complex change types to the system. You should follow a well-documented, phased implementation plan to assure that each phase of the implementation proceeds smoothly.

Summary

In summary, the following guidelines can help when defining the mission and scope of your change management system:

- Assign a change manager and coordinator and define their responsibilities.
- Determine the types of changes you plan to handle.
- Define the procedures for requesting, handling, and resolving changes.
- Develop a phased implementation plan and schedule.
- Define backout and recovery procedures.
- Define required reports.
- Prepare a user's procedure manual and educate the users.

Collecting Data for Change Management

During initial planning, you should establish a guideline for the types of changes you intend to manage. Should all hardware, software, procedure, and publication changes be managed? Will you manage the activities within a change? In making this decision for each change type, consider:

- The number of people affected
- The resources required
- The importance of the change type
- The number of people and activities involved in implementation
- The need to display, search, and generate Change Management reports.

After you have determined the change types and activities that you intend to manage, you can decide which fields you wish to record for each.

Required Fields

When you request a change or activity, Tivoli Information Management for z/OS requires the following data:

- Requested by the name of the person requesting the change or activity
- Change/activity status a fixed code
- Description a textual definition of the change or activity
- Activity name the name of the activity (for activity only).

When you close a change or activity record, Tivoli Information Management for z/OS requires the following data:

■ Closed by – the name of the person who closed the record

- Completion code the fixed code representing the success or failure of the change or activity
- Change/Activity status a fixed code
- Completion date the date the change or activity was completed.

Change and Activity Scheduling

If you want to effectively schedule your changes and activities, consider using the following fields:

- Key item affected to identify the major item to be changed.
- Date required, Time required and Initial priority to help you create schedules and, along with completion time, to help you assess the efficiency of your change system.
- Problem fixed to help you to correlate your problem and change management systems. Coupled with problem priority, this field helps you schedule your changes.
- Actual start date, Actual start time, Completion date, Completion time, Actual effort, Actual impact, and Actual duration to enable you to assess the variation between planned and actual activities.

Change Approval

If one of your objectives is to conduct your change approval process online, you should consider using the following fields:

- Estimated effort, Estimated duration, and Risk assessment to help you assess the complexity of the change and its activities.
- Coordinator name, Coordinator department, and Coordinator phone to supply a focal point for registering further information about the planned change.
- Approver privilege class entries to help you standardize your change approval system and to facilitate communication between involved privilege classes.

Note: If data attribute records are used as direct add fields, then normal file processing is not performed for change records when change approval processing is being performed. That is, if ALL of these five direct adds—DATE/, TIME/, CLAE/, DATM/, and TIMM/—are changed to data attribute records, then date modified, time modified, and user ID are not saved in the record

Post-Change Reviewing Fields

If it is important for you to assess the accuracy of your change plans and the effectiveness of implemented changes, you should consider using the following fields:

- Actual effort, Actual duration, and Actual impact to compare the actual figures with the estimated effort, duration, and risk.
- Unexpected problems and Backup plan used, coupled with a text explanation to inform you that unforeseen events affected the implementation of the change.

Using the Change Management Facility

With change management, you can document and track a change from entry to implementation. The Change Management facility supports a formal system of requesting, reviewing, implementing, and testing modifications to the data processing environment.

A change can be made to any area of your organization's operations. You can fix, enhance, or make other changes to the software and hardware components of the operating system, procedures, publications, and facilities. For example, a change may involve adding several devices to the host computer, or implementing a new application program.

When entering a change request, you should include all the information necessary to adequately assess and successfully implement the change. You can identify:

- Problems that are fixed by the change
- System components that are modified by the change
- People who must authorize the change (approvers)
- Individuals who have a need to know of the change (reviewers)
- Specific dates by which certain activities should be completed.

You can then plan the activities and indicate the parts of the system that are affected, the resources required for the change, and the appropriate backup procedures.

Change approvers can periodically search the database for change records requiring their approval. After reviewing the change, the approvers can specify (in the change record) their approval or rejection of the change request.

Throughout the change control process, the search and report functions permit you to identify selected changes. Through a database inquiry, you can identify:

- Changes for which you are responsible
- Changes with certain characteristics
- Scheduled dates of changes and activities
- Activities by name or number.

Once data for change requests is collected, you can use it to create reports that reflect the status of changes, to identify change schedules, and to analyze trends. You can base reports on one or more specific characteristics, such as change location, required date, or type. You can report exceptions by searching on a range of dates, approval pending, or other criteria. You can run and print reports in batch mode as well as during an interactive session.



Creating Change Request Records

Change records are created by using the prompting sequences shown in this chapter.

A change request record identifies a planned modification. Associated activity records describe the individual tasks that might be needed to implement the change. For example, to install a new application (change), you might want to define activity records for the following tasks:

- Acquiring the program
- Installing the program
- Testing the program
- Modifying the procedures
- Phasing into production.

A change request record should provide enough detailed information to fully describe the change. With Tivoli Information Management for z/OS, you can create both change records and activity records to describe planned changes. The following instructions and panels illustrate how to create a change record. You can follow the flow of the panels by using either the sample data shown here or your own data.

Note to Readers

The following instructions and panels illustrate how to create change records using immediate response chains (IRCs). For more information about how to use IRCs to create records, refer to the *Tivoli Information Management for z/OS User's Guide*.

Before following this example, be sure the Editor selection field in your user profile is set to INFO.

Entering Requester Data

In this example, assume your organization has just installed a new telecommunications system. Smith is responsible for requesting changes to ensure compatibility between the old and new systems. After assessing the new equipment, Smith decides that component 1 (COM1) should be changed to RS-232 and assigns this change request the number A01.

- The person requesting the change is SMITHJ.
- Smith's phone number is 555-1234.
- The status of the change request is INITIAL.
- The user change number is A01.
- The change description is CHANGE COM1 TO RS-232.

Begin at the Primary Options Menu.

To create a change record, type 5,2 on the command line and press Enter:

```
BLG0EN20
                        --- PRIMARY OPTIONS MENU ---
                                                            APPLICATION: MANAGEMENT
OPTIONS:
      1. OVERVIEW......Display general information and product enhancements.
      2. PROFILE......Display or alter invocation or session defaults.
      3. APPLICATION....Change application, list available applications.
      4. CLASS......Change current class, list available classes.
      5. ENTRY.....Create a record.
      6. INQUIRY.....Search for records.
      7. UTILITY......Copy, display, print, delete, and update records.
8. GLOSSARY......Display a list of searchable words in the database.
      9. PMF.....Modify or create panels.
           Select an option, enter a command, or type QUIT to exit.
          Tivoli Information Management for z/OS Version 7 Release 1
                 5697-SD9 (C) Copyright IBM Corp., 1981, 2001.
===> 5.2
```

Supply requester data. For this example, type the following on the command line and press Enter:

1,smithj,3,555-1234,12,initial,14,a01,20,change com1 to rs-232

To save the data, type end and press Enter.

·		nt or input line entry all	owed.	
er dept er phone name name name n affected quired	555-1234	11. Change type	INITIAL	
finish, type	END to save or CANCE	CEL to discard any changes	· ·	

The Change Request Summary panel appears. You can now do one of the following:

- Use option 1 to change the information you just entered.
- Use options 2 6 or 8 to add more information to the change request record.
- Use option 7 to add activities for the change.
- Use option 9 to file the record.

If you choose option 7, what happens next depends on how you created the change request record.

■ If you created the change request record by copying a template record that has activities already defined, Tivoli Information Management for z/OS files the change request

- record. For each activity associated with the template record, Tivoli Information Management for z/OS creates and files a corresponding activity record that is associated with the current change request record. Then, you can add other activities to the change request record.
- If you created the change request record directly from the entry panel, Tivoli Information Management for z/OS files the change request record and displays the Activity Requester Entry panel.

For this example, the requester decided to supply a prose explanation.

To add freeform text, type 8 on the command line and press Enter.

BLG0CU01	CHANGE REQUEST	SUMMARY	CHANGE: A01		
Assignee name		Current priority Date required Planned start da		_	
Description	CHANGE COM1 TO RS	5-232			
Select one of the follo to discard your changes		save your changes,	or type CANCEL		
1. Requ 2. Stat 3. Clos	ester data.		(and file change)		
		10. Software Distri	ibution data.		
===> 8					

To specify that you wish to add descriptive text, type 1 and press Enter.

Because the Editor selection field in your profile has been set to INFO, panel BLG1TDES, Description Text, appears.

For this example, type the following in the data area and press Enter:

This is the most advanced telecommunications facility on the market today.

To save the data, type end and press Enter.

Now you can select another text entry, or type 7 and press Enter to end.

For this example, type 7 and press Enter to end.

To file the record, type 9 and press Enter.

If you did not assign a record identifier when you created your record, the system assigns a record identifier. In this example, Smith specified A01 as the record identifier.

BLGOCU01 CHANGE REQU	JEST SUMMARY	CHANGE: A01	
DEGOCOOT CHANGE REQU	JEST SUMMANT	CHARGE. ACT	
Assignee name		tus INITIAL	
Assignee phone		tatus	
Coordinator name	Current pr	iority	
Device name	Date requi	red	
Key item affected		art date	
	Comprecion		
Description CHANGE COM1	TO RS-232		
Select one of the following, type ENI) to save your cr	anges, or type CANCEL	
to discard your changes.	6 Daviaway	, data	
1. Requester data. 2. Status data.		entry (and file change).	
2. Status data. 3. Close data.		0 ,	
4. Detail data.			
5. Approver data.			
J. Approver data.	10. Sortware	Distribution data.	
===> 9			

When you file the change request record, Tivoli Information Management for z/OS informs the assignee that the change request has been opened. In this example, because you did not enter an assignee name, a default ID or default e-mail address is notified that change record A01 was created. Tivoli Information Management for z/OS also fills in certain date, time, and privilege class fields automatically.

A message appears on this panel confirming that the record was stored successfully.

```
BLG0EN20
                      --- PRIMARY OPTIONS MENU ---
                                                      APPLICATION: MANAGEMENT
OPTIONS:
      1. OVERVIEW.....Display general information and product enhancements.
      2. PROFILE....Display or alter invocation or session defaults.
      3. APPLICATION....Change application, list available applications.
      4. CLASS......Change current class, list available classes.
     ENTRY......Create a record.
      6. INQUIRY.....Search for records.
      7. UTILITY......Copy, display, print, delete, and update records.
     8. GLOSSARY.....Display a list of searchable words in the database.
     9. PMF.....Modify or create panels.
          Select an option, enter a command, or type QUIT to exit.
         Tivoli Information Management for z/OS Version 7 Release 1
               5697-SD9 (C) Copyright IBM Corp., 1981, 2001.
BLG03058I Record A01 was stored successfully.
```



Updating Change Records

Once you define a change request record, you should record data to keep track of the activities associated with that record until the change is implemented or rejected.

This chapter begins with the Primary Options Menu and shows you how to access the change request record created in Creating Change Request Records in update mode. This example record is used throughout the chapter to illustrate updating all the parts of the change request record listed on the Change Request Summary panel.

You will notice as you follow the example that Tivoli Information Management for z/OS displays the Change Request Summary panel after you complete each update task. After you complete one task and return to the Change Request Summary panel, you are ready to enter a selection from this panel that will initiate the next task. Task instructions accompany the Change Request Summary panel where you specify the part of the record you want to update.

Note to Readers

The following instructions and panels illustrate how to update records using immediate response chains (IRCs). For more information about how to use IRCs to update records, refer to the *Tivoli Information Management for z/OS User's Guide*.

Updating Requester Data

Change request record A01 is used to illustrate how to update a change request record. The following requester data needs to be updated:

- Smith's phone number changed to 555-4241.
- The date the change is required is 12/23/2000.
- The reason for the change is WORKLOAD.

Begin at the Primary Options Menu.

To update the change request record, type the following on the command line and press Enter:

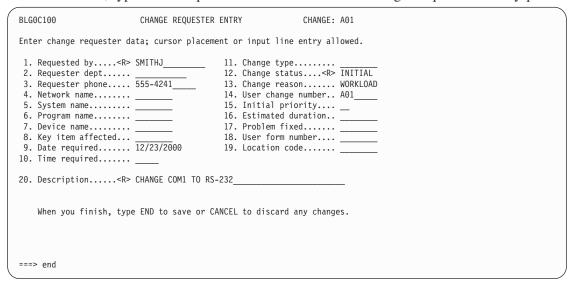
7,5,1,5,2,a01,,1

```
BLG0EN20
                      --- PRIMARY OPTIONS MENU ---
                                                      APPLICATION: MANAGEMENT
OPTIONS:
     1. OVERVIEW......Display general information and product enhancements.
     2. PROFILE......Display or alter invocation or session defaults.
     3. APPLICATION....Change application, list available applications.
     4. CLASS......Change current class, list available classes.
     ENTRY......Create a record.
     6. INQUIRY.....Search for records.
     7. UTILITY......Copy, display, print, delete, and update records.
     8. GLOSSARY......Display a list of searchable words in the database.
     9. PMF......Modify or create panels.
          Select an option, enter a command, or type OUIT to exit.
         Tivoli Information Management for z/OS Version 7 Release 1
              5697-SD9 (C) Copyright IBM Corp., 1981, 2001.
===> 7.5.1.5.2.a01..1
```

Supply new or changed requester data. For this example, type the following on the command line and press Enter:

3,555-4241,9,12/23/2000,13,workload

To save the data, type end and press Enter to return to the Change Request Summary panel.



Updating Status Data

Typically, status information includes such data as the name of the person responsible for the change, risk assessment priority, and planned and actual dates.

You can designate an assignee responsible for all or part of the change. When necessary, you can reassign the record to a different assignee. You can also designate a person as coordinator of the people and departments evaluating or implementing the change.

The assignee or coordinator might be responsible for specifying any prerequisite and corequisite change information.

Prerequisite changes are change requests that must be implemented prior to this change.

 Corequisite changes are change requests that must be implemented at the same time as this change.

However, Tivoli Information Management for z/OS does not verify that prerequisite records exist or that they are complete.

Assigning Changes

You must have change record assignment authority to enter the assignee name, assignee department, assignee phone, date assigned, and time assigned.

Change request record A01 is being assigned to Noland. The following status data needs to be entered:

- The assignee name is NOLANDJ.
- Noland's department is HARDWARE.
- Noland's phone number is 555-2774
- \blacksquare The assignment is being done on 10/05/2000.

From the previous task, resume entry at the Change Request Summary panel.

To update status data for record A01, type 2 and press Enter.

(BLG0CU00	CHANGE	REQUEST	SUMMARY	С	HANGE:	A01		
	Assignee name	12/23/200	0	Approve Current Owning Entry Date end Time end Date 1	status al status t priority priv. class. oriv. class ttered ast altered		MASTER 08/27/2000 13:18		
	Select one of the foll to discard your change		pe END	to save y	our changes,	or typ	e CANCEL		
					ewer data.				
					vity entry.				
					form text.				
		l data.			recora. ware Distribu	tion d	2+2		
	5. Appro	vei uata.		10. 3011	wale Distribu	cioli u	αια.		
	===> 2								
/									,

To add assignment data, type the following on the command line and press Enter:

1,nolandj,2,hardware,3,555-2774,4,10/05/2000

To save the data, type end and press Enter to return to the Change Request Summary panel.

BLG0C200	CHANGE STATUS ENTRY	CHANGE: A01	
Enter change status data;	cursor placement or	input line entry allowed.	
2. Assignee dept H	HARDWARE	Change status <r> INITIAL Current phase Planned start date Planned start time Actual start date Planned end date Planned end date Planned end fime Estimated effort Estimated duration</r>	
22. Co-requisites 23. Pre-requisites When you finish, type		EL to discard any changes.	
===> end			

If you want to reassign a change that was assigned to someone else, complete the same fields as shown above for assigning the change. Be sure to blank out fields (1-6) related to the previous assignee for which you are not supplying any data. Then update assignee information and update fields 12 and 13 to reflect the new status information.

Adding Detail Data

Detail data is the technical description of a change request. Detail data for change records is divided into three categories: software, hardware, and documentation. Use precise wording for detail data because you or someone else may use detail data for search criteria.

The detail data dialog uses the list processor program exit (BLG01396) to collect detail data.

The new assignee, Noland, has detail data to add to record A01. A device must be added, a change that affects hardware. The following detail data needs to be entered:

- The device name is RS3278.
- The device serial number is 411228.
- The device is located at the main site (MAINST).

In the panels that follow, only hardware detail data is shown. If you want to add software detail data or documentation detail data, make the appropriate selection from the Change Detail Selection panel (BLG0C040) and then follow a similar procedure to that shown for hardware detail data.

From the previous task, resume entry at the Change Request Summary panel.

To add detail data, type 4 on the command line and press Enter.

```
BLG0CU00
                        CHANGE REQUEST SUMMARY
                                                         CHANGE: A01
Assignee name...... NOLANDJ
                                        Change status..... INITIAL
                                        Approval status....._
Assignee phone..... 555-2774
Coordinator name....._
                                        Current priority....._
                                        Owning priv. class..... MASTER
Device name....__
Key item affected.....
Date required...... 12/23/2000
                                        Date entered..... 08/27/2000
Planned start date.... _
                                        Time entered............ 13:18
Completion date.....
                                        Date last altered..... 08/27/2000
Select one of the following, type END to save your changes, or type {\sf CANCEL}
 to discard your changes.
              1. Requester data.
                                      Reviewer data.
              2. Status data. 7. Activity entry.
3. Close data. 8. Freeform text.
4. Detail data. 9. File record.
                                      7. Activity entry.
              5. Approver data.
                                   10. Software Distribution data.
===> 4
```

To add hardware detail data, type 2 and press Enter.

To add a hardware device, type 1 and press Enter.

To enter the symbolic name of the device, type 1 and press Enter.

```
BLGOCO61 HARDWARE ADD CHANGE: A01

Type a numeral and press Enter to identify hardware elements associated with change request.

1. Name(s)
2. Serial(s)
3. Location(s)
4. ECL(s)
5. Card(s)
6. Item(s)
7. ECA(s)
8. BOM(s)
9. Feature(s)
10. REA(s)
11. RPQ(s)

When you finish, type END to save or CANCEL to discard any changes.
```

For this example, press the Tab key twice to move the cursor into the first field. Type **rs3278** and press Enter.

The cursor returns to the command line. To save the data and continue, type **end** and press Enter.

```
BLGLDVNA
                            DEVICE NAME ENTRY
                                                                    LINE 1 OF 13
USE....List symbolic device names, installation defined.
FORM...AAAAAAAA - 1 to 8 alphanumeric positions.
                                                                     RECORD: A01
         RS3278
    . .
    1.1
    1.1
    1.1
    1.1
    . .
    1.1
    1.1
    1.1
 Line Cmds: A=After B=Before C=Copy D=Delete E=Erase I=Insert
             L=Line entry M=Move R=Repeat
 Type DOWN, UP, LEFT, or RIGHT to scroll the panel, or type END to exit.
===> end
```

To enter the serial number, type 2 and press Enter.

```
BLG0C061
                                  HARDWARE ADD
                                                                       CHANGE: A01
Select option to identify hardware elements associated with change request.
                                1. Name(s)
                                2. Serial(s)
                               Location(s)
                               4. ECL(s)
                               5. Card(s)

    6. Item(s)
    7. ECA(s)

                               8. BOM(s)
                               9. Feature(s)
                               10. REA(s)
                               11. RPQ(s)
    When you finish, type \ensuremath{\mathsf{END}} to save or CANCEL to discard any changes.
===> 2
```

For this example, type the following data on the command line and press Enter:

linecmd 1,411228

The serial number moves to the first field. To save the data and continue, type **end** and press Enter.

To specify where the device will be installed, type 3 and press Enter.

```
BLGOCO61 HARDWARE ADD CHANGE: A01

Select option to identify hardware elements associated with change request.

1. Name(s)
2. Serial(s)
3. Location(s)
4. ECL(s)
5. Card(s)
6. Item(s)
7. ECA(s)
8. BOM(s)
9. Feature(s)
10. REA(s)
11. RPQ(s)

When you finish, type END to save or CANCEL to discard any changes.
```

For this example, type mainst on the command line.

Press the Tab key once to move the cursor to the line command area for the first line. Type I in the line command area and press Enter. The data you typed on the command line appears on the panel. Press Enter or use the Tab key to move the cursor back up to the command line.

To save the data, type end and press Enter.

If you want to add or update any other type of hardware data for an added device, you can make an appropriate selection from this panel.

For this example, type **end** and press Enter to return to the Change Request Summary panel.

```
BLG0C061
                              HARDWARE ADD
                                                               CHANGE: A01
Select option to identify hardware elements associated with change request.
                            1. Name(s)
                            2. Serial(s)
                            3. Location(s)
                            4. ECL(s)
                            5. Card(s)
                            6. Item(s)
                            7. ECA(s)
                            8. BOM(s)
                            9. Feature(s)
                           10. REA(s)
                           11. RPQ(s)
   When you finish, type END to save or CANCEL to discard any changes.
```

Specifying Change Approvers

Before a change can be implemented, it must be approved by specified approvers. To specify change approvers, enter the approver's privilege class name on the Change Approver Entry panel. The Change Approver Entry panel enables you to specify a list of approver privilege classes.

When you enter one or more approver privilege classes, Change Management automatically sets the approval status for the change to *pending* when you file the record. Duplicate entries are removed. The pending status remains in effect until each class either approves or rejects the change. If all the classes approve the change, the status is set to *approved*. If even one class rejects the change, the status is set to *rejected*.

Note: If data attribute records are used as direct add fields, then normal file processing is not performed for change records when change approval processing is being performed. That is, if ALL of these five direct adds—DATE/, TIME/, CLAE/, DATM/, and TIMM/—are changed to data attribute records, then date modified, time modified, and user ID are not saved in the record

The approval status is displayed on the Summary Display panel. You can also search this field to identify changes with a particular approval status.

You register your approval or rejection from a Change Approver Display panel. See "Approver Display" on page 252 for instructions to do this. The change approver summary and detail reports identify all the changes for which approval is pending.

Change request record A01 is used here to illustrate how to specify change approvers. In this example, the MASTER and the HARDWARE privilege classes must approve change request A01. This exercise assumes that these privilege classes exist in your database.

To specify change approvers, type 5 on the command line and press Enter.

1 7 8	7 71				1	
BLG0CU00	CHANGE REQUEST	SUMMARY	CHANGE	: A01		
Assignee name	. 555-2774	Change statu Approval sta Current prio Owning priv. Entry priv. Date entered Time entered Date last al	tusrityclassclass	MASTER 08/27/2000 13:18		
2. Stat		6. Reviewer d 7. Activity e	ata. ntry.	pe CANCEL		
4. Deta	ail data. rover data.	9. File recor	d.	data.		
===> 5						

BLGOCO15 Change Approver Data

Select Option.

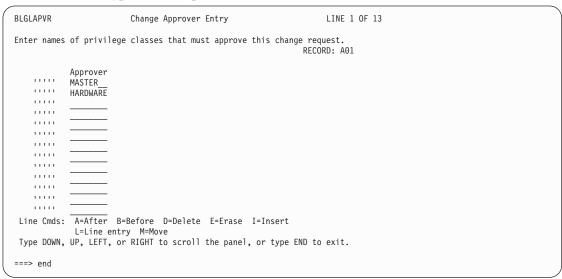
1. APPROVERS.....Update authorized approvers.
2. RESET.......Reset all approvals to pending

6. END......End approver dialog

Note: If you select **Option 2. Reset** from BLG0C015, all approval data for the change request will be reset to *pending*.

In panel BLGLAPVR (Change Approver Entry), supply new or changed privilege class names. For example, enter **master** and **hardware** as the privilege class names and press Enter.

To save the data, type **end** and press Enter.



When you end from this panel, the initial status of *pending* is set for each new approver entry.

On this list processor panel, the C (copy) and R (repeat) line commands are not listed at the bottom of the panel, but they are still available for use. To add new entries to the list, use the I (insert) line command. You can generally add as many entries as you want unless your Tivoli Information Management for z/OS administrator has placed a restriction on the maximum row count for this panel.

Note: The BLGLAPVR panel is displayed for new records created with this version of the product (or older records not containing change approver data). If panel BLG0C500 is displayed instead, your record was created with an earlier version of the product and it already contained change approver data. If you make updates on panel BLG0C500, file the record, and access the Change Approver Entry panel again, panel BLG0C500 reflects your updates. The data is not collected in a list processor panel as shown in this example.

Specifying Change Reviewers

Change reviewers must be aware of any change that will affect their operations or performance, but their approval is not required. The procedure for specifying change reviewers is just like the procedure for specifying change approvers. To specify change reviewers, enter the reviewer's privilege class name on the Change Reviewer Entry panel.

The change request record A01 is used here to illustrate how to specify change reviewers. In this example, the BILLING and SOFTWARE privilege classes are added to the change reviewer list. This example assumes that these privilege classes exist in your database.

To add reviewer data, type 6 on the command line and press Enter.

BLG0CU00 CHANGE	REQUEST SUMMARY CHANGE: A01
Assignee name	Current priority
Select one of the following, ty	pe END to save your changes, or type CANCEL
1. Requester data	. 6. Reviewer data.
2. Status data.	7. Activity entry.
Close data.	8. Freeform text.
4. Detail data.	9. File record.
Approver data.	10. Software Distribution data.
===> 6	

Supply new or changed privilege class names. For this example, type **billing** and **software** as the names of privilege classes and press Enter.

To save the data, type **end** and press Enter.

```
BLGLREVR
                              Change Reviewer Entry
                                                                             LINE 1 OF 13
Enter the names of privilege classes that must review this change request.
              Reviewer
              BILLING
    ....
     . . . . .
     ....
     11111
     ....
     11111
     . . . . .
     . . . . .
     . . . . .
    ....
    11111
     . . . . .
 Line Cmds: A=After B=Before C=Copy D=Delete E=Erase I=Insert
L=Line entry M=Move R=Repeat Type DOWN, UP, LEFT, or RIGHT to scroll the panel, or type END to exit.
===> end
```

On this list processor panel, the C (copy) and R (repeat) line commands are not listed at the bottom of the panel, but they are still available for use. To add new entries to the list, use the I (insert) line command. You can generally add as many entries as you want unless your Tivoli Information Management for z/OS administrator has placed a restriction on the maximum row count for this panel.

Note: The BLGLREVR panel is displayed for new records created with this version of the product (or older records not containing change reviewer data). If panel BLG0C700 is displayed instead, then your record was created with an earlier version of the product and it already contained change reviewer data. When you make updates on panel BLG0C700, file the record you are updating, and access the Change Reviewer Entry panel again, the newly displayed panel BLG0C700 reflects your updates. The data is not collected in a list processor panel as shown in this example.

Adding Activity Records

Activity records describe the activities associated with a change. Change activities can include ordering, installing, testing, or updating documentation as you update software.

In creating an activity record, Change Management establishes a parent/child relationship between the change (parent) record and the activity (child) record. Each activity entry is a separate record with a unique number and name. It is linked to the parent change record through this number and name.

You can create as many activity records as necessary for each change request record.

You can create activity records at the same time you create the change request record, or later, by updating the change request record. In the following example, you add an activity record by updating a change request record. If you have been following along with example record A01, you are in update mode and can proceed with the example.

The assignee for change A01 (Noland) requests a test of the new device, COM1-232. An activity record with the following data needs to be created for this activity:

- The activity is requested by NOLANDJ.
- \blacksquare The date required is 11/01/2000.
- The activity type is TEST.
- The status of this activity is INITIAL.
- The user activity number is A011.
- The description is INITIAL TEST OF COM1-232.

From the previous task, resume entry at the Change Request Summary panel.

To add activity data, type 7 on the command line and press Enter.

```
BLG0CU00
                            CHANGE REQUEST SUMMARY
                                                                 CHANGE: A01
Assignee name...... NOLANDJ
                                              Change status..... INITIAL
Assignee phone..... 555-2774
                                              Approval status....._
Coordinator name....._
                                              Current priority....._
Device name.....____
                                              Owning priv. class.....
                                              Entry priv. class..... MASTER
Key item affected.....
Date required...... 12/23/2000
                                              Date entered...... 08/27/2000
Planned start date....
                                              Time entered............ 13:18
Completion date.....
                                              Date last altered..... 08/27/2000
Description........... CHANGE COM1 TO RS-232
  Select one of the following, type END to save your changes, or type CANCEL
  to discard your changes.
                1. Requester data.
2. Status data.
3. Close data.
4. Detail data.
5. Approver data.
6. Reviewer data.
7. Activity entry.
8. Freeform text.
9. File record.
10. Software Distribution data.
===> 7
```

The first time you add an activity to a change record, the Activity Requester Entry panel (BLG0C600) appears. Message BLG09007I appears at the bottom of this panel.

If you add activity records to a change request record that already has activity records, the Activity Record List panel (BLG1TCAC) appears with a list of the activities.

For this example, type the following on the command line and press Enter:

1,nolandj,9,11/01/2000,11,test,12,initial,14,a011,21,test1

The activity number becomes the activity record ID.

1. Requested by <r> NOLANDJ</r>		
2. Requester dept		
3. Requester phone 4. Network name	13. Activity reason 14. User activity no. A011	
5. System name	15. Initial priority.	
6. Program name	16. Assignee name	
7. Device name	17. Assignee dept	
8. Key item affected	18. Assignee phone	
9. Date required 11/01/2000 0. Time required	19. Date assigned 20. Location code	
o. Time required	21. Activity name. <r> TEST1</r>	
2. Description <r></r>		
When you finish, type END to save	or CANCEL to discard any changes.	

The activity name must be unique for this change; however, the name may be the same as other activity names for other changes. The fields on the Activity Requester Entry panel have the same meaning as those on the Change Requester Entry panel and the Status Entry panel.

Next, type the following on the command line and press Enter:

22,initial test of com1-232

To save the data, type end and press Enter.

BLG0C600	ACTIVITY REQUESTER ENTRY ACTIVITY: A011
Enter change activity dat	ta; cursor placement or input line entry allowed.
1. Requested by <r> N 2. Requester dept 3. Requester phone 4. Network name 5. System name 6. Program name 7. Device name 8. Key item affected. 9. Date required 10. Time required</r>	12. Activity stat. <r> INITIAL 13. Activity reason 14. User activity no. A011 15. Initial priority. 16. Assignee name 17. Assignee dept 18. Assignee phone 11/01/2000 19. Date assigned</r>
22. Description <r> 1</r>	INITIAL TEST OF COM1-232
When you finish, type	e END to save or CANCEL to discard any changes.
===> end	

The Activity Summary panel appears. You can now do one of the following:

- Use option 1 to change the information you just entered.
- Use options 2, 3, or 4 to add information to the activity record.
- Use option 8 to add a textual description.
- Use option 9 to file the activity record.

If you select options 2, 3, or 4 for status, close, or detail information, the fields for these panels have the same meaning as those described on the change status, close, and detail entry panels. For an activity record, however, you designate a contact instead of a coordinator. The contact name specifies who should be contacted for information concerning the activity.

For this example, type 9 on the command line and press Enter to file the activity record.

BLG0CU21 ACTIVI	TY SUMMARY	ACTIVITY: A011	
Activity name TEST1	Parent ch	ange number A01	
Assignee name	Activity	type TEST	
Assignee dept	Activity	status INITIAL	
Assignee phone	_ Current p	hase	
Program name	Owning pr	iv. class	
Device name		v. class	
Key item affected		red	
Date required 11/01/2000		red	
Planned start date	Date last	altered	
DescriptionINITIAL TEST	OF COM1-232		
Select one of the following, type	END to save your	changes, or type CANCEL	
to discard your changes.			
 Requester data. 	4. Detail da	ta.	
2. Status data.	Freeform	text and notes.	
Close data.	9. File reco	rd.	
===> 9			
- 3			

When you file an activity record, immediate notification occurs. In this example, you did not enter an assignee name, so the default ID or default e-mail address is notified that activity record A011 has been created.

The change record is also updated automatically with the link to the activity record and then filed. Any other modifications to the change record are also filed. However, immediate notification for the *change* record does not occur.

The Activity Record List panel appears after you file the record. However, you are still in update mode on this change record. The Activity Record List panel is a type of search results panel. It displays a list of activities entered for the current record. By typing line commands in front of the item numbers, you can do the following:

- Add more activity records
- Copy an existing activity record to create a new one
- Update an existing activity record
- Select an activity record for display
- Print an activity record.
- Delete an activity record.

A message appears on this panel confirming that the record was stored successfully. An additional message indicates that the change record is also updated.

For this example, type **end** and press Enter to return to the Change Request Summary panel.

```
BLGITCAC ACTIVITY RECORD LIST LINE 1 OF 1

RECORD ID NAME DESCRIPTION ABSTRACT

1. A011 TEST1 INITIAL TEST OF COM1-232

*** BOTTOM OF DATA ***

Line Cmds: A=Add C=Copy D=Delete P=Print S=Select U=Update
Type DOWN or UP to scroll the panel, or type END to exit the panel.

+ BLG03058I Record A011 was stored successfully.

===> end
```

If you created the activity record at the same time that you created the change request record, Tivoli Information Management for z/OS places you in update mode on the change request record.

To file the change record, type 9 on the command line and press Enter.

```
BLG0CU00
                        CHANGE REQUEST SUMMARY
                                                         CHANGE: A01
Assignee name...... NOLANDJ
                                        Change status..... INITIAL
Assignee phone..... 555-2774
                                        Approval status....._
Coordinator name....._
                                        Current priority.....
Device name.....__
                                        Owning priv. class.....
                                        Entry priv. class..... MASTER
Key item affected.....
Date required...... 12/23/2000
                                        Date entered...... 08/27/2000
Planned start date....
                                        Time entered............ 13:18
Completion date.....
                                        Date last altered..... 08/27/2000
Description............ CHANGE COM1 TO RS-232
 Select one of the following, type END to save your changes, or type CANCEL
 to discard your changes.

    Requester data.

                                      6. Reviewer data.
              2. Status data.
3. Close data.
4. Detail data.
                                       7. Activity entry.
                                     8. Freeform text.
                                       9. File record.
              5. Approver data.
                                     10. Software Distribution data.
===> 9
```

Immediate notification occurs when you file the change record. In this example, assuming that assignee NOLANDJ and Noland's user ID or e-mail address are in the USERS record when you file the record, Noland is notified that change record A01 has been updated. For additional information on immediate notification, refer to the *Tivoli Information Management for z/OS Program Administration Guide and Reference*.

A message appears on this panel confirming that the record was stored successfully.

To return to the Primary Options Menu, Type end on the command line and press Enter.

```
BLG1UT01 UTILITY ENTRY DIALOG UTILITY

Enter UTILITY information; cursor placement or input line entry allowed.

1. Database..........<R> 5
2. Record ID......<R> A01____

To start the function, press Enter without field modification.

BLG03058I Record A01 was stored successfully.
===> end
```

Closing Changes

After a change has been completed, close the change record by supplying information about the implementation of the change. The change close data can be useful to identify trends. This data includes actual dates and times, duration of time implementing the change, and problems found while implementing the change. All activity records should be closed before you close the change request record.

You must have close authority specified in your privilege class to enter the closer's name, department, phone number, and privilege class. Close authority is also required to enter the completion date, time, and code.

The Change Request record A01 is used to illustrate how to close a change request record. The change will be closed by Noland. This example uses the following information.

- The change is closed by NOLANDJ.
- Noland's department is HARDWARE.
- The date of completion is 12/20/2000.
- The status of the change is now CLOSED.
- The completion code is HARDWARE.
- No backup plan was used.

For this example, type the following on the command line and press Enter:

upd r a01

```
BLG0EN20
                      --- PRIMARY OPTIONS MENU ---
                                                      APPLICATION: MANAGEMENT
OPTIONS:
      1. OVERVIEW......Display general information and product enhancements.
      2. PROFILE......Display or alter invocation or session defaults.
      3. APPLICATION....Change application, list available applications.
      4. CLASS......Change current class, list available classes.
      5. ENTRY.....Create a record.
      6. INQUIRY.....Search for records.
      7. UTILITY......Copy, display, print, delete, and update records.
      8. GLOSSARY.....Display a list of searchable words in the database.
      9. PMF.....Modify or create panels.
          Select an option, enter a command, or type QUIT to exit.
          Tivoli Information Management for z/OS Version 7 Release 1
              5697-SD9 (C) Copyright IBM Corp., 1981, 2001.
===> upd r a01
```

To enter close data, type 3 and press Enter.

```
BLG0CU00
                          CHANGE REQUEST SUMMARY
                                                             CHANGE: A01
Assignee name...... NOLANDJ
                                           Change status..... INITIAL
Assignee phone..... 555-2774
                                           Approval status..... PENDING
Coordinator name....._
                                           Current priority....._
Device name.....
                                           Owning priv. class.....
Key item affected.....
                                           Entry priv. class..... MASTER
Date required...... 12/23/2000
                                           Date entered..... 08/27/2000
Planned start date....
                                           Time entered........... 13:18
                                           Date last altered..... 10/05/2000
Completion date.....
Description...... CHANGE COM1 TO RS-232
  Select one of the following, type END to save your changes, or type CANCEL
  to discard your changes.

    Requester data.

                                       6. Reviewer data.
               2. Status data.
3. Close data.
4. Detail data.
5. Approver data.
7. Activity entry.
8. Freeform text.
9. File record.
10. Software Distribution data.
===> 3
```

Supply required data and any optional data. You must have close authority to enter information fields 1, 2, 3, 4, 7, 8, and 10.

Type the following on the command line and press Enter:

1,nolandj,2,hardware,7,12/20/2000,9,closed,10,hardware,15,no

To save the data, type **end** on the command line and press Enter.

Ensure that all activities associated with the change are closed.

After you have completed closing your change record, select 9 and press Enter to file the record and return to the Primary Options Menu.

```
BLG0CU00
                         CHANGE REQUEST SUMMARY
                                                            CHANGE: A01
Assignee name..... NOLANDJ
                                          Change status..... CLOSED
Assignee phone..... 555-2774
                                          Approval status..... PENDING
Coordinator name....._
                                          Current priority....._
Device name....__
                                          Owning priv. class.....
Key item affected.....
                                          Entry priv. class..... MASTER
Date required...... 12/23/2000
                                          Date entered..... 08/27/2000
Planned start date.....
                                          Time entered..... 13:18
Completion date..... \overline{12/20/2000}
                                          Date last altered..... 10/05/2000
Description..... CHANGE COM1 TO RS-232
 Select one of the following, type END to save your changes, or type CANCEL
  to discard your changes.
                                       6. Reviewer data.

    Requester data.

               2. Status data. 7. Activity entry.
3. Close data. 8. Freeform text.
4. Detail data. 9. File record.
                                         7. Activity entry.
               5. Approver data.
                                     10. Software Distribution data.
===> 9
```

Immediate notification occurs when you file the change record. In this example, assuming that assignee NOLANDJ and Noland's user ID or e-mail address are in the USERS record when you file the record, Noland is notified that the change record A01 has been updated. For additional information or immediate notification refer to the *Tivoli Information Management for z/OS Program Administration Guide and Reference*.

A message appears on this panel confirming that the record was stored successfully.

This ends the example of updating change records.

```
BLGOEN20 --- PRIMARY OPTIONS MENU --- APPLICATION: MANAGEMENT

OPTIONS:

1. OVERVIEW......Display general information and product enhancements.
2. PROFILE......Display or alter invocation or session defaults.
3. APPLICATION....Change application, list available applications.
4. CLASS......Change current class, list available classes.
5. ENTRY......Create a record.
6. INQUIRY......Search for records.
7. UTILITY......Copy, display, print, delete, and update records.
8. GLOSSARY......Display a list of searchable words in the database.
9. PMF........Modify or create panels.

Select an option, enter a command, or type QUIT to exit.

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BLG03058I Record A01 was stored successfully.
==>>
```



Introducing Configuration Management

Configuration Management is a Tivoli Information Management for z/OS facility that extends your ability to gather, organize, and locate information about your data processing installation.

Configuration Management allows you to have up-to-date information about your data processing system and inventory. You create records about your system using Configuration Management. These records are stored in a database. Using Tivoli Information Management for z/OS, you can extract facts about your system, update the records as changes occur, create reports and diagrams, and search for records with specific information.

By using Configuration Management, you can maintain an up-to-date diagram of the hardware and software components on your system and in your inventory. You can also search the database for components that meet specific characteristics, such as all terminals in a network and the locations to which they are assigned. Some components might have special financial information.

With Configuration Management, you can create a financial record specific to one component or to a group of components. Since Configuration Management is a part of Tivoli Information Management for z/OS, you can establish relationships between a component record and any problem or change records in the database.

Figure 1 on page 76 illustrates the record hierarchy and relationships between the configuration management records. Before you design your configuration, review this figure, read this chapter, and follow the exercises presented in this section.

Configuration Management Record Hierarchy

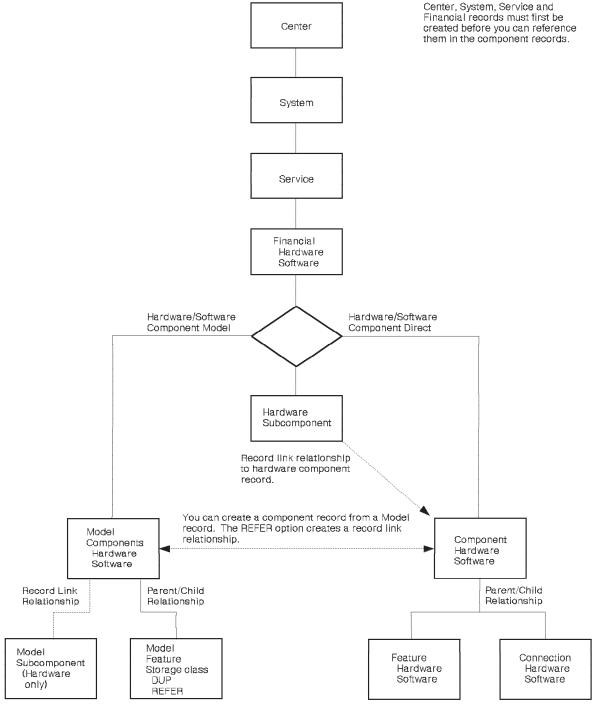


Figure 1. Configuration Management Record Hierarchy

Planning for Configuration Management

Before customizing Configuration Management, you must first design your own configuration management system. Identify what is required based on your objectives. The following list identifies some of the general planning activities for configuration management. Use the list as a guide for creating your configuration management system.

- 1. Assign a manager and coordinator, and define their responsibilities.
- 2. Analyze the requirements and set objectives.
- 3. Define the basic flow of components throughout your organization.
- 4. Identify the required configuration reports.
- 5. Define configuration data requirements.
- 6. Determine configuration form requirements.
- 7. Determine the procedure for entering data.
- 8. Prepare a procedures manual and educate the users.
- 9. Print all the existing configuration panels.
- 10. Plan any panel modifications using the *Tivoli Information Management for z/OS Panel Modification Facility Guide*.
- 11. Modify the panels and print the new versions.
- 12. Tailor the configuration reports.
- 13. Define the privilege-class structure.
- 14. Define configuration stored response chains (SRCs).
- 15. Create model records.

Data Requirements for Configuration Management

The data requirements of your configuration management system depend on the measurements, indicators, and reports you expect to produce. The amount of data you collect and the level of detail for that data must match the objectives of your management.

For example, if detailed data is recorded and not used, the time and effort recording it is wasted. On the other hand, if you do not capture enough data, the lack of detailed information can keep you from using the system to its best advantage.

While the creation and maintenance of a configuration (inventory) database requires considerable effort, the benefits far outweigh the effort when the database is accurate and current. To determine the type of data you should collect for your configuration management, consider:

- How will the database be used?
- What is the hierarchy of components in the network?

Typically, you can use the database for a wide variety of purposes, which include:

- Providing physical configuration information online to allow fast access.
- Assisting in resolving network problems. Configuration data can reduce recovery time by making vital information available to the individual responsible for problem determination. This information includes the name and phone number of the person responsible for the individual components. Component information and physical path connections can be displayed online.
- Assisting systems personnel in system planning and preparation. Once hardware planning data has been completed and entered, configuration information can be used for system planning and other software preparation.
- Assisting in dispatching of support or repair personnel, thus ensuring greater control and closer management of the network as a whole. Vendor and service numbers can be displayed for any component.
- Providing the capability for end users to access information that they need.

Assisting in Engineering Change (EC) level management, to monitor upgrades to components and to ensure consistency of upgrades across the network. Also, configuration data helps isolate problems caused by EC level inconsistencies more quickly.

After identifying the uses of the database, you should identify the benefits you will derive from each use, who will use the data, what data is necessary, and how the database will be maintained.

Based on the usage, you can plan the appropriate hierarchies. The more detailed the configuration, the more assistance it will afford the user. On the other hand, each level of detail requires more database implementation and maintenance effort.

Collecting Data for Configuration Management

Another decision you must make with regard to a configuration management system is to determine the types of components you want to manage. Will you manage all hardware and software components and their features? Will you manage supporting entities such as service organizations, data processing centers, financial data, and systems within a center? In answering these questions, consider these factors:

- Do you want to simply record inventory information, or do you want to manage your configuration? Do you want to locate connections (paths)? Do you want to generate configuration maps?
- How will your data be used? Will it be used for inventory control, for accounting, for problem analysis, or for planning purposes?
- Who will use your data?
- Do you want to keep financial data online?
- Do you want to display and generate management reports?

To manage your network configuration, you can create the following types of records:

- Data center records
- System records
- Service records
- Financial records
 - Hardware
 - Software
- Model Records
 - Model hardware components including features
 - Model hardware subcomponents
 - Model software components including features.
- Hardware records
 - Components
 - Features
 - Connections
 - Subcomponents
- Software records
 - Components
 - Features
 - Connections

The financial, service organization, system administrative, and data processing center records can relate to one or more specific hardware or software components. These relationships can change to reflect changes in your configuration. If you refer to any of these records in the component record, the referenced records must already exist in the database.

Hardware Components

Based on the goals you set for your configuration management, define the types of hardware components you want to manage. Some examples of a hardware component are:

- A 3705
- A 3274
- A 3650
- A 3684 and a 3683
- \blacksquare A PS/2[®]
- A 3279
- A 1403
- A 3081

Required Fields

When you create a hardware component record, Tivoli Information Management for z/OS requires:

- A component ID
- A generic device
- A component status
- A description

Detailed Description

If you have decided to maintain detailed descriptions of your hardware components, consider recording the device type and model and serial number that uniquely identify the component. You might want to establish a standard convention for assigning component IDs, because this component ID is referred to in other records.

Maintenance and Problem Analysis

If improved system maintenance and problem analysis are two of your objectives, consider using the following fields:

- Microcode EC level, to indicate the level of the component
- Maintenance interval, to schedule service for the component
- Location code, to help you create reports by location
- Text, to enter a mailing address and location for use by your organization's service personnel

Connectivity

If you wish to manage your configuration (and not just maintain an inventory), consider using the following fields:

- Component connections, to enable you to obtain path display and reports showing relationships between hardware components
- Display class, to categorize components and control what components are shown in path displays
- Date from and Date to for a connection, to maintain records for historical, current, and planned configurations

Accounting

If you wish to gather information that would help you keep track of data processing costs, consider recording the order number, lease begin date, purchase date, and current book value of components.

Hardware Features

When creating a component record, you can identify the associated features. As part of your guidelines, name the type of data you want recorded for each feature. The Feature name, Description, and Feature status are required fields.

Hardware Subcomponents

Based on the goals you set for configuration management, define the types of hardware subcomponents you want to manage.

You should think of a subcomponent as a feature that can be a stand-alone component and has mobility in the inventory. A subcomponent is detachable from a component, but a feature is not. The advantage of a subcomponent record over a feature record is that you can remove the subcomponent from its hardware component or attach it to another hardware component by updating the subcomponent record. Some examples of a hardware subcomponent are:

- The keyboard on a terminal or PS/2
- The pin pad on a cash register
- The voice box on a cash register
- An external disk drive on a PS/2
- A print train on a 1403

Required Fields

When you create a hardware subcomponent record, Tivoli Information Management for z/OS requires:

- A subcomponent status
- A description

Detailed Description

If you have decided to maintain detailed descriptions of your hardware subcomponents, consider recording the subcomponent type and serial number that uniquely identify the subcomponent. When creating a subcomponent record, you also can enter the hardware component ID to which your subcomponent is linked.

Maintenance and Problem Analysis

If improved system maintenance and problem analysis are two of your objectives, consider using the following fields:

- Microcode EC level, to indicate the level of the subcomponent
- Location code, to help you create reports by location
- Text, to enter a mailing address and location for use by your organization's service personnel

Software Components

Based on the goals you set for Configuration Management, define the types of software components you want to manage.

Required Fields

When you create a software component record, Tivoli Information Management for z/OS requires:

- A component ID
- A program type
- A component status
- A description

Detailed Description

If you wish to maintain detailed descriptions of your software components, consider recording the release level, program version, modification level, and fix level that uniquely identify the component.

Maintenance and Problem Analysis

If improved system maintenance and problem analysis are two of your objectives, consider using the following fields:

- Contact name, Contact department, and Contact phone number to provide a focal point for problem information
- Location code, to help you create reports by location
- Vendor component number, to correlate your organization's component number with your vendor's and help with vendor communications

Connectivity

If you wish to manage your configuration (and not just maintain an inventory), recording the *component to* names will enable you to obtain path displays and reports showing the relationships among the software components.

Accounting

If you wish to gather information to help you keep track of data processing costs, consider recording the order number and the begin license date.

Software Features

When creating a software component record, you can choose to record the features. If you do so, you should establish guidelines for the data to be collected. The feature status, feature name, and description are required by Tivoli Information Management for z/OS.

Financial Data Records

If you have a need for online financial data associated with a component, you should require users to enter it.

For hardware financial records, Tivoli Information Management for z/OS requires a user financial ID, a financial type, and a description. For software financial records, Management application requires a user financial ID, a license type, and a description.

Sometimes it is not necessary to create a financial record for each component; one financial record can serve as the source of financial data for many components. This guideline can be included with standards for hardware and software component records. It is the reference to a financial data record appearing in your records.

Service Records

Maintaining service organization data online is advantageous when a user is displaying a record of a failing component. The user can readily display data about the service organization supporting that component. This data includes the service organization name, prime-shift phone number, and off-shift phone number (which could be important in

emergencies). The hardware and software representatives' names and phone numbers would also be of value for quick reference. If you use this record type, Tivoli Information Management for z/OS requires a description of the service organization. Hardware and software component and hardware subcomponent records can also refer to the service record.

Data Center Records

If you have more than one data processing center, you probably want to maintain online information about each data center. Tivoli Information Management for z/OS requires the Description field. The name of each center and the centers' phone numbers (help desk, off-shift, emergency, and operations manager) should be recorded. If the center operates multiple shifts, the shift managers' names and phone numbers are useful. Component, hardware subcomponent, and system records can refer to this record.

System Records

If you have more than one data processing system, you can maintain online information about each. Tivoli Information Management for z/OS requires a description. The system name, operator and emergency phones, location code, and manager and contact names and phone numbers are also useful. Software and hardware components and hardware subcomponent records can refer to this record.

Model Component Records

Model component records themselves do not hold configuration data, but they make the entry of data easier by allowing the creation of component records from models that hold information common to a number of components (or subcomponents) of the same type. The model capability also provides the ability to build one or many relationships between model features and hardware or software components. Features that are common to many components can be contained in a single model feature record that is referred to by many component records.

You decide on the organization and use of these capabilities when planning your configuration management system. You see immediate benefits provided by:

- A reduction in time required to enter configuration records
- A reduction in the space required in the database. A component record needs only features that are unique to it.

What You Need to Know Before You Create a Configuration

If you study the Configuration Management panel flows, you can see that component records refer to data-center, system, service, and financial records. These four types of records are information records. They contain information about the components in your configuration that the component or feature record can reference.

This means you must create data-center records, system records, service records, and financial records before you create component records. It saves time because these records must be defined before they can be referenced in component records.

Figure 1 on page 76 illustrates that you should create both hardware and software components in hierarchical order, with the highest-level components first. This allows you to establish connections as you create the records.

When you need to create several records that are basically the same, such as records for several 3278 terminals, use one of the following options:

- Create a model component record using selection 7 from panel BLG0D000, Configuration Entry, and use the model component records as a base for creating component records. You can establish a many-to-one relationship between components and model features when using this method. See Understanding Model Record Concepts for further information on how model records can reduce your data-entry task.
- Create a component record, and then copy it and modify the copy to make it unique.

The chapters in this book illustrate how to create and update configuration management records. The examples provide some of the data you need to complete the panels. You can also use information from your organization, such as names and telephone numbers.

An Overview of the Example Configuration

In this section, the configuration you are building centers around a 3274 controller, the PS/2s that attach to the controller, and the associated software. Figure 2 on page 84 shows the configuration record IDs you create and the related chapters. Use this figure as an overview or reference for the small configuration you build in this book. The record IDs you create in the examples are in color in the figure.

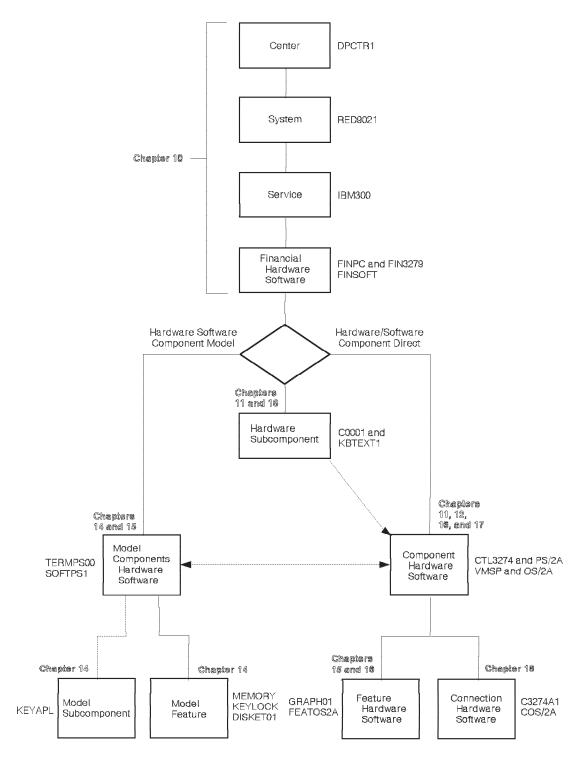


Figure 2. Overview of Example Configuration



Creating Configuration Information Records

If you study the Configuration Management record hierarchy, you can see that component records refer to data center, system, service, and financial records. These four types of records are *information* records. They contain information common to your configuration that component or feature records can refer to.

Because Tivoli Information Management for z/OS performs reference checks, you must create data center records, system records, service records, and financial records before you create component records.

Connection records establish a hierarchical order of components. With this in mind, create both hardware and software components in hierarchical order, with the highest-level components first. This allows you to establish connections as you create the records.

When you need to create several records that are basically the same, such as records for several 3278 terminals, use one of the following options:

- Create a model component record using selection 7 from panel BLG0D000, Configuration Entry, and use the model component records as a base for creating component records. You can establish a many-to-one relationship between components and model features when using this method. See Understanding Model Record Concepts for further information on how model records can reduce your data-entry task.
- Create a component record, and then copy it and modify the copy to make it unique.

The chapters in this section illustrate how to create and update configuration management records. The examples provide some of the data you need to complete the panels. You can also use information from your organization, such as names and telephone numbers.

Note to Readers

The following instructions and panels illustrate how to create records using immediate response chains (IRCs). For more information about how to use IRCs to create records, refer to the *Tivoli Information Management for z/OS User's Guide*.

Creating Data Center Records

For Configuration Management, a data center is the center of all the data processing activities for your organization. It could be the computer room where all or part of your system resides. A data center record contains common personnel and location information about your data center. Sometimes the information in the data center record applies to

component records. If system or component records will be associated with the data center record, you must create the data center record first. When created, the system or component records can refer to the data center record.

The following instructions and panels illustrate how to create a data center record. This record identifies a computer room and can contain names of the people in your computer room and their phone numbers.

This example uses the following information; you can supply the names of the people to contact and their phone numbers:

- The data center name is CENTER1.
- The location code for the data center is DPCTR1.
- The user center ID is DPCTR1. This is the ID for this record. This ID is referenced in system records and in other component records.
- The description for this record is DATA CENTER1.

Remember, this record is referred to by other records in later chapters.

Begin at the Primary Options Menu.

Type 5 and press Enter.

```
BLG0EN20
                      --- PRIMARY OPTIONS MENU ---
                                                      APPLICATION: MANAGEMENT
OPTIONS:
      1. OVERVIEW......Display general information and product enhancements.
      2. PROFILE......Display or alter invocation or session defaults.
      3. APPLICATION....Change application, list available applications.
      4. CLASS......Change current class, list available classes.
      5. ENTRY.....Create a record.
      6. INQUIRY.....Search for records.
      7. UTILITY......Copy, display, print, delete, and update records.
      8. GLOSSARY......Display a list of searchable words in the database.
      9. PMF.....Modify or create panels.
          Select an option, enter a command, or type QUIT to exit.
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               5697-SD9 (C) Copyright IBM Corp., 1981, 2001.
===> 5
```

To create configuration records, type 3 and press Enter.

For every data center you have defined, you need to create a data center record.

To do this, type 1 and press Enter.

Supply information about your data center.

For this example, type the following on the command line and press Enter:

1,center1,8,dpctr1,10,dpctr1,20,data center1

To save the data, type end and press Enter.

BLG0D500	DATA CENTER ENTRY	CENTER: DPCTR1
Enter data center informat	ion; cursor placement or input line	e entry allowed.
1. Center name CE 2. Operations mgr	11. 1st shift mgr 12. 1st shift phone. 13. Home phone 14. 2nd shift mgr 15. 2nd shift phone. 16. Home phone 17. 3rd shift mgr	
20. Description <r> DA When you finish, type END</r>	TA CENTER1to save or CANCEL to discard any (changes.
===> end		

The Data Center summary panel appears. You can now do the following:

- Use option 1 to change the information you just entered.
- Use option 8 to add text information to the record.
- Use option 9 to file the record.

For this example, type 9 and press Enter to file the record.

BLG0DU08	DATA CENTER SUMMARY	RECORD: DPCTR1
Center name CENTE Operations mgr Home phone Emergency phone Location code DPCTR 1st shift mgr 1st shift phone Home phone	2nd shift phone 3rd shift mgr 3rd shift phone Transfer-to class 1 Owning priv. class Entry priv. class Date entered Date last altered	
to discard your changes.	ring, type END to save your changes,	or type CANCEL
===> 9	5. File record.	

When you file the record, you return to the Primary Options Menu.

A message appears on this panel confirming that the record was stored successfully.

```
BLG0EN20
                      --- PRIMARY OPTIONS MENU ---
                                                      APPLICATION: MANAGEMENT
OPTIONS:
      1. OVERVIEW......Display general information and product enhancements.
     2. PROFILE......Display or alter invocation or session defaults.
     3. APPLICATION....Change application, list available applications.
     4. CLASS......Change current class, list available classes.
     5. ENTRY.....Create a record.
     6. INQUIRY.....Search for records.
     7. UTILITY......Copy, display, print, delete, and update records.
     8. GLOSSARY......Display a list of searchable words in the database.
     9. PMF.....Modify or create panels.
          Select an option, enter a command, or type OUIT to exit.
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BLG03058I Record DPCTR1 was stored successfully.
```

Creating System Records

For Configuration Management, a system resides in a data center. A system record describes the system and contains information regarding the personnel and location in the data center. This is the second record you create in your configuration because it can refer to the data center record. If your data center has more than one system residing in it, for example, a Virtual Machine (VM) and Multiple Virtual Storage/Enterprise Systems Architecture (OS/390) system on two 9021s, you need a separate record for each system.

In the following example, assume that your organization has two systems. You can create the first system record and then copy that record to create the second system record. This is a time-saver if most of the information is the same.

Use the following information to create a system record:

- The system name is CPURED.
- The center ID is DPCTR1. This is the data center record ID you created in "Creating Data Center Records" on page 85.
- The user system ID is RED9021. This is the ID for this system record. This ID is referenced in other component records in later chapters.
- The location code for the system is DPCTR1. This is the same location code as the data center.
- The contact department is Z99.
- The description is 9021 CPU KNOWN AS RED9021.

Begin at the Primary Options Menu.

To create a system record, type **5,3** on the command line and press Enter:

```
BLG0EN20
                      --- PRIMARY OPTIONS MENU ---
                                                      APPLICATION: MANAGEMENT
OPTIONS:
      1. OVERVIEW......Display general information and product enhancements.
      2. PROFILE......Display or alter invocation or session defaults.
      3. APPLICATION....Change application, list available applications.
      4. CLASS......Change current class, list available classes.
     ENTRY......Create a record.
      6. INQUIRY.....Search for records.
      7. UTILITY......Copy, display, print, delete, and update records.
     8. GLOSSARY......Display a list of searchable words in the database.
     9. PMF......Modify or create panels.
          Select an option, enter a command, or type QUIT to exit.
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===> 5,3
```

For every system you define, you need to create a system record.

To do this, type 2 and press Enter.

Supply information about the system.

For this example, type the following on the command line and press Enter:

1,cpured,2,dpctr1,5,dpctr1,7,red9021,11,z99,13,9021 cpu known as red9021

To save the data, type end and press Enter.

,				
(BLG0D600	SYSTEM ENTRY	SYSTEM:	RED9021
	Enter system center info	rmation; cursor placement or input	line entry	allowed.
	1. System name	DPCTR1 DPCTR1 RED9021_ Z99		
	13. Description <r></r>	9021 CPU KNOWN AS RED9021		-
	When you finish, type	END to save or CANCEL to discard a	any changes	
	===> end			

The System Summary panel appears. You can now do one of the following:

- Use option 1 to change the data you just entered.
- Use option 8 to add text to the record.
- Use option 9 to file the record.

For this example, type 9 and press Enter to file the record.

This returns you to the Primary Options Menu.

BLG0DU09	SYSTEM SUMMARY	RECORD:	RED9021
System name CPURED Center ID DPCTR1 Manager phone DPCTR1 Location code DPCTR1 Transfer-to class Emergency phone Operator phone	Entry priv. class Date entered Time entered	Z99	_
Select one of the following, to discard your changes.	type END to save your changes,	or type	CANCEL
1. [Description.		
	reeform text and notes. File record.		
===> 9			

A message appears on this panel confirming that the record was stored successfully.

```
BLG0EN20
                      --- PRIMARY OPTIONS MENU ---
                                                      APPLICATION: MANAGEMENT
OPTIONS:
      1. OVERVIEW......Display general information and product enhancements.
      2. PROFILE......Display or alter invocation or session defaults.
      3. APPLICATION....Change application, list available applications.
      4. CLASS......Change current class, list available classes.
      5. ENTRY.....Create a record.
      6. INQUIRY.....Search for records.
      7. UTILITY......Copy, display, print, delete, and update records.
      8. GLOSSARY......Display a list of searchable words in the database.
      9. PMF.....Modify or create panels.
          Select an option, enter a command, or type QUIT to exit.
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BLG03058I Record RED9021 was stored successfully.
```

Creating Service Records

A service record contains information about the maintenance of one or more components or features. It includes information about the organization and personnel responsible for servicing your equipment and software.

The service record must be created before component and subcomponent records can refer to it. Your organization might have several service records, depending on how you define your system. For example, you could create a service record based on:

- A manufacturer
- A hardware unit
- A software package
- A component type

In the following example, you are creating a service record for your IBM equipment. This record is different from any records you might have for another company's equipment.

Use the following information to create the service record:

- The service name is IBMSERV and the organization is IBMNSD.
- The phone number for IBM service is 18005553232.
- The user service ID is IBM300. This is the ID for this record. This is referenced in component or subcomponent records.
- The description of the record is IBM SERVICE RECORD.

To create a service record, type **5,3,6** on the command line and press Enter:

```
BLG0EN20
                      --- PRIMARY OPTIONS MENU ---
                                                      APPLICATION: MANAGEMENT
OPTIONS:
     1. OVERVIEW......Display general information and product enhancements.
     2. PROFILE......Display or alter invocation or session defaults.
     3. APPLICATION....Change application, list available applications.
     4. CLASS......Change current class, list available classes.
     ENTRY......Create a record.
     6. INQUIRY.....Search for records.
     7. UTILITY......Copy, display, print, delete, and update records.
     8. GLOSSARY......Display a list of searchable words in the database.
     9. PMF.....Modify or create panels.
          Select an option, enter a command, or type QUIT to exit.
         Tivoli Information Management for z/OS Version 7 Release 1
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===> 5.3.6
```

Supply information about the service organization. For this example, type the following on the command line and press Enter:

1,ibmserv,2,ibmnsd,3,18005553232,6,ibm300,11,ibm service record

To save the data, type end and press Enter.

```
BLG0D400
                           SERVICE ENTRY
                                                            SERVICE: IBM300
Enter service organization data; cursor placement or input line entry allowed.
 1. Service name..... IBMSERV
 2. Service org name.... IBMNSD
 3. Service phone..... 18005553232
 4. Off-shift phone....
 5. Transfer-to class...
 6. User service ID.... IBM300
 7. Hardware rep....._
 8. Rep phone....___
 9. Software rep.....
10. Rep phone.....
11. Description.....<br/>R> \overline{\text{IBM SERVICE RECORD}}
  When you finish, type END to save or CANCEL to discard any changes.
===> end
```

The Service Summary panel appears. You can now do the following:

- Use option 1 to change the information you just entered.
- Use option 8 to add text to the record.
- Use option 9 to file the record.

For this example, type **9** and press Enter to file the record.

This returns you to the Primary Options Menu.

BLG0DU07	SERVICE SUMMA	RY RECORD:	IBM300
Service name Service org name Service phone Off-shift phone Hardware rep Software rep	IBMNSD 18005553232	Transfer-to class Owning priv. class Entry priv. class Date entered Time entered Date last altered	
Description Select one of the fol to discard your chang	lowing, type END to s	ave your changes, or type	CANCEL
	1. Description.		
	8. Freeform text a 9. File record.	nd notes.	
===> 9			

A message appears on this panel confirming that the record was stored successfully.

```
BLG0EN20
                       --- PRIMARY OPTIONS MENU ---
                                                         APPLICATION: MANAGEMENT
OPTIONS:
      1. OVERVIEW......Display general information and product enhancements.
      2. PROFILE......Display or alter invocation or session defaults.
      3. APPLICATION....Change application, list available applications.
      4. CLASS......Change current class, list available classes.
      5. ENTRY......Create a record.6. INQUIRY......Search for records.
      7. UTILITY......Copy, display, print, delete, and update records.
      8. GLOSSARY......Display a list of searchable words in the database.
      9. PMF.....Modify or create panels.
           Select an option, enter a command, or type QUIT to exit.
          Tivoli Information Management for z/OS Version 7 Release 1
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BLG03058I Record IBM300 was stored successfully.
```

Creating Financial Records

A hardware or software financial record provides data for a single component or for several similar components that share common financial attributes.

An example of a hardware financial record is one relating to a group of terminals that have a common manufacturer, purchase price, depreciation period, and charge-out account.

An example of a hardware financial record is one relating to a set of programs that have a common vendor name, purchase price, license fee, or maintenance class.

In the following examples, you are creating the financial records for the IBM equipment and software at your organization:

- Ten PS/2 computers (purchased)
- Ten 3279 terminals (on lease)
- OS/2[®] operating system software for the PS/2s.

Creating Financial Records for Purchased Hardware

In this example, you create financial records for the PS/2s your organization has just installed.

- The financial ID and financial name is FINPC.
- The generic device is video display, or VID.
- \blacksquare The device type is PS/2.
- The component count is 10.
- The financial type is PURCHASE.
- The description of the record is FINANCIAL RECORD FOR PURCHASE PS/2s.
- The depreciation period is one year.
- The purchase price is \$3000.
- The minimum maintenance rate is \$75/hour.

To create a hardware financial record, type the following on the command line and press Enter:

5,3,5

```
BLG0EN20
                      --- PRIMARY OPTIONS MENU ---
                                                      APPLICATION: MANAGEMENT
OPTIONS:
     1. OVERVIEW.....Display general information and product enhancements.
     2. PROFILE.....Display or alter invocation or session defaults.
     3. APPLICATION....Change application, list available applications.
     4. CLASS......Change current class, list available classes.
     5. ENTRY.....Create a record.
     6. INQUIRY.....Search for records.
     7. UTILITY......Copy, display, print, delete, and update records.
     8. GLOSSARY......Display a list of searchable words in the database.
     9. PMF.....Modify or create panels.
          Select an option, enter a command, or type QUIT to exit.
         Tivoli Information Management for z/OS Version 7 Release 1
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===> 5,3,5
```

To create a hardware financial record, type 1 and press Enter.

```
BLGOD320 FINANCIAL ENTRY 1 OF 1

USE....Identify the type of financial record to be entered.

1.HARDWARE.......Financial data is for hardware component(s).

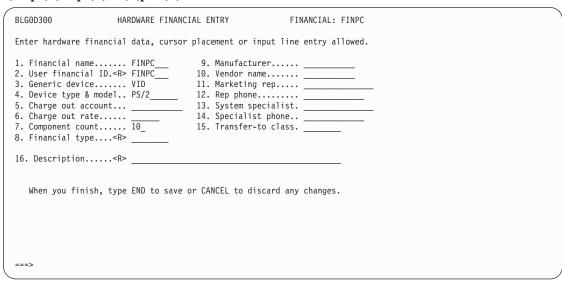
2.SOFTWARE.......Financial data is for software component(s).

SELECT ITEM
```

Supply financial data about the hardware.

For this example, type the following on the command line and press Enter:

1,finpc,2,finpc,3,vid,4,ps/2,7,10



The value you enter for field 8 on this panel determines which panel appears next. Valid financial types are PURCHASE, LEASE, or RENT.

Type the following on the command line and press Enter:

8,purchase,9,ibm,16,financial record for purchase ps/2s

To save the data and continue, type **end** and press Enter.

BLG0D300 HA	RDWARE FINANCIAL ENTRY	FINANCIAL: FINPC
Enter hardware financial	data, cursor placement or input li	ne entry allowed.
2. User financial ID. <r> 3. Generic device</r>	PS/2 12. Rep phone 13. System specialis 14. Specialist phone 10 15. Transfer-to class	
o. Tillaliciai type	FORCIASE	
16. Description <r></r>	FINANCIAL RECORD FOR PURCHASE PS/2	'S
When you finish, type	END to save or CANCEL to discard a	iny changes.
===> end		

Because you entered a financial type of PURCHASE, panel BLG0D305 Hardware Financial – Purchase Entry appears.

Type the following on the command line and press Enter:

1,01/00,3,3000,7,75

To save the data, type end and press Enter.

The information you entered in BLG0D300 appears on the Hardware Financial Summary panel. You can now do one of the following:

- Use options 1 or 2 to change the information you just entered.
- Use options 3 or 8 to add information to the record.
- Use option 9 to file the record.

For this example, type 9 on the command line and press Enter to file the record. You return to the Primary Options Menu.

BLG0DU05 HARDWARE FINANCIA	AL SUMMARY FINANCIAL: FINPC	
Financial name FINPC	Generic device VID	
Financial type PURCHASE	Component count 10	
Vendor name	Charge out rate	
Contact name	Minimum VPA quantity	
Marketing rep	Maximum VPA quantity	
System specialist	Entry priv. class	
VPA name	Owning priv. class	
VPA number	Date entered	
VPA duration	Time entered	
VPA start date	Date last altered	
Device type & model PS/2	Time last altered	
Charge out account	User last altered	
Description FINANCIAL RECORD	D FOR PURCHASE PS/2S	
* * * * * * * * * * * * * * * * * * * *	O to save your changes, or type CANCEL	
to discard your changes.	0.5.6	
ı ı	8. Freeform text and notes.	
 Secondary description. VPA. 	9. File record.	
===> 9		

A message appears on this panel confirming that the record was stored successfully.

This ends the example of creating hardware financial record FINPC.

```
BLG0EN20
                        --- PRIMARY OPTIONS MENU ---
                                                           APPLICATION: MANAGEMENT
OPTIONS:
      1. OVERVIEW......Display general information and product enhancements.
      2. PROFILE......Display or alter invocation or session defaults.
      3. APPLICATION....Change application, list available applications.
      4. CLASS......Change current class, list available classes.
      ENTRY......Create a record.
      6. INQUIRY.....Search for records.
      7. UTILITY......Copy, display, print, delete, and update records.
8. GLOSSARY......Display a list of searchable words in the database.
      9. PMF......Modify or create panels.
           Select an option, enter a command, or type QUIT to exit.
           Tivoli Information Management for z/OS Version 7 Release 1
                 5697-SD9 (C) Copyright IBM Corp., 1981, 2001.
BLG03058I Record FINPC was stored successfully.
===>
```

Creating Financial Records for Leased or Rented Hardware

Your organization also has ten 3279s on lease, so these components must have a different financial record. Use the following information to create a financial record for the leased 3279s:

- The financial name is FIN3279.
- The user financial ID is FIN3279.
- The generic device is video display, or VID.
- The device type and model is 3279.
- The component count is 10.
- The financial type is LEASE.
- The description is FINANCIAL RECORD FOR LEASE 3279S.
- The lease type is TAP.
- The monthly charge is \$100.

- The purchase option percent is 80.
- The maximum accrual period is one year.

Begin at the Primary Options Menu.

To create this record, type the following and press Enter:

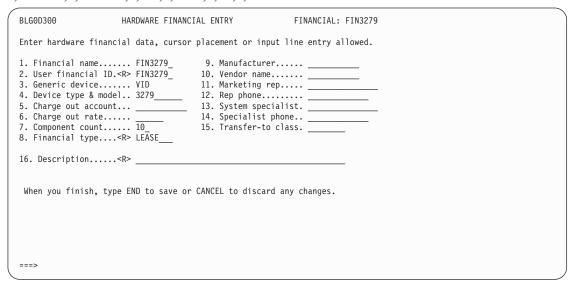
5,3,5,1

```
BLG0EN20
                        --- PRIMARY OPTIONS MENU ---
                                                           APPLICATION: MANAGEMENT
OPTIONS:
      1. OVERVIEW......Display general information and product enhancements.
      2. PROFILE......Display or alter invocation or session defaults.
      3. APPLICATION....Change application, list available applications.
      4. CLASS......Change current class, list available classes.
      5. ENTRY.....Create a record.
      6. INQUIRY.....Search for records.
     7. UTILITY......Copy, display, print, delete, and update records.
8. GLOSSARY......Display a list of searchable words in the database.
      9. PMF.....Modify or create panels.
           Select an option, enter a command, or type QUIT to exit.
          Tivoli Information Management for z/OS Version 7 Release 1
                5697-SD9 (C) Copyright IBM Corp., 1981, 2001.
===> 5,3,5,1
```

Supply financial data about the hardware.

For this example, type the following on the command line and press Enter:

1,fin3279,2,fin3279,3,vid,4,3279,7,10,8,lease



Next, type the following on the command line and press Enter:

16, financial record for lease 3279s

To save the data and continue, type end and press Enter.

Because you entered a financial type of LEASE, panel BLG0D306 Hardware Financial – Rental/Lease Entry appears.

Type the following on the command line and press Enter:

1,tap,2,100,3,80,4,12

To save the data, type **end** and press Enter.

The Hardware Financial Summary panel appears. You can now do one of the following:

- Use options 1 or 2 to change the information just entered.
- Use options 3 or 8 to add new information to the record.
- Use option 9 to file the record.

For this example, type 9 and press Enter to file the record. You return to the Primary Options Menu.

BLG0DU05	HARDWARE	FINANCIAL	SUMMARY	FINANCIAL	: FIN3279		
Financial name Financial type Vendor name Contact name. Marketing rep System specialist VPA name	LEASE		Compone Charge Minimum Maximum Entry p Owning	device	10		
VPA numberVPA durationVPA start dateDevice type & model.Charge out account	3279	- - - 	Date en Time en Date la Time la	teredteredst alteredst alteredst alteredst alteredst alteredst			
Description Select one of the form to discard your channels of the form	ollowing, nges. descripti	type END	to save you 8. Freefo	or changes, or type			
3. VPA.	,						

A message appears on this panel confirming that the record was stored successfully. This ends the example of creating hardware financial record FIN3279.

```
BLG0EN20
                        --- PRIMARY OPTIONS MENU ---
                                                           APPLICATION: MANAGEMENT
OPTIONS:
      1. OVERVIEW......Display general information and product enhancements.
      2. PROFILE......Display or alter invocation or session defaults.
      3. APPLICATION....Change application, list available applications.
      4. CLASS......Change current class, list available classes.
      5. ENTRY.....Create a record.
      6. INQUIRY.....Search for records.
      7. UTILITY......Copy, display, print, delete, and update records.
8. GLOSSARY......Display a list of searchable words in the database.
      9. PMF......Modify or create panels.
           Select an option, enter a command, or type QUIT to exit.
          Tivoli Information Management for z/OS Version 7 Release 1
                  5697-SD9 (C) Copyright IBM Corp., 1981, 2001.
BLG03058I Record FIN3279 was stored successfully.
```

Creating Software Financial Records

In this example, you will create the financial records for the software that came with the new PS/2s. Use the following information to create the software financial record:

- The user financial ID and financial name is FINSOFT.
- The test period is 90 days.
- The license is BASIC.
- The one-time charge is \$600.
- The initial license charge is \$300.
- The description of this record is FINANCIAL RECORD FOR SOFTWARE PS/2S.

Begin at the Primary Options Menu.

To create a software financial record, Type the following on the command line and press Enter:

5,3,5

```
BLG0EN20
                        --- PRIMARY OPTIONS MENU ---
                                                           APPLICATION: MANAGEMENT
OPTIONS:
      1. OVERVIEW......Display general information and product enhancements.
      2. PROFILE......Display or alter invocation or session defaults.
      3. APPLICATION....Change application, list available applications.
      4. CLASS......Change current class, list available classes.
      5. ENTRY.....Create a record.
      6. INQUIRY.....Search for records.
      7. UTILITY......Copy, display, print, delete, and update records.
8. GLOSSARY......Display a list of searchable words in the database.
      9. PMF.....Modify or create panels.
           Select an option, enter a command, or type QUIT to exit.
          Tivoli Information Management for z/OS Version 7 Release 1
                 5697-SD9 (C) Copyright IBM Corp., 1981, 2001.
===> 5,3,5
```

To create a software financial record, type 2 and press Enter.

```
BLGOD320 FINANCIAL ENTRY 1 OF 1

USE....Identify the type of financial record to be entered.

1.HARDWARE.......Financial data is for hardware component(s).

2.SOFTWARE.......Financial data is for software component(s).

SELECT ITEM
```

The Software Financial Entry panel appears. The value you enter for field 5 on this panel determines which panel appears next. Valid license types are BASIC or DSLO.

Supply financial data about the software.

For this example, type the following on the command line and press Enter:

1,finsoft,2,90,3,finsoft,5,basic,11,financial record for software ps/2s

To save the data and continue, type **end** and press Enter.

BLG0D350	SOFTWARE FINANCIAL ENTRY	FINANCIAL: FINSOFT	
Enter software fin	ancial data; cursor placement or in	nput line entry allowed.	
1. Financial name	FINSOFT_ 6. Marketing r 7. Rep phone	rep	
User financial	ID. <r> FINSOFT 8. System spec</r>	cialist	
4. Vendor name 5. License type	 BASIC 9. Specialist 10. Transfer-to	phone class	
11. Description	<r>> FINANCIAL RECORD FOR SOFTWA</r>	ARE PS/2S	
When you finish,	type END to save or CANCEL to disca	ard any changes.	
===> end			,

Because you entered a financial type of BASIC, panel BLG0D353 Software Financial – Basic License Entry appears.

Type the following on the command line and press Enter:

1,600,5,300

To save the data, type end and press Enter.

BLG0D353 SOFTWARE FINANCIAL - BASIC LICENSE ENTRY FINANCIAL: FINSOFT
Enter software license data, cursor placement or input line entry allowed.
1. One time charge
When you finish, type END to save or CANCEL to discard any changes.
===> end

The Software Financial Summary panel appears. You can now do one of the following:

- Use options 1 or 2 to change the information just entered.
- Use options 3 or 8 to add new information to the record.
- Use option 9 to file the record.

For this example, type 9 on the command line and press Enter to file the record.

BLG0DU06	SOFTWARE	FINANCIAL	SUMMARY	FINA	NCIAL:	FINSOFT		
Financial name License type Vendor name Contact name Marketing rep. System specialist VLA name VLA number VLA duration VLA start date	BASIC		Minimum Maximum Entry pr Owning pl Date en Time en Date las Time las	riod VLA quantity VLA quantity riv. class priv. class tered st altered st altered st altered	···· —			
Select one of the fo to discard your char 1. Primary de 2. Secondary 3. Volume lice	ollowing, nges. escription descript	type END to	o save you	r changes, or		CANCEL		
===> 9								,

A message appears on this panel confirming that the record was stored successfully.

This ends the example of creating software financial record FINSOFT.

```
BLG0EN20
                        --- PRIMARY OPTIONS MENU ---
                                                           APPLICATION: MANAGEMENT
OPTIONS:
      1. OVERVIEW.....Display general information and product enhancements.
      2. PROFILE......Display or alter invocation or session defaults.
      3. APPLICATION....Change application, list available applications.
      4. CLASS......Change current class, list available classes.
      ENTRY......Create a record.
      6. INQUIRY.....Search for records.
      7. UTILITY......Copy, display, print, delete, and update records.
8. GLOSSARY......Display a list of searchable words in the database.
      9. PMF.....Modify or create panels.
           Select an option, enter a command, or type QUIT to exit.
          Tivoli Information Management for z/OS Version 7 Release 1
                 5697-SD9 (C) Copyright IBM Corp., 1981, 2001.
BLG03058I Record FINSOFT was stored successfully.
```



Creating Hardware Records

A hardware component record enables you to define and describe a particular device that is part of a system. A hardware component record can have hardware subcomponents and features attached to it.

You can create a hardware component record directly or from model records. To find out more about creating component records from an existing model record, start with Understanding Model Record Concepts.

Creating Hardware Component Records Directly

The following example shows how to create a component record by using a direct panel dialog. You can follow the flow of the panels with the sample data shown here, or you can use your own data.

In this example, you are creating a component record for a 3274A controller. The example uses the following information:

- The component ID is CTL3274.
- The generic device is CTL.
- The device type and model is 3274A.
- The serial number is C4444.
- Microcode EC level is 00133052.
- The status is INSTALL.
- The location code is DPCTR1.
- The display class is 1.
- The description is 3274 CONTROLLER FOR PS/2S.

Begin at the Primary Options Menu.

To create a hardware component record, type 5,3 on the command line and press Enter:

```
BLG0EN20
                      --- PRIMARY OPTIONS MENU ---
                                                      APPLICATION: MANAGEMENT
OPTIONS:
     1. OVERVIEW......Display general information and product enhancements.
     2. PROFILE......Display or alter invocation or session defaults.
     3. APPLICATION....Change application, list available applications.
     4. CLASS......Change current class, list available classes.
     ENTRY......Create a record.
     6. INQUIRY.....Search for records.
     7. UTILITY......Copy, display, print, delete, and update records.
     8. GLOSSARY......Display a list of searchable words in the database.
     9. PMF......Modify or create panels.
          Select an option, enter a command, or type QUIT to exit.
         Tivoli Information Management for z/OS Version 7 Release 1
               5697-SD9 (C) Copyright IBM Corp., 1981, 2001.
==>5,3
```

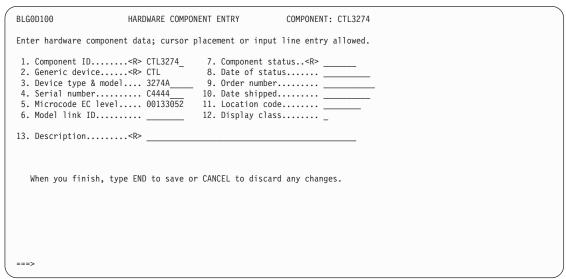
For every hardware device you define, you need to create a hardware record.

For this example, type 3 and press Enter.

To create a hardware component record directly, type 1 on the command line and press Enter.

For this example, type the following on the command line and press Enter:

1,ctl3274,2,ctl,3,3274A,4,c4444,5,00133052



Next, type the following on the command line and press Enter:

7,install,8,=,11,dpctr1,12,1,13,3274 controller for ps/2s

To save the data and continue, type **end** and press Enter.

```
BLG0D100
                      HARDWARE COMPONENT ENTRY
                                                      COMPONENT: CTL3274
Enter hardware component data; cursor placement or input line entry allowed.
 1. Component ID......<R> CTL3274
                                       7. Component status..<R> INSTALL
2. Generic device.....<R> CTL
                                       8. Date of status..... 08/08/1996
3. Device type & model.... 3274A
                                      9. Order number.....
 4. Serial number..... C4444
                                     10. Date shipped.....
 5. Microcode EC level.... 00133052 11. Location code...... DPCTR1
6. Model link ID.....
                                     12. Display class...... 1
13. Description.......<R> 3274 CONTROLLER FOR PS/2S
  When you finish, type END to save or CANCEL to discard any changes.
===> end
```

What panel appears next depends on the generic device type you specified. If the generic device type was LOP, then panel BLG0D172 Loop Component appears. If the generic device type was LIN, then panel BLG0D170 Line Information Entry appears. In either case, supply the data and press Enter to advance to the Hardware Component Summary panel.

Since the generic device specified in this example was neither LIN nor LOP, the Hardware Component Summary panel appears. You can now do one of the following:

- Use option 1 to change the information you just entered.
- Use options 2, 6, 8, 10, 11, or 12 to add information to the record.
- Use option 3 to enter connection records for this component.
- Use option 4 to enter EC levels for this component.
- Use option 5 to change the secondary description information when the generic device type is LIN or LOP.
- Use option 7 to enter feature records for this component.
- Use option 9 to file the record.

If you choose options 3, 4, or 7, Tivoli Information Management for z/OS files this component record and displays the appropriate entry panel.

For this example, type 1 on the command line and press Enter.

BLG0DU30	HARDWARE COMPONENT	SUMMARY	COMPONENT: CTL	L3274	
Generic device.	CTL	Display c	lass 1		
Device type & mo	odel 3274A	Location	code DPCTF	R1	
Serial number	C4444	Entry pri	v. class		
	/el 00133052		iv. class		
			red		
			red		
			altered		
Date of status	08/08/1996		altered		
	00/00/1990 S INSTALL				
Component status	S INSTALL	user rast	altered		
Description	3274 CONTROLLE	R FOR PS/2S			
Select one of to discard you	the following, type END ur changes.	to save your	changes, or type CAN	NCEL	
1. Pr	imary description.	7. Feature	entry (file record).		
	imary support data.				
	nnections (file record).				
	Levels (file record).				
	condary description.	11. Maps date			
	nancial.	12. Source de			
0. 111	ianciai.	12. Jource di	CI IIII CI OII.		
===> 1					

You can change some of the data at this time, but notice that Generic Device field becomes a protected field.

For this example, you do not wish to change any of the fields.

Type cancel on the command line and press Enter.

```
BLG0D102
                       HARDWARE COMPONENT ENTRY
                                                         COMPONENT: CTL3274
Enter hardware component data; cursor placement or input line entry allowed.
 1. Component ID......<R> CTL3274
                                        7. Component status..<R> INSTALL
Generic device...... CTL

3. Device type & model.... 3274A
                                       8. Date of status..... 08/08/1996
                                       9. Order number...._
 4. Serial number..... C4444
                                       10. Date shipped.....
5. Microcode EC level.... 00133052
                                       11. Location code...... DPCTR1_
6. Model link ID....__
                                       12. Display class..... 1
13. Description.....<R> 3274 CONTROLLER FOR PS/2S
  When you finish, type END to save or CANCEL to discard any changes.
===> cancel
```

To add the support data such as the center ID, system ID and service ID, type 2 on the command line and press Enter.

BLG0DU30 HARDWARE COMPONEN	T SUMMARY COMPONENT: CTL3274	
Generic device CTL	Display class 1	
Device type & model 3274A	Location code DPCTR1	
Serial number C4444	Entry priv. class	
Microcode EC level 00133052	Owning priv. class	
Model link ID	Date entered	
Contact name	Time entered	
Component owner	Date last altered	
Date of status 08/08/1996	Time last altered	
Component status INSTALL	User last altered	
to discard your changes.	D to save your changes, or type CANCEL	
	 Feature entry (file record). Freeform text and notes. 	
3. Connections (file record)		
	10. Secondary support data.	
5. Secondary description.	11. Maps data.	
• .	12. Source definition.	
o. i manetai.	12. Journe delimition.	
===> 2		

This panel creates the record link between the center record, system record, and service record you created in previous chapters.

For this example, type the following on the command line and press Enter:

7,dpctr1,8,red9021,9,ibm300

To save the data and continue, type end on the command line and press Enter.

To add financial information about this component, type ${\bf 6}$ on the command line and press Enter.

BLGODU30 HARDWARE COMPONENT	Γ SUMMARY	COMPONENT: CTL3274	
Generic device CTL	Display	class 1	
Device type & model 3274A	Location	code DPCTR1	
Serial number C4444	Entry pr	iv. class	
Microcode EC level 00133052		riv. class	
Model link ID		ered	
Contact name		ered	
Component owner		t altered	
Date of status 08/08/1996		t altered	
Component status INSTALL	user ias	t altered	
Description 3274 CONTROLLI	ER FOR PS/2S		
Select one of the following, type ENI to discard your changes.) to save you	r changes, or type CANCEL	
1. Primary description.	7. Feature	entry (file record).	
2. Primary support data.			
3. Connections (file record)			
4. EC Levels (file record).			
5. Secondary description.	11. Maps da		
6. Financial.	12. Source	definition.	
===> 6			

Supply financial data about this component. If you created a hardware financial record in Creating Configuration Information Records, enter the record ID in field 1. (To enter the book value and market value, you must be in a privilege class that has financial and configuration entry authority.) For this example, type the following on the command line and press Enter:

4,=

To save the data and continue, type end on the command line and press Enter.

To define this component in a subdiagram, type 11 on the command line and press Enter.

```
BLG0DU30
                   HARDWARE COMPONENT SUMMARY
                                                     COMPONENT: CTL3274
Generic device..... CTL
                                      Display class..... 1
Device type & model.... 3274A
                                      Location code..... DPCTR1
Serial number..... C4444
                                      Entry priv. class....._
Microcode EC level..... 00133052
                                      Owning priv. class.....
Model link ID.....___
                                      Date entered.....
Contact name...._
                                      Time entered....._
Component owner.....
                                      Date last altered.....
Date of status...... 08/08/1996
                                      Time last altered.....
Component status..... INSTALL
                                      User last altered.....
Description...... 3274 CONTROLLER FOR PS/2S
 Select one of the following, type END to save your changes, or type CANCEL
 to discard your changes.
        1. Primary description.
                                   7. Feature entry (file record).
        2. Primary support data.
                                    8. Freeform text and notes.
        3. Connections (file record). 9. File record.
         4. EC Levels (file record). 10. Secondary support data.
        5. Secondary description.
                                    11. Maps data.
                                    12. Source definition.
         6. Financial.
===> 11
```

The Hardware Component Diagram Map Data Entry panel appears. If you want this component to start, stop, or create a table for a subdiagram, complete the Sub diagram marker field. For this example, use the following information on BLG0D113:

- The number of ports is 32.
- The subdiagram marker is START.

The Number of ports field is relevant only for controllers. This field is used by Tivoli Information Management for z/OS to calculate the number of spare ports in the configuration subdiagram. For more information on the relationship of this panel to subdiagrams, see Creating and Drawing Configuration Diagrams.

For this example, type the following on the command line and press Enter:

1,32,2,start

To save the data and continue, type **end** and press Enter.

```
BLGOD113 HARDWARE COMPONENT DIAGRAM MAP DATA ENTRY COMPONENT: CTL3274

Enter diagram map data; cursor placement or input line entry allowed.

1. Number of ports...... 0032
2. Sub diagram marker 1... START___
3. Sub diagram marker 2...
4. Sub diagram marker 3...
5. Sub diagram marker 4...
6. Sub diagram marker 5...
7. Sub diagram marker 6...
8. Sub diagram marker 7...
9. Sub diagram marker 8...

When you finish, type END to save or CANCEL to discard any changes.
```

When you have added all the necessary information to complete the component record, type 9 on the command line and press Enter to file the record.

You return to the Primary Options Menu.

```
BLG0DU30
                   HARDWARE COMPONENT SUMMARY
                                                     COMPONENT: CTL3274
                                       Display class..... 1
Generic device..... CTL
Device type & model.... 3274A
                                       Location code..... DPCTR1
Serial number..... C4444
                                       Entry priv. class....._
Microcode EC level..... 00133052
                                       Owning priv. class....._
Model link ID.....____
                                       Date entered....___
Contact name...._
                                       Time entered....___
                                       Date last altered....._
Component owner.....
Date of status....... 08/08/1996
                                       Time last altered..... _
Component status..... INSTALL
                                       User last altered....._
Description...... 3274 CONTROLLER FOR PS/2S
 Select one of the following, type END to save your changes, or type CANCEL
 to discard your changes.

    Primary description.

                                     7. Feature entry (file record).
         2. Primary support data.
                                     8. Freeform text and notes.
        3. Connections (file record). 9. File record.
         4. EC Levels (file record). 10. Secondary support data.
         5. Secondary description.
                                   11. Maps data.
        6. Financial.
                                    12. Source definition.
===> 9
```

A message appears on this panel confirming that the record was stored successfully.

This ends the example of creating a hardware component directly.

```
BLG0EN20
                         --- PRIMARY OPTIONS MENU ---
                                                           APPLICATION: MANAGEMENT
OPTIONS:
      1. OVERVIEW......Display general information and product enhancements.
      2. PROFILE......Display or alter invocation or session defaults.
      3. APPLICATION....Change application, list available applications.
      4. CLASS......Change current class, list available classes.
      ENTRY......Create a record.
      6. INQUIRY.....Search for records.
      7. UTILITY......Copy, display, print, delete, and update records.
8. GLOSSARY......Display a list of searchable words in the database.
      9. PMF.....Modify or create panels.
           Select an option, enter a command, or type QUIT to exit.
          Tivoli Information Management for z/OS Version 7 Release 1
                5697-SD9 (C) Copyright IBM Corp., 1981, 2001.
BLG03058I Record CTL3274 was stored successfully.
```

Updating Hardware Component Records

The following example shows how to update the component record you just created. You will be adding three EC levels (03050066, 03050067, and 03050068) to component record CTL3274. These EC levels are different than the Microcode EC level you entered when you created the record.

Begin at the Primary Options Menu.

To update a component record, type the following and press Enter:

update r ctl3274

```
BLG0EN20
                        --- PRIMARY OPTIONS MENU ---
                                                           APPLICATION: MANAGEMENT
OPTIONS:
      1. OVERVIEW......Display general information and product enhancements.
      2. PROFILE......Display or alter invocation or session defaults.
      3. APPLICATION....Change application, list available applications.
      4. CLASS......Change current class, list available classes.
      5. ENTRY.....Create a record.
      6. INQUIRY.....Search for records.
      7. UTILITY......Copy, display, print, delete, and update records.
8. GLOSSARY......Display a list of searchable words in the database.
      9. PMF.....Modify or create panels.
           Select an option, enter a command, or type QUIT to exit.
          Tivoli Information Management for z/OS Version 7 Release 1
                 5697-SD9 (C) Copyright IBM Corp., 1981, 2001.
===> undate r ct13274
```

To add EC level information, type 4 on the command line and press Enter.

```
BLG0DU01
                                                                                                                HARDWARE COMPONENT SUMMARY
                                                                                                                                                                                                                                         Display class..... 1
 Generic device..... CTL
Device type & model.... 3274A
                                                                                                                                                                                                                                        Location code...... DPCTR1
 Serial number..... C4444
                                                                                                                                                                                                                                          Entry priv. class..... MASTER
 Microcode EC level..... 00133052
                                                                                                                                                                                                                                        Owning priv. class.....
Model link ID.....
                                                                                                                                                                                                                                        Contact name....__
                                                                                                                                                                                                                                         Time entered...... 18:37
                                                                                                                                                                                                                                        Date last altered..... 08/08/1996
 Component owner.....
Date of status...... 08/08/1996
                                                                                                                                                                                                                                         Time last altered..... 18:37
Component status..... INSTALL
                                                                                                                                                                                                                                       User last altered..... GARTLAN
Description...... 3274 CONTROLLER FOR PS/2S
           Select one of the following, type END to save your changes, or type CANCEL % \left( 1\right) =\left( 1\right) \left( 1\right)
           to discard your changes.
                                                                                                                                                                                                                        7. Feature entry.
                                                     1. Primary description.
                                                     2. Primary support data.
                                                                                                                                                                                                                        8. Freeform text and notes.
                                                    Connections.
                                                                                                                                                                                                                       9. File record.
                                                    4. EC Levels.
                                                                                                                                                                                                                    10. Secondary support data.
                                                     5. Secondary description.
                                                                                                                                                                                                                   11. Maps data.
                                                     6. Financial.
                                                                                                                                                                                                                    12. Source definition.
  ===> 4
```

This example uses the list processor program exit BLG01396 to collect EC levels. A table panel makes it easy for you to enter new data and change or delete existing data. For more information on the list processor program exit and lists in general, refer to the *Tivoli Information Management for z/OS Panel Modification Facility Guide*.

For this example:

- 1. Press the Tab key twice to move the cursor to the first field. Type **03050066** in the first field.
- 2. Press the Tab key once to move the cursor to the second field. Type **03050067** in the second field.
- 3. Press the Tab key once to move the cursor to the third field. Type **03050068** in the third field.
- 4. Press Enter to move the cursor to the command line.

5. To save the data, type end and press Enter.

```
BLGLECLV
                        HARDWARE EC LEVEL ENTRY
                                                                     LINE 1 OF 13
USE....List hardware engineering change levels.
FORM...NNNNNNNN - 1 to 8 decimal without EC prefix, automatic left zero pad.
                                                                  RECORD: CTL3274
         03050066
    1.1
         03050067
    1.1
         03050068
    1.1
    1.1
    1.1
    1.1
    1.1
    1.1
    1.1
    1.1
 Line Cmds: A=After B=Before C=Copy D=Delete E=Erase I=Insert
             L=Line entry M=Move R=Repeat
 Type DOWN, UP, LEFT, or RIGHT to scroll the panel, or type END to exit.
===> end
```

If there were more data you needed to update, you could make a selection from the bottom of the panel and continue to update the component record.

For this example, type 9 on the command line and press Enter to file the record.

```
COMPONENT: CTL3274
BLG0DU01
                   HARDWARE COMPONENT SUMMARY
Generic device..... CTL
                                        Display class..... 1
Device type & model..... 3274A
                                        Location code...... DPCTR1
Serial number..... C4444
                                        Entry priv. class..... MASTER
Microcode EC level..... 00133052
                                        Owning priv. class.....
Model link ID.....____
                                        Date entered..... \overline{08/08/19}96
Contact name..... ___
                                        Time entered...... 18:37
                                        Date last altered..... 08/08/1996
Component owner.....
Date of status..... 08/08/1996
                                        Time last altered..... 18:37
Component status..... INSTALL
                                        User last altered..... GARTLAN
Description...... 3274 CONTROLLER FOR PS/2S
  Select one of the following, type END to save your changes, or type CANCEL
  to discard your changes.
         1. Primary description.
                                     7. Feature entry.
         2. Primary support data.
                                     8. Freeform text and notes.
         3. Connections.
                                     9. File record.
         4. EC Levels.
                                     10. Secondary support data.
         5. Secondary description.
                                    11. Maps data.
         6. Financial.
                                    12. Source definition.
===> 9
```

A message appears on this panel confirming that the record was stored successfully.

This ends the task of updating a hardware component record.

```
BLG0EN20
                      --- PRIMARY OPTIONS MENU ---
                                                       APPLICATION: MANAGEMENT
OPTIONS:
      1. OVERVIEW......Display general information and product enhancements.
      2. PROFILE......Display or alter invocation or session defaults.
      3. APPLICATION....Change application, list available applications.
      4. CLASS......Change current class, list available classes.
      5. ENTRY.....Create a record.
      6. INQUIRY.....Search for records.
      7. UTILITY......Copy, display, print, delete, and update records.
      8. GLOSSARY......Display a list of searchable words in the database.
      9. PMF.....Modify or create panels.
          Select an option, enter a command, or type OUIT to exit.
          Tivoli Information Management for z/OS Version 7 Release 1
                5697-SD9 (C) Copyright IBM Corp., 1981, 2001.
BLG03058I Record CTL3274 was stored successfully.
```

Creating Hardware Subcomponent Records

A hardware subcomponent record describes a particular subcomponent device you can link to a hardware component. A subcomponent is linked to a component through the Hardware link ID field. You can remove the subcomponent from its hardware component or attach it to another hardware component by updating the Hardware component link field in the BLG0D140 Hardware Subcomponent Entry panel.

You can create a hardware subcomponent record directly or by using model records. To find out more about creating subcomponent records from an existing model record, start with "Understanding Model Record Concepts" on page 129.

The following example shows how to create subcomponent records directly. You can follow the flow of the panels with the sample data shown here or by using your own data.

The example uses the following information to attach a subcomponent to hardware component record CTL3274.

- The subcomponent type is CABLE.
- The user subcomponent ID is C0001.
- The Hardware link ID is CTL3274.
- The status is INSTALL.
- The description is CABLE ASSEMBLY FOR 3274.

To begin creating the hardware subcomponent record, type 5,3,3 and press Enter:

```
BLG0EN20
                      --- PRIMARY OPTIONS MENU ---
                                                      APPLICATION: MANAGEMENT
OPTIONS:
     1. OVERVIEW......Display general information and product enhancements.
     2. PROFILE......Display or alter invocation or session defaults.
     3. APPLICATION....Change application, list available applications.
     4. CLASS......Change current class, list available classes.
     ENTRY......Create a record.
     6. INQUIRY.....Search for records.
     7. UTILITY......Copy, display, print, delete, and update records.
     8. GLOSSARY......Display a list of searchable words in the database.
     9. PMF.....Modify or create panels.
          Select an option, enter a command, or type QUIT to exit.
         Tivoli Information Management for z/OS Version 7 Release 1
               5697-SD9 (C) Copyright IBM Corp., 1981, 2001.
===> 5,3,3
```

For this example, type 3 and press Enter.

```
BLGOD104 HARDWARE COMPONENT ENTRY 1 OF 1

USE....Identify the type and method of hardware record entry.

1.HARDWARE COMPONENT DIRECT....data entry of hardware component.

2.HARDWARE COMPONENT MODEL....copy model hardware record.

3.HARDWARE SUBCOMPONENT......data entry of subcomponent.

SELECT ITEM

===> 3
```

Supply subcomponent information. The Hardware link ID field is very important because it links the subcomponent to a component.

For this example, type the following on the command line and press Enter:

1,cable,3,c0001,5,ctl3274,6,install,7,=,9,cable assembly for 3274

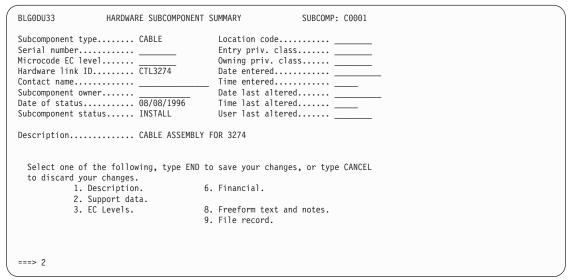
To save the data and continue, type end on the command line and press Enter.

(BLG0D140 HARDWARE SUBCOMPONENT ENTRY SUBCOMP: C0001	
	Enter hardware subcomponent data; cursor placement or input line entry.	
	1. Subcomponent type	
	9. Description <r> CABLE ASSEMBLY FOR 3274</r>	
	When you finish, type END to save or CANCEL to discard any changes.	
	===> end	

The Hardware Subcomponent Summary panel appears. You can now do one of the following:

- Use option 1, 2, 3, 6, and 8 to add information to the record.
- Use option 9 to file the record.

For this example, type 2 on the command line and press Enter



Supply information about the support and maintenance of a subcomponent.

For this example, type the following on the command line and press Enter:

7,dpctr1,8,red9021,9,ibm300

To save the data, type end and press Enter.

BLG0D160	HARDWARE SUBCOMPONENT SUPPORT ENTRY SUBCOMP: C0001	
Enter hardward	e support data; cursor placement or input line entry allowed.	
	1. Subcomponent owner 2. Transfer-to class 3. Contact name 4. Contact department 5. Contact phone 6. Maint. interval 7. Center ID 8. System ID RED9021 9. Service ID IBM300	
When you f	inish, type END to save or CANCEL to discard any changes.	
===> end		,

To add specific financial information about this subcomponent, type $\bf 6$ on the command line and press Enter.

(BLG0DU33	HARDWARE SUBCOMPONENT	SUMMARY	SUBCOMP:	C0001	
	Subcomponent statu	CTL3274	Entry pr Owning p Date ent Time ent Date las Time las User las	riv. class		
	Description	CABLE ASSEMBLY	FOR 3274			
	Select one of th to discard your	e following, type END changes.	to save you	ır changes, or type	CANCEL	
		cription. port data.	6. Financia	11.		
		Levels.	8. Freeform 9. File rec	n text and notes. cord.		
	===> 6					

Supply financial data about this subcomponent.

For this example, type the following on the command line and press Enter.

4,=

To save the data and continue, type end on the command line and press Enter.

BLG0D164	HARDWARE SUBCOMPONENT FINANCIAL ENTRY	SUBCOMP: C0001	
Enter subcom	nponent financial data; cursor placement or inp	ut line entry allowed	
	1. Hardware financial ID		
When you	finish, type END to save or CANCEL to discard	any changes.	
===> end			
> end			

When you have added all the necessary information to complete a subcomponent record, file the record.

To do this, type 9 on the command line and press Enter.

You return to the Primary Options Menu.

BLGODU33 HARDWARE SUBC	OMPONENT	SUMMARY	SUBCOMP:	C0001		
Subcomponent type CABLE Serial number Microcode EC level Hardware link ID CTL327 Contact name Subcomponent owner Date of status 08/08/ Subcomponent status INSTAL	1996	Entry p Owning Date er Time er Date la Time la	on code			
Description CABLE	ASSEMBLY	FOR 3274				
Select one of the following, to discard your changes.	ype END t	to save yo	our changes, or type	CANCEL		
 Description. Support data. 	6	5. Financi	ial.			
3. EC Levels.	-	3. Freefor 9. File re	rm text and notes. ecord.			
===> 9						

A message appears on this panel confirming that the record was stored successfully.

This ends the task of creating a hardware subcomponent record directly.

```
BLGOEN20 --- PRIMARY OPTIONS MENU --- APPLICATION: MANAGEMENT

OPTIONS:

1. OVERVIEW......Display general information and product enhancements.
2. PROFILE.....Display or alter invocation or session defaults.
3. APPLICATION...Change application, list available applications.
4. CLASS......Change current class, list available classes.
5. ENTRY......Create a record.
6. INQUIRY.....Search for records.
7. UTILITY......Copy, display, print, delete, and update records.
8. GLOSSARY.....Display a list of searchable words in the database.
9. PMF.......Modify or create panels.

Select an option, enter a command, or type QUIT to exit.

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BLGO3058I Record C0001 was stored successfully.
===>
```

12

Creating Software Records

A software component record enables you to describe a software program running on, or available on, your system. On a large system, the program could be MVS; while on a PS/2, it could be OS/2 or Lotus[®] 1-2-3[®].

You can create a software component record directly through a panel dialog or by using model records. To find out more about creating component records from an existing model record, see Understanding Model Record Concepts.

Creating Software Component Records Directly

The following example shows how to create a component record by using a direct panel dialog. You can follow the flow of the panels with the sample data shown here or use your own data.

Note to Readers

The following instructions and panels illustrate how to create records using immediate response chains (IRCs). For more information about how to use IRCs to create records, refer to the *Tivoli Information Management for z/OS User's Guide*.

In this example, you are creating the software record for VM/SP on system RED9021. The example uses the following information:

- The component ID is VMSP.
- The program type is SCP.
- The release level is 0002.
- The version is 2.
- The component status is INSTALL.
- The description on this record is VMSP FOR SYSTEM RED9021.
- The FMID level is JOZ1235.

To create a configuration record, type **5,3** and press Enter:

```
BLG0EN20
                      --- PRIMARY OPTIONS MENU ---
                                                      APPLICATION: MANAGEMENT
OPTIONS:
      1. OVERVIEW......Display general information and product enhancements.
      2. PROFILE......Display or alter invocation or session defaults.
      3. APPLICATION....Change application, list available applications.
      4. CLASS......Change current class, list available classes.
     ENTRY......Create a record.
      6. INQUIRY.....Search for records.
      7. UTILITY......Copy, display, print, delete, and update records.
     8. GLOSSARY......Display a list of searchable words in the database.
     9. PMF......Modify or create panels.
          Select an option, enter a command, or type QUIT to exit.
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               5697-SD9 (C) Copyright IBM Corp., 1981, 2001.
===> 5,3
```

For every software component you define, you need to create a software record.

To do this, type 4 and press Enter.

To create software component records directly, type 1 and press Enter.

Supply information about the software component.

For this example, type the following on the command line and press Enter:

1,vmsp,2,scp,3,2,4,2,10,install,11,=,16,vmsp for system red9021

To save the data and continue, type **end** on the command line and press Enter.

```
BLG0D200
                      SOFTWARE COMPONENT ENTRY
                                                      COMPONENT. VMSP
Enter software component data; cursor placement or input line entry allowed.
1. Component ID......<R> VMSP_____
                                    9. Vendor component #...
                                   10. Component status...<R> INSTALL
2. Program type.....<R> SCP
3. Release level...... 0002
                                  11. Date of status..... 08/08/1996
4. Program version..... 2___
                                   12. Execution type....._
5. Modification level...
                                   13. Order number.....
6. Fix level.....___
                                   14. Location code....._
7. Source language.....
                                   15. Display class.....
8. Model link ID.....
16. Description......<R> VMSP FOR SYSTEM RED9021
   When you finish, type END to save or CANCEL to discard any changes.
===> end
```

The Software Component Summary panel appears. You can now do one of the following:

- Use option 1 to change the data you just entered.
- Use options 2, 4, 6, 8, 10, or 12 to add information to the record.
- Use option 3 to enter connection records for this component.
- Use option 7 to enter feature records for this component.
- Use option 9 to file the record.

If you choose option 3 or 7, Tivoli Information Management for z/OS files the component record and displays the appropriate entry panel.

For this example, type 2 on the command line and press Enter.

(BLG0DU31	SOFTWARE	COMPONENT	SUMMARY	COMPONENT: VMSP	
	Program type Execution type			Releas	n version 2 e level 0002	
	Vendor component # Model link ID				cation level priv. class	
	Location code				priv. class	
	Fix level			Date e	ntered	
	Contact name				ntered	
	Component owner Date of status	08/0	8/1996		ast alteredast altered	
	Component status				ast altered	
	Description				ur changes, or type CANCEL	
	to discard your cha					
					ure entry (file record). form text and notes.	
	3. Connect					
					ndary support data.	
	6. Financi	al.		12. Sour	ce definition.	
	===> 2					
/	_					

Supply data about the support and maintenance of a software component.

For this example, type the following on the command line and press Enter:

6,dpctr1,7,red9021,8,ibm300

To save the data, type end on the command line and press Enter.

BLG0D250	SOFTWARE COMPONENT SUPPORT ENTRY COMPONENT: VMSP	
Enter software su	upport data; cursor placement or input line entry allowed.	
	1. Component owner 2. Transfer-to class. 3. Contact name 4. Contact department. 5. Contact phone 6. Center ID	
When you fini	ish, type END to save or CANCEL to discard any changes.	
===> end		

To add FMID information, type 4 on the command line and press Enter.

(BLG0DU31	SOFTWARE	COMPONENT	SUMMARY	COMPONEN	IT: VMSP		
	Program type Execution type Vendor component #	···· <u> </u>		Release l Modificat	ersionevel	0002		
	Model link ID Location code			Owning pr	v. class iv. class			
	Fix level Contact name			_ Time ente	red red			
	Component owner Date of status	08/0	8/1996	Time last	altered			
	Component status				altered			
	Description	VMSP	FOR SYSTE	M RED9021				
	Select one of the f to discard your cha		type END	to save your	changes, or typ	e CANCEL		
	1. Descrip				entry (file re			
				8. Freefor 9. File re	m text and note	!S.		
	4. FMID Le	•	c . cco. u) .		ry support data			
	6. Financi	al.		12. Source	definition.			
	===> 4							
\								

This example uses the list processor program exit BLG01396 to collect FMID levels. A table panel makes it easy for you to enter new data and change or delete existing data. For more information about the list processor or lists in general, refer to the *Tivoli Information Management for z/OS Panel Modification Facility Guide*.

For this example, press the Tab key twice to move the cursor to the first field.

Type the following and press Enter:

joz1235

To save the data, type end on the command line and press Enter.

When you have entered all the necessary information to complete the component record, type 9 on the command line and press Enter to file the record.

This returns you to the Primary Options Menu.

Creating Software Component Records Directly

Program type SCP	Program version 2	
Execution type	Release level 0002	
Vendor component #	Modification level	
Model link ID	Entry priv. class	
Location code	Owning priv. class	
Fix level	Date entered	
Contact name	Time entered	
Component owner	Date last altered	
Date of status 08/08/1996		
Component status INSTALL	User last altered	
Description VMSP FOR SYST	EM RED9021	
Select one of the following, type END to discard your changes.	to save your changes, or type CANCEL	
· ·	7. Feature entry (file record).	
•	8. Freeform text and notes.	
3. Connections (file record)		
0. 00	10. Secondary support data.	
FMID Levels.	10. Secondary Support data.	

A message appears on this panel confirming that the record was stored successfully.

```
BLGOEN20 --- PRIMARY OPTIONS MENU --- APPLICATION: MANAGEMENT

OPTIONS:

1. OVERVIEW......Display general information and product enhancements.
2. PROFILE.....Display or alter invocation or session defaults.
3. APPLICATION....Change application, list available applications.
4. CLASS......Change current class, list available classes.
5. ENTRY......Create a record.
6. INQUIRY.....Search for records.
7. UTILITY......Copy, display, print, delete, and update records.
8. GLOSSARY.....Display a list of searchable words in the database.
9. PMF.......Modify or create panels.

Select an option, enter a command, or type QUIT to exit.

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BLG03058I Record VMSP was stored successfully.
===>
```

Understanding Model Record Concepts

When you have several components in your configuration that are the same, the easiest and most accurate way to create component records for them is to first create a record you can use as a model. For example, assume that your company has 200 terminals, all with the same features and subcomponents. By creating a model component record, you enter the common information for all the components only once, in the model record, thereby increasing both the speed and accuracy of the data entry task.

You might want to create additional model records if your company has 200 terminals with different features and subcomponents. You could create a model record for each combination of terminals and features that exist in your company. After you do this, if a feature changes on one terminal, all you have to do is change one field in the component record (the Model link ID) to the model component record ID that fits the new combination.

This chapter explains the relationship between model records and component records. Using the example, you first create a model component record with two features and one subcomponent. Then, from the model component record, you create a hardware component record with two features and one subcomponent.

The panels in the example and their relationship to each other are shown in Figure 3. The highlighted characters such as **A** throughout the text correspond to the characters in Figure 3.

Important

This chapter does not give you exact instructions on how to create the records. Rather, it explains the concept of model records by showing you the relationship between the fields on the panels and the records. To learn how to create each record and to see the exact panel flow, turn to the appropriate chapter:

- "Creating Model Hardware Records" on page 141
- "Creating Model Software Records" on page 161
- "Creating Hardware Records From Models" on page 173
- "Creating Software Records From Models" on page 187

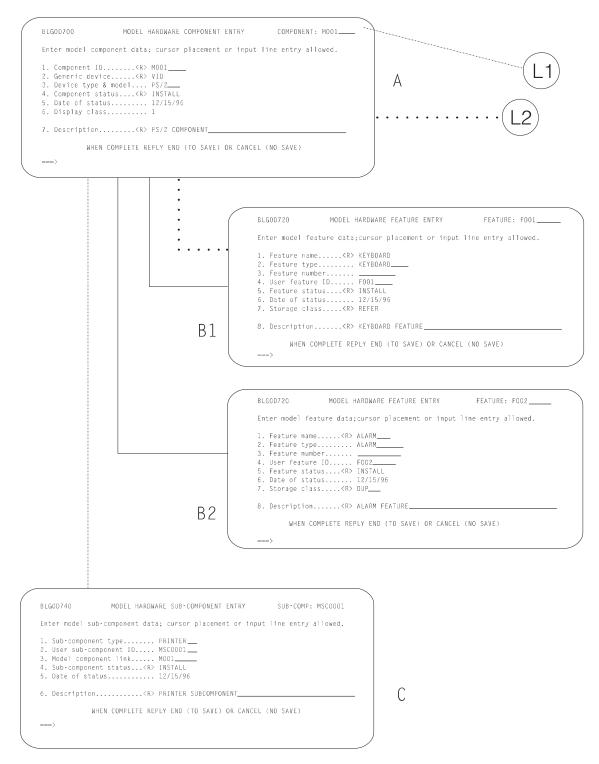


Figure 3. Relationship Between Model Records and Component Records (Part 1 of 2). The highlighted codes shown here correspond to those appearing throughout this chapter.

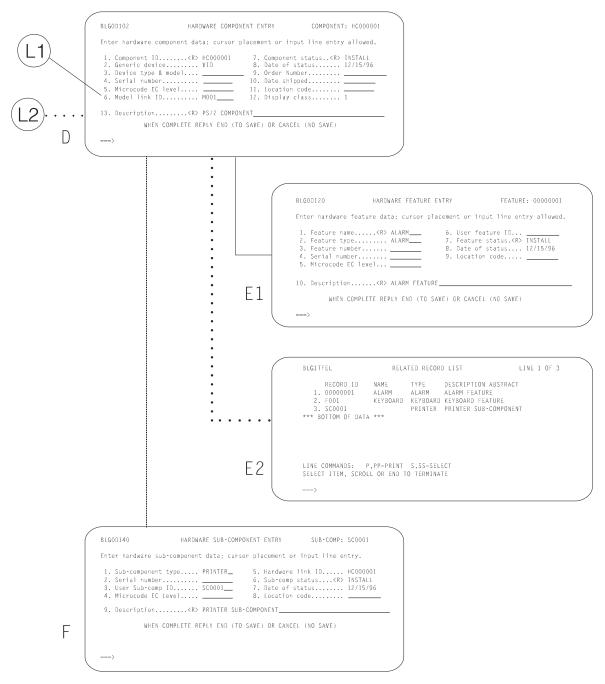


Figure 3. Relationship Between Model Records and Component Records (Part 2 of 2). The highlighted codes shown here correspond to those appearing throughout this chapter.

Model Component Records

The first step is to create the model component record.

On BLG0D700 Model Hardware Component Entry A, define the information that is the same for several components and enter the component ID.

BLG0D700	MODEL HARDWARE COMPONENT ENTRY COMPONENT: M001	
Enter model comp	nponent data; cursor placement or input line entry allowed.	
2. Generic devic 3. Device type 8 4. Component sta 5. Date of statu	0 R> M001 ice % model PS/2 tatus 12/15/1996	
6. Display class 7. Description.		
When you fir	inish, type END to save or CANCEL to discard any changes	
===>		

The component ID, M001, identifies this model component record. Tivoli Information Management for z/OS uses the ID to create a link between the model component record and the component and subcomponent record. As you follow this example, note that M001 is referenced in different ways. When you create component records from the model, M001 is also the Model link ID. When you create subcomponent records, M001 is also the Model component link ID.

Model Feature Records

The second model record you create is for the features connected to the model component. These features are reflected in any of the components created from this model. You can create multiple feature records that link to the model component, but for this model you need to create only two feature records.

The first feature is for a keyboard. In panel BLG0D720 Model Hardware Feature Entry B1, assign the User feature ID, **F001**, the Feature name, **KEYBOARD**, and the Storage class, **REFER**.

```
BLGOD720 MODEL HARDWARE FEATURE ENTRY FEATURE: F001____

Enter model feature data; cursor placement or input line entry allowed.

1. Feature name......
2. Feature type....... KEYBOARD
3. Feature number......
4. User feature ID..... F001
5. Feature status....
7. Feature status....
8. Date of status.....
12/15/1996
7. Storage class....
8. Description.....
8. Description.....
REFER

When you finish, type END to save or CANCEL to discard any changes
```

The significance of assigning storage class REFER is explained in "Component Feature Records" on page 137.

The second feature is for an alarm. In panel BLG0D720 Model Hardware Feature Entry B2, assign the User feature ID, **F002**, the Feature name, **ALARM**, and the Storage class, **DUP**.

```
Enter model feature data; cursor placement or input line entry allowed.

1. Feature name.....<a href="red">R> ALARM____</a>
2. Feature type....... ALARM___
3. Feature number......
4. User feature ID..... F002____
5. Feature status...<a href="red">R> DUP___</a>
6. Date of status.....<a href="red">R> DUP___</a>
8. Description.....<a href="red">R> ALARM FEATURE____</a>
When you finish, type END to save or CANCEL to discard any changes
```

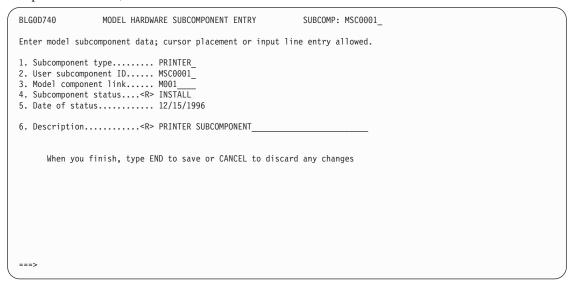
The significance of assigning storage class DUP is explained in "Component Feature Records" on page 137.

When you create a feature record, Configuration Management establishes a parent/child relationship between the component record (parent record) and the feature record (child record). That relationship is indicated by the solid line in Figure 3 on page 130. Each model feature record is a separate record and has a unique number (F001 and F002) and name (KEYBOARD and ALARM) that links it to the parent component record. If you do not assign a feature ID, Configuration Management assigns a unique number for you.

Model Subcomponent Records

Next, create a model subcomponent record.

In BLG0D740 Model Hardware Subcomponent Entry C panel, enter the information about the subcomponent that is a part of this model record. Assign a User subcomponent ID of **MSC0001**, which defines this model subcomponent record. You also enter the Model component link ID, **M001**.



The Model component link ID creates the relationship between the model subcomponent and model component records. That relationship is indicated by the broken line in Figure 3 on page 130. Note that there is a *record link* between a subcomponent and a component, and not a parent/child relationship.

Each model subcomponent record is linked to a model hardware component record. You can delete or change the link between a model component and a model subcomponent record by altering the Model component link field in the model subcomponent record.

Using Model Records

After you create the models for your records, you can use them to create the actual component records.

The first record you create is the hardware component record. From BLG0D104 Hardware Component Entry, select option 2, Hardware Component Model, to create a component record from a model component record.

```
BLG0D104 HARDWARE COMPONENT ENTRY 1 OF 1

USE....Identify the type and method of hardware record entry.

1.HARDWARE COMPONENT DIRECT....data entry of hardware component.
2.HARDWARE COMPONENT MODEL.....copy model hardware record.
3.HARDWARE SUBCOMPONENT.....data entry of subcomponent.

SELECT ITEM

-==> 2
```

Enter the ID of the model you created, M001.

BLG0D102 Hardware Component Entry D appears with the information already filled in.

BLG0D102	HARDWARE COMP	ONENT ENTRY	COMPONE	ENT:	_	
Enter hardware com	nponent data; cursor	placement or i	nput line en	try allowed.		
Generic device 3. Device type & 4. Serial number 5. Microcode EC 1 6. Model link ID.	<r> VID model PS/2 evel M001 <r> PS/2 COMP</r></r>	8. Date of s 9. Order num 10. Date ship 11. Location 12. Display c	tatus ber ped code lass	12/15/1996		
When you finis	sh, type END to save	or CANCEL to d	iscard any ch	hanges		
===>						

Notice that the Generic device field is protected. You cannot change that field at this time, but you can fill in any information that applies only to this component.

The Component ID field is not already filled in. On this panel, define the hardware component record using the Component ID, **HC000001**.

The Model link ID (M001) refers to the model component record that this component record is linked to, and, in this case, created from.

When you file this component record, panel BLG1TSUB appears with a list of subcomponents that are attached to the model component record you created this component record from.

Subcomponent Records

Execute the subcomponent record from the list in panel BLG1TSUB Model Hardware Subcomponent List, by typing **e** next to the record.

```
BLGITSUB MODEL HARDWARE SUBCOMPONENT LIST LINE 1 OF 1

MODEL ID DESCRIPTION ABSTRACT

e 1. MSC0001 PRINTER SUBCOMPONENT

*** BOTTOM OF DATA ***

Line Cmds: E=Execute P=Print S=Select
Type DOWN or UP to scroll the panel, or type END to exit the panel.

===>
```

Panel F, the BLG0D140 Hardware Subcomponent Entry appears.

BLG0D140	HARDWARE SUBCOMP	ONENT ENTRY	SUBCOMP:	-	
Enter hardware subcompo	nent data; cursor	placement or input	line entry.		
 Subcomponent type Serial number User Subcomp ID Microcode EC Level. 		 Hardware link I Subcomp status. Date of status. Location code 	<r> INSTALL 12/15/1996</r>		
9. Description	. <r> PRINTER SUBC</r>	OMPONENT			
When you finish, typ	pe END to save or	CANCEL to discard	any changes		
===>					

The fields shown above, except for User Subcomp ID, are already filled in.

You define the User Subcomp ID (SC0001) that identifies this new hardware subcomponent record. The Hardware link ID (HC000001) creates a record link between this record and the hardware component record HC000001. That link is indicated by the broken line in Figure 3 on page 130.

A subcomponent can be linked to a hardware component or it can be a stand-alone record. A subcomponent is *linked* to a component through a record relationship. That link is indicated by the broken line in Figure 3 on page 130. The subcomponent becomes a stand-alone record when you delete the Hardware link ID (HC000001) from the subcomponent record, thus ending the record link.

If the model subcomponent record is linked to a model component record, the Model Hardware Subcomponent List panel (BLG1TSUB) appears at the time you create the component record. You can choose one or more subcomponent records to link to the new component record.

A model subcomponent record must be linked to a model component record for you to create a subcomponent record from the model. If a given model subcomponent record is not linked to the model component record, the model subcomponent record will not appear on the Model Hardware Subcomponent List panel. (In fact, BLG1TSUB does not appear if a model component record does not have a model subcomponent record linked to it.)

Component Feature Records

A model feature record establishes either a one-to-one or a many-to-one relationship between components and model features depending on how the Storage class field is designated in the model feature record.

Feature Record with Storage Class DUP

Because model feature record F002 has a storage class of DUP, feature record 00000001 E1 was automatically created as a child record to HC000001 D.

В	LG0D120	HARDWARE FEATURE ENTRY	FEATURE: 00000001
E	nter hardware feature d	lata; cursor placement or input line	entry allowed.
		> ALARM 6. User feature ID . ALARM 7. Feature status	
	 Feature number 	8. Date of status	12/15/1996
	Serial number	9. Location code	
	5. Microcode EC level	·	
1	O. Description <r< td=""><td>R> ALARM FEATURE</td><td></td></r<>	R> ALARM FEATURE	
	When you finish, t	type END to save or CANCEL to discard	d any changes
=	==>		

Feature record 00000001 was duplicated from F002 and the system assigned it the unique record number 00000001. In other words, a model feature record created with a Storage Class of DUP is duplicated as a child record (with a unique ID) of the component record created from the model component record. All the information you entered in F002 is automatically entered in this feature record. This is true for all feature records that are created from a model feature record with a Storage class of DUP and all feature records that are created by updating the parent hardware component record.

Note: When a model component record is updated with features using a Storage Class of DUP, the updates are *not* reflected in any components already created from that model.

Feature Record with Storage Class REFER

Because model feature record F001 has a Storage class of REFER, a unique record is not created although a record relationship exists between the component record and the model feature record. The relationship is indicated by the dotted line in Figure 3 on page 130. In other words, model feature records created with a storage class of REFER become *implied* features of the component record created from the model component record. A many-to-one relationship is generated between components, and the model feature is referenced by these components by way of the model components. You can remove or change the implied features from a component by deleting or changing the Model link ID, M001, in the component record.

The relationship between the implied feature and the component can be seen on BLG1TFEL Related Record List panel E2.

```
BLG1TFEL
                          RELATED RECORD LIST
                                                                  LINE 1 OF 3
     RECORD ID NAME
                            TYPE
                                       DESCRIPTION ABSTRACT
    1. 00000001
                 ALARM
                            ALARM
                                        ALARM FEATURE
   2. F001
                 KEYBOARD
                            KEYBOARD
                                        KEYBOARD FEATURE
    3. SC0001
                            PRINTER
                                        PRINTER SUBCOMPONENT
*** BOTTOM OF DATA ***
Line Cmds: P=Print S=Select
Type DOWN or UP to scroll the panel, or type END to exit the panel.
```

This panel includes a list of model features with a Storage class of REFER and subcomponents linked to the hardware component. You must display the record to view this panel. Features with a storage class of REFER are not shown when the component record is being updated.

To create or update a feature record with a storage class of REFER, you must update the model component record. When a model feature record with a storage class of REFER is updated, the updates are reflected:

- In the components already created from that model
- In any component records whose model link ID is ever modified to refer to that model component record.



Creating Model Hardware Records

A model component record contains the fixed or common information for a particular type of component. A component record is linked to a model component record through the model link ID. The model link ID is stored in the component record and establishes a record reference.

A model feature record contains information about optional features that attach to a component. You can create an unlimited number of feature records for one component. To understand the relationship between component and feature records, turn to Understanding Model Record Concepts.

Some examples of a feature are:

- A keylock on a terminal
- Graphics on a terminal or printer
- A manager's keylock on a cash register
- Increased storage on a PC or PS/2.

You can create model feature records at the time you create the model component record, or later by updating the model component record.

A model hardware subcomponent record contains all the common information for a particular subcomponent. Model hardware subcomponent records are linked to the model hardware component record through a record link. A model subcomponent record is not used until it is linked to a model component record.

A subcomponent is detachable from a component, but a feature is not. Some examples of a subcomponent are:

- A keyboard on a terminal
- A keylock on a terminal
- A voice box on a cash register
- An external disk drive on a workstation
- A printer on a workstation.

This chapter illustrates the ideas presented in "Understanding Model Record Concepts" on page 129 through a series of examples. You can follow the flow of the panels by using either the sample data shown here or your own data.

Note to Readers

The following instructions and panels illustrate how to create records using immediate response chains (IRCs). For more information about how to use IRCs to create records, refer to the *Tivoli Information Management for z/OS User's Guide*.

Creating Model Hardware Component Records

In the following example, you are creating the component records and two feature records for the PS/2s your organization has just installed. Because much of the information is similar for all 10 computers, you can create one model record.

To create the model hardware component record, use the following information:

- The model component ID is TERMPS00. This is the ID you will use when you create the 10 hardware component records.
- The description of this component is PS/2 COMPONENT. It refers to the components that this model record is created for, not the model record itself.
- The display class is 1.
- The status of the component is INSTALL.
- The component owner is DPT48.

Begin at the Primary Options Menu.

Type **5,3** on the command line and press Enter:

```
BLG0EN20
                       --- PRIMARY OPTIONS MENU ---
                                                         APPLICATION: MANAGEMENT
OPTIONS:
      1. OVERVIEW......Display general information and product enhancements.
      2. PROFILE......Display or alter invocation or session defaults.
      3. APPLICATION....Change application, list available applications.
      4. CLASS......Change current class, list available classes.
     5. ENTRY......Create a record.6. INQUIRY......Search for records.
      7. UTILITY......Copy, display, print, delete, and update records.
      8. GLOSSARY......Display a list of searchable words in the database.
      9. PMF.....Modify or create panels.
           Select an option, enter a command, or type QUIT to exit.
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                5697-SD9 (C) Copyright IBM Corp., 1981, 2001.
===> 5,3
```

For this example, type 7 and press Enter.

Your selection from this panel depends on the type of model record you are creating. For this example, type 1 and press Enter.

```
BLG0D701 MODEL CREATE OPTIONS

USE....Identify the type of model record to be entered.

1.MODEL HARDWARE COMPONENT.....Define a model hardware record.
2.MODEL HARDWARE SUBCOMPONENT...Define a model subcomponent.
3.MODEL SOFTWARE COMPONENT.....Define a model software record.

SELECT ITEM

-==> 1
```

Supply information about the components for which you are building the model record.

For this example, type the following on the command line and press Enter:

1,termps00,2,vid,3,ps/2,4,install,5,=,6,1,7,ps/2 component

To save the data, type end and press Enter.

If the generic device is LIN, panel BLG0D770 appears. If the generic device is LOP, panel BLG0D772 appears. After completing the panel, you continue to the Model Hardware Component Summary panel.

Because the generic device shown here is neither LIN nor LOP, the Model Hardware Component Summary panel appears immediately. You can now do one of the following:

- Use option 1 to change the information you just entered.
- Use options 2, 6, 8, or 10 to add specific information.
- Use option 5 to enter secondary description information when the generic device type is LIN or LOP.
- Use option 7 to enter feature records for this component.
- Use option 9 to file the record.

If you choose option 7, Tivoli Information Management for z/OS files the record and displays the feature entry panel.

For this example, type 2 on the command line and press Enter.

BLG0DU37	MODEL	HARDWARE	COMPONENT	SUMMARY	COMPONEN	IT: TERMPS00	
Generic device.		VID		Entry priv.	class		
Device type & m	odel	PS/2		Owning priv	. class		
Display class					d		
Contact name					d		
Component owner					ltered		
Date of status. Component statu					ltered ltered		
Component Statu	3	INSTALL		oser ruse u			
Description						0411051	
Select one of to discard you			DE END TO	save your cn	anges, or typ	e CANCEL	
ľ	•		. 7.	Feature ent	ry (file reco	rd).	
	-				xt and notes.		
		'		File record			
	condany d	escription	on. 10.	Secondary s	upport data.		
	nancial.						
		·					

Supply information about the support and maintenance of the component. You established this information when you created the data center record, system record, and service record in previous chapters.

For this example, type the following on the command line and press Enter:

1,dpt48,7,dpctr1,8,red9021,9,ibm300

To save the data, type end and press Enter.

```
BLG0D750 MODEL HARDWARE COMPONENT PRIMARY SUPPORT ENTRY COMPONENT: TERMPS00

Enter model support data; cursor placement or input line entry allowed.

1. Component owner.... DPT48_____
2. Transfer-to class...
3. Contact name......
4. Contact department.
5. Contact phone....
6. Maint. interval...
7. Center ID...... DPCTR1
8. System ID..... RED9021
9. Service ID..... IBM300_

When you finish, type END to save or CANCEL to discard any changes.
```

The summary panel returns after every selection you make on this panel except for option 9. From this panel, you can select any option to add data to the record.

For this example, type 6 on the command line and press Enter.

(BLG0DU37 MODEL	. HARDWARE COMPONENT	SUMMARY	COMPONENT:	TERMPS00	
	Generic device Device type & model Display class Contact name Component owner Date of status Component status	PS/2 . 1 . DPT48 . 08/08/1996	Entry priv. cla Owning priv. cl Date entered Time entered Date last alter Time last alter User last alter	ass ed ed		
	Description	owing, type END to	save your change	s, or type	CANCEL	
	9	11.	Feature entry (Freeform text a File record.).	
	SecondaryFinancial.	description. 10.	Secondary suppo	rt data.		
	===> 6					

Note: To enter the book value and market value, you must be in a privilege class that has financial and configuration entry authority.

Supply information that you established when you created the hardware financial record. For this example, type the following on the command line and press Enter:

1,finpc

To save the data and continue, type **end** and press Enter. The Model Hardware Component Summary panel appears.

```
BLG0D752 MODEL HARDWARE COMPONENT FINANCIAL ENTRY COMPONENT: TERMPS00

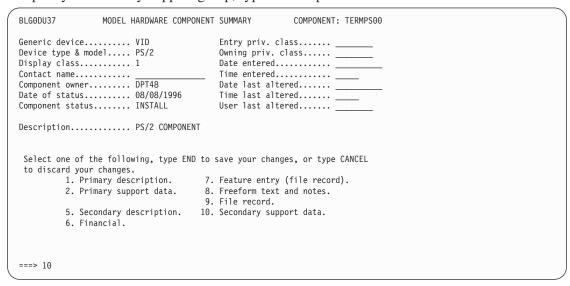
Enter model hardware financial data; cursor placement or input line entry.

1. Hardware financial ID.... FINPC___
2. Current book value....._
3. Current market value.....

When you finish, type END to save or CANCEL to discard any changes.
```

If you have service or system records with a secondary interest in this component, you can identify a secondary support group. A secondary support group does not own the component but has an interest in it. For example, a 3725 owned by department 40 is in the computer room at the main site. Department 90 is in a branch office and transmits to the 3725. So department 90 has a secondary interest in the 3725 component.

To specify a secondary support group, type 10 and press Enter.



For this example, there are no other groups with an interest in this component. Type **end** and press Enter.

BLG0D751 MODEL HARDWARE COMPONENT SECONDARY SUPPORT ENTRY COMPONENT: TERMPS00
Enter secondary support data; cursor placement or input line entry allowed.
1. Secondary system id 1
2. Secondary system id 2
3. Secondary system id 3
4. Secondary system id 4
5. Secondary service id 1
6. Secondary service id 2
7. Secondary support group 1
8. Secondary support group 2
When you finish, type END to save or CANCEL to discard any changes.
==> end

After you have added all the necessary information to complete a model record, type 9 on the command line and press Enter to file the record.

This returns you to the Primary Options Menu.

```
BLG0DU37
                MODEL HARDWARE COMPONENT SUMMARY
                                                     COMPONENT: TERMPS00
Generic device..... VID
                                      Entry priv. class....._
Device type & model.... PS/2
                                      Owning priv. class....._
Display class..... 1
                                      Date entered.....
Contact name.....
                                      Time entered.....
Component owner...... DPT48
                                      Date last altered.....
Date of status...... 08/08/1996
                                      Time last altered.....
Component status..... INSTALL
                                      User last altered.....
Description..... PS/2 COMPONENT
 Select one of the following, type END to save your changes, or type CANCEL
 to discard your changes.
        1. Primary description.
                                   7. Feature entry (file record).
        2. Primary support data.
                                   8. Freeform text and notes.
                                   9. File record.
         5. Secondary description. 10. Secondary support data.
        6. Financial.
```

A message appears on this panel confirming that the record was stored successfully.

```
BLG0EN20
                      --- PRIMARY OPTIONS MENU ---
                                                      APPLICATION: MANAGEMENT
OPTIONS:
     1. OVERVIEW......Display general information and product enhancements.
     2. PROFILE......Display or alter invocation or session defaults.
     3. APPLICATION....Change application, list available applications.
     4. CLASS......Change current class, list available classes.
     ENTRY......Create a record.
     6. INQUIRY.....Search for records.
     7. UTILITY......Copy, display, print, delete, and update records.
     8. GLOSSARY......Display a list of searchable words in the database.
     9. PMF.....Modify or create panels.
          Select an option, enter a command, or type QUIT to exit.
         Tivoli Information Management for z/OS Version 7 Release 1
                5697-SD9 (C) Copyright IBM Corp., 1981, 2001.
BLG03058I Record TERMPS00 was stored successfully.
```

This ends the task of creating model hardware component record TERMPS00. Remember, this is the model record you will use when you create records for the 10 PS/2s.

Creating Model Hardware Feature Records

Model feature records are attached to the hardware component record by a parent-child link. For more information on this relationship, read Understanding Model Record Concepts.

You can create feature records at the time you create the model component record or afterwards by updating the model component record.

In this example, you create two model feature records by updating the model component record you created earlier. Use the following information for the first model feature record:

- The feature name is KEYLOCK.
- The feature status is INSTALL.
- The storage class is REFER.
- The feature ID is KEYLOCK.
- The description of this feature is KEYLOCK FEATURE FOR PS/2S REFER.
- The owner of this feature is DPT48.

To update the model hardware record, type the following and press Enter:

update r termps00

```
BLG0EN20
                      --- PRIMARY OPTIONS MENU ---
                                                      APPLICATION: MANAGEMENT
OPTIONS:
     1. OVERVIEW......Display general information and product enhancements.
     2. PROFILE......Display or alter invocation or session defaults.
     3. APPLICATION....Change application, list available applications.
     4. CLASS......Change current class, list available classes.
     ENTRY......Create a record.
     6. INQUIRY.....Search for records.
     7. UTILITY......Copy, display, print, delete, and update records.
     8. GLOSSARY......Display a list of searchable words in the database.
     9. PMF.....Modify or create panels.
          Select an option, enter a command, or type QUIT to exit.
         Tivoli Information Management for z/OS Version 7 Release 1
               5697-SD9 (C) Copyright IBM Corp., 1981, 2001.
===> update r termps00
```

To create the feature record, type 7 on the command line and press Enter.

```
MODEL HARDWARE COMPONENT SUMMARY
                                                       COMPONENT: TERMPS00
Generic device..... VID
                                        Entry priv. class..... MASTER
Device type & model..... PS/2
                                        Owning priv. class.....
                                        Date entered...... \overline{08/08/19}96
Display class..... 1
Contact name.....
                                        Time entered..... 17:42
Component owner.......DPT48
                                        Date last altered..... 08/08/1996
Date of status...... 08/08/1996
                                        Time last altered..... 17:42
Component status..... INSTALL
                                        User last altered..... GARTLAN
Description..... PS/2 COMPONENT
 Select one of the following, type END to save your changes, or type CANCEL
 to discard your changes.
         1. Primary description.
                                     7. Feature entry.
         2. Primary support data.
                                     8. Freeform text and notes.
                                     9. File record.
                                   Secondary support data.
         Secondary description.
         6. Financial.
===> 7
```

If there are no feature records associated with this model record, message BLG09007I appears on panel BLG0D720.

Supply feature data. The Storage class field is important in determining the relationship between the model feature record and the model component record.

For this example, type the following on the command line and press Enter:

1,keylock,4,keylock,5,install,6,=,7,refer

Next, type the following on the command line and press Enter:

8,keylock feature for ps/2s refer

To save the data and continue, type end and press Enter.

The Model Hardware Feature Summary panel appears. You can now do one of the following:

- Use option 1 to change the information you just entered.
- Use options 2, 6, or 8 to add specific information.
- Use option 9 to file the record.

To add more information specific to this feature, make a selection from the bottom of the panel.

For this example, type 2 on the command line and press Enter.

BLG0DU38 MOI	DEL HARDWARE	FEATURE	SUMMARY	FEATURE:	KEYLOCK		
Feature type	KEYLOCK REFER 08/08/199		Parent compone Entry priv. c Owning priv. c Date entered. Time entered. Date last alto Time last alto User last alto	ass class			
Description		EATURE F		ereu			
Select one of the fol- to discard your change		END to	save your chan	ges, or type	CANCEL		
1. Description. 2. Support data			6. Financial.				
27 23,			8. Freeform te 9. File record				
===> 2							,

Supply information about the support and maintenance of the hardware feature record.

For this example, type the following on the command line and press Enter:

1,dpt48

To save the data and continue, type **end** and press Enter.

To add financial data about the feature, type 6 on the command line and press Enter.

Feature type	BLG0DU38	MODEL HARDWARE	FEATURE SUMMARY	FEATURE: KEYL	оск
Feature number					
Storage classREFER Date entered					
Contact name					
Date of status 08/08/1996 Feature status INSTALL Description KEYLOCK FEATURE FOR PS/2S REFER Select one of the following, type END to save your changes, or type CANCEL to discard your changes. 1. Description. 6. Financial. 2. Support data. 8. Freeform text and notes.			Time entered		
Feature status INSTALL User last altered Description KEYLOCK FEATURE FOR PS/2S REFER Select one of the following, type END to save your changes, or type CANCEL to discard your changes. 1. Description. 2. Support data. 8. Freeform text and notes.					
Description KEYLOCK FEATURE FOR PS/2S REFER Select one of the following, type END to save your changes, or type CANCEL to discard your changes. 1. Description. 2. Support data. 8. Freeform text and notes.					
Select one of the following, type END to save your changes, or type CANCEL to discard your changes. 1. Description. 2. Support data. 8. Freeform text and notes.	reature Status	INSTALL	user last al	tered	
to discard your changes. 1. Description. 2. Support data. 8. Freeform text and notes.	Description	KEYLOCK F	EATURE FOR PS/2S REFE	₹	
1. Description. 6. Financial. 2. Support data. 8. Freeform text and notes.			END to save your cha	nges, or type CANCE	EL
8. Freeform text and notes.	1. Descrip	tion.	Financial.		
9. File record.			8. Freeform t	ext and notes.	
			9. File recor	d.	
===> 6	===> 6				

If you created a hardware financial record previously, enter the record ID on this panel.

For this example, use the record ID you created earlier (FINPC). Type the following on the command line and press Enter:

1,finpc

To save the data and continue, type end and press Enter.

```
BLGOD754 MODEL HARDWARE FEATURE FINANCIAL ENTRY FEATURE: KEYLOCK

Enter model hardware financial data; cursor placement of input line entry.

1. Hardware financial ID... FINPC___

When you finish, type END to save or CANCEL to discard any changes.

===> end
```

When you have added all the necessary information to complete a model feature record, you can file the record.

To do this, type 9 on the command line and press Enter.

BLG0DU38	MODEL	HARDWARE	FEATURE	SUMMARY	FEATURE:	KEYLOCK		
Feature type	i	REFER DPT48 08/08/1996		Parent compor Entry priv. O Owning priv. Date entered. Time entered. Date last alt Time last alt User last alt	lass class ered ered			
Description	follow	ing, type				CANCEL		
1. Descript 2. Support	ion.		;	 Financial. Freeform te File record 				
===> 9								

Message BLG03058I appears on this panel. The additional message indicates that the model component record is also updated.

If this were the only feature for this component, you would type **end** on this panel, return to the previous panel, then file the record. In this example, you also need to create a feature record with a storage class of DUP.

To do this, type an a next to 1. KEYLOCK and press Enter.

```
BLGITCMF MODEL HARDWARE FEATURE RECORD LIST LINE 1 OF 1

RECORD ID NAME DESCRIPTION ABSTRACT

a 1. KEYLOCK KEYLOCK KEYLOCK FEATURE FOR PS/2S REFER

*** BOTTOM OF DATA ***

Line Cmds: A=Add C=Copy D=Delete P=Print S=Select U=Update
Type DOWN or UP to scroll the panel, or type END to exit the panel.

+ BLG030581 Record KEYLOCK was stored successfully.

===>
```

The Model Hardware Feature Entry panel appears. Use the following information for the next model feature record:

- The feature name is 8514.
- The feature type is MEMORY.
- The feature ID is MEMORY.
- The feature status is INSTALL.
- The storage class is DUP.
- The description for this feature is 8514 MEMORY EXPANSION KIT PS/2S.

Supply information about this feature.

For this example, type the following on the command line and press Enter:

1,8514,2,memory,4,memory,5,install,7,dup,8,8514 memory expansion kit ps/2s

To save the data and continue, type **end** and press Enter.

For this example, type 9 on the command line and press Enter.

	L HARDWARE	FEATURE	SUMMARY	FEATURI	E: MEMORY	
Feature type			Parent compo			
Feature name			Entry priv.			
Feature number			Owning priv.			
Storage class			Date entered			
Contact name			Time entered			
Feature owner			Date last al			
Date of status			Time last al			
Feature status	INSTALL		User last al	tered		
Select one of the follo to discard your changes		END to	save your cha	nges, or type	e CANCEL	
			save your cha 6. Financial.	nges, or type	e CANCEL	
to discard your changes 1. Description.			-			
to discard your changes 1. Description.			6. Financial.	ext and notes		
to discard your changes 1. Description.			6. Financial. 8. Freeform t	ext and notes		
to discard your changes 1. Description.			6. Financial. 8. Freeform t	ext and notes		
to discard your changes 1. Description.			6. Financial. 8. Freeform t	ext and notes		

Message, BLG03058I appears on this panel. The additional message indicates that the model component record is also updated.

You can now use any of the line commands or type **end** and press Enter to return to the Model Hardware Component Summary panel.

For this example, type **end** on the command line and press Enter.

```
BLG1TCMF
                  MODEL HARDWARE FEATURE RECORD LIST
                                                                   LINE 1 OF 2
       RECORD ID
                   NAME
                            DESCRIPTION ABSTRACT
                 KEYLOCK
                            KEYLOCK FEATURE FOR PS/2S REFER
  2. MEMORY
                 8514
                            8514 MEMORY EXPANSION KIT PS/2S
*** BOTTOM OF DATA ***
 Line Cmds: A=Add C=Copy D=Delete P=Print S=Select U=Update
Type DOWN or UP to scroll the panel, or type END to exit the panel.
+ BLG03058I Record MEMORY was stored successfully.
===> end
```

If there is information you want to change, you can type an option number at the bottom of the panel to update this record.

For this example, type 9 on the command line and press Enter to file the record.

```
BLG0DU36
                MODEL HARDWARE COMPONENT SUMMARY
                                                      COMPONENT: TERMPS00
Generic device..... VID
                                       Entry priv. class..... MASTER
Device type & model..... PS/2
                                       Owning priv. class.....
                                       Date entered..... 08/08/1996
Display class..... 1
Contact name.....
                                        Time entered..... 17:42
Component owner..... DPT48
                                       Date last altered..... 08/08/1996
Date of status...... 08/08/1996
                                       Time last altered..... 17:42
Component status..... INSTALL
                                       User last altered..... GARTLAN
Description..... PS/2 COMPONENT
 Select one of the following, type END to save your changes, or type CANCEL
 to discard your changes.
         1. Primary description.
                                     7. Feature entry.
         2. Primary support data.
                                     8. Freeform text and notes.
                                     9. File record.
         5. Secondary description.
                                    10. Secondary support data.
         6. Financial.
```

A message appears on this panel confirming that the record was stored successfully.

This ends the task of creating model hardware feature records.

```
BLG0EN20
                      --- PRIMARY OPTIONS MENU ---
                                                      APPLICATION: MANAGEMENT
OPTIONS:
     1. OVERVIEW......Display general information and product enhancements.
     2. PROFILE......Display or alter invocation or session defaults.
     3. APPLICATION....Change application, list available applications.
     4. CLASS......Change current class, list available classes.
     ENTRY......Create a record.
     6. INQUIRY.....Search for records.
     7. UTILITY......Copy, display, print, delete, and update records.
     8. GLOSSARY......Display a list of searchable words in the database.
     9. PMF.....Modify or create panels.
          Select an option, enter a command, or type QUIT to exit.
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               5697-SD9 (C) Copyright IBM Corp., 1981, 2001.
BLG03058I Record TERMPS00 was stored successfully.
===>
```

Creating Model Hardware Subcomponent Records

In this example, all the PS/2s at your organization have APL keyboards. The APL keyboards are considered to be a subcomponent of the PS/2s. Since all the PS/2s have the same type of keyboard, you can create one model hardware subcomponent record for all of them. The example uses the following information:

- The subcomponent type is KEYBOARD.
- The user subcomponent ID is KEYAPL.
- The model component link is TERMPS00. This is the record ID of the model component record you created earlier.
- The status is INSTALL.
- The description of the subcomponent is APL KEYBOARD ON PS/2S.
- The support data are record IDs that you created in previous chapters: DPCTR1, RED9021, and IBM300.

To create a model subcomponent record, type the following on the command line and press Enter:

5,3,7,2

```
BLG0EN20
                      --- PRIMARY OPTIONS MENU ---
                                                      APPLICATION: MANAGEMENT
OPTIONS:
     1. OVERVIEW......Display general information and product enhancements.
     2. PROFILE......Display or alter invocation or session defaults.
     3. APPLICATION....Change application, list available applications.
     4. CLASS......Change current class, list available classes.
     ENTRY......Create a record.
     6. INQUIRY.....Search for records.
     7. UTILITY......Copy, display, print, delete, and update records.
     8. GLOSSARY......Display a list of searchable words in the database.
     9. PMF.....Modify or create panels.
          Select an option, enter a command, or type QUIT to exit.
         Tivoli Information Management for z/OS Version 7 Release 1
                5697-SD9 (C) Copyright IBM Corp., 1981, 2001.
===> 5,3,7,2
```

Supply information about the model subcomponent. For this example, type the following on the command line and press Enter:

1,keyboard,2,keyapl,3,termps00,4,install,5,=,6,apl keyboard on ps/2s

To save the data, type end and press Enter.

```
BLGOD740 MODEL HARDWARE SUBCOMPONENT ENTRY SUBCOMP: KEYAPL

Enter model subcomponent data; cursor placement or input line entry allowed.

1. Subcomponent type....... KEYBOARD
2. User subcomponent ID..... KEYAPL
3. Model component link..... TERMPSOO
4. Subcomponent status....<R> INSTALL
5. Date of status...... 08/08/1996
6. Description......<R> APL KEYBOARD ON PS/2S______

When you finish, type END to save or CANCEL to discard any changes.
```

The Model Hardware Subcomponent Summary panel appears. You can now do one of the following:

- Use option 1 to change the information you just entered.
- Use options 2, 6, or 8 to add information to the record.
- Use option 9 to file the record.

For this example, type 2 on the command line and press Enter.

BLGODU39 MODEL HARDWARE SUBCOMPONE	ENT SUMMARY SUBCOMP: KEYAPL
Subcomponent type KEYBOARD Model component link TERMPS00 Contact name Subcomponent owner Date of status 08/08/1996 Subcomponent status INSTALL	Entry priv. class
Description APL KEYBOARD ON	I PS/2S
Select one of the following, type END to to discard your changes.	save your changes, or type CANCEL
 Description. Support data. 	6. Financial.
2	8. Freeform text and notes.9. File record.
===> 2	

On the next panel, enter information about the support and maintenance of the subcomponent. You established this data when you created the data center record, system record, and service record.

For this example, type the following on the command line and press Enter:

7,dpctr1,8,red9021,9,ibm300

To save the data, type end and press Enter.

You return to the Model Hardware Subcomponent Summary panel, where you can add more information or file the record.

For this example, type 6 on the command line and press Enter.

BLGODU39 MODEL HARDWARE SUBCOMPONE	ENT SUMMARY SUBCOMP: KEYAPL
Subcomponent type KEYBOARD Model component link TERMPS00 Contact name	Entry priv. class Owning priv. class Date entered Time entered Date last altered User last altered
Description APL KEYBOARD ON	I PS/2S
Select one of the following, type END to to discard your changes.	save your changes, or type CANCEL
 Description. Support data. 	6. Financial.
2. Cappel C data.	8. Freeform text and notes. 9. File record.
===> 6	

Supply the record ID of the hardware financial record associated with this subcomponent.

For this example, type **1,finpc** on the command line and press Enter:

To save the data, type end and press Enter.

```
BLGOD764 MODEL HARDWARE SUBCOMPONENT FINANCIAL ENTRY SUBCOMP: KEYAPL

Enter subcomponent financial data; cursor placement or input line entry allowed

1. Hardware financial ID.... FINPC___

When you finish, type END to save or CANCEL to discard any changes.
```

When you have added all the necessary information to complete a model subcomponent record, you can file the record.

To do this, type 9 on the command line and press Enter.

BLGODU39 MODEL HARDWARE SUBCOMPONE	NT SUMMARY SUBCOMP: KEYAPL				
Subcomponent type KEYBOARD Model component link TERMPS00 Contact name Subcomponent owner Date of status 08/08/1996 Subcomponent status INSTALL	Entry priv. class Owning priv. class Date entered Time entered Date last altered User last altered User last altered				
Description APL KEYBOARD ON PS/2S					
Select one of the following, type END to save your changes, or type CANCEL to discard your changes.					
 Description. Support data. 	6. Financial.				
	 Freeform text and notes. File record. 				
===> 9					

A message appears on this panel confirming that the record was stored successfully.

This ends the example of creating hardware subcomponent record KEYAPL.

```
BLG0EN20
                        --- PRIMARY OPTIONS MENU ---
                                                           APPLICATION: MANAGEMENT
OPTIONS:
      1. OVERVIEW.....Display general information and product enhancements.
      2. PROFILE......Display or alter invocation or session defaults.
      3. APPLICATION....Change application, list available applications.
      4. CLASS......Change current class, list available classes.
      ENTRY......Create a record.
      6. INQUIRY.....Search for records.
      7. UTILITY......Copy, display, print, delete, and update records.
8. GLOSSARY......Display a list of searchable words in the database.
      9. PMF.....Modify or create panels.
           Select an option, enter a command, or type QUIT to exit.
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BLG03058I Record KEYAPL was stored successfully.
```



Creating Model Software Records

A model software record contains the fixed or common information for a particular software component. A component record is linked to a model component record through the Model Link ID field in the component record. This link establishes a record reference back to the model component record.

A software feature record is a record that describes optional software features attached to a software component. You can create an unlimited number of feature records for each component. The following instructions and panels illustrate how to create a model software component record and model software feature record. In this example, you are creating the model software component and feature record for the software that came with the 10 PS/2s. Because all the PS/2s arrived with the same software, you only need to create one model record.

Creating Model Software Component Records

Enter the following information on the model component panels:

- The component ID is SOFTPS1.
- The program type is SCP (system control program), because OS/2 is an operating system.
- The release level is 3.
- The program version is 1.
- The display class is 1.
- The status is INSTALL.
- The description is OS/2 SOFTWARE FOR PS/2S.
- The financial ID is FINSOFT.

Begin at the Primary Options Menu.

To create a software configuration record, type the following on the command line and press Enter:

5,3,7

```
BLG0EN20
                      --- PRIMARY OPTIONS MENU ---
                                                      APPLICATION: MANAGEMENT
OPTIONS:
     1. OVERVIEW......Display general information and product enhancements.
     2. PROFILE......Display or alter invocation or session defaults.
     3. APPLICATION....Change application, list available applications.
     4. CLASS......Change current class, list available classes.
     ENTRY......Create a record.
     6. INQUIRY.....Search for records.
     7. UTILITY......Copy, display, print, delete, and update records.
     8. GLOSSARY......Display a list of searchable words in the database.
     9. PMF......Modify or create panels.
          Select an option, enter a command, or type QUIT to exit.
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===> 5.3.7
```

Your selection from this panel depends on the type of model record you are creating.

```
BLGOD701 MODEL CREATE OPTIONS

USE....Identify the type of model record to be entered.

1.MODEL HARDWARE COMPONENT.....Define a model hardware record.
2.MODEL HARDWARE SUBCOMPONENT....Define a model subcomponent.
3.MODEL SOFTWARE COMPONENT.....Define a model software record.

SELECT ITEM

===> 3
```

For this example, type 3 and press Enter.

Supply information about this model software record.

For this example, type the following on the command line and press Enter:

1,softps1,2,scp,3,0003,4,1,7,install,8,=,12,1,13,os/2 software for ps/2s

To save the data and continue, type **end** on the command line and press Enter.

(BLG0D780	MODEL SOFTWARE	COMPONENT ENTRY	COMPONENT: SOFTPS	1	
	Enter model compone	nt data; cursor pla	acement or input li	ne entry allowed.		
	 Program type Release level Program version Modification le 	<r> SCP 0003 1 vel t #</r>	9. Execution to 10. Source languages 11. Fix level 12. Display class	tus 09/03/1996 ype uage 1		
	When you finish	, type END to save	or CANCEL to disca	rd any changes.		
	===> end					,

The Model Software Component Summary panel appears. You can now do one of the following:

- Use option 1 to change the data you just entered.
- Use options 2, 6, 8, or 10 to add information to the record.
- Use option 7 to enter feature records.
- Use option 9 to file the record.

If you choose option 7, Tivoli Information Management for z/OS files the component record and displays the model feature entry panel.

To add software support data, type 2 on the command line and press Enter.

```
BLG0DU44
                MODEL SOFTWARE COMPONENT SUMMARY
                                                    COMPONENT: SOFTPS1
Program type..... SCP
                                      Program version..... 1
Execution type....._
                                      Release level..... 0003
Vendor component #.....
                                     Modification level....._
Fix level.....
                                     Entry priv. class.....
Display class..... \overline{1}
                                     Owning priv. class....._
Contact name....__
                                     Date entered...._
Component owner.....
                                     Time entered.....
Date of status..... 09/03/1996
                                     Date last altered.....
Component status..... INSTALL
                                      Time last altered.....
                                     User last altered.....
Description..... OS/2 SOFTWARE FOR PS/2S
Select one of the following, type END to save your changes, or type CANCEL
to discard your changes.
         1. Description.
                                    7. Feature entry (file record).
        2. Primary support data. 8. Freeform text and notes.
                                     9. File record.
        6. Financial.
                                  10. Secondary support data.
```

Supply support and maintenance information about the model software component. You established this information when you created the data center record, system record, and service record in previous chapters.

For this example, type the following on the command line and press Enter:

6,dpctr1,7,red9021,8,ibm300

To save the data and continue, type **end** on the command line and press Enter.

```
BLGOD758 MODEL SOFTWARE COMPONENT PRIMARY SUPPORT ENTRY COMPONENT: SOFTPS1

Enter model support data; cursor placement or input line entry allowed.

1. Component owner....
2. Transfer-to class...
3. Contact name......
4. Contact department...
5. Contact phone.....
6. Center ID....... DPCTR1
7. System ID...... RED9021
8. Service ID...... IBM300_

When you finish, type END to save or CANCEL to discard any changes.
```

The summary panel returns after every option except option 9.

From this panel, you can make any selection to add data to the record.

For this example, type 6 on the command line and press Enter.

BLG0DU44 MODEL SOFTWARE COMP	ONENT SUMMARY COMPONENT: SOFTPS1	
Program type SCP	Program version 1	
Execution type	Release level 0003	
Vendor component #	Modification level	
Fix level	Entry priv. class	
Display class 1	Owning priv. class	
Contact name	Date entered	
Component owner	Time entered	
Date of status 09/03/1996	Date last altered	
Component status INSTALL	Time last altered	
	User last altered	
Description 0S/2 SOFTWARR	E FOR PS/2S	
Select one of the following, type END	to save your changes, or type CANCEL	
to discard your changes.	7 Factions autom (file massed)	
1. Description.	 Feature entry (file record). Freeform text and notes. 	
Primary support data.	9. File record.	
6. Financial.	10. Secondary support data.	
===> 6		

If you created a software financial record previously, enter the record ID on this panel.

For this example, use the record ID you created earlier (FINSOFT). Type the following on the command line and press Enter:

1,finsoft

To save the data and continue, type end on the command line and press Enter.

```
BLGOD783 MODEL SOFTWARE COMPONENT FINANCIAL ENTRY COMPONENT: SOFTPS1

Enter model software financial; cursor placement or input line entry allowed.

1. Software financial ID.. FINSOFT_

When you finish, type END to save or CANCEL to discard any changes.

===> end
```

When you have added all the necessary information to complete a model software record, you can file the record.

To do this, type 9 on the command line and press Enter.

This returns you to the Primary Options Menu.

BLG0DU44	MODEL S	SOFTWARE	COMPONENT	SUMMARY	CC	MPONENT	: SOFTPS1		
Program type				Program ver					
Execution type				Release lev					
Vendor componer Fix level				Modification Entry priv.					
Display class.			-	Owning priv					
Contact name				Date entere	d				
Component owner				Time entere				_	
Date of status		09/03/19	996	Date last a	ltered			_	
Component state	us	INSTALL		Time last a					
				User last a	ltered				
Description		0S/2 S0I	FTWARE FOR	PS/2S					
Select one of		ing, type	END to s	ave your cha	inges, o	or type	CANCEL		
to discard you				7					
	rimary sup			7. Feature e 8. Freeform			,		
۷. ۲	rillary supp	Joil uale		9. File reco		iu iiotes	•		
6. F	inancial.			9. Secondary		rt data.			
===> 9									,

A message appears on this panel confirming that the record was stored successfully.

This ends the example of creating a model software component record.

```
BLG0EN20
                      --- PRIMARY OPTIONS MENU ---
                                                      APPLICATION: MANAGEMENT
OPTIONS:
      1. OVERVIEW......Display general information and product enhancements.
      2. PROFILE......Display or alter invocation or session defaults.
      3. APPLICATION....Change application, list available applications.
      4. CLASS......Change current class, list available classes.
      ENTRY......Create a record.
      6. INQUIRY.....Search for records.
      7. UTILITY......Copy, display, print, delete, and update records.
      8. GLOSSARY......Display a list of searchable words in the database.
      9. PMF.....Modify or create panels.
          Select an option, enter a command, or type QUIT to exit.
          Tivoli Information Management for z/OS Version 7 Release 1
                5697-SD9 (C) Copyright IBM Corp., 1981, 2001.
BLG03058I Record SOFTPS1 was stored successfully.
```

Creating Model Software Feature Records

Model software feature records are attached to a model software component record by parent-child link. For more information on this relationship, read Understanding Model Record Concepts.

You can create model software feature records at the time you create the model component record or afterwards by updating the model component record.

In this example, you create a model software feature record by updating the model software record that you created earlier. This example uses the following information:

- The feature type is DISKETTE.
- The Feature name and the User feature ID are DISKET01.
- The status is INSTALL.
- The storage class is REFER.
- The description is OS/2 DISKETTES FOR PS/2S REFER.

To update the model software record, type the following and press Enter:

update r softps1

```
BLG0EN20
                      --- PRIMARY OPTIONS MENU ---
                                                      APPLICATION: MANAGEMENT
OPTIONS:
     1. OVERVIEW......Display general information and product enhancements.
     2. PROFILE......Display or alter invocation or session defaults.
     3. APPLICATION....Change application, list available applications.
     4. CLASS......Change current class, list available classes.
     5. ENTRY.....Create a record.
     6. INQUIRY.....Search for records.
     7. UTILITY......Copy, display, print, delete, and update records.
     8. GLOSSARY......Display a list of searchable words in the database.
     9. PMF.....Modify or create panels.
          Select an option, enter a command, or type QUIT to exit.
         Tivoli Information Management for z/OS Version 7 Release 1
                5697-SD9 (C) Copyright IBM Corp., 1981, 2001.
===> update r softps1
```

To create the feature record, type 7 on the command line and press Enter.

(BLG0DU45	MODEL SOFTWAR	E COMPONENT	SUMMARY	COMPONENT	: SOFTPS1		
	Program type Execution type Vendor component Fix level Display class Contact name Component owner. Date of status Component status.	# <u>1</u> <u>09/03/</u>	1996	Release le Modificati Entry priv Owning pri Date enter Time enter Date last Time last	rsion	0003 MASTER 09/03/1996 17:31 09/03/1996 17:31		
	Description	0S/2 S	OFTWARE FOR	PS/2S				
	Select one of the to discard your cl 1. Descr 2. Prima	hanges.	a. 8	7. Feature	entry. text and notes.			
	6. Financ	cial.			y support data.			
	===> 7							

The Model Software Feature Entry panel appears. If no feature records exist for this component, message BLG09007I appears at the bottom of the panel.

The Storage class field is important in determining the relationship between the model feature record and model component record. For more information on model storage classes, see Understanding Model Record Concepts. Supply the information about the feature.

For this example, type the following on the command line and press Enter:

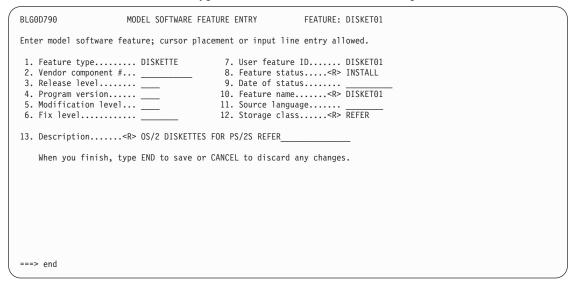
1,diskette,7,disket01,8,install,10,disket01,12,refer

BLG0D790	MODEL SOFTWARE F	FEATURE ENTRY	FEATURE:	DISKET01	
Enter model soft	ware feature; cursor p	acement or input	line entry all	lowed.	
2. Vendor compo 3. Release leve 4. Program vers 5. Modification	ion	8. Feature 9. Date of 10. Feature 11. Source 1	ture IDstatus <r> status<name<r> anguage class<r></r></name<r></r>	DISKET01	
13. Description. When you fin	ish, type END to save o	or CANCEL to disc	ard any changes		
===>					

Next, type the following on the command line and press Enter:

13,0s/2 diskettes for ps/2s refer

To save the data and continue, type end on the command line and press Enter.



The Model Software Feature Summary panel appears. The Parent component field is filled in with the model component record ID you are updating. You can now do one of the following:

- Use option 1 to change the data you just entered.
- Use options 2, 6, or 8 to add information to the record.
- Use option 9 to file the record.

For this example, type 6 on the command line and press Enter.

(BLG0DU46	MODEL	SOFTWARE	FEATURE	SUMMARY	FEATUR	E: DISKETO	1	
	Feature type		SOFTPS1 REFER		Release level Modification Entry privouvning privouvning privouvning Date enteronal Time enteronal Modification (No. 1974).	rsionvelvel			
	Date of status				Time last	alteredaltered		-	
	Description		OS/2 DISK	ETTES FO	R PS/2S REF	ER			
	Select one of the fo		ng, type I	END to s	ave your ch	anges, or type	CANCEL		
	1. Descr			6	. Financial				
	2. Suppo	ort da	ta.		. Freeform	text and notes rd.	•		
	===> 6								
/									/

If you created a software financial record previously, you could enter the record ID in field

For this example, type the following on the command line and press Enter:

1,finsoft

To save the data and continue, type end on the command line and press Enter.

```
BLGOD784 MODEL SOFTWARE FEATURE FINANCIAL ENTRY FEATURE: DISKETO1

Enter software feature financial; cursor placement or input line entry allowed.

1. Software financial ID. FINSOFT_

When you finish, type END to save or CANCEL to discard any changes.

===> end
```

When you have added all the necessary information to complete a model software record, you can file the record.

To do this, type 9 on the command line and press Enter.

BLG0DU46 MODEL SOFTWA	RE FEATURE	SUMMARY	FEATURE:	DISKET01
Feature type DISKETT	E	Program ver	sion	
Feature name DISKETO			e1	
Vendor component #			n level	
Parent component SOFTPS1			class	
Fix level	-	Date entere	. class d	
Contact name			d	
Feature owner			ltered	
Date of status			ltered	
Feature status INSTALL		User last a	ltered	
Description 0S/2 DI	SKETTES FO	R PS/2S REFE	R	
Select one of the following, typ to discard your changes.	e END to s	ave your cha	nges, or type C	ANCEL
 Description. 	6	. Financial.		
2. Support data.		Freeform tFile recor	ext and notes. d.	
===> 9				

This table panel lists the model feature records attached to a model component record. You can use any of the line commands, or type **end** to continue.

A message appears on this panel confirming that the record was stored successfully.

For this example, type end on the command line and press Enter.

```
BLGITSMF MODEL SOFTWARE FEATURE RECORD LIST LINE 1 OF 1

RECORD ID NAME DESCRIPTION ABSTRACT

1. DISKET01 DISKET01 OS/2 DISKETTES FOR PS/2S REFER

*** BOTTOM OF DATA ***

Line Cmds: A=Add C=Copy D=Delete P=Print S=Select U=Update
Type DOWN or UP to scroll the panel, or type END to exit the panel.

+ BLG03058I Record DISKET01 was stored successfully.

===> end
```

You return to the model software component summary panel. If there was information you wanted to change, you could make a selection from the bottom of the panel and continue to the component record.

For this example, type 9 on the command line and press Enter.

BLG0DU45	MODEL SOFTWARE C	OMPONENT SUMMARY	COMPONENT: SOFTPS1	`
Execution type Vendor componerix level Display class Contact name. Component owner Date of status	SCP ee	Release leve Modification Entry priv. Owning priv. Date enterec Time enterec Date last al	ion	
Description	0S/2 DISK	ETTES FOR PS/2S REFER	R	
to discard you 1. Do 2. Pr	escription. rimary support data.	7. Feature er 8. Freeform t 9. File recor	ntry. cext and notes. rd.	
6. F	inancial.	10. Secondary	support data.	
===> 9				
)

A message appears on this panel confirming that the record was stored successfully.

This ends the example of creating a model software feature record.

```
BLG0EN20
                                                           APPLICATION: MANAGEMENT
                        --- PRIMARY OPTIONS MENU ---
OPTIONS:
      1. OVERVIEW......Display general information and product enhancements.
      2. PROFILE......Display or alter invocation or session defaults.
      3. APPLICATION....Change application, list available applications.
      4. CLASS......Change current class, list available classes.
      ENTRY......Create a record.
      6. INQUIRY.....Search for records.
      7. UTILITY......Copy, display, print, delete, and update records.
8. GLOSSARY......Display a list of searchable words in the database.
      9. PMF.....Modify or create panels.
           Select an option, enter a command, or type QUIT to exit.
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BLG03058I Record SOFTPS1 was stored successfully.
```



Creating Hardware Records From Models

In Creating Hardware Records, you learned how to create hardware records directly. This chapter presents a series of examples to illustrate how you can create hardware records from model records. You can follow the flow of the panels with the sample data shown here or by using your own data.

Creating Hardware Component Records From Models

In this example, you create a hardware component record from the model record TERMPS00.

After you create the first record by following this example, then you need to create at least four more hardware component records. You will use these component records later when you create connection records and use the DRAW function.

Attach subcomponent record KEYAPL to the component records. Write down the record ID this example creates. You will need it when you swap records in Swapping Components in the Configuration.

This example uses the following information:

- The first component ID is PS/2A. (Use PS/2B, PS/2C, PS/2D, PS/2E, and so on for subsequent records.)
- The serial numbers start at H6224 and continue consecutively.

The following table can aid you as you create the component records. As you create the records, put an X in the X column.

Table 1. Checklist for Creating Sample Hardware Component Records

Component ID	Serial Number	X	Component ID	Serial Number	X
PS/2A	H6224		PS/2F	H6229	
PS/2B	H6225		PS/2G	H6230	
PS/2C	H6226		PS/2H	H6231	
PS/2D	H6227		PS/2I	H6232	
PS/2E	H6228		PS/2J	H6233	

To create a hardware component record, type the following on the command line and press Enter:

5,3,3

```
BLG0EN20
                      --- PRIMARY OPTIONS MENU ---
                                                      APPLICATION: MANAGEMENT
OPTIONS:
     1. OVERVIEW......Display general information and product enhancements.
     2. PROFILE......Display or alter invocation or session defaults.
     3. APPLICATION....Change application, list available applications.
     4. CLASS......Change current class, list available classes.
     ENTRY......Create a record.
     6. INQUIRY.....Search for records.
     7. UTILITY......Copy, display, print, delete, and update records.
     8. GLOSSARY......Display a list of searchable words in the database.
     9. PMF.....Modify or create panels.
          Select an option, enter a command, or type QUIT to exit.
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===> 5.3.3
```

To create the record from a model, type 2 on the command line and press Enter.

Enter the model record ID from which you are creating this component record. If you do not enter a record ID on this panel, then panel BLG1TM0D appears, and you execute a model record from the list. If you enter only the generic device type, you get a list of model records with that device type.

For this example, type the following on the command line and press Enter.

1,termps00

Press Enter again to continue.

Creating Hardware Component Records From Models

Some of the fields are already filled with data from the model component record. You need to assign a unique record ID to this component record. To do this, fill in the Component ID field.

For this example, type the following on the command line and press Enter:

1,ps/2a,4,h6224,8,=

To save the data and continue, type **end** on the command line and press Enter.

```
HARDWARE COMPONENT ENTRY
                                                          COMPONENT: PS/2A
Enter hardware component data; cursor placement or input line entry allowed.
 1. Component ID.......<R>> PS/2A_____
                                          7. Component status..<R> INSTALL
                                          8. Date of status..... 08/08/1996
   Generic device...... VID
                                          9. Order number....._
 3. Device type & model.... PS/2
4. Serial number..... H6224____
5. Microcode EC level....
                                         10. Date shipped.....
                                         11. Location code.....
 6. Model link ID..... TERMPS00
                                         12. Display class...... \overline{1}
13. Description......R> PS/2 COMPONENT_
   When you finish, type END to save or CANCEL to discard any changes
```

The Hardware Component Summary panel appears. You can now do one of the following:

- Use option 1 to change the information you just entered.
- Use options 2, 6, 8, 10, 11, or 12 to add information to the record.
- Use option 3 to enter connection records.
- Use option 4 to enter EC levels.
- Use option 5 to enter secondary description information when the generic device type is LIN or LOP.
- Use option 7 to enter feature records.

- Use option 9 to file the record.
- Use option 11 to add subdiagram markers for configuration diagrams.

If you choose options 3, 4, or 7, Tivoli Information Management for z/OS files the component record and displays the appropriate entry panel.

For this example, type **9** on the command line and press Enter.

```
BLG0DU30
                  HARDWARE COMPONENT SUMMARY
                                                   COMPONENT: PS/2A
Generic device..... VID
                                     Display class..... 1
                                     Location code....__
Device type & model..... PS/2
Serial number..... H6224
                                     Entry priv. class.....
Microcode EC level.....
                                     Owning priv. class.....
Model link ID...... TERMPS00
                                     Date entered.....
                                     Time entered.....
Contact name.....
Date last altered.....
Date of status..... 08/08/1996
                                     Time last altered.....
Component status..... INSTALL
                                     User last altered.....
Description..... PS/2 COMPONENT
Select one of the following, type END to save your changes, or type CANCEL
 to discard your changes.
        1. Primary description.
                                   7. Feature entry (file record).
        2. Primary support data.
                                   8. Freeform text and notes.
        3. Connections (file record). 9. File record.
        4. EC Levels (file record). 10. Secondary support data.
        5. Secondary description.
                                   11. Maps data.
                                   12. Source definition.
        6. Financial.
```

Model component record termps00 contains a record link to model subcomponent record KEYAPL, so the Model Hardware Subcomponent List panel appears. To complete this example, continue reading through the next section.

Creating Hardware Subcomponent Records from a Component Record That Has a Model Link

In addition to the five hardware component records, you need to create a subcomponent record for five text keyboards that your company ordered. These keyboards are available and kept in a warehouse until they are needed. Create these records so you can use them in a later example. You can follow the flow of the panels using the sample data shown here or by using your own data, as long as the component record that you use was created from a model record with a subcomponent link. This example uses the following information:

- The user subcomponent IDs are KBTEXT1, KBTEXT2, KBTEXT3, KBTEXT4, and KBTEXT5.
- The status is DISCONT.
- The description is KEYBOARD FOR PS/2S.

This example continues from the previous section.

For this example, type an **e** (for *execute*) by record 1 and press Enter.

```
BLGITSUB MODEL HARDWARE SUBCOMPONENT LIST LINE 1 OF 1

MODEL ID DESCRIPTION ABSTRACT

e 1. KEYAPL APL KEYBOARD ON PS/2S

*** BOTTOM OF DATA ***

Line Cmds: E=Execute P=Print S=Select
Type DOWN or UP to scroll the panel, or type END to exit the panel.

===>
```

Some of the fields are already filled in. Assign a user subcomponent ID.

For this example, type the following on the command line and press Enter.

3,kbtext1,6,discont,9,keyboard for ps/2s

To save the data and continue, type end on the command line and press Enter.

The Hardware Subcomponent Summary panel appears. You can now do one of the following:

- Use option 1 to change the information you just entered.
- Use options 2, 3, 6, and 8 to add information to the record.
- Use option 9 to file the record.

For this example, type 9 on the command line and press Enter.

BLG0DU33	HARDWARE SUBCOMPONEN	T SUMMARY SUE	COMP: KBTEXT1	
Subcomponent type	KEYBOARD	Location code	••••	
Serial number		Entry priv. class		
Microcode EC leve	1	Owning priv. class		
Hardware link ID.	PS/2A	Date entered		
Contact name				
Subcomponent owne	r	Date last altered		
Date of status	08/08/1996	Time last altered		
Subcomponent stat	us DISCONT	User last altered		
Select one of th		to save your changes, or	type CANCEL	
1. De	scription. pport data.	6. Financial.		
3. EC	Levels.	8. Freeform text and no	tes.	
		9. File record.		

A message appears on this panel confirming that the record was stored successfully. If the list contained several subcomponents, you could execute another subcomponent record and create another record at this time. For this example, type **end** and press Enter to file the hardware component record.

```
BLGITSUB MODEL HARDWARE SUBCOMPONENT LIST LINE 1 OF 1

MODEL ID DESCRIPTION ABSTRACT

1. KEYAPL APL KEYBOARD ON PS/2S

*** BOTTOM OF DATA ***

Line Cmds: E=Execute P=Print S=Select
Type DOWN or UP to scroll the panel, or type END to exit the panel.
BLG030581 Record KBTEXT1 was stored successfully.

===> end
```

A message appears on this panel confirming that the record was stored successfully.

This ends the task of creating a subcomponent record from a component record that has a model link. This also ends the task of creating a hardware component record from a model record.

```
BLG0EN20
                      --- PRIMARY OPTIONS MENU ---
                                                      APPLICATION: MANAGEMENT
OPTIONS:
      1. OVERVIEW......Display general information and product enhancements.
     2. PROFILE......Display or alter invocation or session defaults.
     3. APPLICATION....Change application, list available applications.
     4. CLASS......Change current class, list available classes.
     ENTRY......Create a record.
     6. INQUIRY.....Search for records.
     7. UTILITY......Copy, display, print, delete, and update records.
     8. GLOSSARY......Display a list of searchable words in the database.
     9. PMF.....Modify or create panels.
          Select an option, enter a command, or type OUIT to exit.
         Tivoli Information Management for z/OS Version 7 Release 1
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BLG03058I Record PS/2A was stored successfully.
```

Using the information in Table 1 on page 173, create at least four more hardware component records from the model record TERMPS00. Using the information found on page 176, create a subcomponent record for each component.

Creating Hardware Feature Records

A hardware feature record is a record that describes optional features attached to a hardware component. You can create an unlimited number of feature records for each component. Some examples of hardware features are:

- A keylock on a terminal
- Graphics on a terminal or printer
- A manager's keylock on a cash register
- Increased storage on a PS/2.

You can create a feature record at the time you create the component record or afterwards by updating the component record. The following instructions and panels illustrate how to create a hardware feature record by updating the hardware component record. You can follow the flow of panels by using the sample data shown here or your own data.

In this example, you are adding a graphics feature to one of the PS/2s. Add it to component record PS/2A. After you finish this example, add this feature to component records PS/2B and PS/2C also. The example uses the following information:

- Make the User feature ID field, Feature name field, and Feature type field the same. Use GRAPH01 for PS/2A, GRAPH02 for PS/2B, and GRAPH03 for PS/2C.
- The feature status is INSTALL.
- The description of the record is GRAPHICS FEATURE FOR PS/2S.
- The contact department is dpt48.
- The VPA number is 18339.
- The VPA sequence number is 662.

To create a feature record, type the following on the command line and press Enter:

update r ps/2a

```
BLG0EN20
                      --- PRIMARY OPTIONS MENU ---
                                                      APPLICATION: MANAGEMENT
OPTIONS:
     1. OVERVIEW......Display general information and product enhancements.
     2. PROFILE......Display or alter invocation or session defaults.
     3. APPLICATION....Change application, list available applications.
     4. CLASS......Change current class, list available classes.
     ENTRY......Create a record.
     6. INQUIRY.....Search for records.
     7. UTILITY......Copy, display, print, delete, and update records.
     8. GLOSSARY......Display a list of searchable words in the database.
     9. PMF.....Modify or create panels.
          Select an option, enter a command, or type QUIT to exit.
         Tivoli Information Management for z/OS Version 7 Release 1
               5697-SD9 (C) Copyright IBM Corp., 1981, 2001.
===> update r ps/2a
```

Type 7 on the command line and press Enter.

```
HARDWARE COMPONENT SUMMARY
Generic device...... VID
                                         Display class..... 1
Device type & model..... PS/2
                                         Location code.....
                                         Entry priv. class..... MASTER
Serial number..... H6224
Microcode EC level.....
                                         Owning priv. class.....
Model link ID...... TERMPS00
                                         Date entered..... \overline{08/08/19}96
Contact name.....
                                         Time entered............ 18:43
Component owner...... DPT48
                                         Date last altered..... 08/08/1996
Date of status...... 08/08/1996
                                         Time last altered..... 18:43
Component status..... INSTALL
                                         User last altered..... GARTLAN
Description..... PS/2 COMPONENT
 Select one of the following, type END to save your changes, or type {\sf CANCEL}
 to discard your changes.
         1. Primary description.
                                      7. Feature entry.
         2. Primary support data.
                                      8. Freeform text and notes.
         Connections.
                                      9. File record.
         4. EC Levels.
                                     10. Secondary support data.
         5. Secondary description.
                                     11. Maps data.
         Financial.
                                     12. Source definition.
===> 7
```

This component has a feature already linked to it because the component record was created from a model with a feature linked to it.

For this example, type an a next to record 1 and press Enter.

```
BLGITCFE HARDWARE FEATURE RECORD LIST LINE 1 OF 1

RECORD ID NAME TYPE DESCRIPTION ABSTRACT
a 1. 00007772 8514 MEMORY 8514 MEMORY EXPANSION KIT PS/2S

*** BOTTOM OF DATA ***

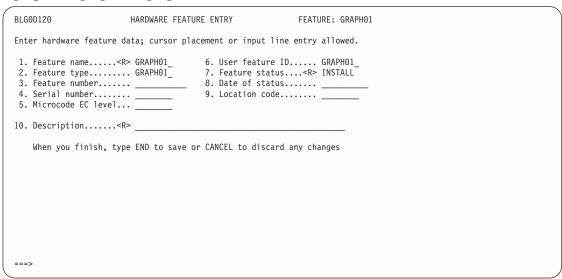
Line Cmds: A=Add C=Copy D=Delete P=Print S=Select U=Update
Type DOWN or UP to scroll the panel, or type END to exit the panel.

===>
```

Supply information about the feature.

For this example, type the following on the command line and press Enter:

1,graph01,2,graph01,6,graph01,7,install



Next, type the following on the command line and press Enter:

8,=,10,graphics feature for ps/2s

To save the data and continue, type end on the command line and press Enter.

BLG0D120	HARDWARE FEATURE ENTRY	FEATURE: GRAPH01	
Enter hardware feature d	ata; cursor placement or i	nput line entry allowed.	
	9. Locati		
10. Description <r< td=""><td>> GRAPHICS FEATURE FOR PS/</td><td>2\$</td><td></td></r<>	> GRAPHICS FEATURE FOR PS/	2\$	
When you finish, type	e END to save or CANCEL to	discard any changes	
===> end			

The Hardware Feature Summary panel appears. You can now do one of the following:

- Use options 1, 2, 3, 6, and 8 to add information.
- Use option 9 to file the record.

To specify feature support, type 2 on the command line and press Enter.

BLGODU02 HARDWARE FEATURE	SUMMARY FEATURE: GRAPH01	
Feature type GRAPH01	Parent component PS/2A	
Feature name GRAPH01	Location code	
Feature number	Entry priv. class	
Serial number	Owning priv. class	
Microcode EC level	Date entered	
Contact name	Time entered	
Feature owner	Date last altered	
Date of status 08/08/1996	Time last altered	
Feature status INSTALL	User last altered	
Description GRAPHICS FEATU Select one of the following, type END to discard your changes.		
 Description. Support data. 	6. Financial.	
3. Hardware EC levels.	8. Freeform text and notes. 9. File record.	
===> ?		
_		

Supply information about the support and maintenance of the feature.

For this example, type the following on the command line and press Enter:

4,dpt48

To save the data and continue, type end on the command line and press Enter.

BLG0D157	HARDWARE FEATURE SUPPORT ENTRY	FEATURE: GRAPH01	
Enter feature supp	ort data; cursor placement or input lin	e entry allowed.	
When you finis	1. Feature owner 2. Transfer-to class 3. Contact name 4. Contact department. DPT48 5. Contact phone h, type END to save or CANCEL to discar	– d any changes	
===> end			

To add financial data about this feature, type 6 on the command line and press Enter.

BLG0DU02	HARDWARE FEATURE	SUMMARY F	EATURE: GRAPH01	
Feature type Feature name Feature number Serial number Microcode EC level Contact name Feature owner. Date of status. Feature status.	GRAPH01 08/08/1996	Parent component Location code Entry priv. class. Owning priv. class. Date entered Time entered Date last altered. Time last altered. User last altered.		
Description	GRAPHICS FEATUR	RE FOR PS/2S		
Select one of the fol to discard your chang 1. Description 2. Support dat 3. Hardware EC	es. a.	6. Financial. 8. Freeform text and 9. File record.		
===> 6				

Supply financial data specific to this feature.

For this example, type the following on the command line and press Enter:

4,=,5,18339,6,662

To save the data and continue, type end on the command line and press Enter.

BLG0D154 HARI	DWARE FEATURE FINANCIAL ENTRY FEATURE: GRAPH01
Enter feature financia	l data; cursor placement or input line entry allowed.
2 3 4 5	. Hardware financial ID Lease begin date
When you finish, ty	ype END to save or CANCEL to discard any changes
===> end	

When you have added all the necessary information to complete a feature record, you can file it.

To do this, type 9 on the command line and press Enter.

The Hardware Feature Record List panel appears.

BLGODU02 HARDWARE FEATURE	SUMMARY FEATURE: GRAPH01	
Feature type GRAPH01	Parent component PS/2A	
Feature name GRAPH01	Location code	
Feature number	Entry priv. class	
Serial number	Owning priv. class	
Microcode EC level	Date entered	
Contact name	_ Time entered	
Feature owner	Date last altered	
Date of status 08/08/1996	Time last altered	
Feature status INSTALL	User last altered	
Description GRAPHICS FEATU Select one of the following, type END to discard your changes.		
1. Description.	6. Financial.	
2. Support data.		
3. Hardware EC levels.	8. Freeform text and notes.	
	9. File record.	
===> 9		

When you file the feature record, the component record is automatically modified to include the link to the feature record and then filed. Any other changes that were made to the component record are also filed.

A message appears on this panel confirming that the record was stored successfully. The additional message states that the component record was also stored successfully.

You can now issue any of the line commands listed at the bottom of the panel. If there were other features for this component, they would be listed on this table.

For this example, type **end** on the command line and press Enter to return to the summary panel.

```
BLG1TCFE
                     HARDWARE FEATURE RECORD LIST
                                                                   LINE 1 OF 2
      RECORD ID NAME
                            TYPE
                                          DESCRIPTION ABSTRACT
  1. 00007772 8514
                            MEMORY
                                          8514 MEMORY EXPANSION KIT PS/2S
      GRAPH01
                 GRAPH01
                            GRAPH01
                                          GRAPHICS FEATURE FOR PS/2S
*** BOTTOM OF DATA ***
Line Cmds: A=Add C=Copy D=Delete P=Print S=Select U=Update
 Type DOWN or UP to scroll the panel, or type END to exit the panel.
+ BLG03058I Record GRAPH01 was stored successfully.
===> end
```

You can change the data in the component record by selecting an option from the bottom of the panel.

For this example, you do not want to change any data in this component. Type 9 on the command line and press Enter.

```
BLG0DU01
                    HARDWARE COMPONENT SUMMARY
                                                        COMPONENT: PS/2A
Generic device..... VID
                                         Display class..... 1
Device type & model.... PS/2
Device type & model.... PS/2
Serial number...... H6224
                                         Location code.....
                                         Entry priv. class..... MASTER
Microcode EC level.....
Microcode EC level..... TERMPS00
                                         Owning priv. class.....
                                         Date entered............ 08/08/1996
Contact name.....
                                          Time entered...... 18:43
Component owner...... DPT48
                                         Date last altered..... 08/08/1996
Date of status...... 08/08/1996
Component status...... INSTALL
                                          Time last altered..... 18:43
Component status...... INSTALL
                                         User last altered..... GARTLAN
Description..... PS/2 COMPONENT
 Select one of the following, type END to save your changes, or type CANCEL
 to discard your changes.
         1. Primary description.
                                       7. Feature entry.
         2. Primary support data.
                                       8. Freeform text and notes.
         3. Connections.
                                      9. File record.
         4. EC Levels.
                                      10. Secondary support data.
         5. Secondary description.
                                      11. Maps data.
         6. Financial.
                                      12. Source definition.
===> 9
```

A message appears on this panel confirming that the record was stored successfully.

This ends the example of creating a feature record.

Creating Hardware Feature Records

```
BLGOEN20 --- PRIMARY OPTIONS MENU --- APPLICATION: MANAGEMENT

OPTIONS:

1. OVERVIEW......Display general information and product enhancements.
2. PROFILE.....Display or alter invocation or session defaults.
3. APPLICATION...Change application, list available applications.
4. CLASS......Change current class, list available classes.
5. ENTRY.......Create a record.
6. INQUIRY.....Search for records.
7. UTILITY......Copy, display, print, delete, and update records.
8. GLOSSARY.....Display a list of searchable words in the database.
9. PMF.......Modify or create panels.

Select an option, enter a command, or type QUIT to exit.

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BLG03058I Record PS/2A was stored successfully.
===>
```

Using the information on page 179, add a feature record to hardware component records PS/2B and PS/2C.



Creating Software Records From Models

In Creating Software Records, you learned how to create software records directly. This chapter presents a series of examples to illustrate how you can create software records from model records. You can follow the flow of the panels by using the sample data shown here or by using your own data.

Creating Software Component Records From Models

In this example, you create a component record from the model record SOFTPS1.

After you create the first record by following this example, you need to create at least four more software component records.

This example uses the following information:

- The first component ID is OS/2A. (Use OS/2B, OS/2C, OS/2D, OS/2E, and so on for subsequent records.)
- The financial record ID for the record is FINSOFT.

To create a software component record, type the following on the command line and press Enter:

5,3,4

```
BLG0EN20
                      --- PRIMARY OPTIONS MENU ---
                                                      APPLICATION: MANAGEMENT
OPTIONS:
     1. OVERVIEW......Display general information and product enhancements.
     2. PROFILE......Display or alter invocation or session defaults.
     3. APPLICATION....Change application, list available applications.
     4. CLASS......Change current class, list available classes.
     ENTRY......Create a record.
     6. INQUIRY.....Search for records.
     7. UTILITY......Copy, display, print, delete, and update records.
     8. GLOSSARY.....Display a list of searchable words in the database.
     9. PMF.....Modify or create panels.
          Select an option, enter a command, or type QUIT to exit.
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===> 5,3,4
```

To create a component record from a model, type 2 and press Enter.

Enter the model record ID from which you are creating the component record. If you do not enter a record ID, then panel BLG1TSMD appears.

For this example, type **1,softps1** on the command line and press Enter:

Press Enter again to continue.

Some of the fields are already filled in with the data from the model software component record. You need to assign a unique record ID to this component record.

To do this, fill in the Component ID field. Type 1,0s/2a on the command line and press Enter:

To save the data, type **end** on the command line and press Enter.

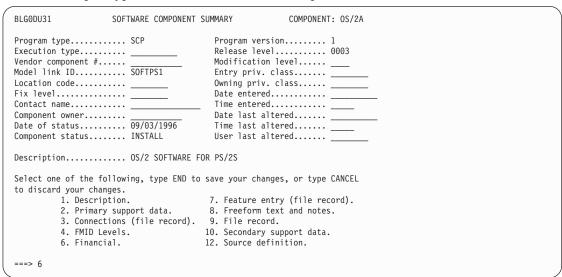
(BLG0D200	SOFTWARE COMPONENT ENTRY	COMPONENT: OS/2A	
	Enter software componen	ent data; cursor placement or	input line entry allowed.	
	 Program type Release level Program version 	15. Display	nt status <r> INSTALL status 09/03/1996 on type</r>	
	16. Description	<pre><r> OS/2 SOFTWARE FOR PS/2S_</r></pre>		
	When you finish, t	type END to save or CANCEL to	discard any changes.	
	===> end			
	> ciiu			

The Software Component Summary panel appears. You can now do one of the following:

- Use option 1 to change the data you just entered.
- Use options 2, 4, 6, 8, 10, or 12 to add information to the record.
- Use option 3 to enter connection records.
- Use option 7 to enter feature records.
- Use option 9 to file the record.

If you choose option 3 or 7, Tivoli Information Management for z/OS files the component record and displays the appropriate entry panel.

For this example, type 6 on the command line and press Enter.



The Software financial ID field contains the name of the financial record you created in a previous chapter.

For this example, type **end** on the command line and press Enter to return to the summary panel.

```
BLGOD253 SOFTWARE COMPONENT FINANCIAL ENTRY COMPONENT: OS/2A

Enter software financial data; cursor placement or input line entry allowed.

1. Software financial ID... FINSOFT_
2. Begin license date......
3. End license date.......
When you finish, type END to save or CANCEL to discard any changes.
```

When you have added all the necessary information to complete a software component record, file the record.

For this example, type 9 on the command line and press Enter.

Program type SCP	Program version 1
Execution type	Release level 0003
endor component #	Modification level
lodel link ID SOFTPS1	Entry priv. class
ocation code	Owning priv. class
ix level	Date entered
Contact name	
Component owner	Date last altered
Date of status 09/03/1996	Time last altered
Component status INSTALL	User last altered
·	
Description OS/2 SOFTWARE	FOR PS/2
select one of the following, type END	to save your changes, or type CANCEL
o discard your changes.	y-aa.y,yp
	Feature entry (file record).
	8. Freeform text and notes.
2. Primary support data.	8. Freeform text and notes.9. File record.
 Primary support data. Connections (file record) 	

A message appears on this panel confirming that the record was stored successfully.

This ends the example of creating a software component record from a model record.

```
BLG0EN20
                      --- PRIMARY OPTIONS MENU ---
                                                      APPLICATION: MANAGEMENT
OPTIONS:
      1. OVERVIEW......Display general information and product enhancements.
     2. PROFILE......Display or alter invocation or session defaults.
     3. APPLICATION....Change application, list available applications.
     4. CLASS......Change current class, list available classes.
     ENTRY......Create a record.
     6. INQUIRY.....Search for records.
     7. UTILITY......Copy, display, print, delete, and update records.
     8. GLOSSARY......Display a list of searchable words in the database.
     9. PMF.....Modify or create panels.
          Select an option, enter a command, or type OUIT to exit.
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BLG03058I Record OS/2A was stored successfully.
```

Using the information on page 187, create at least four more software component records from model record SOFTPS1.

Creating and Updating Software Feature Records

A software feature record is a record that describes optional features associated with a software component. You can create an unlimited number of feature records for each component.

Software features can attach to and enhance the software program but are not necessary for the successful execution of the software program. Some examples of software features are:

- Screen Definition Facility (SDF) on Customer Information Control System (CICS[®])
- Execution Diagnostic Facility (EDF) on CICS
- Configuration Management on Tivoli Information Management for z/OS
- Change Management on Tivoli Information Management for z/OS
- Problem Management on Tivoli Information Management for z/OS
- JES2 and JES3 on MVS
- Batch message processing (BMP) on Information Management System (IMSTM).

You can create a feature record at the time you create the component record or afterwards by updating the component record. The following instructions and panels illustrate how to create a software feature record by updating the software component record. You can follow the flow of the panels by using the sample data shown here or by using your own data.

In this example, you are adding a program feature to the record OS/2A that you created on page 187. This example uses the following information:

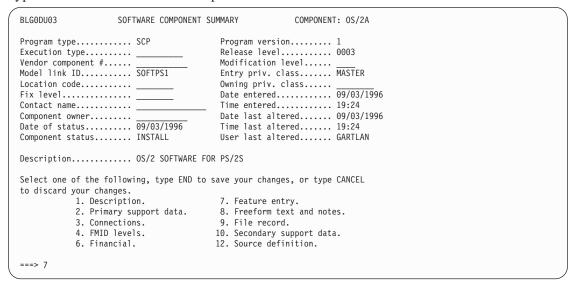
- The feature type is PROGRAM.
- The User feature ID field and Feature name field are FEATOS2A.
- The status is INSTALL.
- The description is PROGRAM FEATURE FOR OS/2.
- The contact department is DEPT48.

To create a feature record, type the following on the command line and press Enter:

update r os/2a

```
BLG0EN20
                        --- PRIMARY OPTIONS MENU ---
                                                           APPLICATION: MANAGEMENT
OPTIONS:
      1. OVERVIEW......Display general information and product enhancements.
      2. PROFILE......Display or alter invocation or session defaults.
      3. APPLICATION....Change application, list available applications.
      4. CLASS......Change current class, list available classes.
      5. ENTRY.....Create a record.
      6. INQUIRY.....Search for records.
      7. UTILITY......Copy, display, print, delete, and update records.
8. GLOSSARY......Display a list of searchable words in the database.
      9. PMF.....Modify or create panels.
           Select an option, enter a command, or type QUIT to exit.
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===> update r os/2a
```

Type 7 on the command line and press Enter.



If there are no feature records associated with this model record, message BLG09007I appears on panel BLG0D220.

Supply information about the feature.

For this example, type the following on the command line and press Enter:

1,program,7,featos2a,8,install,10,featos2a,13,program feature for os/2

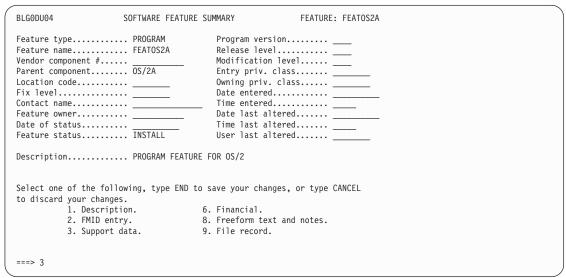
To save the data and continue, type **end** on the command line and press Enter.

BLG0D220 Enter software feature da					
 Vendor component # Release level Program version Modification level 	8. Featu 9. Date 10. Featu 11. Locat	of status <r> of status ure name<r> tion code</r></r>	FEATOS2A		
13. Description <r></r>	PROGRAM FEATURE FOR OS/2	2			
When you finish, type	e END to save or CANCEL to	o discard any chang	es.		
===> end					,
	Enter software feature da 1. Feature type	Enter software feature data; cursor placement or in a construction of the construction	Enter software feature data; cursor placement or input line entry al 1. Feature type	Enter software feature data; cursor placement or input line entry allowed. 1. Feature type	Enter software feature data; cursor placement or input line entry allowed. 1. Feature type

The Software Feature Summary panel appears. You can now do one of the following:

- Use options 1, 2, 3, 6, or 8 to add information to the record.
- Use option 9 to file the record.

For this example, type 3 on the command line and press Enter.



Supply information about the support and maintenance of the software feature.

For this example, type **4,dept48** on the command line and press Enter:

To save the data and continue, type end on the command line and press Enter.

BLG0D257	SOFTWARE FEATURE SUPPORT ENTRY FEATURE: FEATOS2A						
Enter feat	Enter feature support data; cursor placement or input line entry allowed.						
When y	1. Feature owner 2. Transfer-to class 3. Contact name 4. Contact department. DEPT48 5. Contact phone but finish, type END to save or CANCEL to discard any changes.						
===> end							

When you have added all the necessary information to complete a feature record, file the record.

When you file the feature record, the component record is automatically modified to include the link to the feature record and is then filed. Any other changes that were made to the component record are also filed.

For this example, type 9 on the command line and press Enter.

BLG0DU04 SOFTWARE F	EATURE SUMMARY	FEATURE: FEATOS2A	
Feature type PROGRAM	Program ver	sion	
Feature name FEATOS2A		el	
Vendor component #		n level	
Parent component 0S/2A		class	
Location code		. class	
Fix level	Date entere	d	
Contact name	Time entere	d	
Feature owner		ltered	
Date of status		ltered	
Feature status INSTALL		ltered	
Description		nges. or type CANCEL	
to discard your changes.			
 Description. 	Financial.		
2. FMID entry.	8. Freeform to	xt and notes.	
Support data.	9. File record		
===> 9			

A message appears on this panel confirming that the record was stored successfully. The additional message states that the component record has also been stored successfully. You can issue any of the line commands. If there were other features for this component, they would be listed on this table panel. For this example, type **end** and press Enter to return to the Software Component Summary panel.

```
BLG1TSFE SOFTWARE FEATURE RECORD LIST LINE 1 OF 1

RECORD ID NAME DESCRIPTION ABSTRACT

1. FEATOSZA FEATOSZA PROGRAM FEATURE FOR OS/2

*** BOTTOM OF DATA ***

Line Cmds: A=Add C=Copy D=Delete P=Print S=Select U=Update
Type DOWN or UP to scroll the panel, or type END to exit the panel.

+ BLG03058I Record FEATOS2A was stored successfully.
===> end
```

You can change data in the component record by selecting an option from the bottom of the panel.

For this example, you do not want to change any data in this component. Type 9 on the command line and press Enter.

```
BLG0DU03
                   SOFTWARE COMPONENT SUMMARY
                                                    COMPONENT: OS/2A
Program type..... SCP
                                      Program version..... 1
Execution type.....
                                      Release level..... 0003
                                      Modification level.....
Vendor component #.....
Model link ID...... SOFTPS1
                                      Entry priv. class..... MASTER
Location code.....____
                                      Owning priv. class.....
                                      Date entered..... \overline{09/03/19}96
Fix level....._
Contact name.....
                                      Time entered..... 19:24
Component owner.....
                                      Date last altered..... 09/03/1996
Date of status...... 09/03/1996
                                      Time last altered..... 19:24
Component status..... INSTALL
                                      User last altered..... GARTLAN
Description...... OS/2 SOFTWARE FOR PS/2S
Select one of the following, type END to save your changes, or type CANCEL
to discard your changes.
          1. Description.
                                      7. Feature entry.
                                    8. Freeform text and notes.
          2. Primary support data.
          Connections.
                                      9. File record.
          4. FMID levels.
                                     10. Secondary support data.
          6. Financial.
                                     12. Source definition.
===> 9
```

A message appears on this panel confirming that the record was stored successfully.

Creating and Updating Software Feature Records

```
DELGOENZO

--- PRIMARY OPTIONS MENU --- APPLICATION: MANAGEMENT

OPTIONS:

1. OVERVIEW......Display general information and product enhancements.
2. PROFILE.....Display or alter invocation or session defaults.
3. APPLICATION...Change application, list available applications.
4. CLASS.......Change current class, list available classes.
5. ENTRY......Create a record.
6. INQUIRY.....Search for records.
7. UTILITY......Copy, display, print, delete, and update records.
8. GLOSSARY.....Display a list of searchable words in the database.
9. PMF.......Modify or create panels.

Select an option, enter a command, or type QUIT to exit.

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BLG03058I Record OS/2A was stored successfully.
==>>
```

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Creating Component Connection Records

A component connection record describes the relationship between two components in a configuration. These components can be hardware, software, or a combination.

Configuration Management recognizes these hardware connection types:

- Hardware-to-hardware physical
- Hardware-to-hardware logical
- Hardware-to-software

In most cases, physical and logical connections are the same. For example, a terminal is both physically and logically connected to a cluster controller.

There are cases where physical and logical connections are not the same. For example, a disk control unit logically controls several disk drives, so each drive is logically connected to the controller. However, a disk drive could actually be physically connected to a Head of String (which, in turn, is physically connected to the control unit).

Configuration Management recognizes these software connection types:

- Software-to-software
- Software-to-hardware

An example of a software-to-software connection is Tivoli Information Management for z/OS connected to MVS. Examples of software-to-hardware connections would be OS/2 connected to a PS/2, or a microcode diskette connected to a 3274 controller.

Connection Record Concepts

When you create a connection record, Tivoli Information Management for z/OS establishes a parent/child relationship between the component record (parent record) and the connection record (child record). The connection record contains details about the link between components.

For hardware-to-hardware connections, the component represented in the parent record is the furthest from the Central Processing Unit (CPU). The connection record designates the component closest to the CPU.

For software-to-software connections, the parent record is the *from* record and the one farthest from the system control program (SCP). The connection record designates the *to* component and the component closest to the SCP.

BLG0D130	HARDWARE CONNECTION EN	TRY CONNECTION:	
Enter component	connection data, cursor pla	cement or input line allowed.	
2. Date from 3. Date to 4. Device addres 5. Connection ty 6. Connection st 7. Connection re		Path ID Channel number Cable number Cable length Port number Port ID Transfer-to class	
•	<r></r>	CEL to discard any changes.	
===>			

Figure 4. Hardware Connection Entry Panel. Because connections are separate records, you can create an unlimited number of connection records for each component.

The component record (parent) is the basis for the connection record. In the connection record (child), you designate the Component to field or upcomponent.

For example, if you connect a 3278 terminal to a 3274 controller, the 3278 connection record is the child record to the 3278 component record. The 3274 component is designated as the component *to* in the child record. To create the connection record, you update the 3278 component record, putting the 3274 component record ID into the Component to field.

Each connection is a separate record with a unique identifying number. It is linked to the parent component record through this unique number. You define the connection record ID by filling in field 7 on the Hardware Connection Entry panel (Figure 4). If you do not define the ID, you will get a system-generated ID.

You can create connection records at the time you create the component records or afterwards by updating the parent component record. The following examples illustrate how to create hardware and software connection records by updating the parent records. You can follow the flow of the panels using the sample data shown here or by using your own data.

Creating Hardware Component Connection Records

In this example, you create connection records for the component records you created earlier in this book. You are connecting the PS/2s to the 3274 controller.

The example uses the following information:

- The component to is CTL3274 and its address is 0C1.
- The connection type is PHYSICAL.
- The shift is ONE.
- The status is INSTALL.
- The description is DAY SHIFT CONNECTION TO CTL3274.

After you create the first connection record by following this example, use Table 2 to complete information on panel BLG0D130, Hardware Component Connection Entry, for at

least four more connection records. You will need these connection records later when you draw a configuration diagram.

Table 2. Configuration Information for Use in Creating Hardware Connection Records

Component ID	Connection Record ID	Path ID	Cable Number	Port Number	Port ID	Address
PS/2A	C3274A1	A1	01	C1	C1	0C1
PS/2B	C3274A2	A2	02	C2	C2	0C2
PS/2C	C3274A3	A3	03	C3	C3	0C3
PS/2D	C3274A4	A4	04	C4	C4	0C4
PS/2E	C3274A5	A5	05	C5	C5	0C5
PS/2F	C3274A6	A6	06	C6	C6	0C6
PS/2G	C3274A7	A7	07	C7	C7	0C7
PS/2H	C3274A8	A8	08	C8	C8	0C8
PS/2I	C3274A9	A9	09	C9	C9	0C9
PS/2J	C3274A10	A10	010	C10	C10	0CA

To update the hardware component record, type the following and press Enter:

update r ps/2a

```
BLG0EN20
                        --- PRIMARY OPTIONS MENU ---
                                                           APPLICATION: MANAGEMENT
OPTIONS:
      1. OVERVIEW......Display general information and product enhancements.
      2. PROFILE......Display or alter invocation or session defaults.
      3. APPLICATION....Change application, list available applications.
      4. CLASS......Change current class, list available classes.
      5. ENTRY.....Create a record.
      6. INQUIRY.....Search for records.
      7. UTILITY......Copy, display, print, delete, and update records.
8. GLOSSARY......Display a list of searchable words in the database.
      9. PMF.....Modify or create panels.
           Select an option, enter a command, or type QUIT to exit.
          Tivoli Information Management for z/OS Version 7 Release 1
                  5697-SD9 (C) Copyright IBM Corp., 1981, 2001.
===> update r ps/2a
```

To create a connection record, type 3 on the command line and press Enter.

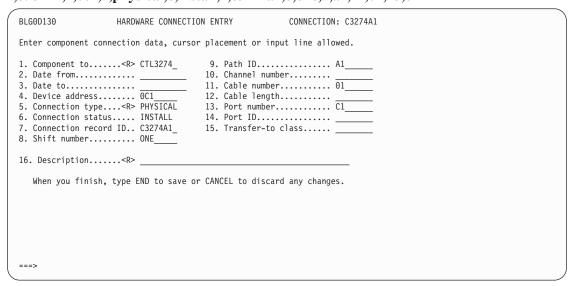
```
BLG0DU01
                     HARDWARE COMPONENT SUMMARY
                                                          COMPONENT: PS/2A
Generic device..... VID
                                           Display class..... 1
Device type & model..... PS/2
                                           Location code.....
Serial number..... H6224
                                           Entry priv. class..... MASTER
Microcode EC level.....
                                           Owning priv. class.....
Model link ID...... TERMPS00
                                           Date entered........... 08/08/1996
Contact name.....
                                           Time entered...... 18:43
Component owner..... DPT48
                                           Date last altered..... 08/08/1996
Date of status...... 08/08/1996
                                           Time last altered..... 19:16
Component status..... INSTALL
                                           User last altered..... GARTLAN
Description..... PS/2 COMPONENT
 Select one of the following, type END to save your changes, or type {\sf CANCEL}
 to discard your changes.
          1. Primary description.
                                      7. Feature entry.
         2. Primary support data.
3. Connections.
4. EC Levels.
8. Freeform text and notes.
9. File record.
10. Secondary support data
          4. EC Levels.
                                       10. Secondary support data.
                                    11. Maps data.
         5. Secondary description.
         6. Financial.
                                       12. Source definition.
===> 3
```

The Hardware Connection Entry panel appears. If no connection records exist for this component, message BLG09007I appears on this panel.

Supply information about the connection record. This information is used by the Report Format Facility as input for configuration diagrams. For example, the **Port ID** field is used to calculate the number of spare ports left on a controller.

For this example, type the following on the command line and press Enter:

1,ctl3274,4,0c1,5,physical,6,install,7,c3274a1,8,one,9,a1,11,01,13,c1



Next, type the following on the command line and press Enter:

14,c1,16,day shift connection to ctl3274

To save the data, type end and press Enter.

BLG0D130	HARDWARE CONNECTIO	N ENTRY	CONN	NECTION: C32	74A1	
Enter component co	nnection data, cursor	placement	or input lir	ne allowed.		
2. Date from 3. Date to 4. Device address. 5. Connection type 6. Connection stat	0C1 <r> PHYSICAL us INSTALL rd ID C3274A1_</r>	10. Channe 11. Cable 12. Cable 13. Port n 14. Port I	number number length umber D	01 C1 C1		
·	<r> DAY SHIFT CON</r>					
===> end						

When you have entered all information necessary for the connection record, file the record.

For this example, type 9 on the command line and press Enter.

(BLG0DU32	HARDWARE CONNECTION	SUMMARY	CONNECTION:	C3274A1	
	Connection type Connection status. Component from Date from Date to Generic device Device address	INSTALL PS/2A CTL3274 CTL	Entry Owning Date Time Date Time	number priv. class g priv. class entered last altered last altered last altered		
	Description	DAY SHIFT CONN	ECTION TO	CTL3274		
	Select one of the to discard your ch	following, type END tanges.	o save yo	ur changes, or type	CANCEL	
		 Description 				
		8. Freeform to 9. File record	7.0 ana no	tes.		
	===> 9					,

When you file the connection record, the component record is automatically updated with the link to the connection record, then filed. Any other changes that you made to the component record are also filed.

The following table panel lists the connection records attached to the component record. You can use any of the line commands at this time, or enter **end** to return to the summary panel.

A message appears on this panel confirming that the record was stored successfully. The additional message states that the component record has also been stored successfully.

For this example, type end and press Enter.

```
BLG1TCON
                       HARDWARE CONNECTION RECORD LIST
                                                                             LINE 1 OF 1
      RECORD ID COMPONENT GENERIC
                                               CONNECTION
                                                                DEVICE
                                                                            DATE
                                 DEV/TYPE
                                                 TYPE
                                                                ADDRESS
                                                                            FROM
  1. C3274A1
                     CTL3274
                                                  PHYSICAL
                                                                0C1
*** BOTTOM OF DATA ***
Line Cmds: A=Add C=Copy D=Delete P=Print S=Select U=Update Type DOWN or UP to scroll the panel, or type END to exit the panel.
+ BLG03058I Record C3274A1 was stored successfully.
===> end
```

If there were data you wanted to update, you could make a selection from the bottom of the panel and update other parts of the component record.

For this example, type 9 on the command line and press Enter.

```
BLG0DU01
                      HARDWARE COMPONENT SUMMARY
                                                              COMPONENT: PS/2A
Generic device...... VID
                                              Display class..... 1
Device type & model..... PS/2
                                              Location code.....
                                             Entry priv. class..... MASTER
Serial number..... H6224
Microcode EC level.....

Model link ID.......TERMPS01
                                              Owning priv. class.....
                                              Date entered.......... 08/08/1996
Contact name.....
                                             Time entered...... 18:43
Component owner......DPT48
                                             Date last altered..... 08/08/1996
Date of status....... 08/08/1996
                                              Time last altered..... 19:16
Component status..... INSTALL
                                              User last altered..... GARTLAN
Description..... PS/2 COMPONENT
 Select one of the following, type END to save your changes, or type CANCEL
 to discard your changes.
          1. Primary description.
2. Primary support data.
3. Connections.
4. EC Levels.
7. Feature entry.
8. Freeform text and notes.
9. File record.
10. Secondary support data.
          5. Secondary description.
                                         11. Maps data.
          6. Financial.
                                         12. Source definition.
```

A message appears on this panel confirming that the record was stored successfully.

```
BLG0EN20
                      --- PRIMARY OPTIONS MENU ---
                                                      APPLICATION: MANAGEMENT
OPTIONS:
     1. OVERVIEW......Display general information and product enhancements.
     2. PROFILE......Display or alter invocation or session defaults.
     3. APPLICATION....Change application, list available applications.
     4. CLASS......Change current class, list available classes.
     5. ENTRY.....Create a record.
     6. INQUIRY.....Search for records.
     7. UTILITY......Copy, display, print, delete, and update records.
     8. GLOSSARY......Display a list of searchable words in the database.
     9. PMF.....Modify or create panels.
          Select an option, enter a command, or type OUIT to exit.
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BLG03058I Record PS/2A was stored successfully.
```

Using the information from page 198, create connection records for the other hardware component records created earlier.

Creating Software Component Connection Records

In this example, you create the connection record for the software components you created in Creating Software Records From Models. You are going to create a software-to-hardware connection by connecting the software to the hardware components you created in Creating Hardware Records From Models. This example uses the following information:

- The Component-to IDs are PS/2A, PS/2B, and so on.
- The connection type is LOGICAL.
- The connection status is INSTALL.
- The shift number is ONE.
- The Connection IDs are COS/2A, COS/2B, and so on. This is the unique record ID for these connection records.
- The description is OS/2 CONNECTION TO PS/2x (where x corresponds to the letter at the end of the Component-to id).

After you create the first connection record by following this example, use Table 3 to complete the information on the Software Component Connection Entry panel for the other connection records you need to create.

Table 3. Configuration Information for Use in Creating Software Connection Records

Component-to ID	Connection ID	Device Address	Component-to ID	Connection ID	Device Address
PS/2A	COS/2A	0C1	PS/2F	COS/2F	0C6
PS/2B	COS/2B	0C2	PS/2G	COS/2G	0C7
PS/2C	COS/2C	0C3	PS/2H	COS/2H	0C8
PS/2D	COS/2D	0C4	PS/2I	COS/2I	0C9
PS/2E	COS/2E	0C5	PS/2J	COS/2J	0CA

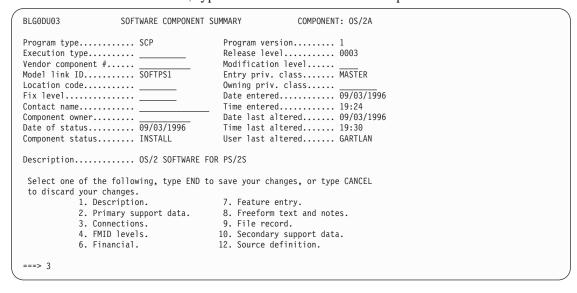
As mentioned previously, you will create the software connection record by updating a software component record.

Type the following on the command line and press Enter:

update r os/2a

```
BLG0EN20
                      --- PRIMARY OPTIONS MENU ---
                                                      APPLICATION: MANAGEMENT
OPTIONS:
     1. OVERVIEW......Display general information and product enhancements.
     2. PROFILE......Display or alter invocation or session defaults.
     3. APPLICATION....Change application, list available applications.
     4. CLASS......Change current class, list available classes.
     5. ENTRY.....Create a record.
     6. INQUIRY.....Search for records.
     7. UTILITY......Copy, display, print, delete, and update records.
     8. GLOSSARY......Display a list of searchable words in the database.
     9. PMF......Modify or create panels.
          Select an option, enter a command, or type QUIT to exit.
         Tivoli Information Management for z/OS Version 7 Release 1
                5697-SD9 (C) Copyright IBM Corp., 1981, 2001.
===> update r os/2a
```

To create a connection record, type 3 on the command line and press Enter.



The Software Component Connection Entry panel appears. If no connection records exist for this component, message BLG09007I appears on this panel.

Supply information about the connection record. This information is used by the Reports facility to obtain input for configuration diagrams.

For this example, type the following on the command line and press Enter:

1,ps/2a,4,0c1,5,one,6,logical,7,install,8,cos/2a

(BLG0D230 SOFTWARE COMPONENT CONNECTION ENTRY CONNECTION: COS/2A
	Enter component connection data; cursor placement or input line allowed.
	1. Component to <r> PS/2A 6. Connection type LOGICAL 2. Date from 7. Connection status INSTALL 3. Date to 8. Connection ID COS/2A_ 4. Device address 0C1 9. Transfer-to class 5. Shift number ONE</r>
	10. Description <r></r>
	When you finish, type END to save or CANCEL to discard any changes.
	===>

Next, type the following on the command line and press Enter:

10,os/2 connection to ps/2a

To save the data, type **end** on the command line and press Enter.

When you have entered all necessary information for connection record, file the record.

For this example, type 9 on the command line and press Enter.

BLG0DU40	SOFTWARE CONNECTION	ON SUMMARY	CONNECTION	N: COS/2A	
Connection state Component from Component to Date from		Entry priv Owning pri Date enter Time enter Date last Time last	er class v. class ed ed altered altered altered		
·	OS/2 CONNECT the following, type ENI r changes. 1. Descript) to save your	changes, or type	e CANCEL	
	8. Freeform 9. File red	n text and note cord.	s.		
===> 9					

When you file the connection record you are creating, the component record is automatically updated with the link to the connection record, then filed. Any other changes that were made to the component record are also filed.

The following table panel lists the connection records attached to the software component record. You can use any of the line commands at this time, or type **end** on the command line and press Enter.

A message appears on this panel confirming that the record was stored successfully. The additional message states that the component record has been stored successfully.

For this example, type end on the command line and press Enter.

```
BLG1TCOS
                     SOFTWARE CONNECTION RECORD LIST
                                                                  LINE 1 OF 1
      RECORD ID
                  COMPONENT
                             GENERIC CONNECTION
                                                     DEVICE
                                                                 DATE
                              DEV/TYPE TYPE
                                                     ADDRESS
                                                                 FROM
                                       LOGICAL
  1. COS/2A
                  PS/2A
*** BOTTOM OF DATA ***
Line Cmds: A=Add C=Copy D=Delete P=Print S=Select U=Update
Type DOWN or UP to scroll the panel, or type END to exit the panel.
+ BLG03058I Record COS/2A was stored successfully.
===> end
```

You return to the Software Component Summary panel. At this time, you can make a selection from the bottom of the panel to update other parts of the component record.

For this example, type 9 on the command line and press Enter.

BLGODU03 SOFTWARE COMPONENT	SUMMARY COMPONENT: 0S/2A	
Program type	Date last altered 09/03/1996 Time last altered 19:30 User last altered GARTLAN	
Description		
to discard your changes.	to save your changes, or type officer	
 Description. 	7. Feature entry.	
	Freeform text and notes.	
3. Connections.	9. File record.	
4. FMID levels.	3 - 11	
6. Financial.	12. Source definition.	
===> 9		

A message appears on this panel confirming that the record was stored successfully.

```
BLGOEN20 --- PRIMARY OPTIONS MENU --- APPLICATION: MANAGEMENT

OPTIONS:

1. OVERVIEW......Display general information and product enhancements.
2. PROFILE......Display or alter invocation or session defaults.
3. APPLICATION....Change application, list available applications.
4. CLASS.......Change current class, list available classes.
5. ENTRY......Create a record.
6. INQUIRY......Search for records.
7. UTILITY......Copy, display, print, delete, and update records.
8. GLOSSARY.....Display a list of searchable words in the database.
9. PMF.......Modify or create panels.

Select an option, enter a command, or type QUIT to exit.

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BLGO3058I Record OS/2A was stored successfully.
===>
```

Using the information on page 203, create at least four more connection records for the software component records created earlier.

Renaming Configuration Management Records

The RENAME command allows you to change the record identifier (record ID) of a configuration record. When you rename a record, all references to it in the database are changed from the old name to the new name.

The rename function is useful if you want to change record IDs to make them easier to remember or more descriptive of the records they identify. For example, after you have created a number of records and assigned record IDs to them (or allowed the system to assign record IDs to them), you find that your work would be easier if the records had more meaningful names. The rename function allows you to add meaningful names to your records without affecting the data in any other way.

To rename a configuration record issue the RENAME command with or without the current record ID and the new record ID. If you do not include *both* the old record ID and the new record ID, you are asked for them and for the database you want to work with. Then, a panel corresponding to the current record type is presented to verify that you want the record renamed.

When using the RENAME command, keep in mind the following:

- When you rename a record, all references to that record are also changed to refer to the renamed record by its new record ID.
- If you try to assign a record ID that already exists, an error message appears.
- The RENAME command renames only configuration records. However, references to the record that occur in records other than configuration records (for example, in problem or change records) are also updated.
- References to renamed records are identified in the Rename Field Qualification panel. For more information, refer to the *Tivoli Information Management for z/OS Panel Modification Facility Guide*.
- If RENAME is not successful, the database remains unchanged.
- No other users can access the database until RENAME is complete.

The following instructions and panels illustrate how to rename a system record ID. You can follow the flow of the panels by using the sample data shown here or by using your own data.

It turns out that RED9021 was not a very descriptive name for a system record, so in this example you will rename the system record you created in "Creating System Records" on page 89. On the panel, change the system record ID from RED9021 to SYSTEMA.

To rename a record, type **RENAME** on the command line and press Enter.

```
BLG0EN20
                      --- PRIMARY OPTIONS MENU ---
                                                      APPLICATION: MANAGEMENT
OPTIONS:
     1. OVERVIEW......Display general information and product enhancements.
     2. PROFILE......Display or alter invocation or session defaults.
     3. APPLICATION....Change application, list available applications.
     4. CLASS......Change current class, list available classes.
     ENTRY......Create a record.
     6. INQUIRY.....Search for records.
     7. UTILITY......Copy, display, print, delete, and update records.
     8. GLOSSARY......Display a list of searchable words in the database.
     9. PMF.....Modify or create panels.
          Select an option, enter a command, or type QUIT to exit.
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               5697-SD9 (C) Copyright IBM Corp., 1981, 2001.
===> rename
```

In field 2, type the *existing* record ID. In field 3, type the *new* record ID.

For this example, type the following on the command line and press Enter:

2,red9021,3,systema

Press Enter again to continue.

```
BLG1UT02 RENAME COMPONENT DIALOG RENAME

Enter RENAME component ID's; cursor placement or input line entry allowed.

1. Database............<R> 5
2. Component ID (OLD)....<R> RED9021
3. Component ID (NEW)....<R> SYSTEMA_

To start the function, press Enter without field modification.
```

The panel that appears depends on the type of record you are renaming. See "Examples of Some Rename Verification Panels" on page 212 for examples of Rename Verification Panels.

The upper portion of the following panel is a description of the current record. Verify that this is the record you want to rename. Below the description are two options. If this were the wrong record, you could cancel the rename function by selecting option 1.

For this example, type 2 on the command line and press Enter to rename the record.

(BLG0DU72	SYSTEM RENAME	VERIFICATION	SYSTEM: RED9021	
	System name	DPCTR1	Contact name <h: altered<h:<="" class="" class.<h:="" contact="" date="" dept="" entered="" entry="" last="" owning="" phone="" priv.="" th="" time=""><th>MASTER 08/08/1996 17:11</th><th></th></h:>	MASTER 08/08/1996 17:11	
	Description	9021 CPU KNOWN A			
		1. Cancel renam 2. Verify renam			
	===> 2				

A message appears on this panel confirming that the record was renamed successfully.

You can rename other records at this time.

Type end on the command line and press Enter to return to the Primary Options Menu.

This ends the example of renaming record ID RED9021.

BLG0EN20	PRIMARY OPTIONS MENU APPLICATION: MANAGEMENT	
OPTIONS:		
2. 3. 4. 5. 6. 7. 8.	OVERVIEWDisplay general information and product enhancements. PROFILEDisplay or alter invocation or session defaults. APPLICATIONChange application, list available applications. CLASSChange current class, list available classes. ENTRYCreate a record. INQUIRYSearch for records. UTILITYCopy, display, print, delete, and update records. GLOSSARYDisplay a list of searchable words in the database. PMFModify or create panels.	
	Select an option, enter a command, or type QUIT to exit.	
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===>		

Examples of Some Rename Verification Panels

BLG0DU57 HARDWARE (COMPONENT RENAME	VERIFICATION	COMPONENT:		
Generic device Device type & model Serial number Microcode EC level Model link ID Contact name<+> Component owner<+> Date of status<+> Component status<+>		Display class. Location code. Entry priv. cl Owning priv. c Date entered Time entered Date last alte User last alte	ass		
Description			_		
Select one of the	following to can	cel or verify yo			
	 Cancel rename Verify rename 				
===>					

inancial name	Generic device	
inancial type	Component count <h></h>	
endor name	Charge out rate	
Contact name	Minimum VPA quantity	
larketing rep		
System specialist		
PA name	Owning priv. class <h></h>	
PA number	Date entered	
PA duration	Time entered	
PA start date	Date last altered <h></h>	
Device type & model	Time last altered <h></h>	
Charge out account		
		
Description		
Colort one of the following		
Select one of the following	ng to cancel or verify your request.	
1 Cancol	rename request.	
	rename request.	

BLGODU62 SOFTWARE COMPONENT RENAME	VERIFICATION COMPONENT:
Program type	Program version
Component status <h></h>	User last altered <h></h>
Description	
Select one of the following to car	cel or verify your request.
1. Cancel rename 2. Verify rename	·
===>	

BLGODU60 HARDWARE SUBCOMPONENT F	RENAME VERIFICATION SUBCOMP:
Subcomponent type <h></h>	Location code
Serial number	Entry priv. class
Microcode EC level	Owning priv. class <h></h>
Hardware link ID	Date entered
Contact name	Time entered
Subcomponent owner <h></h>	Date last altered <h></h>
Date of status	Time last altered <h></h>
Subcomponent status <h></h>	User last altered <h></h>
Description	o cancel or verify your request.
1. Cancel	rename request.
	rename request.
·	·
===>	
·	



Swapping Components in the Configuration

The SWAP command allows you to interchange two components or subcomponents in your configuration. If you exchange one terminal, keyboard, or display device for another in your configuration, the SWAP command lets you modify database records to represent that exchange.

The SWAP command is useful in configuration management if you maintain an inventory of spare components and subcomponents. When you replace a faulty component or subcomponent in your configuration with a component or subcomponent from your inventory of spare components, you can record the exchange in the database with just a single command.

The SWAP command is also useful if you want to interchange two components or subcomponents *within* your configuration. Again, the SWAP command allows you to change the necessary records in the database by using a single command.

When you exchange two components using the SWAP command, the following changes to the database are made automatically:

- The component locations in the two component records are interchanged.
- The component status value in the two component records are interchanged.
- The status date for both components is set to the date of the exchange.
- The subcomponents that are attached to the components being swapped are interchanged. For example, if a particular subcomponent is recorded as attached to a terminal before a swap, then after the swap that same subcomponent is recorded as being attached to the terminal that was exchanged for the original terminal.
- Connection records involving either or both of the components being swapped are modified as follows:
 - You modify connection records for future connections (either proposed or planned) by replacing references to the first component with references to the second component, and vice versa. For example, if a connection is planned for a terminal that is later exchanged with a terminal from your inventory of spare components, the same planned connection is recorded for the terminal swapped from that inventory. In other words, plans are retained for the new component.
 - Connection records for current connections generate two records:
 - A historical connection record for the connection as it existed up to the date of the swap
 - A current connection record for the connection as it exists after the date of the swap.
 - Existing historical connection records are not altered by the SWAP command.

Note: A historical connection record is one where the *to date* occurs on or before the date of the swap. A current connection record is one where the *from date* occurs on or before the date of the swap and the *to date* occurs after the date of the swap. A planned connection record is one where the *from date* occurs after the date of the swap.

In summary, after you use the SWAP command, the location, status, subcomponents, and existing and planned connections recorded for each component accurately represent the existing conditions even though the actual identity of the components has changed.

When you exchange two subcomponents using the SWAP command, the following database changes are made automatically:

- The subcomponent locations in the two subcomponent records are interchanged.
- The subcomponent status values in the two subcomponents are interchanged.
- The date of status for both subcomponents is set to the date of the exchange.
- The component link values on the subcomponents are interchanged as follows:
 - If neither subcomponent is linked to a component, then neither subcomponent is linked to a component after the swap.
 - If the first subcomponent is linked to a component (for example, CTLRED), but the second is not linked to any component, then after the swap the second subcomponent is linked to component CTLRED and the first subcomponent is not linked to any component.
 - If the first subcomponent is linked to one component (for example, CTLRED) and the second subcomponent is linked to another component (for example, CTLBLUE), then after the swap the first subcomponent is linked to component CTLBLUE and the second component is linked to component CTLRED.

In summary, after you use the SWAP command, the location, status, and links recorded for each subcomponent accurately represent the existing condition even though the actual identity of the subcomponents has changed.

Each time you interchange two component records or two subcomponent records you must issue the SWAP command, either with or without the following values:

- The record ID of the first record to be swapped
- The record ID of the second record to be swapped
- The effective date of the swap.

An error message is displayed when you:

- Try to swap records other than hardware component records, software component records, or hardware subcomponent records. You cannot swap model records.
- Try to swap records that are not of the same type, such as a hardware component record and a hardware subcomponent record.

If SWAP is not successful, the database remains unchanged. No other users can access the database until SWAP is complete.

References to swapped records are identified in the Swap Field Qualification panel. For more information, refer to the *Tivoli Information Management for z/OS Panel Modification Facility Guide*.

The following instructions and panels illustrate how to SWAP two subcomponent records. You can follow the flow of the panels using the sample data shown here or by using your own data.

In this example, swap two keyboard records. Swap subcomponent record ID KBTEXT1 with record KBTEXT2.

To swap records, type swap on the command line and press Enter.

```
BLG0EN20
                      --- PRIMARY OPTIONS MENU ---
                                                      APPLICATION: MANAGEMENT
OPTIONS:
      1. OVERVIEW......Display general information and product enhancements.
      2. PROFILE......Display or alter invocation or session defaults.
      3. APPLICATION....Change application, list available applications.
      4. CLASS......Change current class, list available classes.
      5. ENTRY.....Create a record.
      6. INQUIRY.....Search for records.
      7. UTILITY......Copy, display, print, delete, and update records.
      8. GLOSSARY......Display a list of searchable words in the database.
      9. PMF......Modify or create panels.
          Select an option, enter a command, or type QUIT to exit.
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                5697-SD9 (C) Copyright IBM Corp., 1981, 2001.
===> swap
```

Supply the record IDs of the two components you want to swap.

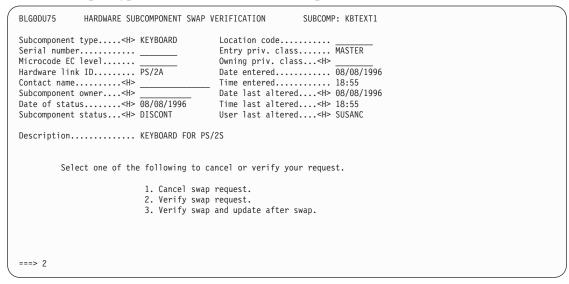
For this example, type the following on the command line and press Enter:

2,kbtext1,3,kbtext2,4,=

Press Enter again to continue.

The upper portion of this panel is a description of the first of the components to be swapped. Verify that this is one of the records you want to have swapped.

For this example, type 2 on the command line and press Enter.



The upper portion of the Swap Verification panel is a description of the second component you are swapping. Verify that this is the second record you want to exchange.

You can now do one of the following:

- Use option 1 to cancel the swap request.
- Use option 2 to proceed with the swap.
- Use option 3 to proceed with the swap and update this subcomponent record after the swap is complete.

Sometimes, swapped records do not reflect the correct configuration after a swap because some of the fields do not change. For example, if you swap subcomponent A, which has a status of INSTALL, with subcomponent B, which has a status of TEST before the swap, the status is exchanged during the swap, but the desired status of subcomponent A is not TEST but INSTALL.

If you select option 3, you can correct the fields to reflect the new configuration for this record. You could also delete the connection records when the summary panel appears. If you do not choose to update during the swap process, you need to search on a date range and delete the connection records.

For this example, type 2 on the command line and press Enter.

```
BLG0DU75
            HARDWARE SUBCOMPONENT SWAP VERIFICATION
                                                     SUBCOMP: KBTEXT2
Subcomponent type.....<H> KEYBOARD
                                     Location code.....
Serial number.....
                                     Entry priv. class..... MASTER
Microcode EC level.....
Hardware link ID...... PS/2B
                                     Owning priv. class...<H>
                                     Date entered............ 08/08/1996
Time entered..... 19:05
Subcomponent owner....<H>
                                     Date last altered....<H> 08/08/1996
Time last altered....<H> 19:05
Subcomponent status...<H> DISCONT
                                     User last altered....<H> SUSANC
Description..... KEYBOARD FOR PS/2S
       Select one of the following to cancel or verify your request.
                       1. Cancel swap request.
                       2. Verify swap request.
                       3. Verify swap and update after swap.
===> 2
```

A message appears on this panel confirming that the records were swapped successfully.

At this time, you can repeat the process to swap other configuration records. For this example, type **end** to leave the panel without swapping other records.

This ends the example of swapping records.

```
BLG0EN20
                       --- PRIMARY OPTIONS MENU ---
                                                         APPLICATION: MANAGEMENT
OPTIONS:
      1. OVERVIEW......Display general information and product enhancements.
      2. PROFILE......Display or alter invocation or session defaults.
      3. APPLICATION....Change application, list available applications.
      4. CLASS......Change current class, list available classes.
      ENTRY......Create a record.
      6. INQUIRY.....Search for records.
      7. UTILITY......Copy, display, print, delete, and update records.
     8. GLOSSARY.....Display a list of searchable words in the database.
9. PMF......Modify or create panels.
           Select an option, enter a command, or type QUIT to exit.
          Tivoli Information Management for z/OS Version 7 Release 1
                 5697-SD9 (C) Copyright IBM Corp., 1981, 2001.
===>
```

Swap Verification Panels

Panel BLG0DU74 Hardware Component Swap Verification appears when you enter a hardware component ID in panel BLG1UT20 Swap Components.

BLG0DU74 HARDWARE	COMPONENT SWAP VERIFICATION COMPONENT:
Generic device Device type & model Serial number Microcode EC level Model link ID	
Contact name <h><h><h><h><h><h><h><h><h><h><h><h><h><</h></h></h></h></h></h></h></h></h></h></h></h></h>	Date last altered <h> Time last altered<h></h></h>
Description	
Select one of the	following to cancel or verify your request.
	 Cancel swap request. Verify swap request. Verify swap and update after swap.
===>	

Panel BLG0DU75 Hardware Subcomponent Swap Verification appears when you enter a subcomponent ID in panel BLG1UT20 Swap Components.

BLG0DU75 HARDWARE	SUBCOMPONENT SWAP	VERIFICATION	SUBCOMP: _	
Subcomponent type Serial number Microcode EC level Hardware link ID Contact name Subcomponent owner Date of status Subcomponent status		Entry priv. c Owning priv. Date entered. Time entered. Date last alt Time last alt User last alt	lassclass <h></h>	
Description	the following to			
	1. Cancel swa 2. Verify swa 3. Verify swa		er swap.	
===>				

Panel BLG0DU76 Software Component Swap Verification appears when you enter a software component ID in panel BLG1UT20 Swap Components.

BLG0DU76 SOFTWARE	COMPONENT SWAP VERIFICATION COMPONENT:
Program type	Program version
Execution type	Release level
Vendor component #	Modification level
Model link ID	Entry priv. class
Location code	
Fix level	Date entered
Contact name <h></h>	Time entered
Component owner <h></h>	Date last altered <h></h>
Date of status <h></h>	Time last altered <h></h>
Component status <h></h>	User last altered <h></h>
Description	
Select one of the	following to cancel or verify your request.
	1. Cancel swap request.
	2. Verify swap request.
	3. Verify swap and update after swap.
	3. Verilly Swap and update after Swap.
===>	



Creating and Drawing Configuration Diagrams

A configuration diagram is a collection of subdiagrams. Each subdiagram is a picture of a network of hardware components and all connected components. Subdiagrams are defined by subdiagram markers in the component record. An example of a configuration diagram is shown in Figure 5 on page 239.

Subdiagram Markers

Before you request a report, set the subdiagram markers on panel BLG0D113 Hardware Component Diagram Map Data Entry. This panel appears when you select 11, Maps Data, from panel BLG0DU30, Hardware Component Summary. This is explained in Creating Hardware Records. The subdiagram markers must be set before you issue the REPORT command.

BLGOD113 HARDWARE COMPONENT DIAGRAM MAP DATA ENTRY COMPONENT:
Enter diagram map data; cursor placement or input line entry allowed.
1. Number of ports
When you finish, type END to save or CANCEL to discard any changes.
===>

Each component that has a subdiagram marker flag set to START or TABLE01 is selected by the report to begin a subdiagram. A subdiagram marker-flag value of TABLE01 causes the subdiagram to appear in a table format. The TABLE value in a component means any component below it and up-connected to it will be in the table format. For example, if you specify the TABLE01 value for a 3274 controller, all the terminals connected to that controller would appear in a table format. Figure 6 on page 240 is an illustration of this example. A value of START can cause the subdiagram to appear in the hierarchical format. Subdiagram markers are required in a component record to start a subdiagram. A value of

STOP can cause the subdiagram to end before the actual end of path. In other words, you do not put a subdiagram marker in every component record, but only the component records to begin or end a subdiagram.

The component that has subdiagram marker 1 set to START or TABLE01 appears at the head of a subdiagram. This record is obtained by the initial search criteria in the RFT. All other records within a subdiagram are obtained by searching for down connections from the current component. Their presence in the report is controlled indirectly, as follows:

- The search argument in the RFT is applied to the connection records linking one component to another in the subdiagram. If no connection records between components meet the search criteria, the search is terminated and the component does not appear in the subdiagram.
 - For example, suppose you have two connections for one component, one for first shift and the second for third shift. If you look for second shift, the search would not find that connection and it would stop the path.
- Components with a value of STOP for subdiagram marker 1 terminate a path in the subdiagram, even though there can be connection records linking additional components to them in the path.

Subdiagram Formats

Subdiagrams can be produced in three formats: hierarchical, table, and compressed hierarchical. Figure 5 on page 239 shows an example of a subdiagram in hierarchical format. This is the default format and can be used to represent any subdiagram in your network.

Starting at Figure 6 on page 240 is an example of a subdiagram in table format. This format can show a large group of similar components up-connected to one component. You define this format on panel BLG0D113 Diagram Map Data.

Figure 7 on page 240 is an example of a subdiagram in a compressed hierarchical format. This format can show on one page IO strings and collections of devices attached to the same component. Each connection is distinguished by a left-facing arrow, <----. This indicates that this component is connected the same way as the immediately preceding component. You define this format on panel BLG1UT07 Configuration Diagram Parameter Entry or BLG0P300 in your profile.

If you request the subdiagram index on BLG1UT07 Configuration Diagram Parameter Entry, it is printed after all subdiagrams. The index is printed in one or two columns across the page, depending on the page width available.

Diagram Procedure

A suggested procedure for producing a configuration diagram is:

- 1. Set up your profile for diagram data sets. Turn to "Modifying Your Profile to Use DRAW" on page 225 for instructions.
- 2. Decide which components are likely to start a subdiagram path. (For example, all CPUs or 3705s are good components with which to start a subdiagram.)
- 3. Create the diagram.
- 4. Look at the diagram and then:

- a. Decide which components should stop a subdiagram path (if necessary).
- b. Determine which configuration subdiagrams you need to see.
- c. Look in the subdiagram index for components that occur more than once. These components have two or more paths and can be set as subdiagram headings.
- d. Determine which subdiagrams are to be in table format and set the markers to TABLE01. For example, a 3274 with one level of connections could be in a table format.
- e. Decide what data is to appear in each table column.
- f. Decide on the data to be shown as text against the components and connections.
- g. Look for diagrams showing only one component. This means there is a subdiagram marker on a component that does not have anything connected to it or the connections did not satisfy the selection criteria. You should check the connections or remove the subdiagram marker on the component.
- 5. Re-create the diagram.
- 6. Repeat the procedure from step four above until the diagram looks the way you want it to.

Changing Your Diagram

Configuration Management uses the subdiagram marker 1 field to determine the contents of the diagram. You can produce various diagrams using the other subdiagram markers provided in panel BLG0D113 Diagram Map Data. Setting other markers along with changing the search criteria of the report RFT to select markers 2 through 8, produces different diagrams. To use markers 2 through 8, you must create your own RFT. Only subdiagram marker 1 is supported by the product.

The contents of the configuration diagram data set are controlled both by the setting of subdiagram marker flags in component records and by the information held in component and connection records. Any connection record satisfies the RFT search, but you might want to vary the search that draws the configuration by specifying only physical connections or historical connections. You can vary the contents of the configuration diagram by changing either the flag value or your search criteria in the report RFT until you arrive at a satisfactory diagram.

Modifying Your Profile to Use DRAW

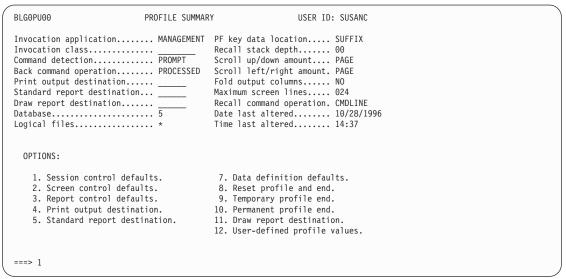
Because it takes the REPORT and the DRAW commands to create a configuration diagram, the values you set in your PROFILE affect the configuration diagram. As a Configuration Management user, you should modify your profile to accommodate the DRAW command. To do this, specify your Draw report destination and your Standard report destination in your profile. You should set up the report output, data set, or DDNAME destinations before you use the DRAW command. For a description of the profile fields, refer to the *Tivoli Information Management for z/OS User's Guide*.

The following example illustrates how to modify your profile to indicate where the results of the DRAW command should go. The panels do not tell you what values to set the profile values to. The panel flow points out the fields in the profile panels related to the DRAW command.

To change your user profile, type 2 on the command line and press Enter.

```
BLG0EN20
                        --- PRIMARY OPTIONS MENU ---
                                                           APPLICATION: MANAGEMENT
OPTIONS:
      1. OVERVIEW......Display general information and product enhancements.
      2. PROFILE......Display or alter invocation or session defaults.
      3. APPLICATION....Change application, list available applications.
      4. CLASS......Change current class, list available classes.
      5. ENTRY.....Create a record.
      6. INQUIRY.....Search for records.
      7. UTILITY......Copy, display, print, delete, and update records.
8. GLOSSARY......Display a list of searchable words in the database.
      9. PMF.....Modify or create panels.
           Select an option, enter a command, or type QUIT to exit.
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===> 2
```

Type 1 on the command line and press Enter.



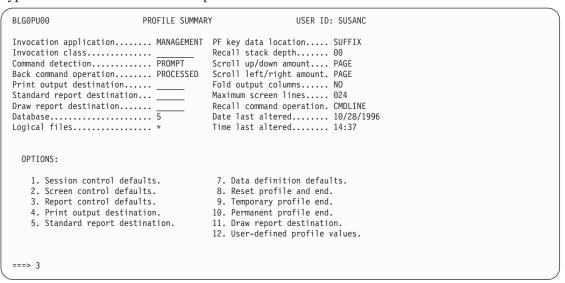
Specify the values *do not specify SYSOUT as a value* that should be used to control your session in fields 32 (Standard report destination) and 33 (Draw report destination), if they are not already set.

To use the DRAW command as described in the next example, you should set the report destinations to DSNAME.

When you have finished entering the session default values, type **end** on the command line and press Enter to return to the Profile Summary panel.

BLGOP100 SESSION DE	EFAULTS USER ID: SUSANC
Enter session default data; cursor pla	acement or input line entry allowed.
INVOCATION	
COMMAND PROCESSING 11. Detection	· · · · · · · · · · · · · · · · · · ·
MISCELLANEOUS21. PF key data<	-
When you finish, type END to save	or CANCEL to discard any changes.
> eliu	

Type 3 on the command line and press Enter.

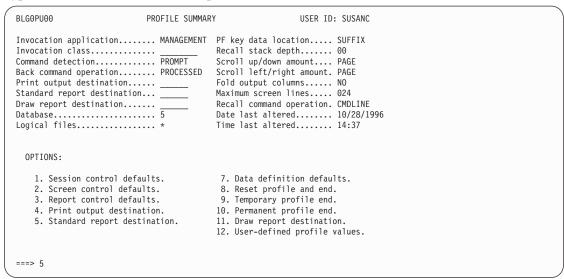


This panel requires that most of the fields be filled in. The default values shown in this panel can be changed to your report output specifications.

When you have finished entering the new default values, type **end** on the command line and press Enter.

```
BLG0P300
               REPORT CONTROL DEFAULTS
                                       USER ID: SUSANC
Enter report default data; cursor placement or input line entry allowed.
         Batch report data integrity...... N/A
         Interactive report data integrity...... N/A
       3. Previous period date range...........<R> 007
       4. Current period date range...........<R> 007
       6. Primary sort allocation percentage....<R> 00100
       7. Secondary sort allocation percentage..<R> 00100
       12. Diagram cross-reference option......<R> NO
       14. Diagram title..
 When you finish, type END to save or CANCEL to discard any changes.
===> end
```

Type **5** on the command line and press Enter.



Make your selection *do not select SYSOUT*. and complete the information on the appropriate panel.

Type end on the command line and press Enter to return to the Profile Summary panel.

```
+ BLGOP500 ------- STANDARD REPORT DESTINATION ------- UPDATE-+

ADD OR MODIFY STANDARD REPORT DESTINATION DEFAULTS.

OPTIONS:

1. SYSOUT.....Modify or add sysout characteristics.
2. DSNAME....Modify or add data set characteristics.
3. DDNAME.....Modify or add ddname characteristics.
4. END......Standard report destination entry complete.
```

This panel appears if you selected DSNAME from panel BLG0P500.

Complete the DSNAME destination information.

To use the DRAW command as described in the next example, set 1 to SUSANC.EXAMPLE or any other fully qualified data set name.

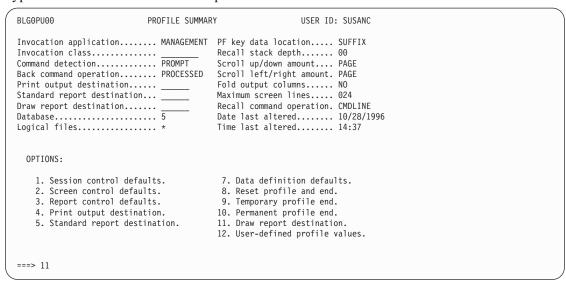
Type **end** on the command line and press Enter.

```
BLG0P520
            STANDARD REPORT DATA SET DESTINATION ENTRY
                                                     USER ID: SUSANC
Enter allocation parameters; cursor placement or input line entry allowed.
  2. Disposition.....
  3. Space units......<R> \overline{BLK}
  4. Primary quantity......<R> 0130
  5. Secondary quantity.....
  6. Allocation block length.<R> 03155
  Volume serial number.....
  8. Unit type.....
  9. Lines per page.........<R> 00000060
 10. Logical record length...<R> 00137
 11. Physical record length..<R> 03155
 12. Record format.....<R> VBA
 13. Output in uppercase.....<R> NO
 14. Browse the data set....._
  When you finish, type END to save or CANCEL to discard any changes.
===> end
```

This panel appears if you selected DDNAME from panel BLG0P500.

Complete the DDNAME destination information. Type **end** on the command line and press Enter.

Type 11 on the command line and press Enter.



You can define up to three destinations for the formatted report output. You identify which one you want to use on panel BLG0P100 Session Defaults.

Make your selection and complete the information on the appropriate panel.

Type **end** on the command line and press Enter.

```
+ BLGOP800 ------ DRAW REPORT DESTINATION ------ UPDATE-+

ADD OR MODIFY DRAW REPORT DESTINATION DEFAULTS.

OPTIONS:

1. SYSOUT.....Modify or add sysout characteristics.
2. DSNAME....Modify or add data set characteristics.
3. DDNAME.....Modify or add ddname characteristics.
4. END......Draw report destination entry complete.
```

If you selected DSNAME from panel BLG0P800, the Draw Report Data Set Destination Entry panel appears.

Supply destination information for the report data set.

To use the DRAW command as described in the next chapter, set 1 Data set name to SUSANC.DIAGRAM or any other fully qualified data set name.

Type **end** on the command line and press Enter.

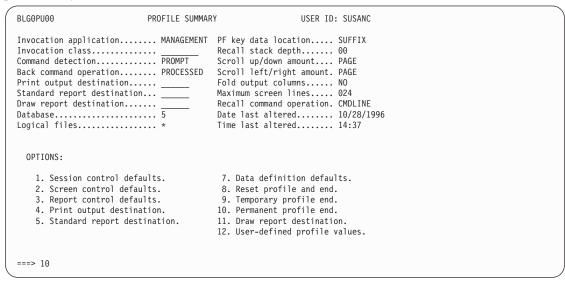
```
DRAW REPORT DATA SET DESTINATION ENTRY
                                                         USER ID: SUSANC
Enter allocation parameters; cursor placement or input line entry allowed.
  1. Data set name......R> SUSANC.DIAGRAM_
  2. Disposition.....
  3. Space units......R> \overline{BLK}
  4. Primary quantity......<R> 0130
  5. Secondary quantity......<R> 0130
  6. Allocation block length.<R> 03155
  Volume serial number......
  8. Unit type.....
  9. Lines per page.........<R> 00000060
 10. Logical record length...<R> 00137
 11. Physical record length..<R> 03155
 12. Record format......<R> VBA
 13. Output in uppercase.....<R> NO_
  When you finish, type END to save or CANCEL to discard any changes.
```

If you selected DDNAME from panel BLG0P800, the Draw Report DDNAME Destination Entry panel appears.

Supply destination information for DDNAME, then type **end** on the command line and press Enter.

You have made the necessary changes to your user profile. You can select option 9 or option 10 to store the changes.

For this example, type 10 on the command line and press Enter to save your changes permanently.



A confirmation message appears on this panel.

All supplied values have taken effect.

```
BLG0EN20
                      --- PRIMARY OPTIONS MENU ---
                                                      APPLICATION: MANAGEMENT
OPTIONS:
      1. OVERVIEW......Display general information and product enhancements.
     2. PROFILE......Display or alter invocation or session defaults.
     3. APPLICATION....Change application, list available applications.
     4. CLASS......Change current class, list available classes.
     5. ENTRY.....Create a record.
     6. INQUIRY.....Search for records.
     7. UTILITY......Copy, display, print, delete, and update records.
     8. GLOSSARY......Display a list of searchable words in the database.
     9. PMF.....Modify or create panels.
          Select an option, enter a command, or type OUIT to exit.
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BLG16511I The profile update will be permanently saved when the current sessio+
```

Creating the Diagram

Creating a configuration diagram is a two-step process. First, you issue the REPORT command, then you issue the DRAW command.

The REPORT command prompts you for profile information if it is not already set up, then extracts from the database information on hardware components and connection records. It then displays the data as a series of keywords and values. For more information on the Report Format Tables (RFTs) refer to the *Tivoli Information Management for z/OS Data Reporting User's Guide*.

The DRAW command processes the data produced by the REPORT command to produce a configuration diagram. If your user profile does not contain values for the draw report destination, you are prompted for it by the system as you are for any report. You are always prompted for the input data set when you use DRAW.

Enter the file name of your input data set on panel BLG1UT31 or the data set name of your input data set on panel BLG1UT32.

When DRAW command processing is complete, you return to the panel on which you entered the DRAW command.

The following example illustrates how to create a configuration diagram. You can follow the flow of the panels by using the sample data below or by using your own data.

In this example, you draw the configuration you have been building throughout this book. This example assumes that you set up your profile correctly and you select **DSNAME** from BLG0P801. If you have not set the values in your profile, you are prompted for them as you create a diagram. The prompts are not explained in this example.

The example uses the following information on panel BLG1UT07:

- Script and Index are YES.
- The diagram title is 3274 WITH PS/2S.
- The data set name is EXAMPLE.

The configuration diagram is illustrated beginning on Figure 5 on page 239. (The index portion is not illustrated.)

Figure 6 on page 240 is an illustration of the diagram in table format. Figure 7 on page 240 is an illustration of the diagram in compress format.

To create a configuration diagram, type **report** on the command line and press Enter.

```
BLG0EN20
                      --- PRIMARY OPTIONS MENU ---
                                                      APPLICATION: MANAGEMENT
OPTIONS:
      1. OVERVIEW......Display general information and product enhancements.
      2. PROFILE......Display or alter invocation or session defaults.
     3. APPLICATION....Change application, list available applications.
      4. CLASS......Change current class, list available classes.
      5. ENTRY.....Create a record.
      6. INQUIRY.....Search for records.
      7. UTILITY......Copy, display, print, delete, and update records.
      8. GLOSSARY......Display a list of searchable words in the database.
      9. PMF.....Modify or create panels.
          Select an option, enter a command, or type QUIT to exit.
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===> report
```

If you have a personally customized RFT using subdiagram marker 1-8, type 8 and press Enter.

Otherwise, type 4 and press Enter.

```
BLGOW500 REPORT ENTRY

Identify the type of report to be created.

1. GENERAL.......Summary reports for all applications.
2. PROBLEM......Problem management reports.
3. CHANGE.......Change management reports.
4. CONFIG......Configuration management reports.
8. USER RFT.....Specify user report format table name.
10. BROWSE/PRINT....Browse or print existing report data set.

Select item.

BLG15001I The REPORT command is using database 5.
===> 4
```

To customize the diagram, type 6 on the command line and press Enter.

The fields limit the data you get on your configuration diagram. The more fields you fill in, the more you limit your diagram.

For this example, type the following on the command line and press Enter:

1,09/03/1996,2,physical, 3,install,4,one

When you press Enter, the report diagram RFT executes and creates a data set.

A message appears on this panel confirming that the report was written successfully.

The report function is complete. To obtain the data created by the REPORT command, type **draw** on the command line and press Enter.

```
BLG0EN20
                      --- PRIMARY OPTIONS MENU ---
                                                      APPLICATION: MANAGEMENT
OPTIONS:
     1. OVERVIEW......Display general information and product enhancements.
     2. PROFILE......Display or alter invocation or session defaults.
     3. APPLICATION....Change application, list available applications.
     4. CLASS......Change current class, list available classes.
     ENTRY......Create a record.
     6. INQUIRY.....Search for records.
     7. UTILITY......Copy, display, print, delete, and update records.
     8. GLOSSARY......Display a list of searchable words in the database.
     9. PMF.....Modify or create panels.
          Select an option, enter a command, or type QUIT to exit.
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               5697-SD9 (C) Copyright IBM Corp., 1981, 2001.
+ BLG15004I The STANDARD REPORT output was successfully written to DSNAME: SUS+
===> draw
```

All fields on this panel must be filled in.

The data set created by the REPORT command is processed.

For this example, type the following on the command line and press Enter:

7,3274 with ps/2s

To continue, press Enter.

```
BLG1UT07 CONFIGURATION DIAGRAM PARAMETER ENTRY USERID: SUSANC

Enter parameter data; cursor placement or input line entry allowed.

1. Box width.......<R> 15
2. Connection length..R> 15
3. Script......<R> NO_
4. Index.....<R> NO_
5. Xref......<R> NO_
6. Compress.....<R> NO_
7. Diagram title....<R> 3274 WITH PS/2S______

When you finish, type END to save or CANCEL to discard any changes.
```

A message appears to remind you that your output data set must be properly defined in order to receive the output. Select the destination of the diagram input.

For this example, type 1 on the command line and press Enter.

This panel appears when you select option 1 (**DSNAME**) from BLG1UT30.

The data set name is preset to the name of the standard report output data set, as defined in the user profile.

Type end on the command line and press Enter to continue.

A message appears on this panel confirming that the diagram was written successfully.

This ends the example of drawing a configuration diagram.

```
BLGGENZO --- PRIMARY OPTIONS MENU --- APPLICATION: MANAGEMENT

OPTIONS:

1. OVERVIEW......Display general information and product enhancements.
2. PROFILE......Display or alter invocation or session defaults.
3. APPLICATION....Change application, list available applications.
4. CLASS......Change current class, list available classes.
5. ENTRY......Create a record.
6. INQUIRY......Search for records.
7. UTILITY......Copy, display, print, delete, and update records.
8. GLOSSARY......Display a list of searchable words in the database.
9. PMF........Modify or create panels.

Select an option, enter a command, or type QUIT to exit.

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BLM18104I Output from the DRAW command was written successfully to data set DS+
==>>
```

PAGE

1

DATE 12/15/9	1	3274 WITH PS/2	2S
	ICTL	+ C1 01 	PS/2A
		 C2 02 	PS/2B
		 C3 	PS/2C
	ĺ	 C4 	PS/2D
		 C5 05 	PS/2E
		 C6 06 	PS/2F IVID
	 	 	PS/2G

Figure 5. Illustration of a Configuration Diagram in Hierarchical Format

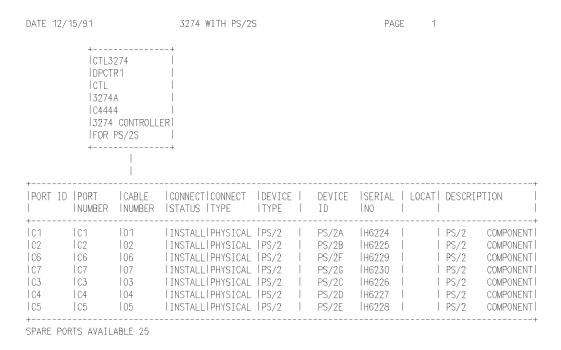


Figure 6. Illustration of a Configuration Diagram Output in Table Format

DATE 12/15/91	3274 WIT	H PS/2S	PA	GE 1
ICTL	C1 01 	IPS/2	C2 < 02 	PS/2B
1	C3 03 	IPS/2	C4 < 04 	+
1	C5 O5	PS/2 H6228 PS/2 COMPONENT +	C6 < 06	PS/2F
	C7 07 	HPS/2G IVID IPS/2 IH6230 IPS/2 ICOMPONENT	+ 	

Figure 7. Illustration of a Configuration Diagram Output in Compress Format. Notice the arrow direction for the boxes. The arrows point inward in a compressed format.

Displaying Tivoli Information Management for z/OS Records

This chapter tells you how to display information about Tivoli Information Management for z/OS records.

The DISPLAY command enables you to display a specific record in the database. For example, when you display a problem record's status data, you can see the assignee's name and department, problem status, current phase of completion, and related information. You can also use the DISPLAY command to request separate displays that concentrate on more specific classes of information.

It is through the display function that you can see the relationship between configuration records. For example, when you display a component record, you can see the system, data center, financial, and service records that are associated with it.

You can display Tivoli Information Management for z/OS records in several ways:

- Follow the prompting sequence from the Primary Options Menu. This prompting sequence is presented in the following section, "Using the Prompted Display Sequence" on page 242.
- Issue the DISPLAY command with or without the ID of the record you want to display. If you do not include the record ID, the system prompts you for the record ID and the number of the database.
- Enter the S (select) line command next to the record on the Search Results List panel. You can use S in the line-command area only. You can also display multiple records from the search results list by entering the SS block line command.

Using the Prompted Display Sequence

Begin at the Primary Options Menu.

To display a record, type 7 and press Enter.

```
BLG0EN20
                         --- PRIMARY OPTIONS MENU ---
                                                            APPLICATION: MANAGEMENT
OPTIONS:
      1. OVERVIEW......Display general information and product enhancements.
      2. PROFILE......Display or alter invocation or session defaults.
3. APPLICATION....Change application, list available applications.
      4. CLASS......Change current class, list available classes.
      5. ENTRY.....Create a record.
      6. INQUIRY.....Search for records.
      7. UTILITY......Copy, display, print, delete, and update records.
      8. GLOSSARY......Display a list of searchable words in the database.
      9. PMF.....Modify or create panels.
           Select an option, enter a command, or type QUIT to exit.
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  ===> 7
```

Type 1 and press Enter.

Type the record ID of the record you want to display.

For this example, type the following on the command line and press Enter:

2,prob5

Press Enter again to continue.

Because PROB5 is a problem record, the Problem Summary Display panel appears.

```
BLG1UT01 UTILITY ENTRY DIALOG UTILITY

Enter UTILITY information; cursor placement or input line entry allowed.

1. Database...........<R> 5
2. Record ID..........<R> PROB5___

To start the function, press Enter without field modification.
```

Sections later in this chapter present examples of displaying records for Problem Management, Change Management, and Configuration Management.

- For information on displaying records for problem management, see 243.
- For information on displaying records for change management, see 248.
- For information on displaying records for configuration management, see 254.

Displaying Problem Management Records

When you have requested the display of a Problem Management record, Tivoli Information Management for z/OS displays the Problem Summary Display panel.

```
BLG0S010
                    PROBLEM SUMMARY DISPLAY
                                                  PROBLEM: PROB5
Reported by...... JONES
                                   Assignee name.....<H> JONES
                                   Problem status......<H> CLOSED
                                   Network name.....
                                  Current priority.....<h>> 03
System name.....
                                  Owning priv. class.....
Program name......XMP1
                                  Entry priv. class..... MASTER
Device name.....___
                                  Date entered..... 08/27/1998
Key item affected.....
                                   Time entered..... 13:04
Cause code.......PROGRAM
                                  Date last altered....<H> 12/04/1998
Date closed...... 12/04/1998
                                  Time last altered....<H> 09:46
Vendor status.....<H>
                                   User last altered....<H> Z123BC
Description...... INCORRECT ERROR MESSAGE
 Select one of the following, type END to save your changes, or type CANCEL
 to discard your changes.
                                 6. Detail display.

    Reporter display.

       2. Status display.
                                 7. Supplemental data display.
       Close display.
                                 8. Interested privilege classes.
       4. History display.
                                 9. Synopsis display.
       5. Freeform text and notes. 10. Record utilities.
                                11. TSD Bridge display.
```

Several displays that you can request from this panel are similar to the data-entry panels used to create the problem description. They are:

- Reporter (option 1)
- Status (option 2)
- Close (option 3)

- Supplemental data (option 7)
- Synopsis (option 9).

These displays contain the same fields as their corresponding data-entry panels, so these displays are not shown here. The other options that are available from the Problem Summary Display panel are described in the following paragraphs.

History Display

The history display shows the initial value and each subsequent value for journal fields. To get this display from the Problem Summary Display panel, type 4 and press Enter.

```
BLG1TDHD
                              HISTORY DISPLAY
                                                                    LINE 1 OF 8
DATE
            TIME
                     USERID
                                 JOURNALIZED HISTORY DATA
ALTERED
                                  CODM/SOFTWARE DATT/12/04/1996 ESCL/1
08/27/1998 13:04
                      GARTLAN
                                  GROA/DEV PERA/SMITH PRII/03 PRIO/03
                                  STAC/INITIAL TYPE/SOFTWARE
11/30/1998 10:24
                      JACKSON
                                  CODP/TEST GROA/PUBS PERA/HARRIS
                                  PERC/JONES STAC/OPEN
12/04/1998 09:46
                      7123BC
                                  CODC/PROGRAM GROA/DEV PERA/JONES
                                  STAC/CLOSED
*** BOTTOM OF DATA ***
Type DOWN or UP to scroll the panel, or type END to exit the panel.
===>
```

The date and time when the field was altered and the user ID of the person who altered it are included for each entry in a history display. You can use the SCROLL command to view any entries that are not initially displayed on the panel. You cannot modify any of the data displayed on this panel, but you can display or include the data in reports.

Note: If Universal Time processing has been enabled for your application, a **Date Modified** history entry is only built if the local date of the user making the change is different than it was for the previous change. Therefore, a U.S. Pacific Time user who makes a change at 18:00 on 2/20/01 and another change at 23:00 the same night will not have a second **Date Modified** entry generated for the second change. However, to a U.S. Eastern Time user, the history data for the Pacific Time user's changes will appear as follows:

```
02/20/2001 21:00
02:00
```

The date for the second change, when viewed in U.S. Eastern Time, should be 02/21/2001; but because the Pacific Time user's date did not turn between changes, the Eastern Time user's view does not display a date change either. However, because history entries are always listed in chronological order, you can tell when a date change should occur when viewing histories of records originating in another time zone.

Freeform Text and Notes

The text display lets you view text information that was previously entered for a record. You cannot modify any of the data on this panel, but you can display or include the data in reports. To get to the actual text display panel from the Problem Summary Display panel, type 5 and press Enter.

The Display Problem Text panel appears. Choose the type of text display you want.

If you choose option 1, the Description Text panel appears.

```
BLGITDDE DESCRIPTION TEXT LINE 1 OF 1

08/27/1998 was trying to run program xmpl when I got a 406 abend.

******** *** BOTTOM OF DATA ***

Type DOWN or UP to scroll the panel, or type END to exit the panel.

===> end
```

Use the SCROLL command to view any lines of text that are not initially displayed on the panel. To see the time or the user ID associated with the text, scroll the date column using the COL operand with the SCROLL command, either RIGHT or LEFT.

Detail Display

The detail display lets you view all of the nonadministrative data in a problem record, including problem symptom and resolution data. To get this display from the Problem Summary Display panel, type **6** and press Enter.

```
BLG1TDSD
                             DETAIL DISPLAY
                                                             LINE 1 OF 10
ENTRY RECS=PROBLEM Reporter data
                                   PERS/JONES
                                               GROS/DEV PH/555-1985
COMX/XMP1 TYPE/SOFTWARE STAC/CLOSED RNID/PROB5 PRII/03
INCORRECT ERROR MESSAGE PRIO/03 Status data PERA/JONES
                                                         GROA/DEV
PH/555-1985 DATT/12/04/1998 Symptom data Program IDs
                                                         PIDS/XMP1
                      Supplemental data CODM/SOFTWARE
Message IDs
              MS/406
                                                       Synopsis data
CLSN/TSOC DATE/08/27/1998 TIME/13:04 CLAE/MASTER DATM/12/04/1998
TIMM/09:46 USER/Z123BC ESCL/1 5 PERC/JONES GROC/DEV PH/555-1985
CODP/TEST Resolution data Program IDs PIDF/XMP1 Statements
Status data Close data PERR/SMITH GROR/DEV PH/555-6790 DATR/12/04/1998
CODC/PROGRAM File record
*** BOTTOM OF DATA ***
Type DOWN or UP to scroll the panel, or type END to exit the panel.
===>
```

You cannot modify any of the data displayed on this panel, but you can display, search, or include the data in reports. Use the SCROLL command to view any entries that are not initially displayed on the panel.

Interested Privilege Classes

The interested class display lets you indicate that you are interested in this problem. To get this display from the Problem Summary Display panel, type 8 and press Enter.

BLG0L600	INTERESTED CLASS DISPL	AY PROBLEM:	
Salact one of the	following on type FND to re	eturn to the Summary Display.	
serect one or the	Add privilege class Delete privilege cl		
===>			

The upper portion of the panel has spaces for privilege class names. The lower portion contains two selections by which you can add or delete your privilege class name. You do not need update authority to make a selection.

When you add a privilege class, the system inserts your current privilege class name in the next available space. When your class is included on this list, you can periodically search for problem records containing your privilege class name. You can then determine their status.

When you are no longer interested in the problem, you can delete your privilege class name from the list.

Record Utilities

The Record Utilities panel lets you select several utility functions. To get this panel from the Problem Summary Display panel, type 10 and press Enter.

```
BLG0S011
                         RECORD UTILITIES
                                                    PROBLEM: PROB5
Reported by...... JONES
                                    Assignee name.....<H> JONES
                                    Problem status......<H> CLOSED
Assignee phone..... 555-1985
                                    Current phase....... <H> TEST
Program name..... XMP1
                                    Owning priv. class.....
Device name....__
                                    Entry priv. class..... MASTER
Key item affected.....
                                    Date entered..... 08/27/1998
Cause code......PROGRAM
                                    Time entered..... 13:04
Date closed...... 12/04/1998
                                    Date last altered....<H> 12/04/1998
Description..... INCORRECT ERROR MESSAGE
Select one of the following, or type END to return to the Summary Display.
                      1. List record references.
                      2. Print this record.
                      Copy this record.
                      4. Delete this record.
                      5. Update this record.
```

Option 1 (List record references) is unique to display mode. It lets you display all of the records that refer to the current record. These records appear on the List Record References panel.

The List Record References panel includes all problem records that have this problem ID in the original Problem number field. The panel also shows all change records that have this problem ID in the Problem fixed field.

The List Record References panel is useful when you want to copy, update, or delete a record. For example, you can decide not to delete a problem record if it is the original of a duplicate problem that is still open, or if it is related to or referenced by other problem records.

Other standard utility functions provided by the Record Utilities panel are Print, Copy, Delete, and Update.

The copy function is useful in minimizing data entry when you want to enter a new problem that is similar to an existing problem record. You can copy the record and then modify the copy.

When you select a utility function from the Record Utilities panel, that function is performed and you return to the Problem Summary Display panel.

For more information on these utility functions, refer to the *Tivoli Information Management* for z/OS User's Guide.

TSD Bridge Display

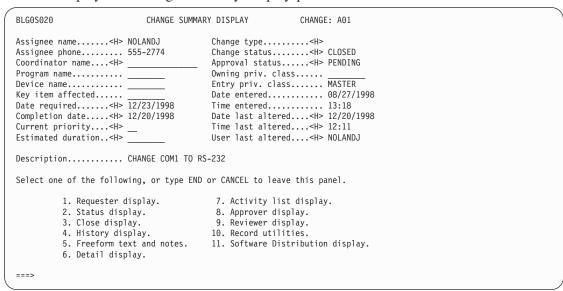
The TSD Bridge display shows Tivoli Service Desk Bridge information for the record and allows you to resume ownership, refresh, or send a solution. To get this display from the

Problem Summary Display panel, type 11 and press Enter. For additional information about the Tivoli Service Desk Bridge, refer to the *Tivoli Information Management for z/OS Guide to Integrating with Tivoli Applications*.

BLG0L700	TSD BRIDGE DISPL	LAY PROBLEM:	
TSD record Date last Time last	D		
Select o	one of the following, or type END	D or CANCEL to leave this panel.	
	 Resume ownership. Refresh. 	3. Send a solution.	
===>			
			,

Displaying Change Management Records

When you have requested the display of a change record, Tivoli Information Management for z/OS displays the Change Summary Display panel.



The lower portion of the summary panel lists options to show other sections of the record. For activity records, only options 1 through 6 and 10 are available.

Several displays that you can request from this panel are similar to the data-entry panels used to create the change request and activity records. They are:

- Requester (option 1)
- Status (option 2)
- Close (option 3)
- Freeform text and notes (option 5)

- Reviewer display (option 9, change requests only).
- Software distribution data (option 11, change request only; refer to Tivoli Information Management for z/OS Guide to Integrating with Tivoli Applications for additional information).

You cannot modify these fields in display mode, but you can display, search, or report them. The other options that are available from the Change Summary Display panel are described in the following paragraphs.

Note: The History, Freeform text and notes, Detail, and Record utilities displays are common to both change request and activity records. Activity list and approver displays are unique to change request records.

History Display

The history display shows the initial value and each changed value for journal fields. To get this display from the Change Summary Display panel, type 4 and press Enter.

```
BLG1TDHD
                               HISTORY DISPLAY
                                                                    LINE 1 OF 5
 DATE
            TIME
                     USERID
                                JOURNALIZED HISTORY DATA
ALTERED
           ALTERED
08/27/1998 13:18
                      USER01
                                STAC/INITIAL
                                DATA/10/05/1996 DATD/12/23/1996
                                GROA/HARDWARE PERA/NOLANDJ
11/26/1998 12:22
                      BOSTOCK
                                STAP/PENDING
12/20/1998 12:11
                      NOLANDJ
                                CODC/HARDWARE DATF/12/20/1996 STAC/CLOSED
*** BOTTOM OF DATA ***
 Type DOWN or UP to scroll the panel, or type END to exit the panel.
===>
```

The date and time when the field was altered and the user ID of the person who altered it are included for each entry in a history display. Use the SCROLL command to view any entries that are not initially displayed on the panel.

You cannot modify any of the fields on this panel, but you can display, search, or report them.

Note: If Universal Time processing has been enabled for your application, a Date Modified history entry is only built if the local date of the user making the change is different than it was for the previous change. Therefore, a U.S. Pacific Time user who makes a change at 18:00 on 2/20/01 and another change at 23:00 the same night will not have a second Date Modified entry generated for the second change. However, to a U.S. Eastern Time user, the history data for the Pacific Time user's changes will appear as follows:

```
02/20/2001 21:00
            02:00
```

The date for the second change, when viewed in U.S. Eastern Time, should be 02/21/2001; but because the Pacific Time user's date did not turn between changes, the Eastern Time user's view does not display a date change either. However, because history entries are always listed in chronological order, you can tell when a date change should occur when viewing histories of records originating in another time zone.

Freeform Text and notes

The text display shows you the textual information that has been entered into a record. You cannot modify any of the data on the panel, but you can display or include the data in reports. To get the text display from the Change Summary Display panel, type 5 and press Enter.

Note: The following description applies to displaying the text for change request records. You display the text for activity records in a similar manner.

The Display Change Text panel appears. Choose the kind of text you wish to see.

For this example, type 1 and press Enter.

```
BLGOMO10 DISPLAY CHANGE TEXT 1 OF 1

TEXT DISPLAY DIALOG ENTERED, SELECT OPTION

OPTIONS:

1. DESCRIPTION.......Freeform description of change.
2. JUSTIFICATION......Justification, reason required.
3. BACKUP PLAN.....Backup plan in case of problems.
4. NOTES.......Miscellaneous notes, progress.
5. RESOLUTION.....Freeform resolution description.
6. ADDRESS.......Physical location of modification.
7. END......Text display dialog complete, exit.
```

The Description Text panel appears.

```
BLGITDDE DESCRIPTION TEXT LINE 1 OF 2

08/27/1998 This is the most advanced telecommunications facility on the market today.

******** **** BOTTOM OF DATA ***

Type DOWN or UP to scroll the panel, or type END to exit the panel.

===>
```

Use the SCROLL command to view any entries that are not initially displayed on the panel. To see the time or the user ID associated with the text, scroll the date column. You cannot modify any of the data on this panel, but you can display or report the data.

Detail Display

The detail display lets you view all of the nonadministrative data in a record. To get this display from the Change Summary Display panel, type 6 and press Enter.

```
ENTRY RECS=CHANGE Requester data PERS/SMITHJ PH/555-4241 STAC/CLOSED RNID/A01 CHANGE COM1 TO RS-232 DATE/08/27/1998 TIME/13:18 CLAE/MASTER DATM/12/20/1998 TIMM/12:11 USER/NOLANDJ 5 DATD/12/23/1998 CODR/WORKLOAD Status data PERA/NOLANDJ GROA/HARDWARE PH/555-2774 DATA/10/05/1998 Detail data AREA=HARDWARE ACT=ADD Names COMD/RS3278 Serials NUMX/411228 Locations LOCC/MAINST Approver data CL01/MASTER SP01/MASTER CL02/HARDWARE SP02/HARDWARE Reviewer data CLAX/BILLING CLAX/SOFTWARE NAMA/TEST1 STAP/PENDING Close data PERR/NOLANDJ GROR/HDWARE DATF/12/20/1998 CODC/HARDWARE MISX/NO File record *** BOTTOM OF DATA ***

Type DOWN or UP to scroll the panel, or type END to exit the panel. ===>
```

This allows you to view change detail data. You cannot modify any of the fields on this panel, but you can display, search, or report them. Use the SCROLL command to view any entries that are not initially displayed on the panel.

Activity List Display

The activity list display provides a search results list containing all activities for the current change record. To get this display from the Change Summary Display panel, type 7 and press Enter.

The Related Record List panel appears.

```
BLG1TREL RELATED RECORD LIST LINE 1 OF 1

RECORD ID NAME DESCRIPTION ABSTRACT
1. A011 TEST1 INITIAL TEST OF COM1-232

*** BOTTOM OF DATA ***

Line Cmds: D=Delete P=Print S=Select U=Update
Type DOWN or UP to scroll the panel, or type END to exit the panel.

===> 1
```

You can select an activity to display by entering the item number or by entering the S line command next to the record. When you select an activity record for display, the Activity Summary Display panel appears.

From this panel, you can select other detail sections of the record to view. From those panels, type **ca** or **end** and press Enter to return to the Activity Summary Display panel.

BLG0S060 ACTIVITY SUMMA	ARY DISPLAY	ACTIVITY: A011	
Activity name TEST1	Parent cha	unge number A01	
Assignee name <h></h>	Activity s	tatus <h> INITIAL</h>	
Assignee dept	Current pr	riority <h></h>	
Contact name <h></h>	Owning pri	v. class	
Program name	Entry priv	. class MASTER	
Device name	Date enter	red 08/27/1998	
Key item affected	Time enter	red 14:06	
Date required <h> 11/01/1998</h>	Date last	altered <h> 12/20/1998</h>	
Planned start date <h></h>	Time last	altered <h> 14:06</h>	
Current phase <h></h>		altered <h> NOLANDJ</h>	
Description INITIAL TEST C)F COM1-232		
Select one of the following, or type E	END or CANCEL t	o leave this panel.	
 Requester display. 	5. Freeform	n text and notes.	
2. Status display.	6. Record u	tilities.	
Close display.	7. Detail d	lisplay.	
4. History display.			
===>			

Approver Display

A change approver display lets you register your approval or rejection of a change. To get this display from the Change Summary Display panel, type 8 and press Enter.

or the appr		R to reject this change request in	the action field	
or one appr			RECORD: A01	
Action	Approver	Current		
_	MASTER_ HARDWARE	Status PENDING PENDING		
-				
_				
-				
-				
_				
-				
_				
vne DOWN or	IID to scr	oll the panel, or type END to exit.		

In the Action column, type the letter A to accept the change request, or the letter R to reject the request. If your user ID is defined in multiple approver privilege classes, you can approve or reject a change for an approver class even though it may not be your current privilege class.

Multiple accept or reject responses can be entered at the same time (for example, you can enter 'A' next to several classes). However, this does not apply if you are using an API program to interact with the change record. API programs are limited to one class per transaction.

If your privilege class approves a change, you can still reject it later. Likewise, if you reject a change, you can still approve it later.

Once all approvers approve a change, Tivoli Information Management for z/OS automatically changes approval status to APPROVED. If any approver rejects a change, Tivoli Information Management for z/OS automatically changes approval status to REJECTED.

Note: The BLGLAPST panel is displayed for new records created with this version of the product (or older records not containing change approver data). If panel BLG0M500 is displayed instead, your record was created with an earlier version of the product and it already contained change reviewer data. If you make updates on panel BLG0C700, file the record, and access the Change Reviewer Entry panel again, panel BLG0C700 reflects your updates. The data is not collected in a list processor panel as shown in this example.

Note: If data attribute records are used as direct add fields, then normal file processing is not performed for change records when change approval processing is being performed. That is, if ALL of these five direct adds—DATE/, TIME/, CLAE/, DATM/, and TIMM/—are changed to data attribute records, then date modified, time modified, and user ID are not saved in the record

Record Utilities Panel

The Record Utilities panel lets you select utility functions and display all of the records that refer to the current record. To get this panel from the Change Summary Display panel, type 10 and press Enter.

```
BLG0S021
                            RECORD UTILITIES
                                                            CHANGE: A01
Assignee name......<H> NOLANDJ
                                         Change status......<H> CLOSED
Assignee phone..... 555-2774
Coordinator name....<H>_
                                         Approval status..... < H> PENDING
Device name....__
                                         Owning priv. class.....
                                         Entry priv. class..... MASTER
Key item affected.....
Date required.....\langle H \rangle \overline{12/23/1998}
                                         Date entered...... 08/27/1998
Planned start date..<H>
                                         Time entered............ 13:18
Completion date.....<H> \overline{12/20/19}98
                                         Date last altered....< H> 12/20/1998
Description..... CHANGE COM1 TO RS-232
 Select one of the following, or type END to return to the Summary Display.
                         1. List record references.
                         2. Print this record.
                         3. Copy this record.
                         4. Purge this record.
                         5. Update this record.
===>
```

For each record type, only the applicable utility functions are listed. For example, the copy function is not included for activities.

When you type 1 and press Enter from the Record Utilities panel, a search results list displays all other change, activity, and problem records that have this record's ID in a field.

- For a change record, the list shows:
 - All problem records that include this change in the cause change or fix change number field
 - All change records that include this change in the corequisite or prerequisite field
 - All activity records attached to the change.
- For an activity record, the list shows:
 - All activity records that include this activity in the corequisite or prerequisite field
 - All change records that include this activity in the corequisite or prerequisite field.

The List Record References display is useful in identifying records that refer to a particular change or activity when you want to copy, update, or delete that record. For example, you would not delete a change record if it is a corequisite or a prerequisite to another change. If you are copying a change record that is part of a group, you may want to copy all change records in that group. When you copy a change record, all activity records associated with the change are also copied.

When you select a utility function from the Record Utilities panel, that function is performed and you return to the panel.

Displaying Configuration Management Records

The following sections describe some of the display panels that are available for Configuration Management records.

If you request the display of a hardware configuration record, this summary display panel appears.

BLGON100 HARDWARE COMPONENT	SUMMARY DISPLAY COMPONENT:	
Generic device	Display class	
Device type & model	Location code	
Serial number	Entry priv. class	
Microcode EC level	Owning priv. class <h></h>	
Model link ID	Date entered	
Contact name <h></h>	Time entered	
Component owner <h></h>	Date last altered <h></h>	
Date of status <h></h>	Time last altered <h></h>	
Component status <h></h>	User last altered <h></h>	
Description		
 Primary description. 	7. Feature record list display.	
Support display.	8. Freeform text and notes.	
Connectivity display.	9. History display.	
Detail display.	Record utilities.	
Secondary description.	11. Maps data display.	
Financial display.	12. Source definition display.	
===>		

Displays Common To All Configuration Records

Four displays—summary, freeform text and notes, history, and record utilities— are common to all types of configuration records. For data center, system, and service records, they are the only displays available.

Summary Display

The summary display panel appears when you first issue the Display command for a record. This panel shows all of the description data for the configuration record.

(BLG0N100	HARDWARE COMF	PONENT SUMMARY	DISPLAY	COMPONENT:	
					lass	
		model			code	
					v. class	
		evel			iv. class <h> _</h>	
					red	
	Contact name	<h></h>		Time enter	red	
	Component owne	r <h></h>		Date last	altered <h> _</h>	
	Date of status	<h></h>			altered <h> _</h>	
	Component stat	us <h></h>		User last	altered <h> _</h>	
		the following, o				— el.
	1. Prim	ary description.	. 7	. Feature	record list disp	olay.
	2. Supp	ort display.	8	. Freeform	text and notes.	
	3. Conn	ectivity display	y . 9.	. History	display.	
	4. Deta	il display.	10	. Record u	tilities.	
	5. Seco	ndary description	on. 11	. Maps data	a display.	
	6. Fina	ncial display.	12	. Source de	efinition displa	ıy.
	===>					
/						

The upper portion of this panel is a descriptive overview of the record. The lower portion contains a list of displays you can select to see other sections of the record.

If this summary panel does not provide the information that you need, choose the appropriate item from the list of supplemental displays. Whenever you end the supplemental display, you return to this panel. For a hardware component, all 12 types of configuration displays are listed; for other records, only some of the displays are listed.

Text Display

If you choose option 8 (Freeform text and notes) from the list of selections, you are presented with a panel of text options. For financial and service records, only three options are displayed:

- DESCRIPTION
- NOTES
- END

For data center and system records and for hardware and software components and features, you can also choose ADDRESS.

Choose one of these options to display the corresponding text panel. The text panel that appears does not have a line command area, because line commands are not valid; otherwise, the display text panel is the same as the corresponding one for creating text.

History Display

The History Display panel shows the initial value and each changed value for journal fields. The date altered, time altered, and user ID are included.

```
BLG1TDHD HISTORY DISPLAY LINE 1 OF 4

DATE TIME USERID JOURNALIZED HISTORY DATA
ALTERED ALTERED

06/04/1998 10:40 GARTLAN DATC/06/04/1998 DEPO/DPT48 STAC/INSTALL
*** BOTTOM OF DATA ***

Type DOWN or UP to scroll the panel, or type END to exit the panel.
===>
```

Note: If Universal Time processing has been enabled for your application, a **Date Modified** history entry is only built if the local date of the user making the change is different than it was for the previous change. Therefore, a U.S. Pacific Time user who makes a change at 18:00 on 2/20/01 and another change at 23:00 the same night will not have a second **Date Modified** entry generated for the second change. However, to a U.S. Eastern Time user, the history data for the Pacific Time user's changes will appear as follows:

```
02/20/2001 21:00
02:00
```

The date for the second change, when viewed in U.S. Eastern Time, should be 02/21/2001; but because the Pacific Time user's date did not turn between changes, the Eastern Time user's view does not display a date change either. However, because history entries are always listed in chronological order, you can tell when a date change should occur when viewing histories of records originating in another time zone.

Record Utilities

The Record Utilities panel lets you select utility functions and display all records that refer to the current record. For each record type, only the applicable utility functions are listed. For example, copy is not included for feature records.

When you choose option 1 (List record references) from the list of selections, a search results list appears that contains all other configuration records that have this record's ID in a field. This option is useful for identifying other records that reference a particular component.

When you choose a utility function from the Record Utilities panel, Tivoli Information Management for z/OS performs the function and returns you to the Record Utilities panel.

Hardware, Software, and Model Displays

A group of hardware and software display panels provide information for the user. Hardware displays described in this chapter are:

- Support
- Detail
- Feature record list
- Secondary description
- Connectivity
- Financial
- Diagram map data
- Source definition.

Hardware financial record displays are:

- Primary description
- Secondary description
- VPA description.

Software financial record displays are:

- License charges
- VLA display
- IBM DSLO data.

Model component displays are:

- Feature record list
- Secondary descriptions
- Financial display.

Support Display

The Support Display panel shows support and maintenance information about a hardware or software component record, feature record, or hardware subcomponent record.

,			
	BLG0N250	SOFTWARE COMPONENT SUPPORT DISPLAY	COMPONENT:
		Component owner <h> Transfer-to class<h> Contact name<h> Contact department Contact phone Center ID System ID Service ID</h></h></h>	_
	Select one	e of the following, or type END to return to th	e Summary Display.
		 Display data center record. 	
		Display system record.	
		3. Display service record.	
		 Display secondary support data. 	

The upper portion of this panel shows the support information for the component record. The lower portion contains a list of associated record types that you can choose to display:

- Data center
- System
- Service

Secondary support groups.

If you choose any of the first three types and the record ID for that record is defined on this panel, a summary panel for that record type appears. You can then display the text or history for that record.

The display for secondary support groups presents secondary support data.

Detail Display

The detail display lets you view all of the nonadministrative data in the record, including EC and modification levels. If you select the detail display for a hardware component, a panel similar to this one appears:

```
ENTRY RECS=CONFIG RECS=HARDWARE HARDWARE COMPONENT DIRECT DESCRIPTION
RNID/CTL3274 TYPD/CTL DEVS/3274A NUMX/C4444 LVLX/00133052
STAC/INSTALL DATC/06/15/1998 LOCC/DPCTR1 DISC/1
3274 CONTROLLER FOR 3270/PCS Primary support data RNDR/DPCTR1
RNSY/RED3033 RNSR/IBM300 Financial DATX/10/01/1998
Maps data NUMT/0032 SDM1/START DATE/06/15/1998
TIME/01:27 CLAE/MASTER MIGR/CREATEV22 DATM/06/15/1998 TIMM/01:34
USER/SPENCER 5 LVLS/03050066 LVLS/03050067 LVLS/03050068 File record
*** BOTTOM OF DATA ***

Type DOWN or UP to scroll the panel, or type END to exit the panel.

===>
```

If all the items do not fit on the screen, use the SCROLL command. Type **end** and press Enter to return to the summary panel.

Feature Record List Display

From the Hardware Component Summary Display panel, choose option 7 (Feature record list display) to get the Related Record List panel. This panel contains a list of all features associated with the current component record as well as any linked subcomponents. The display also includes a list of the model features with a storage class of REFER that are linked to the model component. The related record display for a hardware component is shown here:

```
BLG1TFEL
                         RELATED RECORD LIST
                                                                   LINE 1 OF 4
     RECORD ID
                 NAME
                            TYPE
                                       DESCRIPTION ABSTRACT

    KEYLOCK

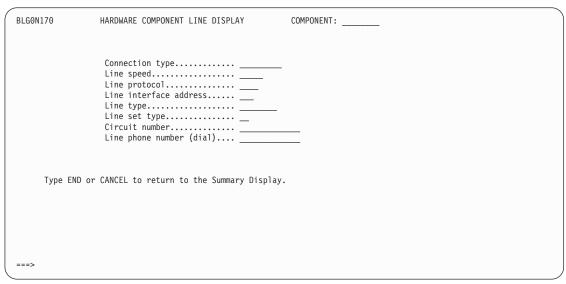
                 KEYLOCK
                                       KEYLOCK FEATURE FOR PS/2S REFER
  2. MEMORY
                            MEMORY
                                       8514 MEMORY EXPANSION KIT PS/2S
                 8514
  3. GRAPH01
                 GRAPH01
                            GRAPH01
                                       GRAPHICS FEATURE FOR PS/2S
      KEYAPL
                            KEYBOARD APL KEYBOARD ON PS/2S
*** BOTTOM OF DATA ***
Line Cmds: P=Print S=Select
 Type DOWN or UP to scroll the panel, or type END to exit the panel.
```

You can select a feature or subcomponent for display by entering the option number or by entering the S line command next to the record. When you request a record for display, the Record Summary Display appears.

Secondary Description Display

The Secondary Description Selection represents hardware components with a Generic device type of either LIN or LOP. Depending on the device, one of the following displays appears:

The line information display contains line information for hardware records that describe communication lines.



The loop information display contains loop information for hardware components that describe communication loops.

BLG0N17	72	HARDWARE COMPONENT LOOP DISPLAY	COMPONENT:	
		Loop ID		
1	ype END on	r CANCEL to return to the Summary	Display.	
===>)

Connectivity Display

When you choose option 3 (Connectivity) from the Hardware Component Summary Display panel, the following panel appears:

```
BLGON131 CONNECTIVITY DISPLAY OPTIONS 1 OF 1

CONNECTIVITY DISPLAY DIALOG ENTERED, SELECT OPTION

OPTIONS:

1. UP.......Display all up components.
2. DOWN......Display all down components.
3. SYNOPSIS...Display up and down components.
4. PATH......Select path display criteria.
5. DISPLAY.....Display component connection records.

SELECT OPTION
```

Connectivity displays enable you to look at up and down connections for a component (up is towards the CPU or SCP) or to display the path that connects two components. These displays allow you to see the relationship between components as well as display the actual connection records for a given component.

Figure 8 on page 261 is an example of a configuration network diagram. It is the basis for the descriptions of the connectivity displays that are given on the next few pages.

The left side of the diagram contains software components and the connections between them; for example, components IMSPROD and TSO run under MVSPROD. The right side of the diagram shows connections between hardware components.

The arrows running from software components to hardware components show the connections between software and hardware.

The number in the upper right-hand corner of a box is the component device type, and the number in the lower right-hand corner is the display class for that component.

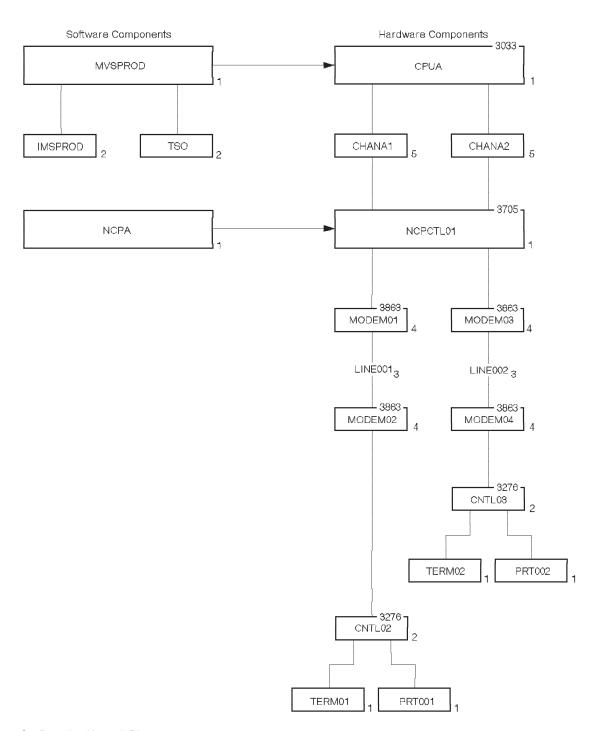


Figure 8. Configuration Network Diagram

Up Connection List Display

The Up Connection List panel shows components that are directly connected, in the up direction, from the current component.

The Up Connection List display for component record NCPCTL01 is:

```
BLG1TAUP
                          UP COMPONENT LIST
                                                                LINE OF
  COMPONENT: NCPCTL01
      COMP ID GENERIC
                           CONNECTION
                                        DESCRIPTION ABSTRACT
                DEVICE
                              TYPE
    1. CHANA1
                           PHYSICAL
                                        CHANNEL TO CPUA
    2. CHANA2
                 CHN
                           PHYSICAL
                                        CHANNEL TO CPUA
*** BOTTOM OF DATA ***
Line Cmds: C=Copy D=Delete P=Print S=Select U=Update
Type DOWN or UP to scroll the panel, or type END to exit the panel.
===>
```

Only the two components that are directly connected to component NCPCTL01 in the up direction are included.

Down Connection List Display

The Down Connection List panel shows components that are directly connected to the current component in the down direction, that is, going away from the CPU or SCP.

A down connection is established when you enter the ID of this component in a connection record of another down-connected component. For example, to establish a connection between MODEM01 and NCPCTL01, and between MODEM03 and NCPCTL01 (see Figure 8 on page 261), you must enter **NCPCTL01** as the component to in connection records for both components.

When you enter NCPCTL01 in the connection record, Tivoli Information Management for z/OS automatically establishes a down connection between NCPCTL01 and these components.

The down component list display for NCPCTL01 is:

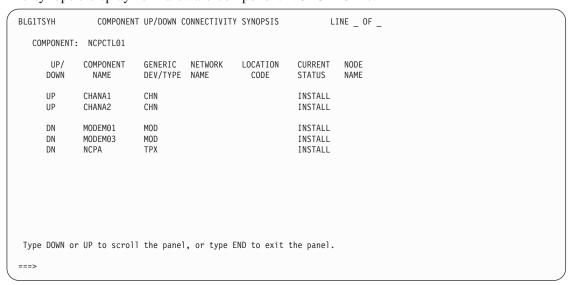
```
BLG1TAD0
                        DOWN COMPONENT LIST
                                                                 LINE _ OF _
  COMPONENT: NCPCTI01
      COMP ID
                GENERIC
                           CONNECTION DESCRIPTION ABSTRACT
                           PHYSICAL
  1. MODEM01
                 MOD
                                       3863 MODEM
  2. MODEM03
                           PHYSICAL
                                       3863 MODEM
*** BOTTOM OF DATA ***
 Line Cmds: C=Copy D=Delete P=Print S=Select U=Update
 Type DOWN or UP to scroll the panel, or type END to exit the panel.
```

Up and Down Synopsis Display

By choosing option 3 (Synopsis) on the Connectivity Display Options panel, you can display both the up and down connections for a component. Only those components that are directly connected to the current component are listed, with up components listed first and down components listed second. Connections are established as described in the earlier sections on up component list displays and down component list displays.

It is possible that no records are defined for a particular part of the display. When this occurs, that part is simply bypassed.

The synopsis display for hardware component NCPCTL01 is:



Connectivity Path Display

The connectivity path display shows the paths between two components.

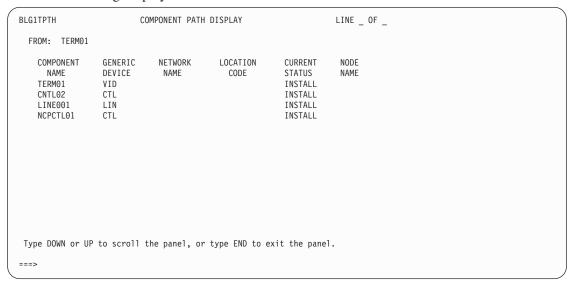
The Component from and Component to name fields indicate the beginning and ending points for the path: *from* is the point furthest from the CPU or SCP, and *to* is the point closest to the CPU or SCP.

The Display class field determines which components in a path are listed on the table panel. These numbers range from 1 to 9. All components that have a display class equal to or less than the number you enter are displayed. A component with a display class of 0 is never displayed. If more than one path exists between two components, all paths are listed.

The date of configuration is used to determine which connection records are to be displayed, based on Date from and Date to of the connection, while Connection type allows you to nominate either specific connections or all connections. Path ID enables you to display a specific path between components.

_			
В	LG0N134	PATH DISPLAY	SPECIFICATION
E	nter the FROM and T	O component IDs	for the connection path to be displayed.
N			est component on path. TO component erminate the display.
	2. 3. 4. 5. 6. 7.	Component to Display class Date of configu Connection type Connection stat Shift number	<pre><pre><pre><pre></pre></pre> 3 ration e</pre></pre>
	To display the co	nnection path, p	press Enter without field modification.
=	==>		

For example, suppose you want to display all components with a display class of 1 through 3 between components TERM01 and NCPCTL01 (see Figure 8). Enter **TERM01** in the Component from field, NCPCTL01 in the Component to field, and **3** in the Display class field. The resulting display is:



Notice that MODEM01 and MODEM02 are not displayed; they have a display class greater than 3. If you enter a display class of 4, then MODEM01 and MODEM02 are also displayed.

When multiple paths exist between two hardware components or between two software components, each path is presented starting with the component furthest from the CPU or SCP.

When multiple paths exist between a hardware and software component, all paths for hardware components are presented first, starting with the component furthest from the CPU. All software paths are presented next, starting with the component closest to the SCP.

All Connection Records Display

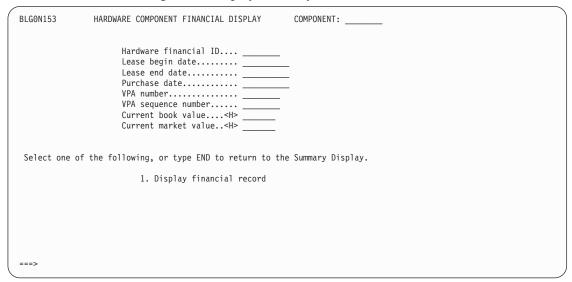
The Connection Record List panel shows all connection records that are children to the current component. (See Figure 8 on page 261.) The connection record list for NCPCTL01 is:

```
BLG1TCOL
                       CONNECTION RECORD LIST
                                                                 LINE _ OF _
  COMPONENT: NCPCTL01
   RECORD ID
                COMPONENT
                             GENERIC CONNECTION DEVICE
                                                              DATE
                   T0
                             DEVICE
                                         TYPE
                                                   ADDRESS
                                                              FROM
   00000032
                CHANA1
                             CHN
                                       PHYSICAL
                                                            01/01/1998
   00000034
                CHANA2
                                       PHYSICAL
                                                            01/01/1998
Line Cmds: P=Print S=Select
Type DOWN or UP to scroll the panel, or type END to exit the panel.
```

Financial Display

The financial display shows information about the financial characteristics of hardware and software components and features, and hardware subcomponents.

Note: To display the book value and market value, you must be in a privilege class that has financial and configuration display authority.



The upper portion of this panel shows the financial information for the component or feature record. The lower portion lets you display an associated financial record, which would present you with a summary panel for that record.

Diagram Map Data Display

The diagram map data display shows information relating to the configuration diagram facility.

BLGON113	HARDWARE	COMPONENT DIAGRA	MAP DATA	A DISPLAY	COMPONENT:	
		Number of ports. Subdiagram marke Subdiagram marke Subdiagram marke Subdiagram marke Subdiagram marke Subdiagram marke Subdiagram marke	1 2 3 4 5 6 7			
	Type END or	CANCEL to return	to the Si	ummary Dis	play.	
===>						

Source Definition Display

The source definition display shows information relating to the network environment for the hardware or software.

BLG0N105	HARDWARE COMPONENT SOURCE DISPLAY COMPONENT:
	Network name Node name Program name LTERM ID (IMS) CICS ID
	Type END or CANCEL to return to the Summary Display.
===>	

Hardware Financial Displays

In addition to the common displays illustrated previously, the displays for hardware financial records include information specific to the type of record.

BLGON300 HARDWARE FINANCIAL SUMMARY	DISPLAY FINANCIAL:	
Financial name	Generic device	
Financial type	Component count <h></h>	
Vendor name	Charge out rate	
Contact name	Minimum VPA quantity	
Marketing rep	Maximum VPA quantity	
System specialist	Entry priv. class	
VPA name	Owning priv. class <h></h>	
VPA number	Date entered	
VPA duration	Time entered	
VPA start date	Date last altered <h></h>	
Device type & model	Time last altered <h></h>	
Charge out account	User last altered <h></h>	
Description		
Select one of the following, or type END o	r CANCEL to leave this panel.	
1. Primary description. 8	. Freeform text and notes.	
2. Secondary description.	. History display.	
3. VPA description. 10	. Record utilities.	
===>		

Primary Description Display

The Primary description selection on the summary display lets you display all primary data for the component.

BLG0D302	HARDWARE FINANCIAL	. ENTRY	FINANCIAL:	_	
Enter hardware financia	al data, cursor pl	acement or input li	ne entry allowed.		
1. Financial name 2. User financial ID. 3. Generic device 4. Device type & mode 5. Charge out account 6. Charge out rate 7. Component count 8. Financial type		System specialist. Specialist phone Transfer-to class.	··		
When you finish, ty	pe END to save or	CANCEL to discard a	ny changes.		
===>					

Secondary Description Display

This display is based on the financial type that was recorded.

The Purchase Display panel includes information relating to the purchase of a hardware component.

BLG0N305	HARDWARE FINANCIAL - PURCHASE DISPLAY FINANCIAL:	
	Depreciation period	
Тур	pe END or CANCEL to return to the Summary Display.	
===>		

The Rental/Lease Display panel includes information relating to the rental or lease of a hardware component.

			_
(BLG0N306	HARDWARE FINANCIAL - RENTAL/LEASE DISPLAY FINANCIAL:	
		Lease type	
		Type END or CANCEL to return to the Summary Display.	
	===>		,

Volume Purchase Agreement (VPA) Description Display

The Volume Purchase Agreement (VPA) Display panel shows information relating to the VPA of hardware components.

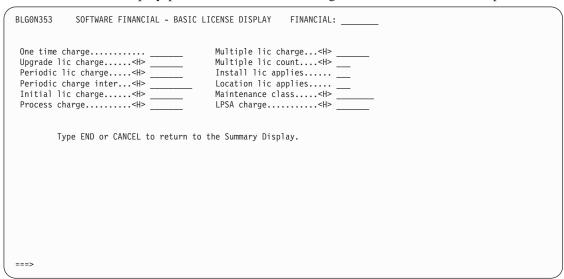
BLG0N307	HARDWARE FINANCIAL - VPA DISPLAY FINANCIAL:	
	VPA name	
	Type END or CANCEL to return to the Summary Display.	
===>		,

Software Financial Displays

In addition to the common displays illustrated on the preceding pages, the displays for software financial records include information specific to the type of record.

License Charges Display

The Basic License Display panel includes license charge details for software components.



Volume License Agreement (VLA) Display

The Volume License Agreement (VLA) Display panel shows information relating to the VLA of software components.

BLG0N357	SOFTWARE FINANCIAL - VLA DISPLAY	FINANCIAL:
	VLA name	
Ту	Maximum VLA quantity pe END or CANCEL to return to the Summary Disp	ay.
===>		

Distributed System License Options (DSLO) Display

The Distributed System License Options (DSLO) display shows information about DSLO for software components.

Model Component Display

In addition to the common displays illustrated on the preceding pages, the displays for model component records include information specific to the type of record.

Primary description allows you to display all primary data, including date and time fields, for the model component.

BLG0N701	MODEL HARDWARE COMPONENT DISPLAY	COMPONENT:	
Device type Component st Date of stat	ce & model atus <h> us<h> s</h></h>		
Description.			
Тур	e END or CANCEL to return to the Summary D	display.	
===>			

The support display panel displays information about the support and maintenance of a model hardware or software component record and its features, and model hardware subcomponents.

The upper portion of this panel displays the support information for the model component record. The lower portion contains a list of associated record types you can look at:

- Data center
- System
- Service.

If you select any of these types and the record ID is defined on this panel, you are presented with a summary panel for that record type. You can then display the text or history for that record.

The display for secondary support groups presents a detail display used for EC or FMID levels.

Feature Record List Display

The Feature record list selection presents the related record display, which is a search results list containing all features of the current model component record and any linked model subcomponents. The display also includes a list of model features with a storage class of REFER that are linked to the model component. The related record display for a hardware component is:

```
BLG1TFEL
                         RELATED RECORD LIST
                                                                  LINE 1 OF 4
     RECORD ID
                 NAME
                            TYPE
                                       DESCRIPTION ABSTRACT

    KEYLOCK

                 KEYLOCK
                                       KEYLOCK FEATURE FOR PS/2S REFER
  2. MEMORY
                            MEMORY
                                       8514 MEMORY EXPANSION KIT PS/2S
  3. GRAPH01
                 GRAPH01
                            GRAPH01
                                       GRAPHICS FEATURE FOR PS/2S
     KEYAPL1
                            KEYBOARD
                                      APL KEYBOARD ON PS/2S
*** BOTTOM OF DATA ***
Line Cmds: P=Print S=Select
Type DOWN or UP to scroll the panel, or type END to exit the panel.
```

You can select a feature or subcomponent for display by entering the option number or by entering the S line command next to the record. The line commands perform the same functions as those described for the search results list.

When you request a record for display, the Record Summary Display appears.

Secondary Description Display

The Secondary description selection shows hardware components with a generic device of either LIN or LOP. Depending on the device, the following information is displayed:

The line information display contains line information for hardware records that describe communication lines.

The loop information display contains information for hardware components that describe communication loops.

BLG0N170	HARDWARE COMPONENT LINE DISPLAY	COMPONENT:
	Connection type Line speed	_
	Line protocolLine interface address	
	Line type	
	Line set type Circuit number	
	Line phone number (dial)	
Туре	END or CANCEL to return to the Summary Dis	play.
===>		

BLG0N172	HARDWARE COMPONENT LOOP DISPLAY COMPONENT:	
	Loop ID Loop speed Direction of flow Loop type	
	Type END or CANCEL to return to the Summary Display.	
===>		,

Financial Display

The financial display shows information about the financial characteristics of hardware and software components and features, and subcomponents.

Note: To display the book value and market value, you must be in a privilege class that has financial and configuration display authority.

	BLG0N753	MODEL HARDWARE COMPONENT FINANCIAL DISPLAY COMPONENT:
		Hardware financial ID Current book value <h> Current market value<h></h></h>
	Select the	following option, or type END to return to the Summary Display.
		1. Display financial record.
	===>	
/		



Searching Tivoli Information Management for z/OS Records

The inquiry (search) function of Tivoli Information Management for z/OS lets you retrieve information from the database when you are not sure of the specific records you want. A search consists of comparing items in a search argument with data items in records in a database, and then displaying the matches in a search results list.

The search function is flexible and versatile. Tivoli Information Management for z/OS provides a simple method of searching that is suitable even for inexperienced users, and more sophisticated methods that provide flexibility for more advanced users.

This chapter describes two ways of searching Tivoli Information Management for z/OS records:

- Quick search
- Structured search.

For more information on the SEARCH command and a description of other search methods, refer to the *Tivoli Information Management for z/OS User's Guide* .

Using Quick Search

The quick search function consists of a set of data-entry panels that are similar to the panels used in creating records. Additionally, quick search includes summary and help panels, as well as some assisted-entry panels.

Important

You can use the quick search inquiry path only if you have changed the session control defaults in your user profile. On panel BLG0P100, Session Defaults, type **yes** next to Quick search? and press Enter to select quick search as your default. Refer to the *Tivoli Information Management for z/OS User's Guide* for more information on user's profiles.

To create the search arguments in quick search, you enter data on data-entry panels. As you enter values, Tivoli Information Management for z/OS collects the data as your argument. You can use the VIEW command at any time to see the data collected. You may also include freeform search arguments at any time by issuing the ARGUMENT command. When you finish creating your argument, you can perform the search by either issuing the SEARCH command or by selecting the Search option on the Inquiry Summary panel.

After you have requested the search, the Search Results List panel displays the records that satisfy your search argument. This includes an item number, record ID, and a brief description of the record. If you do not have display authority for any of the records retrieved by your search, only the item number and record ID are displayed. Text normally found in the description column is replaced by 'UNAUTHORIZED'.

The number of records that satisfy the argument is listed in the upper right corner. If the total is too large, consider modifying your argument.

To leave a search results list, type **end** and press Enter, or type **cancel** and press Enter. If you had entered a search+ argument, **end** saves the added keywords, and **cancel** deletes them. If you enter line commands on the search results list, you return to the search results list when the line command is completed.

Remember the following when you use quick search:

- If you start a search operation in quick search and then change the profile setting for quick search panels to NO, the search results can be unpredictable.
- The order of processing quick search arguments is not determined by the order in which you type them unless you press Enter after each argument. You should press Enter after every value to construct a specific structured search argument when using the quick search panels.
 - When you type data directly into quick search data entry fields, the order in which the entries are collected is determined by the order in which their fields appear on the panel, unless you press Enter after each entry.
- If you issue the BACK command after using quick search to get a search results list, you may find that the exact sequence of panels shown prior to the SEARCH command may not appear.
- If you enter more than one value for the same field, the most recently entered value supersedes all other values entered for that field.
- Any time you want to search on an item whose prefix is used for multiple purposes (such as a phone number or a department), you might receive results that are out of context. For more information, refer to the *Tivoli Information Management for z/OS User's Guide*.
- Watermark characters are in the range of X'BA' X'BF'. They are used to identify structured words and also correspond to certain Katakana characters. Therefore, it is possible in the search of data beginning with one of these Katakana characters to also display records containing structured words as well as the data you are seeking. If you use one of these characters followed by a period (abbreviation operator), almost all the records in the database can be displayed.

Sections later in this chapter present examples of how quick search can be used on Problem Management, Change Management, and Configuration Management records.

- For information on quick search for Problem Management records, see 277.
- For information on quick search for Change Management records, see 292.
- For information on quick search for Configuration Management records, see 304.

Using Structured Search

In the structured search prompting sequence, you are presented with selections and assisted-entry panels. Data on data-entry panels appear as menu selections. Assisted-entry panels are then presented, on which you can enter specific values for the fields.

When you use structured search, data is collected as you progress from panel to panel. You do not see your search argument as it is built, but you can use the VIEW command at any time to see all of the data that has been collected, and you can also use the ARGUMENT command at any time to add keyword search arguments to the search argument.

You can stop creating your argument at any point in the prompting sequence and enter the SEARCH command.

The structured search path is used when the Quick search? field in your profile is set to NO. Refer to the *Tivoli Information Management for z/OS User's Guide* for additional information about your profile and about structured search.

After you have requested the search, the Search Results List panel displays the records that satisfy your search argument. This list includes an item number, record ID, and a brief description of the record. If you do not have display authority for any of the records retrieved by your search, only the item number and record ID are displayed. The description column is replaced with 'UNAUTHORIZED'.

To leave a search results list, type **end** or **cancel**. If you had entered a **search** = argument, **end** saves the added keywords and **cancel** deletes them. If you enter other line commands on the search results list, you return to the search results list when the command is completed. All actions are nested within the search.

Sections later in this chapter present examples of how structured search can be used on Problem Management, Change Management, and Configuration Management records.

- For information on structured search for Problem Management records, see 281.
- For information on structured search for Change Management records, see 296.
- For information on structured search for Configuration Management records, see 307.

Searching Problem Management Records

This section presents examples of how Tivoli Information Management for z/OS's Inquiry function can be used to search Problem Management records. Task examples appear in the following order:

- Quick search
- Structured search
- Typical search arguments, and how they might be performed in quick or structured search.

Using Quick Search on Problem Management Records

In this example, you use quick search to find closed problems reported by Jones in department DEV for product XMP1. The Quick search? field in your user profile has been set to YES.

To request a search, type 6 and press Enter.

```
BLG0EN20
                      --- PRIMARY OPTIONS MENU ---
                                                      APPLICATION: MANAGEMENT
OPTIONS:
     1. OVERVIEW......Display general information and product enhancements.
     2. PROFILE......Display or alter invocation or session defaults.
     3. APPLICATION....Change application, list available applications.
     4. CLASS......Change current class, list available classes.
     ENTRY......Create a record.
     6. INQUIRY.....Search for records.
     7. UTILITY......Copy, display, print, delete, and update records.
     8. GLOSSARY......Display a list of searchable words in the database.
     9. PMF......Modify or create panels.
          Select an option, enter a command, or type QUIT to exit.
         Tivoli Information Management for z/OS Version 7 Release 1
               5697-SD9 (C) Copyright IBM Corp., 1981, 2001.
 ===> 6
```

To limit your search to problem records, type 1 and press Enter.

Add the data for the search.

For this example, type the following on the command line and press Enter:

1,jones,2,dev,8,xmp1,14,closed

To save the data, type end and press Enter.

_		
	BLG0E190 PROF	BLEM REPORTER DATA INQUIRY
	Add data for the search	ch; cursor placement or input line entry allowed.
	1. Reported by 2. Reporter dept 3. Reporter phone 4. Date occurred 5. Time occurred 6. Network name 7. System name 8. Program name 9. Device name 10. Key item affected 11. Date fix required	DEV
	When you finis	sh, type SE to search, END to save any changes, or CANCEL to discard any changes.
	===> end	

The Problem Inquiry Summary panel appears. At this time, you can do one of the following:

- Use option 1 to change the information you just entered.
- Use options 2-6 or 8 to add other information to the search argument.
- Use option 9 to start the search.
- Use option 10 to enter search arguments for freeform text data on panel BLG1TTSA, Text Search Arguments. More information about searching freeform text data can be found in the *Tivoli Information Management for z/OS User's Guide*.

For this example, type 5 and press Enter.

BLG0E090 P	ROBLEM INQUIRY	SUMMARY
Problem status CLO Reported by JON Reporter dept DEV Date occurred Time occurred Location code Network name System name Program name XMP Device name Key item affected	ES	Assignee name
Description		
Select one of the followi 1. Reporter data. 2. Status data. 3. Close data. 4. Symptom data. 5. Resolution data		rmation to your search argument. 6. Supplemental data. 7. TSD Bridge data. 8. Control data. 9. Search. 10. Text data.
===> 5		

To search for problem records whose resolution included correcting an IF statement, type the following on the command line and press Enter:

13,if

To start the search, type se on the command line and press Enter.

Problem, Change, and Configuration

 Resolution abstract 	·		 -		
2. Device type		. Program ID			
Item number		. Software level			
4. Card name	11	. Routine name			
5. Major unit	• 12	. Field name			
6. Minor unit		. Statement			
7 Dublid + 1		. Register			
Publication		. Operation code			
0 Faudusament sanditisa	10	. APAR			
8. Environment condition		. PTF			
			_		

The records that matched your search argument are presented on the Search Results List panel. From this panel, you can issue line commands to perform tasks such as copying or updating a record.

To return to the Primary Options Menu, type init on the command line and press Enter.

```
BLGITSRL SEARCH RESULTS LIST LINE 1 OF 1

DATABASE: 5

RECORD ID DESCRIPTION ABSTRACT
1. PROB5 INCORRECT ERROR MESSAGE
*** BOTTOM OF DATA ***

Line Cmds: C=Copy D=Delete P=Print S=Select U=Update
Type DOWN or UP to scroll the panel, or type END to exit the panel.

===> init
```

This ends the example of quick search for problem records.

```
BLG0EN20
                      --- PRIMARY OPTIONS MENU ---
                                                      APPLICATION: MANAGEMENT
OPTIONS:
     1. OVERVIEW......Display general information and product enhancements.
     2. PROFILE......Display or alter invocation or session defaults.
     3. APPLICATION....Change application, list available applications.
     4. CLASS......Change current class, list available classes.
     ENTRY......Create a record.
     6. INQUIRY.....Search for records.
     7. UTILITY......Copy, display, print, delete, and update records.
     8. GLOSSARY......Display a list of searchable words in the database.
     9. PMF......Modify or create panels.
          Select an option, enter a command, or type QUIT to exit.
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               5697-SD9 (C) Copyright IBM Corp., 1981, 2001.
  ===>
```

Using Structured Search on Problem Management Records

In this example, you use structured search to find closed problems reported by Jones in department DEV for product XMP1. The Quick search? field in your user profile has been set to NO.

To request a search, type 6 and press Enter.

```
BLG0EN20
                      --- PRIMARY OPTIONS MENU ---
                                                      APPLICATION: MANAGEMENT
OPTIONS:
     1. OVERVIEW......Display general information and product enhancements.
     2. PROFILE......Display or alter invocation or session defaults.
     3. APPLICATION....Change application, list available applications.
     4. CLASS......Change current class, list available classes.
     ENTRY......Create a record.
     6. INQUIRY.....Search for records.
     7. UTILITY......Copy, display, print, delete, and update records.
     8. GLOSSARY......Display a list of searchable words in the database.
     9. PMF.....Modify or create panels.
          Select an option, enter a command, or type QUIT to exit.
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  ===> 6
```

To limit your search to problem records, type 1 and press Enter.

To search on reporter information, type 1 and press Enter.

To search on the reporter's name, type 1 and press Enter.

To specify the reporter's name, type jones and press Enter.

To search on the reporter's department, type 2 and press Enter.

To specify the reporter's department, type **dev** and press Enter.

To search on the program name, type 7 and press Enter.

To specify the program name, type **xmp1** and press Enter.

To save the data and continue, type end and press Enter.

To search on status information, type 2 and press Enter.

Page 1 of the Problem Status panel appears. To move to page 2, press Enter.

To search on problem status, type 1 and press Enter.

To specify current status, type **closed** and press Enter.

To save the data and continue, type end and press Enter.

To search on resolution information, type 5 and press Enter.

Supply resolution information.

For this example, type the following on the command line and press Enter:

13,if

To start the search, type se on the command line and press Enter.

(BLG0E590 PROB	ELEM RESOLUTION DATA INQUIRY
	Add data for the search; c	cursor placement or input line entry allowed.
	1. Resolution abstract	·
	2. Device type	
	3. Item number	
	4. Card name	
	5. Major unit	
	6. Minor unit	
	7 Dublid + 4	14. Register
	7. Publication	
	0 Faudanament soudition	16. APAR
	8. Environment condition	
		18. Modification
	When you finish to	ype SE to search, END to save any changes,
		NCEL to discard any changes.
	OI CAI	note to distain any changes.
	===> se	
	- 30	

The records that matched your search argument are presented on the Search Results List panel. From this panel, you can issue line commands to perform tasks such as copying or updating a record.

To return to the Primary Options Menu, type init and press Enter.

```
BLGITSRL SEARCH RESULTS LIST LINE 1 OF 1

DATABASE: 5

RECORD ID DESCRIPTION ABSTRACT
1. PROB5 INCORRECT ERROR MESSAGE
*** BOTTOM OF DATA ***

Line Cmds: C=Copy D=Delete P=Print S=Select U=Update
Type DOWN or UP to scroll the panel, or type END to exit the panel.
===> init
```

This ends the example of structured search for problem records.

```
BLG0EN20
                        --- PRIMARY OPTIONS MENU ---
                                                           APPLICATION: MANAGEMENT
OPTIONS:
      1. OVERVIEW......Display general information and product enhancements.
      2. PROFILE......Display or alter invocation or session defaults.
3. APPLICATION....Change application, list available applications.
      4. CLASS......Change current class, list available classes.
      ENTRY......Create a record.
      6. INQUIRY.....Search for records.
      7. UTILITY......Copy, display, print, delete, and update records.
      8. GLOSSARY......Display a list of searchable words in the database.
      9. PMF.....Modify or create panels.
           Select an option, enter a command, or type QUIT to exit.
          Tivoli Information Management for z/OS Version 7 Release 1
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===>
```

Typical Search Arguments for Problem Management Records

This section identifies typical problem search arguments and different techniques for entering them. Table 4 on page 291 lists examples for both search criteria and arguments.

To use a structured search, the Quick search? field in your profile must be set to NO. Proceed through the panels, making the appropriate selections and entering assisted-entry values. To use a quick search, the Quick search? field in your profile must be set to YES. Enter values on the quick search panels. To use a freeform search, enter keywords on the SEARCH command or on the argument panel. In some cases, freeform can be combined with quick or structured search to keep record types you are not interested in from being in your search.

In the following table, SE is an abbreviation for the SEARCH command.

Table 4. Typical Problem Search Arguments

SEARCH CRITERIA	STRUCTURED SEARCH ARGUMENT	QUICK SEARCH ARGUMENT
Identify all nonclosed problem records (status of OPEN or INITIAL)	Select INQUIRY, PROBLEM, STATUS, press Enter, select PROBLEM STATUS, type open initial, press Enter 6,1,2,,1,open initial,se	Select INQUIRY, PROBLEM, PROBLEM STATUS, type open initial 6,1,14,open initial,se
Identify all problems at a specific location (for example, St. Louis = stlou)		Select INQUIRY, PROBLEM, LOCATION CODE, and type stlou stlou 6,1,24,stlou,se
Retrieve all problems that occurred in the month of May. (Use keywords. <i>dato</i> (date occurred) is unique to problem records.)	If you use a 2-digit internal year: se dato/96/05/01 – dato/96/05/31 or se dato/96/05/01 – 31 If you use a 4-digit internal year: se dato/1996/05/01 – dato/1996/05/31 or se dato/1996/05/01 – 31	Same as structured sequence
Identify all problems reported by a specific person (for example, Jones).	Select INQUIRY, PROBLEM, and enter SEARCH with PERS/JONES keyword 6,1,se + pers/jones	Same as structured sequence
Identify all problems that were opened last week (12/1–7) and are not closed. (Use the ARGUMENT command. <i>stac</i> is status and <i>date</i> is date entered.)	Select INQUIRY, PROBLEM, type arg, enter keywords on Argument panel: 6,1,argument If you use a 2-digit internal year, on panel, enter: stac/closed date/96/12/01 -7 If you use a 4-digit internal year, on panel, enter: stac/closed date/96/12/01 -7 On input line, type se	Same as structured sequence
Retrieve all records assigned to Smith that are not closed. (Use a keyword search to search the entire database. Retrieves problem, change, and activity records assigned to Smith. stac and pera are common to all three record types.)	se stac/closed pera/smith	Same as structured sequence

Searching Change Management Records

This section presents examples of how Tivoli Information Management for z/OS's inquiry function can be used to search Change Management records. Task examples appear in the following order:

- Quick search
- Structured search

Typical search arguments, and how they might be performed in quick or structured search.

Using Quick Search on Change Request Records

In this example, you use quick search to find all change request records requested by Smith. The Quick search? field in your user profile has been set to YES.

To request a search, type 6 and press Enter.

```
BLGOEN20 --- PRIMARY OPTIONS MENU --- APPLICATION: MANAGEMENT

OPTIONS:

1. OVERVIEW......Display general information and product enhancements.
2. PROFILE......Display or alter invocation or session defaults.
3. APPLICATION...Change application, list available applications.
4. CLASS......Change current class, list available classes.
5. ENTRY......Create a record.
6. INQUIRY.....Search for records.
7. UTILITY.....Copy, display, print, delete, and update records.
8. GLOSSARY.....Display a list of searchable words in the database.
9. PMF.......Modify or create panels.

Select an option, enter a command, or type QUIT to exit.

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```

To limit the search to change records, type 2 and press Enter.

Identify the type of change record you want to include in the search.

To restrict your search to change request records, type 1 and press Enter.

To search for change request records requested by Smith, type the following on the command line and press Enter:

1,smithj

To save the data, type end and press Enter.

BLG	0F190	CHANGE REQUESTER INQUIRY
Ado	I data for the search;	cursor placement or input line entry allowed.
2. 3. 4. 5. 6. 7. 8.	Requested by Requester dept Requester phone Network name System name Program name Device name Key item affected Date required Time required	12. Change status 13. Change reason 14. User change number 15. Initial priority 16. Estimated duration 17. Problem fixed 18. User form number 19. Location code
20.	Description	
	•	type SE to search, END to save any changes, CANCEL to discard any changes.
===	> end	

If you wish to add more information to your search argument at this time, select the part of the change request record from the options at the bottom of the summary panel.

- If you type 1 and press Enter, you return to panel BLG0F190, Change Requester Inquiry. Enter the specific values.
- If you type **3** and press Enter, you see data-entry panel BLG0F390, Change Close Data Inquiry.
- If you type 4 and press Enter, you see selection panel BLG0C040, Change Detail. You can then make a selection searching for changes that relate to software, hardware, or documentation.

- If you type **5** and press Enter, you see data-entry panel BLF0F590, Change Approver Data Inquiry. You are prompted for an approval status: pending, accept, reject, or all. On an assisted-entry panel, you can identify the privilege class names.
- If you type 6 and press Enter, you see data-entry panel BLF0F890, Change Control Data Inquiry. Enter data for privilege classes, or record IDs, and other system-completed fields, such as Date last altered or Approver status.
- Use option 7 to enter search arguments for freeform text data on panel BLG1TTSA, Text Search Arguments. More information about searching freeform text data can be found in the *Tivoli Information Management for z/OS User's Guide*.

After you select any of the above options and enter your data, type **end** and press Enter to return to the Change Request Summary selection panel.

To start the search, type 9 and press Enter.

BLG0F090	CHANGE REQUEST SUMMARY
Assignee name	Approval status Current priority
Description	
Select one of the follow	ing to add information to your search argument.
	ester data. 5. Approver data.
3. Clos	us data. 6. Control data. e data. 7. Text data. il data. 9. Search.
===> 9	

The records that matched your search argument are presented on the Search Results List panel. From this panel, you can issue line commands to perform tasks such as copying or updating a record. For more information on line commands, refer to the *Tivoli Information Management for z/OS User's Guide*.

Use line commands as necessary, then type **end** and press Enter.

```
BLGITSRL SEARCH RESULTS LIST LINE 1 OF 1

DATABASE: 5

RECORD ID DESCRIPTION ABSTRACT
1. A01 CHANGE COM1 TO RS-232
*** BOTTOM OF DATA ***

Line Cmds: C=Copy D=Delete P=Print S=Select U=Update
Type DOWN or UP to scroll the panel, or type END to exit the panel.

===> end
```

If you have completed your search of change records, type **init** and press Enter to return to the Primary Options Menu.

BLG0F090	CHANGE REQU	UEST SUMMARY	
Assignee name Coordinator name Device name Key item affected.		Change status Approval status Current priority Date required Planned start date. Planned end date	
		Record IDs	
		Record IDs	
Select one of the	following to add inf	Record IDs formation to your search argument.	
Select one of the	following to add inf	Record IDs formation to your search argument. 5. Approver data.	
Select one of the	following to add inf	Record IDs formation to your search argument. 5. Approver data. 6. Control data.	

This ends the example of quick search for change records.

```
BLG0EN20
                      --- PRIMARY OPTIONS MENU ---
                                                      APPLICATION: MANAGEMENT
OPTIONS:
     1. OVERVIEW......Display general information and product enhancements.
     2. PROFILE......Display or alter invocation or session defaults.
     3. APPLICATION....Change application, list available applications.
     4. CLASS......Change current class, list available classes.
     ENTRY......Create a record.
     6. INQUIRY.....Search for records.
     7. UTILITY......Copy, display, print, delete, and update records.
     8. GLOSSARY......Display a list of searchable words in the database.
     9. PMF.....Modify or create panels.
          Select an option, enter a command, or type QUIT to exit.
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===>
```

Using Quick Search on Activity Records

The quick search panels for activity records are similar to those for change request records, but the data applies specifically to activity records. The quick search panels for all change records (change request and activity, option 3 on panel BLG0F000), are also similar, but only the fields that are common to both record types are included in the panels.

Using Structured Search on Change Request Records

In this example, you use structured search to find all change request records requested by Smith. The Quick search? field in your user profile has been set to NO.

To request a search, type 6 and press Enter.

```
BLG0EN20
                      --- PRIMARY OPTIONS MENU ---
                                                      APPLICATION: MANAGEMENT
OPTIONS:
      1. OVERVIEW......Display general information and product enhancements.
      2. PROFILE......Display or alter invocation or session defaults.
      3. APPLICATION....Change application, list available applications.
      4. CLASS......Change current class, list available classes.
      5. ENTRY.....Create a record.
      6. INQUIRY.....Search for records.
     7. UTILITY......Copy, display, print, delete, and update records.
      8. GLOSSARY......Display a list of searchable words in the database.
      9. PMF.....Modify or create panels.
          Select an option, enter a command, or type QUIT to exit.
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===> 6
```

To limit your search to change records, type 2 and press Enter.

Identify the type of change record you want to include in the search.

To limit your search to change request records, type 1 and press Enter.

Select the item that indicates the part of the change request record to which your search relates.

Since you want to search for change request records requested by Smith, type 1 and press Enter for requester data.

If you select any of the other options, note the following:

- If you select **STATUS**, **CLOSE**, or **DETAIL**, select the fields you want to search from the selection panels displayed. Enter the specific values on the assisted-entry panels.
- If you select **APPROVERS**, you are prompted for an approval status: pending, accept, reject, or all +. On the assisted-entry panel, you can identify the privilege class names.
- If you select **REVIEWERS**, identify privilege classes that are specified as reviewers for the change record. An assisted-entry panel displays for this selection.
- If you select **CONTROL**, enter data for privilege classes, record IDs, and other system-completed fields such as Date last altered or Approval status.
- If you select **ACTIVITIES**, identify the activity name for the argument. An assisted-entry panel displays for this selection.

After you describe as much information as needed, you can enter **end** to return to the Change Inquiry Selection panel where you can select another option or you can enter the SEARCH command to perform the search. The SEARCH command can be issued from any panel in the prompting sequence.

To specify the name of the person that requested the change, type 1 and press Enter.

Type **smithj** on the command line and press Enter.

Specify other search criteria if needed. Then type se on the command line and press Enter.

The records that matched your search argument are presented on the Search Results List panel. From this panel, you can issue line commands to perform tasks such as copying or updating a record. For more information on line commands, refer to the *Tivoli Information Management for z/OS User's Guide*.

Use line commands as needed, then type **end** and press Enter.

```
BLGITSRL SEARCH RESULTS LIST LINE 1 OF 1

DATABASE: 5

RECORD ID DESCRIPTION ABSTRACT
1. A01 CHANGE COM1 TO RS-232

**** BOTTOM OF DATA ****

Line Cmds: C=Copy D=Delete P=Print S=Select U=Update
Type DOWN or UP to scroll the panel, or type END to exit the panel.

===> end
```

If you have completed your search of change records, type **init** and press Enter to return to the Primary Options Menu.

This ends the example of structured search for change records.

```
BLG0EN20
                       --- PRIMARY OPTIONS MENU ---
                                                         APPLICATION: MANAGEMENT
OPTIONS:
      1. OVERVIEW......Display general information and product enhancements.
      2. PROFILE......Display or alter invocation or session defaults.
      3. APPLICATION....Change application, list available applications.
      4. CLASS......Change current class, list available classes.
     5. ENTRY......Create a record.6. INQUIRY......Search for records.
      7. UTILITY......Copy, display, print, delete, and update records.
      8. GLOSSARY......Display a list of searchable words in the database.
      9. PMF.....Modify or create panels.
           Select an option, enter a command, or type QUIT to exit.
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===>
```

Using Structured Search on Activity Records

When you restrict your structured search to activity records, the REQUESTER, STATUS, CLOSE, CONTROL, and ACTIVITIES options are similar to those for change records. The only exceptions are that all data applies to activity records, and in the CONTROL section, the Approval status field is replaced by the Parent change field.

When you search for all records (change and activity), only the fields that are common to both record types are included. When you select an option, you are presented with a series of selection and assisted-entry panels to identify the records. You can enter data for any sections of the records, including system-completed fields in the control section.

Typical Search Arguments for Change Management Records

This section identifies typical change search arguments and different techniques for entering them. Table 5 on page 302 lists examples for both search criteria and arguments.

To use a structured search, the Quick search? field in your profile must be set to NO. Proceed through the panels, making the appropriate selections and entering assisted-entry values. To use a quick search, the Quick search? field in your profile must be set to YES. Enter values on the quick search panels. To use a freeform search, enter keywords on the SEARCH command or on the argument panel. In some cases, freeform can be combined with quick or structured search to keep record types you are not interested in from being in your search.

In the following table, SE is an abbreviation for the SEARCH command.

Table 5. Typical Change Search Arguments

SEARCH CRITERIA	STRUCTURED SEARCH ARGUMENT	QUICK SEARCH ARGUMENT
Identify all open change records (have a status of open or initial).	Select INQUIRY, CHANGE, CHANGE, STATUS, CHANGE STATUS, and enter OPEN INITIAL	Select INQUIRY, CHANGE, CHANGE, CHANGE STATUS, and enter OPEN INITIAL
	6,2,1,2,8,open initial,se	6,2,1,12,open initial,se
Identify all changes and activities for a system (MVS).	Select INQUIRY, CHANGE, ALL+, REQUESTER, SYSTEM NAME, and enter MVS 6,2,3,1,4,mvs,se	Select INQUIRY, CHANGE, ALL+, SYSTEM NAME, and enter MVS 6,2,3,4,mvs,se
Retrieve all changes that you plan to start next month (October).	Select INQUIRY, CHANGE, CHANGE, STATUS, press Enter, PLANNED DATE and enter 10/01/96 –10/31/96 6,2,1,2,,3,10/01/96 –10/31/96,se	Select INQUIRY, CHANGE, CHANGE, enter END, STATUS, PLANNED START DATE, and enter 10/01/96 –10/31/96,se 6,2,1,end,2,14,10/01/96 –10/31/96,se
Identify all changes and activities at a specific location (stlou).	Select INQUIRY, CHANGE, ALL+, REQUESTER, Enter, LOCATION, and enter stlou 6,2,3,1,,5,stlou,se	Select INQUIRY, CHANGE, ALL+, LOCATION and enter stlou 6,2,3,12,stlou,se
Identify all incomplete changes or activities scheduled for this month (September).	Select INQUIRY, CHANGE, ALL+, enter ARGUMENT, enter keywords on Argument panel: 6,2,3,argument	Same as structured sequence
(Use the ARGUMENT command. <i>stac</i> is status, <i>datd</i> is date required, and <i>datt</i> is planned end date.)	If you use a 2-digit year, on argument panel, enter: stac/closed datd/96/09/01 -30 datt/96/09/01 -30 If you use a 4-digit year, on argument panel, enter: stac/closed datd/1996/09/01 -30 datt/1996/09/01 -30	
	On command line, enter: se	

Table 5. Typical Change Search Arguments (continued)

	SEARCH CRITERIA	STRUCTURED SEARCH ARGUMENT	QUICK SEARCH ARGUMENT
	Identify all changes that require approval by SYSPROG privilege class.	Select INQUIRY, CHANGE, and enter SEARCH with keywords 6,2,se + stap/pending sp**/SYSPROG	Same as structured sequence
	(Use keywords. <i>stap</i> is approval status and <i>sp**</i> is approver classes.)		
 	Identify all changes that require approval by SYSPROG privilege class (for approval data collected only through a list processor panel BLGLAPVR)	Select INQUIRY, CHANGE, and enter SEARCH with keywords 6,2,se + apst/pending spar/SYSPROG	Same as structured sequence
	Retrieve all records that are not closed and are assigned to Smith.	se stac/closed pera/smith	Same as structured search
	(Use keyword search to search the entire database. Retrieves problem, change, and activity records assigned to Smith. STAC and PERA are common to all three record types.)		
	View all changes to devices identified by five DBCS characters beginning with <wpwr></wpwr>	Select INQUIRY, CHANGE, and enter SEARCH with keywords. 6,2,search + comd/ <wpwrw*w**< td=""><td>Use prompting sequence</td></wpwrw*w**<>	Use prompting sequence
	(Use keywords and the W* operator to indicate positions that will accept any DBCS character.)		
	Identify all changes having a reason code beginning with DBCS <wa></wa>	Select INQUIRY, CHANGE, and enter SEARCH with keywords. 6,2,search + codr/ <waw.></waw.>	Use prompting sequence
	(Use keywords and the W. operator to indicate you want the search to recognize any code beginning with <wa.)< td=""><td></td><td></td></wa.)<>		

Searching Configuration Management Records

This section presents examples of how Tivoli Information Management for z/OS's Inquiry function can be used to search Configuration Management records. Task examples appear in the following order:

- Quick search
- Structured search
- Typical search arguments, and how they might be performed in quick or structured search.

Using Quick Search on Configuration Management Records

In this example, the Quick search? field in your user profile has been set to YES.

To request a search, type 6 and press Enter.

```
BLG0EN20
                      --- PRIMARY OPTIONS MENU ---
                                                      APPLICATION: MANAGEMENT
OPTIONS:
      1. OVERVIEW......Display general information and product enhancements.
      2. PROFILE......Display or alter invocation or session defaults.
     3. APPLICATION....Change application, list available applications.
      4. CLASS......Change current class, list available classes.
      5. ENTRY.....Create a record.
      6. INQUIRY.....Search for records.
      7. UTILITY......Copy, display, print, delete, and update records.
      8. GLOSSARY......Display a list of searchable words in the database.
      9. PMF......Modify or create panels.
          Select an option, enter a command, or type QUIT to exit.
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```

To limit your search to configuration records, type 3 and press Enter.

Identify the type of record you want to include in your search.

To restrict your search to data center records, type 1 and press Enter.

```
BLG0G000 CONFIGURATION INQUIRY 1 OF 1

USE...Identify type of information to be added to the inquiry.

1.CENTER.......Data center related information.
2.SYSTEM.......System (domain) related information.
3.HARDWARE.....Hardware components, features and subcomps.
4.SOFTWARE.....Software components and features.
5.FINANCIAL....Financial data about components & features.
6.SERVICE.....Service data about components and features.
7.MODEL......Model hardware,software & subcomp records.
8.CONTROL....Record control information, all records.

SELECT ITEM
```

Complete this panel to specify the information about the record you want to see.

To search on the center name, type 1,center1 on the command line and press Enter:

To save the data, type end and press Enter.

```
BLG0G590
                          DATA CENTER INQUIRY
Add data for the search; cursor placement or input line entry allowed.
 1. Center name...... CENTER1_
                                        8. Owning priv. class.
2. Operations mgr....
                                        9. Entry priv. class..
                                   9. Entry process. _______ 10. Transfer-to class.. _____
3. Location code..... 10. Transfer-to class... 4. 1st shift mgr.... 11. Date entered......
5. 2nd shift mgr.....
                                       12. Time entered....._
 6. 3rd shift mgr..... ___
                                    13. Date last altered..
                                        14. Time last altered.. _
                                        15. User last altered..
                                        16. Record IDs....._
7. Description..... ___
       When you finish, type SE to search, END to save any changes,
                    or CANCEL to discard any changes.
===> end
```

To start the search, type 9 and press Enter.

LG0G593 DATA CENTE	ER SUMMARY	
Center name CENTER1	Owning priv. class	
Operations mgr	Entry priv. class	
Location code	Transfer-to class	
1st shift mgr	Date entered	
2nd shift mgr	Time entered	
3rd shift mgr	Date last altered	
	Time last altered	
	User last altered	
Danamintian	Record IDs	
Description		
Select one of the	following.	
 Description/con Search. 	ntrol data.	

The records that matched your search argument are presented on the Search Results List panel. From this panel, you can issue line commands to perform tasks such as copying or updating a record. For more information on line commands, refer to the *Tivoli Information Management for z/OS User's Guide*.

Use line commands as needed, then type end and press Enter.

```
BLG1TSRL SEARCH RESULTS LIST LINE 1 OF 1

DATABASE: 5

RECORD ID DESCRIPTION ABSTRACT
1. DPCTR1 DATA CENTER1
*** BOTTOM OF DATA ***

Line Cmds: C=Copy D=Delete P=Print S=Select U=Update
Type DOWN or UP to scroll the panel, or type END to exit the panel.
===> end
```

If you have completed your search of configuration records, on the command line type **init** and press Enter to return to the Primary Options Menu.

			$\overline{}$
BLG0G593	DATA CENTER	SUMMARY	·
Center name Operations mgr Location code 1st shift mgr 2nd shift mgr 3rd shift mgr		Transfer-to class Date entered Time entered Date last altered User last altered	
Description		Record IDs	
Selec	t one of the fol	llowing.	
	escription/contr earch.	rol data.	
===> init			,

This ends the example of quick search for configuration records.

```
BLGGEN20 --- PRIMARY OPTIONS MENU --- APPLICATION: MANAGEMENT

OPTIONS:

1. OVERVIEW......Display general information and product enhancements.
2. PROFILE......Display or alter invocation or session defaults.
3. APPLICATION...Change application, list available applications.
4. CLASS......Change current class, list available classes.
5. ENTRY......Create a record.
6. INQUIRY.....Search for records.
7. UTILITY......Copy, display, print, delete, and update records.
8. GLOSSARY.....Display a list of searchable words in the database.
9. PMF.......Modify or create panels.

Select an option, enter a command, or type QUIT to exit.

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```

Using Structured Search on Configuration Management Records

In this example, the Quick search? field in your user profile has been set to NO.

Begin structured search at the Primary Options Menu. Type 6 and press Enter.

```
BLG0EN20
                      --- PRIMARY OPTIONS MENU ---
                                                      APPLICATION: MANAGEMENT
OPTIONS:
      1. OVERVIEW......Display general information and product enhancements.
      2. PROFILE......Display or alter invocation or session defaults.
      3. APPLICATION....Change application, list available applications.
      4. CLASS......Change current class, list available classes.
     ENTRY......Create a record.
      6. INQUIRY.....Search for records.
      7. UTILITY......Copy, display, print, delete, and update records.
     8. GLOSSARY......Display a list of searchable words in the database.
      9. PMF......Modify or create panels.
          Select an option, enter a command, or type QUIT to exit.
         Tivoli Information Management for z/OS Version 7 Release 1
                5697-SD9 (C) Copyright IBM Corp., 1981, 2001.
===> 6
```

To limit your search to configuration records, type 3 and press Enter.

To search on data center information, type 1 and press Enter.

To search on data center description information, type 1 and press Enter.

To search on the data center name, type 1 and press Enter.

To specify the data center name, type **center1** and press Enter.

To start the search, type se and press Enter.

The records that matched your search argument are presented on the Search Results List display. From this panel, you can issue line commands to perform tasks such as copying or updating a record. For more information on line commands, refer to the *Tivoli Information Management for z/OS User's Guide*.

Use line commands as needed, then type **end** and press Enter.

```
BLGITSRL SEARCH RESULTS LIST LINE 1 OF 1

DATABASE: 5

RECORD ID DESCRIPTION ABSTRACT
1. DPCTR1 DATA CENTER1
*** BOTTOM OF DATA ***

Line Cmds: C=Copy D=Delete P=Print S=Select U=Update
Type DOWN or UP to scroll the panel, or type END to exit the panel.

===> end
```

This ends the example of structured search for configuration records.

```
BLG0EN20
                      --- PRIMARY OPTIONS MENU ---
                                                      APPLICATION: MANAGEMENT
OPTIONS:
     1. OVERVIEW......Display general information and product enhancements.
     2. PROFILE.......Display or alter invocation or session defaults.
     3. APPLICATION....Change application, list available applications.

    CLASS......Change current class, list available classes.

     5. ENTRY.....Create a record.
     INQUIRY......Search for records.
     7. UTILITY......Copy, display, print, delete, and update records.
     8. GLOSSARY......Display a list of searchable words in the database.
     9. PMF.....Modify or create panels.
          Select an option, enter a command, or type QUIT to exit.
         Tivoli Information Management for z/OS Version 7 Release 1
                5697-SD9 (C) Copyright IBM Corp., 1981, 2001.
```

Typical Search Arguments for Configuration Management Records

This section identifies typical configuration search arguments and different techniques for entering them. Table 6 on page 312 lists examples for both search criteria and arguments.

To use a structured search, the Quick search? field in your profile must be set to NO. Proceed through the panels, making the appropriate selections and entering assisted-entry values. To use a quick search, the Quick search? field in your profile must be set to YES. Enter values on the quick search panels. To use a freeform search, enter keywords on the

SEARCH command or on the argument panel. In some cases, freeform can be combined with quick or structured search to keep record types you are not interested in from being in your search.

In the following table, SE is an abbreviation for the SEARCH command.

Table 6. Typical Configuration Search Arguments

SEARCH CRITERIA	STRUCTURED SEARCH ARGUMENT	QUICK SEARCH ARGUMENT
Identify all	Select INQUIRY and CONFIGURATION	Same as structured sequence
configuration records.	6,3,se	Sumo as structured sequence
Identify all hardware components.	Select INQUIRY, CONFIGURATION, HARDWARE, and COMPONENT	Same as structured sequence
	6,3,3,1,se	
Retrieve all devices installed last month (August).	6,3,3,1,1,1,,2, install,argument If you use a 2-digit internal year Enter: datc/96/08/01 -31	6,3,3,1,1,,,6, install,argument, datc/96/08/01 -31 Enter SE
(Datc (date of status) is unique to configuration records;	If you use a 4-digit internal year Enter: datc/1996/08/01 -31	Effet SE
stac is status; and typd (generic device type) excludes software components.)	Enter SE	
Identify all	For hardware: 6,3,3,1,1,7, stlou,se	For hardware: 6,3,3,1,10, stlou,se
components at a specific location (stlou).	For software: 6,3,4,1,1,,4, stlou,se	For software: 6,3,4,1,14, stlou,se
Identify all programs that have source language of PL/1.	Select INQUIRY, CONFIGURATION, SOFTWARE, COMPONENT, DESCRIPTION LANGUAGE, enter PL1 6,3,4,1,1,6,pl1,se	6,3,4,1,6,pl1,se
Identify all configuration records with a specific contact or owner.	6,3,3,1,3,2, moore,end,2,1, oper4,2,oper4,se	6,3,3,1,14,moore,, 3,11,oper4,9, oper4,se
Identify all records that identify Matthews as the contact.	se perc/matthews	Same as structured sequence
(Use the <i>perc</i> prefix to search the entire database. Retrieves all problem, change, configuration, SRC and privilege class record types that have Matthews as the contact name field.)		

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Generating Reports Using Tivoli Information Management for z/OS

This chapter describes the reports you can create using Tivoli Information Management for z/OS data.

Setting Up Reports provides a general description of Tivoli Information Management for z/OS report facilities and additional information for MVS/ESATM users.

The remaining sections describe the standard reports that are available for problem, change, and configuration records. For more information about which Tivoli Information Management for z/OS fields appear in which reports, see the Tivoli Information Management for z/OS Report Fields.

Setting Up Reports

You can control the records that are included in a report by building a search argument before you issue the REPORT command, or by building a search argument directly with the REPORT command.

You can run standard reports in either interactive or batch mode. In MVS/ESA, batch-mode reports are started with JCL that uses a TSP, TSX, SRC, or IRC to start Tivoli Information Management for z/OS.

You can direct the report output to a SYSOUT data set, a preallocated file (DDNAME), or a dynamically allocated data set. The output destination is determined by the values in your user profile.

In your user profile, you can provide information about each destination for standard, customized, and PRINT command output. If the destination information in your profile is blank, you are prompted for the output destination each time you choose to produce a report and the first time you select the PRINT command during a session.

In addition to the reports discussed here, you can print any record with the PRINT command, any table panel (including all lines of data) with the PRINT ALL command, and any screen with the ISPF PRINT command.

You can also use the graphics facility to create, display, and print reports in formats such as histograms, line graphs, bar charts, and pie charts, among others. For more information on the graphics facility, refer to the *Tivoli Information Management for z/OS Data Reporting User's Guide*.

Output Destinations for MVS/ESA

For OS/390, the following output destination definitions apply:

SYSOUT

Identifies the device to be used for the output. If you have either of the following special requirements:

- Advanced Function Printing[™]
- Printing reports containing mixed data

you must also specify an output descriptor name. For more information about specifying output descriptors in Tivoli Information Management for z/OS, refer to the *Tivoli Information Management for z/OS User's Guide*. For more information about valid output descriptor names, refer to the *MVS/ESA JCL Reference* manual.

You can also send output to a remote system node and user ID. For more information, refer to the *Tivoli Information Management for z/OS User's Guide*.

DSNAME

Identifies a data set to receive the output. The data set's status can be NEW, OLD, or MOD. If MOD is specified and the data set cannot be found, the data set is allocated as NEW. If the disposition is not specified, the data set is allocated as OLD if it exists, or NEW if it cannot be found.

DDNAME

Identifies a preallocated file name to receive output. When you use a preallocated file name, the file must have been described by a previously issued TSO ALLOCATE command.

For more information, refer to the *Tivoli Information Management for z/OS User's Guide* and the *Tivoli Information Management for z/OS Data Reporting User's Guide*.

Requesting Reports from the Primary Options Menu

At the Primary Options Menu, type **REPORT** and press Enter.

```
BLG0EN20
                      --- PRIMARY OPTIONS MENU ---
                                                      APPLICATION: MANAGEMENT
OPTIONS:
     1. OVERVIEW......Display general information and product enhancements.
     2. PROFILE......Display or alter invocation or session defaults.
     3. APPLICATION....Change application, list available applications.
     4. CLASS......Change current class, list available classes.
     5. ENTRY.....Create a record.
     6. INQUIRY.....Search for records.
     7. UTILITY......Copy, display, print, delete, and update records.
     8. GLOSSARY......Display a list of searchable words in the database.
     9. PMF.....Modify or create panels.
          Select an option, enter a command, or type QUIT to exit.
         Tivoli Information Management for z/OS Version 7 Release 1
               5697-SD9 (C) Copyright IBM Corp., 1981, 2001.
  ===> report
```

The Report Entry panel appears. You can request reports from the following report categories:

- General
- Problem
- Change
- Config
- User RFT

You can also browse or print a report data set.

```
BLGOW500 REPORT ENTRY

Identify the type of report to be created.

1. GENERAL......Summary reports for all applications.
2. PROBLEM......Problem management reports.
3. CHANGE......Change management reports.
4. CONFIG......Configuration management reports.
8. USER RFT......Specify user report format table name.

10. BROWSE/PRINT....Browse or print existing report data set.

Select item.
```

Choose the appropriate report by typing the item number on the command line and pressing Enter.

For each of these report categories except Browse/Print, you can control the records that appear in a report by varying your search argument. If you do not specify a search argument, the search returns all records in the database that meet the report's selection criteria. If your search argument results in no matches, a message is displayed and no report processing occurs.

Browse/Print enables you to look at an existing report data set and to print a graphics report that is in an existing report data set.

For a record type to appear in any of these reports, you must be running under a privilege class with display authority for that record type.

The following sections in this chapter provide information on generating reports for different types of records.

- For information on generating reports for Problem Management records, see 316.
- For information on generating reports for Change Management records, see 318.
- For information on generating reports for Configuration Management records, see 321.

For information on general, user RFT, and customized reports, refer to the *Tivoli Information Management for z/OS Data Reporting User's Guide*.

Problem Management Reports

To display this panel from the Report Entry panel, type 2 and press Enter.

The following standard reports are available from the Problem Reports panel:

- Periodic Status (option 1)
- Calendar (option 2)
- Assignee (option 3)

A general description of each report type follows.

Periodic Status Reports

A periodic status report lists information about the status and schedule of a set of problem records. To get a periodic status report from the Problem Reports panel, type 1 and press Enter.

Before a periodic problem status report is generated, you see the Periodic Problem Status Report panel. If you have not previously specified the values displayed on this panel, Problem Management generates them for you using the current date and the Current period date range field from your profile. The length of each period is initially set at seven days. You can verify the dates shown on this panel or specify new ones.

Only those periods for which you specify dates are included in the periodic status report. Tivoli Information Management for z/OS does not check to make sure that the periods occur in chronological order or do not overlap. Problem records that do not include a date do not appear in the report.

The problem report lists problem records whose entered or closed date falls within the specified range of dates. These problems are then grouped into three sections based on their dates and the problem status:

Problems Entered This Period

Problems whose date entered falls within the report date range.

Problems Closed This Period

Problems whose date closed falls within the report date range.

Priority 1 Hold-over Problems

Nonclosed problems, entered prior to the report date range, whose current priority is 1.

In the "Problems Entered This Period" and "Priority 1 Hold-over Problems" sections, the records are sorted by date entered and problem number. In the "Problems Closed This Period" section, the records are sorted by date closed and problem number.

If no records found in the search-results list meet the selection criteria for one of the report selections, the section heading appears followed by a message.

At the end of the report is a summary of totals for the following:

- Open problems in the database, even if they do not appear in the report
- Problems entered during the report date range
- Problems closed during the report date range
- Priority 1 holdover problems listed in the report
- Open problems in the search-results list by individual priority from 1 to 10
- Open problems in the search-results list with priorities of 11 to 99
- Open problems in the search-results list with no assigned priority.

When report processing is completed, Tivoli Information Management for z/OS displays the panel on which you entered the REPORT command.

Calendar Reports

A problem calendar report displays information relating to the dates contained in a set of problem records. In addition, the report shows the problem type, status, and current priority of each problem presented. To get a calendar report from the Problem Reports panel, type 2 and press Enter.

When report processing is completed, Tivoli Information Management for z/OS displays the panel on which you entered the REPORT command.

Assignee Reports

The problem assignee report lists all problems currently assigned to individuals and departments, and unclosed problems not assigned. This report is useful in tracking who is assigned to problems and for making assignments to problems. To get an assignee report from the Problem Reports panel, type 3 and press Enter.

The report extracts, from the records that meet the search criteria, all problems that are assigned, and all unclosed problems that are not assigned. These problems are then grouped into three sections based on their assignment status:

Assigned to Individuals

Problems that have an assignee name

Assigned to Departments

Problems that have a department name but no assignee name

Unassigned and Not Closed

Problems that have no assignee or department name and are not closed.

The report sorts the assignee names and presents each at the top of a new page followed by a list of all problems assigned to that person.

The problem records are sorted by date entered and problem number. For each problem assigned, the report lists a single line of data containing the status, priority, phase, description, and dates and times pertinent to the assignment. A summary is presented at the end of this list.

When all assignees have been listed, the departments are presented in the same manner.

After departments have been listed, all problems that are unassigned and not closed are presented starting on the next page. A single line of the data appears for each problem, followed by a summary. In place of the assignment date and time, this part of the report presents the problem type, the key item affected, the reporter name, and the date a fix is required.

For each section, the summary includes totals of the following categories:

- Problems listed
- Problems by status (initial, open, and closed)
- Problems by individual priorities from 1 to 10
- Problems with priorities of 11 to 99
- Problems with no assigned priority.

It is possible that no records meet the selection criteria for a particular section. When this occurs, the report section is simply bypassed.

When report processing is completed, the system displays the panel on which you entered the REPORT command.

Change Management Reports

To display this panel from the Report Entry panel, type 3 and press Enter.

The following standard reports are available from the Change Reports panel:

- Periodic Status (option 1)
- Calendar (option 2)
- Approver Summary (option 3)
- Approver Detail (option 4)
- Changes With Related Activities (option 5, Change Activities)

■ Change and Activity Schedule (option 6, Schedule).

A general description of each report type follows.

Periodic Status Report

A periodic status report lists information about the status and schedule of a set of change records. To get a periodic status report from the Change Reports panel, type 1 and press Enter.

Before a periodic status report is generated, the Periodic Change Status Report panel is displayed. If you have not previously specified the values displayed on this panel, Change Management generates them for you using the Current date and the Previous period date range, Current period date range and Next period date range fields in your profile. The length of each period is initially set at seven days in your profile. You can verify the dates shown on this panel or specify new ones.

Only those periods for which you specify dates are included in the periodic status report. Tivoli Information Management for z/OS does not perform any checks to ensure that the periods occur in chronological order or that they do not overlap.

When you generate the periodic status report, the change records whose required dates fall within the specified periods are extracted from the database, and information about them appears in the report. Change records that do not specify a date required are not included in the report.

When the report processing is completed, Tivoli Information Management for z/OS displays the panel on which you entered the REPORT command.

Calendar Report

A calendar report displays information relating to the dates contained in a set of change and activity records. To get a calendar report from the Change Reports panel, type 2 and press Enter.

The change type, status, and current priority are presented for change records, and the parent change number, status, and current priority are presented for activity records. Only changes and activities that have a date in the Date required field are presented in the report.

When the report processing is completed, Tivoli Information Management for z/OS displays the panel on which you entered the REPORT command.

Approver Summary Report

A change approver summary report provides change approvers with a summary of those changes still requiring their approval. To get this report from the Change Reports panel, type **3** and press Enter.

The change approver summary report lists all of the change records that are not closed and for which approval is pending for one or more privilege classes. These records are listed by privilege class name and are sorted by the date on which they are required.

When the report processing is completed, Tivoli Information Management for z/OS displays the panel on which you entered the REPORT command.

Approver Detail Report

A change approver detail report provides change approvers with a detailed description of those changes requiring their approval. To get an approver summary report from the Change Reports panel, type 4 and press Enter.

The selection criteria used to generate the change approver summary report is used to generate this report, but the changes for each approver are sorted by change number. If no records meet the criteria in the search argument, a message is displayed and no report is generated.

Change close information is not included in a change approver detail report.

When the report processing is completed, Tivoli Information Management for z/OS displays the panel on which you entered the REPORT command.

Changes with Related Activities Report

A changes with related activities report provides a list of the relationships between a set of changes and their associated activities. Such a report can help you to track and coordinate the changes. To get this report from the Change Reports panel, type 5 and press Enter.

Of the records that meet the search criteria, only those that have associated activities are listed. The changes and their activities are sorted by current status and record ID. A change record is identified by a horizontal line before and after it. The activities that are listed are obtained directly from the database, rather than from the records that meet the search criteria. As a result, their presence in the report cannot be controlled by a search argument.

When report processing is completed, Tivoli Information Management for z/OS displays the panel on which you entered the REPORT command.

Change and Activity Schedule Report

A change and activity schedule report provides you with a list of all unclosed changes and activities, along with their prerequisites and corequisites. Such a report can help you to schedule changes. To get this report from the Change Reports panel, type 6 and press Enter.

When the report is generated, the changes and activities are sorted into three categories:

Not scheduled

Changes and activities that are not closed and have no planned start date. They are sorted by date required and record ID.

Scheduled but not started

Changes and activities that are not closed, have a planned start date, but do not have an actual start date. They are sorted by planned start date and record ID.

Started but not completed

Changes and activities that are not closed, but have an actual start date. They are sorted by planned end date and record ID.

If no records meet the selection criteria for a particular section, that section of the report is simply bypassed. When report processing is completed, Tivoli Information Management for z/OS displays the panel on which you entered the REPORT command.

Configuration Management Reports

To display this panel from the Report Entry panel, type 4 and press Enter.

The following standard reports are available from the Configuration Reports panel:

- Inventory by Location (option 1, Location)
- Components with Related Features (option 2, Component Features)
- Hardware Configuration Map (option 3, Hardware Map)
- Software Configuration Map (option 4, Software Map)
- Components with Specified Features (option 5, Feature References)
- Configuration Subdiagram (option 6, Subdiagram).

In addition to the search criteria that you can specify as your search argument, all configuration reports have their own record selection criteria. These criteria are based on record type and, in some cases, on the contents of specific fields. As a result, the number of records found by the search argument, as indicated on the first page of the report, might not be the same as the number of records included in the report. The number of records included in the report and the number of records that satisfy the search criteria depend on the type of report and the specified search argument. The selection criteria for each type of report are defined in the detailed report descriptions that follow.

It is possible that none of the records returned by a search meet the selection criteria for a particular report. This can happen for the following reasons:

- A search argument is too restrictive.
- Your privilege class does not have display authority for the required records.
- There are no records in the database that meet the criteria for the report.

In these situations, a message stating that no records met the selection criteria for the report appears on the first and only page of the report. The same message is also displayed on your terminal, instead of a message stating that the search was successful.

A general description of each report type follows.

Inventory-by-Location Report

An inventory-by-location report provides a list of hardware and software components by location. To get this report from the Configuration Reports panel, type 1 and press Enter.

This report extracts all hardware and software components from the records that meet the search criteria, and groups them by location code. The location codes are sorted and each is presented at the top of a new page followed by a list of all components assigned that location code. For each location code, all hardware components are listed in one section of the report followed by all software components. Within locations, the components are sorted by component name (record ID). Components that are not assigned a location code are listed at the end of the report.

It is possible that no records meet the selection criteria for a particular hardware or software section. In this case, that section of the report is bypassed.

When report processing is completed, Tivoli Information Management for z/OS displays the panel on which you entered the REPORT command.

Components-with-Related-Features Report

The components-with-related-features report provides a summary list of hardware and software components and all their associated features. To get this report from the Configuration Reports panel, type 2 and press Enter.

Of the records that meet the search criteria, only those hardware and software components that have associated features are included in the report. The components and features are sorted by component name (record ID) and a single line of data is displayed for each component.

It is possible that no records meet the selection criteria for a particular hardware or software section of the report. In this case, those sections of the report are bypassed.

All of the features associated with a component are listed on the lines immediately following the component data. Because the features are obtained directly from the database rather than from the records that met the search criteria, you cannot use a search argument to control their presence in the report by the search argument.

The component and feature records have common headings, with a few exceptions. The Record ID, Location code, Type number, and Model number fields for the component records, and the Feature name, Record ID, and Feature number fields for the feature records have shared headings, respectively.

When report processing is completed, Tivoli Information Management for z/OS displays the panel on which you entered the REPORT command.

Hardware Configuration Map Report

The hardware configuration map report presents a layout of the hardware components in hierarchical order based on connectivity. To get this report from the Configuration Reports panel, type 3 and press Enter.

From the records that meet the search criteria, the report extracts all the hardware components that do not have an upward connection, and sorts them by component name

(record ID). These components are considered to be the root components, and a hierarchical map is generated for each. Hardware root components are usually CPUs, but they can be any device type.

Each map begins at the top of a new page. For each component that is listed, there is a single line of summary data. The level field (labeled LEVL) identifies the hierarchical level of each component in the map. The root component is assigned the number 1, and the number 2 is assigned to each component that is connected directly to the root component. Each component connected successively further away from the root component is assigned a successively higher level number. The components at level 1 of the map are sorted by component name. The components at each succeeding level are presented in the order that they appear in the database.

Because all of the components appearing in the map, except for the root component, are obtained directly from the database rather than from the records that meet the search criteria, you cannot control their presence in the report with the search argument.

If a component is connected to more than one component, it is listed in its proper place in the hierarchy in each path. For example, if a control unit with a two-channel switch is connected to two channels, that control unit is listed twice in the map report, once under each channel to which it is connected.

When report processing is complete, Tivoli Information Management for z/OS displays the panel on which you entered the REPORT command.

Software Configuration Map Report

As with a hardware configuration map report, a software configuration map report provides a layout of the software components in hierarchical order based on connectivity. To get this report from the Configuration Reports panel, type 4 and press Enter.

The following are the differences between hardware and software configuration map reports:

- The Program type field (TYPE) is included in a software configuration map report.
- The Generic device, Device type, Device model, and the Device serial number fields of hardware configuration map reports are replaced in the software configuration map report by the Version, Release, Modification, and Fix level fields.

When report processing is complete, Tivoli Information Management for z/OS displays the panel on which you entered the REPORT command.

Components-with-Specified-Features Report

A components-with-specified-features report provides a summary of model hardware, hardware, model software, and software features, and of the components that have those features. To get this report from the Configuration Reports panel, type 5 and press Enter.

From the records that meet the search criteria, the report extracts only feature records. The feature records are sorted by feature name, and a single line of data is listed for each feature followed by a single line for the component that has that feature. For model feature records, a single line of data for each component that refers to the model feature through a model link is also listed.

Configuration Management Reports

It is possible that no records meet the selection criteria for the model hardware, hardware, model software or software section of the report. In this case, the section of the report is bypassed.

The component, or model component and linked components, associated with a feature are listed on the lines immediately following the feature data. Because the components are obtained directly from the database rather than from the records that meet the search criteria, you cannot use the search argument to control their presence in the report by the search argument.

The model component, model feature, component record, and feature records have common headings, with a few exceptions. For model component and component records, the Record ID, Location code, Model type, and Model number fields have shared headings. For the model feature and feature records, the Record ID and Feature number fields have shared headings.

When report processing is complete, Tivoli Information Management for z/OS displays the panel on which you entered the REPORT command.

Configuration Subdiagram Report

See "Creating and Drawing Configuration Diagrams" on page 223 for a description and an example of a configuration subdiagram.



Tivoli Information Management for z/OS Report Fields

The figures on the following pages provide a cross-reference of reported fields and the reports that contain them. They present fields for the following record types:

- Privilege class
- Problem management
- Change management
- Hardware component
- Hardware feature
- Hardware connection
- Hardware subcomponent
- Software component
- Software feature
- Software connection
- Hardware financial
- Software financial
- Hardware model component
- Hardware model feature
- Software model component
- Hardware model subcomponent
- Software model feature
- Data center
- System
- Service

Reported fields are organized by record type; then they are grouped in the following categories:

- Description directly describes the record
- Dates dates and times events occurred and names of persons responsible for them occurring
- Authorities all record authorities
- Other additional related information

Reports are identified by numbers across the top of the figure that are explained below each figure. The numbers are used consistently throughout the appendix to allow you to see other record types included in a given report.

The figures show at a glance all possible reports that provide various fields. You can make a knowledgeable selection of a report type by choosing the combination of fields you are interested in seeing.

Privilege Class Management

Table 7. Privilege Class Report by Field

Table 7. Privilege Class Report by Field			
FIELDS	REPORT		
DESCRIPTION FIELDS			
Class name/ID	1		
First user ID	1		
Contact name	1		
AUTHORITY FIELDS			
entry, update, delete, and display	1		
Privilege Class			
entry, update, delete, and display	1		
SRC			
entry, update, and delete	1		
DBADMIN	1		
TSD Bridge Cleanup	1		
Universal Partition Access	1		
Problem			
entry, update, delete, display			
assignment, and close,	1		
Change			
entry, update, delete, display			
assignment, and close,	1		
Configuration			
entry, update, delete, and display	1		
Finance			
entry, update, delete, and display	1		
Rules			
entry, update, delete, and display	1		
People			
PMF			
panel update	1		
dictionary display	1		
dictionary update	1		
panel copy	1		
panel delete	1		
panel list	1		
PMF reports	1		
Report:			
1 = Line Summary Report			

Problem Management

Table 8. Problem Management Reports by Field

FIELDS	REPORT
DESCRIPTION FIELDS	

Table 8. Problem Management Reports by Field (continued)

Table 8. Problem Management Reports by Field (continued)	
FIELDS	REPORT
Problem number/ID	1,2,3,4,5,6,7,8
User form number	1
Туре	1,8
Assignment number	6,7
Description	3,4,5,6,7,8
Key item affected	1,2,3,4,5,8
System impact	3,4,5
Current status	1,2,3,6,7,8
Current priority	1,2,3,4,5,6,7,8
Current phase	1,3,5,6,7,8
DATES FIELDS	
Date entered	1,2,3,4,5,6,7,8
Reported by	1,8
Date occurred	2
Date opened	2
Date assigned	1,2,3,5,6,7
Time assigned	6,7
Assignee name	1,3,5,6
Assigned department	7
Date started	2
Date finished	2,6,7
Time finished	6,7
Date fix required	2,8
Date closed	2,4
Resolved by	4
Date reporter notified	2
Date last altered	2
OTHER FIELDS	
Cause code	4
Duplicate count	4
Fix change number/ID	1
Bypass available	5,6,7
Total problems	6,7,8
Total by current status	6,7,8
Total by priority	5,6,7,8
Total entered this period	5
Total opened problems	5
Total closed this period	5
Total priority 1 holdover	5

Table 8. Problem Management Reports by Field (continued)

FIELDS	REPORT
Report:	
1 = Line Summary Report	
2 = Problem Calendar Report	
3 = Periodic Problem Status Report (entered)	
4 = Periodic Problem Status Report (closed)	
5 = Periodic Problem Status Report (priority 1 holdover)	
6 = Problem Assignee Report (assignee)	
7 = Problem Assignee Report (department)	
8 = Problem Assignee Report (not assigned)	

Change Management

Table 9. Change Management Reports by (Change) Field

FIELDS	REPORT
DESCRIPTION FIELDS	
CI I IID	1 0 10 11 12 12
Change number/ID	1,9,10,11,12,13
Type	1,9,10,11,12,13
Description	9,10,12,13
Key item affected	1,9,13
Number of activities	9,12
Current status	1,10,11,13
Approval status	1,10,13
Current priority	1,9,10,11,13
Current phase	1,9,10,13
DATE FIELDS	
Date entered	11
Requested by	1,9
Date assigned	1,11,12
Assignee name	1,9,11,12
Date required	1,9,10,11,12,13
Planned start date	9,10,11
Planned end date	1,9,10,11
Actual start date	9,10,11
Actual end date	10,11
Date requester notified	11
Date last altered	11
OTHER FIELDS	
Corequisites	9
Prerequisites	9

Table 9. Change Management Reports by (Change) Field (continued)

FIELDS	REPORT	
Estimated effort	9,10,11	
Actual effort	10	
Estimated duration	12	
Risk assessment	9,10,11,12	
Actual impact	10,12	
Pending classes	13	
Rejected classes	12	
Approver privilege class	12	
Contact name	12	
Contact department	12	
Contact phone	12	
Contact location code	13	
Total changes	13	
Total by change status	13	
Total by approver status	13	
Report:		
1 = Line Summary Report		
9 = Change and Activity Schedule Report		
10 = Change With Related Activities Report		
11 = Change Calendar Report		
12 = Change Approver Summary Report		
13 = Periodic Change Status Report		

Activity

Table 10. Change Management Reports by (Activity) Field

FIELDS	REPORT
DESCRIPTION FIELDS	
Activity number/ID	1,9,10,11
Name	1,9
Туре	1,9,10
Description	9,10
Key item affected	9
Parent change	1,9,11
Current status	1,10,11
Current priority	1,9,11
Current phase	1,9
DATE FIELDS	
Date entered	11
Date required	1,9,10,11

Table 10. Change Management Reports by (Activity) Field (continued)

FIELDS	REPORT
Requested by	1,9
Date assigned	1,11
Assignee name	1,9,10,11
Planned start date	9,10,11
Planned end date	1,9,10,11
Actual start date	10,11
Actual end date	9,10,11
Date requester notified	11
Date last altered	11
OTHER FIELDS	
Corequisites	9
Prerequisites	9
Risk assessment	10
Actual impact	10
Estimated effort	10
Actual effort	10
Actual impact	10
Report:	
1 = Line Summary Report	
9 = Change and Activity Schedule Report	
10 = Change With Related Activities Report	
11 = Change Calendar Report	

Configuration Hardware Component

Table 11. Configuration Management Reports: Hardware Component by Field

FIELDS	REPORT
COMPONENT FIELDS	
Name/Record ID	1,14,15,16,18
Generic device	1,14,15,16,18
Device type and model	1,14,15,16,18
Device serial number	1,14,15,16,18
Location code	1,14,15,16
Status	1,14,15,16,18
Date of status	1,14,16,18
OTHER FIELDS	
Model link ID	1
Date shipped	1
System record ID	1,15,4
Financial record ID	1,15,16,18
Owner	1,15,4
Description	14,6

Table 11. Configuration Management Reports: Hardware Component by Field (continued)

FIELDS	REPORT
Display class	15
Center record ID	15
Service record ID	15
Map Level	15
Report:	
1 = Line Summary Report	
14 = Components with Related Features Report	
15 = Hardware Configuration Map Report	
16 = Inventory by Location Report	
18 = Components with Specified Features Report	

Configuration Hardware Connection

Table 12. Configuration Management Reports: Hardware Connection by Field

Table 12. Configuration Management Reports: Hardware Connection by Field		
CONNECTION FIELDS	REPORT	
Record ID	1	
Component from	1	
Component to	1	
Generic device to	1	
Date from	1	
Date to	1	
Туре	1	
Status	1	
Device address	1	
Shift number	1	
Path ID	1	
Report:		
1 = Line Summary Report		

Configuration Hardware Feature

Table 13. Configuration Management Reports: Hardware Feature by Field

FIELDS	REPORT
FEATURE FIELDS	
Record ID	1,14,18
Name	1,14,18
Number	1,14,18
Туре	1,14,18
Serial number	1,14
Description	14,18

Table 13. Configuration Management Reports: Hardware Feature by Field (continued)

FIELDS	REPORT
Status	1,14,18
Date of status	1,14,18
OTHER FIELDS	
Parent component ID	1
Financial record ID	1,14,18
Report: 1 = Line Summary Report 14 = Components with Related Features Report 18 = Components with Specified Features Report	

Configuration Hardware Subcomponent

Table 14. Configuration Management Reports: Hardware Subcomponent by Field

FIELDS	REPORT
SUBCOMPONENT FIELDS	
Record ID	1,14
Туре	1,14
Serial number	1,14
Location code	1,14
Status	1,14
Date of status	1,14
OTHER FIELDS	
Hardware link ID	1
Financial record ID	1,14
Owner	1
Description	2
Report:	I
1 = Line Summary Report	
14 = Components with Related Features Report	

Configuration Model Hardware Component

Table 15. Configuration Management Reports: Model Hardware Component by Field

Table 13. Configuration Management Reports. Model Hardware Component by Field	
FIELDS	REPORT
COMPONENT FIELDS	

Table 15. Configuration Management Reports: Model Hardware Component by Field (continued)

FIELDS	REPORT
Name/Record ID	1,18
Generic device	1,18
Device type and model	1,18
Status	1,18
Date of status	1,18
OTHER FIELDS	
Contact Name	1
System record ID	1
Financial record ID	1
Owner	1,18
Description	18
Report: 1 = Line Summary Report 18 = Components with Specified Features Report	

Configuration Model Hardware Feature

Table 16. Configuration Management Reports: Model Hardware Feature by Field

FIELDS	REPORT
FEATURES FIELDS	
Record ID	1,14,18
Туре	1,14,18
Number	1,14,18
Name	1,14,18
Storage Class	1
Status	1,14,18
Date of status	1,14,18
OTHER FIELDS	
Contact name	1
Parent Component ID	1
Financial record ID	1,14,18
Owner	
Description	14,18
Report: 1 = Line Summary Report 14 = Components with Related Features Report 18 = Components with Specified Features Report	

Configuration Model Hardware Subcomponent

Table 17. Model Hardware Subcomponent by Field

FIELDS	REPORT
SUBCOMPONENT FIELDS	
Record ID	1
Type	1
Status	1
Date of status	1
OTHER FIELDS	
Model component link	1
Contact name	1
System record ID	1
Financial record ID	1
Owner	1
Report: 1 = Line Summary Report	

Configuration Software Component

Table 18. Configuration Management Reports: Software Component by Field

FIELDS	REPORT
COMPONENT FIELDS	
Name/Record ID	1,14,16,17,18
Program type	1,14,16,17,18
Version	1,14,16,17,18
Release level	1,14,16,17,18
Modification level	1,14,16,17,18
Source language	1,4
Execution type	1
Fix level	1,14,16,17,18
Status	1,14,16,17,18
Date of status	1,14,16,18
OTHER FIELDS	
Financial record ID	1,14,16,17,18
Model link ID	1
Owner	1,16,17
Location code	1,14,16,17
Description	1,14,17
System record ID	16,17
Vendor component ID	4

Table 18. Configuration Management Reports: Software Component by Field (continued)

FIELDS	REPORT
Map level	4
Display class	4
Center record ID	4
Service record ID	4
Report:	
1 = Line Summary Report	
14 = Components with Related Features Report	
16 = Inventory by Location Report	
17 = Software Configuration Map Report	
18 = Component with Specified Features Report	

Configuration Software Connection

Table 19. Configuration Management Reports: Software Connection by Field

Table 19. Configuration Management Reports: Software Connection by Field		
CONNECTION FIELDS	REPORT	
Record ID	1	
Component from	1	
Component to	1	
Generic device to	1	
Date from	1	
Date to	1	
Туре	1	
Status	1	
Device address	1	
Shift number	1	
Report:		
1 = Line Summary Report		

Configuration Software Feature

Table 20. Configuration Management Reports: Software Feature by Field

FIELDS	REPORT
FEATURE FIELDS	
Record ID	1,14,18
Name	1,14,18
Туре	1,14,18
Version	1,14,18
Release level	1,14,18
Modification level	1,14,18
Fix level	1,14,18

Table 20. Configuration Management Reports: Software Feature by Field (continued)

FIELDS	REPORT
Description	14,18
Status	1,14,18
Date of status	1,14,18
OTHER FIELDS	
Parent component ID	1
Financial record ID	1,14,18
Report: 1 = Line Summary Report 14 = Components with Related Features Report 18 = Components with Specified Features Report	

Configuration Model Software Component

Table 21. Configuration Management Reports: Model Software Component by Field

FIELDS	REPORT
601 CD 01 CD 01 CD 02	
COMPONENT FIELDS	
Record ID name	1,18
Program type	1,18
Release level	1,18
Modification level	1,18
Fix level	1,18
Version	1,18
Source language	1
Execution type	1
Status	1,18
Date of status	1,18
OTHER FIELDS	
Financial record ID	1,18
Owner	1
Description	1
Report:	
1 = Line Summary Report	
18 = Components with Specified Features Report	

Configuration Model Software Feature

Table 22. Configuration Management Reports: Model Software Feature by Field

FIELDS	REPORT
EE ATUDE EIEL DC	
FEATURE FIELDS	
Record ID	1,14,18
Туре	1,14,18
Version	1,14,18
Release level	1,14,18
Modification level	1,14,18
Storage class	1
Name	1,14,18
Status	1,14,18
Date of status	1,14,18
OTHER FIELDS	
Vendor component number	1
Parent component ID	1
Financial record ID	1,14,18
Owner	1
Fix level	14,18
Description	14,18
Report:	
1 = Line Summary Report	
14 = Components with Related Features Report	
18 = Components with Specified Features Report	

Hardware Financial

Table 23. Configuration Management Report: Hardware Financial by Field

FIELDS	REPORT
DESCRIPTION FIELDS	
Record ID	1
Name	1
Generic device	1
Device type and model	1
Financial type	1
Component count	1
Specialist name	1
PURCHASE FIELDS	
Maintenance class	1
Purchase price	1

Table 23. Configuration Management Report: Hardware Financial by Field (continued)

FIELDS	REPORT
RENTAL/LEASE FIELDS	
Lease type	1
Monthly rental	1
VPA FIELDS	
VPA name	1
Report: 1 = Line Summary Report	

Software Financial

Table 24. Configuration Management Report: Software Financial by Field

FIELDS	REPORT
DESCRIPTION FIELDS	
December 10	1
Record ID Name	
- 101-2-2	1
Marketing rep.	1
System specialist	1
LICENSE CHARGES FIELDS	
One time charge	1
Upgrade license charge	1
Periodic license charge	1
Initial license charge	1
IBM DSLO FIELDS	
One time charge DSLO	1
Initial license charge DSLO	1
VLA FIELDS	
VLA name	1
Report: 1 = Line Summary Report	

Data Center

Table 25. Configuration Management Report: Data Center by Field

DATA CENTER FIELDS	REPORT
Record ID	1
Name	1
Location code	1
Help phone	1
Off-shift phone	1
First shift manager name	1
First shift manager phone	1
Operations manager name	1
Operations manager phone	1
Report: 1 = Line Summary Report	

System

Table 26. Configuration Management Report: System by Field

SYSTEM FIELDS	REPORT
Record ID	1
Name	1
Location code	1
Data center ID	1
System operator phone	1
Emergency phone	1
System manager name	1
System manager phone	1
Contact phone	1
Report: 1 = Line Summary Report	

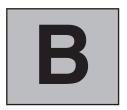
Service

Table 27. Configuration Management Report: Service by Field

SERVICE FIELDS	REPORT
Record ID	1
Service name	1
Service organization name	1
Service org. phone	1
Off-shift service phone	1
Hardware rep. name	1
Hardware rep. phone	1

Table 27. Configuration Management Report: Service by Field (continued)

SERVICE FIELDS	REPORT
Software rep. name	1
Software rep. phone	1
Report: 1 = Line Summary Report	



Relating Publications to Specific Tasks

Your data processing organization can have many different users performing many different tasks. The books in the Tivoli Information Management for z/OS library contain task-oriented scenarios to teach users how to perform the duties specific to their jobs.

The following table describes the typical tasks in a data processing organization and identifies the Tivoli Information Management for z/OS publication that supports those tasks. See "The Tivoli Information Management for z/OS Library" on page 347 for more information about each book.

Typical Tasks

Table 28. Relating Publications to Specific Tasks

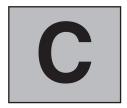
If You Are:	And You Do This:	Read This:
Planning to Use Tivoli Information Management for z/OS	Identify the hardware and software requirements of Tivoli Information Management for z/OS. Identify the prerequisite and corequisite products. Plan and implement a test system.	Tivoli Information Management for z/OS Planning and Installation Guide and Reference
Installing Tivoli Information Management for z/OS	Install Tivoli Information Management for z/OS. Define and initialize data sets. Create session-parameters members.	Tivoli Information Management for z/OS Planning and Installation Guide and Reference Tivoli Information Management for z/OS Integration Facility Guide
	Define and create multiple Tivoli Information Management for z/OS BLX-SPs.	Tivoli Information Management for z/OS Planning and Installation Guide and Reference
	Define and create APPC transaction programs for clients.	Tivoli Information Management for z/OS Client Installation and User's Guide
	Define coupling facility structures for sysplex data sharing.	Tivoli Information Management for z/OS Planning and Installation Guide and Reference
Diagnosing problems	Diagnose problems encountered while using Tivoli Information Management for z/OS	Tivoli Information Management for z/OS Diagnosis Guide

Table 28. Relating Publications to Specific Tasks (continued)

If You Are:	And You Do This:	Read This:
Administering Tivoli Information Management for z/OS	Manage user profiles and passwords. Define and maintain privilege class records. Define and maintain rules records.	Tivoli Information Management for z/OS Program Administration Guide and Reference
		Tivoli Information Management for z/OS Integration Facility Guide
	Define and maintain USERS record. Define and maintain ALIAS record. Implement GUI interface. Define and maintain command aliases and authorizations.	Tivoli Information Management for z/OS Program Administration Guide and Reference
	Implement and administer Notification Management. Create user-defined line commands. Define logical database partitioning.	Tivoli Information Management for z/OS Program Administration Guide and Reference
	Create or modify GUI workstation applications that can interact with Tivoli Information Management for z/OS. Install the Tivoli Information Management for z/OS Desktop on user workstations.	Tivoli Information Management for z/OS Desktop User's Guide
Maintaining Tivoli Information Management for z/OS	Set up access to the data sets. Maintain the databases. Define and maintain privilege class records.	Tivoli Information Management for z/OS Planning and Installation Guide and Reference
		Tivoli Information Management for z/OS Program Administration Guide and Reference
	Define and maintain the BLX-SP. Run the utility programs.	Tivoli Information Management for z/OS Operation and Maintenance Reference
Programming applications	Use the application program interfaces.	Tivoli Information Management for z/OS Application Program Interface Guide
	Use the application program interfaces for Tivoli Information Management for z/OS clients.	Tivoli Information Management for z/OS Client Installation and User's Guide
	Create Web applications using or accessing Tivoli Information Management for z/OS data.	Tivoli Information Management for z/OS World Wide Web Interface Guide

Table 28. Relating Publications to Specific Tasks (continued)

If You Are:	And You Do This:	Read This:
Customizing Tivoli Information Management for z/OS	Design and implement a Change Management system. Design and implement a Configuration Management system. Design and implement a Problem Management system.	Tivoli Information Management for z/OS Problem, Change, and Configuration Management
	Design, create, and test terminal simulator panels or terminal simulator EXECs. Customize panels and panel flow.	Tivoli Information Management for z/OS Terminal Simulator Guide and Reference
		Tivoli Information Management for z/OS Panel Modification Facility Guide
	Design, create, and test Tivoli Information Management for z/OS formatted reports.	Tivoli Information Management for z/OS Data Reporting User's Guide
	Create a bridge between NetView and Tivoli Information Management for z/OS applications. Integrate Tivoli Information Management for z/OS with Tivoli distributed products.	Tivoli Information Management for z/OS Guide to Integrating with Tivoli Applications
Assisting Users	Create, search, update, and close change, configuration, or problem records. Browse or print Change, Configuration, or Problem Management reports.	Tivoli Information Management for z/OS Problem, Change, and Configuration Management
	Use the Tivoli Information Management for z/OS Integration Facility.	Tivoli Information Management for z/OS Integration Facility Guide
Using Tivoli Information Management for z/OS	Learn about the Tivoli Information Management for z/OS panel types, record types, and commands. Change a user profile.	Tivoli Information Management for z/OS User's Guide
	Learn about Problem, Change, and Configuration Management records.	Tivoli Information Management for z/OS Problem, Change, and Configuration Management
	Receive and respond to Tivoli Information Management for z/OS messages.	Tivoli Information Management for z/OS Messages and Codes
	Design and create reports.	Tivoli Information Management for z/OS Data Reporting User's Guide



Tivoli Information Management for z/OS Courses

Education Offerings

Tivoli Information Management for z/OS classes are available in the United States and in the United Kingdom. For information about classes outside the U.S. and U.K., contact your local IBM representative or visit http://www.training.ibm.com on the World Wide Web.

United States

IBM Education classes can help your users and administrators learn how to get the most out of Tivoli Information Management for z/OS. IBM Education classes are offered in many locations in the United States and at your own company location.

For a current schedule of available classes or to enroll, call 1-800-IBM TEACh (1-800-426-8322). On the World Wide Web, visit:

http://www.training.ibm.com

to see the latest course offerings.

United Kingdom

In Europe, the following public courses are held in IBM's central London education centre at the South Bank at regular intervals. On-site courses can also be arranged.

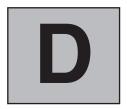
For course schedules and to enroll, call Enrollments Administration on 0345 581329, or send an e-mail note to:

contact_educ_uk@vnet.ibm.com

On the World Wide Web, visit:

http://www.europe.ibm.com/education-uk

to see the latest course offerings.



Where to Find More Information

The Tivoli Information Management for z/OS library is an integral part of Tivoli Information Management for z/OS. The books are written with particular audiences in mind. Each book covers specific tasks.

The Tivoli Information Management for z/OS Library

The publications shipped automatically with each Tivoli Information Management for z/OS Version 7.1 licensed program are:

- Tivoli Information Management for z/OS Application Program Interface Guide
- Tivoli Information Management for z/OS Client Installation and User's Guide *
- Tivoli Information Management for z/OS Data Reporting User's Guide *
- Tivoli Information Management for z/OS Desktop User's Guide
- Tivoli Information Management for z/OS Diagnosis Guide *
- Tivoli Information Management for z/OS Guide to Integrating with Tivoli Applications *
- Tivoli Information Management for z/OS Integration Facility Guide *
- Tivoli Information Management for z/OS Licensed Program Specification
- Tivoli Information Management for z/OS Master Index, Glossary, and Bibliography
- Tivoli Information Management for z/OS Messages and Codes
- Tivoli Information Management for z/OS Operation and Maintenance Reference
- Tivoli Information Management for z/OS Panel Modification Facility Guide
- Tivoli Information Management for z/OS Planning and Installation Guide and Reference
- Tivoli Information Management for z/OS Program Administration Guide and Reference
- Tivoli Information Management for z/OS Problem, Change, and Configuration Management*
- Tivoli Information Management for z/OS Reference Summary
- Tivoli Information Management for z/OS Terminal Simulator Guide and Reference
- Tivoli Information Management for z/OS User's Guide
- Tivoli Information Management for z/OS World Wide Web Interface Guide

Note: Publications marked with an asterisk (*) are shipped in softcopy format only.

Also included is the Product Kit, which includes the complete online library on CD-ROM.

To order a set of publications, specify order number SBOF-7028-00.

Additional copies of these items are available for a fee.

Publications can be requested from your Tivoli or IBM representative or the branch office serving your location. Or, in the U.S., you can call the IBM Publications order line directly by dialing 1-800-879-2755.

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The following descriptions summarize all the books in the Tivoli Information Management for z/OS library.

Tivoli Information Management for z/OS Application Program Interface Guide, SC31-8737-00, explains how to use the low-level API, the high-level API, and the REXX interface to the high-level API. This book is written for application and system programmers who write applications that use these program interfaces.

Tivoli Information Management for z/OS Client Installation and User's Guide, SC31-8738-00, describes and illustrates the setup and use of Tivoli Information Management for z/OS's remote clients. This book shows you how to use Tivoli Information Management for z/OS functions in the AIX®, CICS, HP-UX, OS/2, Sun Solaris, Windows NT®, and OS/390 UNIX® System Services environments. Also included in this book is complete information about using the Tivoli Information Management for z/OS servers.

Tivoli Information Management for z/OS Data Reporting User's Guide, SC31-8739-00, describes various methods available to produce reports using Tivoli Information Management for z/OS data. It describes Tivoli Decision Support for Information Management (a Discovery Guide for Tivoli Decision Support), the Open Database Connectivity (ODBC) Driver for Tivoli Information Management for z/OS, and the Report Format Facility. A description of how to use the Report Format Facility to modify the standard reports provided with Tivoli Information Management for z/OS is provided. The book also illustrates the syntax of report format tables (RFTs) used to define the output from the Tivoli Information Management for z/OS REPORT and PRINT commands. It also includes several examples of modified RFTs.

Tivoli Information Management for z/OS Desktop User's Guide, SC31-8740-00, describes how to install and use the sample application provided with the Tivoli Information Management for z/OS Desktop. The Tivoli Information Management for z/OS Desktop is a Java-based graphical user interface for Tivoli Information Management for z/OS. Information on how to set up data model records to support the interface and instructions on using the Desktop Toolkit to develop your own Desktop application are also provided.

Tivoli Information Management for z/OS Diagnosis Guide, GC31-8741-00, explains how to identify a problem, analyze its symptoms, and resolve it. This book includes tools and information that are helpful in solving problems you might encounter when you use Tivoli Information Management for z/OS.

Tivoli Information Management for z/OS Guide to Integrating with Tivoli Applications, SC31-8744-00, describes the steps to follow to make an automatic connection between NetView and Tivoli Information Management for z/OS applications. It also explains how to customize the application interface which serves as an application enabler for the NetView Bridge and discusses the Tivoli Information Management for z/OS NetView AutoBridge. Information on interfacing Tivoli Information Management for z/OS with other Tivoli management software products or components is provided for Tivoli Enterprise Console, Tivoli Global Enterprise Manager, Tivoli Inventory, Tivoli Problem Management, Tivoli Software Distribution, and Problem Service.

Tivoli Information Management for z/OS Integration Facility Guide, SC31-8745-00, explains the concepts and structure of the Integration Facility. The Integration Facility provides a task-oriented interface to Tivoli Information Management for z/OS that makes the

Tivoli Information Management for z/OS applications easier to use. This book also explains how to use the panels and panel flows in your change and problem management system.

Tivoli Information Management for z/OS Master Index, Glossary, and Bibliography, SC31-8747-00, combines the indexes from each hardcopy book in the Tivoli Information Management for z/OS library for Version 7.1. Also included is a complete glossary and bibliography for the product.

Tivoli Information Management for z/OS Messages and Codes, GC31-8748-00, contains the messages and completion codes issued by the various Tivoli Information Management for z/OS applications. Each entry includes an explanation of the message or code and recommends actions for users and system programmers.

Tivoli Information Management for z/OS Operation and Maintenance Reference, SC31-8749-00, describes and illustrates the BLX-SP commands for use by the operator. It describes the utilities for defining and maintaining data sets required for using the Tivoli Information Management for z/OS licensed program, Version 7.1.

Tivoli Information Management for z/OS Panel Modification Facility Guide, SC31-8750-00, gives detailed instructions for creating and modifying Tivoli Information Management for z/OS panels. It provides detailed checklists for the common panel modification tasks, and it provides reference information useful to those who design and modify panels.

Tivoli Information Management for z/OS Planning and Installation Guide and Reference, GC31-8751-00, describes the tasks required for installing Tivoli Information Management for z/OS. This book provides an overview of the functions and optional features of Tivoli Information Management for z/OS to help you plan for installation. It also describes the tasks necessary to install, migrate, tailor, and start Tivoli Information Management for z/OS.

Tivoli Information Management for z/OS Problem, Change, and Configuration Management, SC31-8752-00, helps you learn how to use Problem, Change, and Configuration Management through a series of training exercises. After you finish the exercises in this book, you should be ready to use other books in the library that apply more directly to the programs you use and the tasks you perform every day.

Tivoli Information Management for z/OS Program Administration Guide and Reference, SC31-8753-00, provides detailed information about Tivoli Information Management for z/OS program administration tasks, such as defining user profiles and privilege classes and enabling the GUI user interface.

Tivoli Information Management for z/OS Reference Summary, SC31-8754-00, is a reference booklet containing Tivoli Information Management for z/OS commands, a list of p-words and s-words, summary information for PMF, and other information you need when you use Tivoli Information Management for z/OS.

Tivoli Information Management for z/OS Terminal Simulator Guide and Reference, SC31-8755-00, explains how to use terminal simulator panels (TSPs) and EXECs (TSXs) that let you simulate an entire interactive session with a Tivoli Information Management for z/OS program. This book gives instructions for designing, building, and testing TSPs and TSXs, followed by information on the different ways you can use TSPs and TSXs.

Tivoli Information Management for z/OS User's Guide, SC31-8756-00, provides a general introduction to Tivoli Information Management for z/OS and databases. This book has a series of step-by-step exercises to show beginning users how to copy, update, print, create, and delete records, and how to search a database. It also contains Tivoli Information Management for z/OS command syntax and descriptions and other reference information.

Tivoli Information Management for z/OS World Wide Web Interface Guide, SC31-8757-00, explains how to install and operate the features available with Tivoli Information Management for z/OS that enable you to access a Tivoli Information Management for z/OS database using a Web browser as a client.

Other related publications include the following:

Tivoli Decision Support: Using the Information Management Guide is an online book (in portable document format) that can be viewed with the Adobe Acrobat Reader. This book is provided with Tivoli Decision Support for Information Management (5697-IMG), which is a product that enables you to use Tivoli Information Management for z/OS data with Tivoli Decision Support. This book describes the views and reports provided with the Information Management Guide.

IBM Redbooks[™] published by IBM's International Technical Support Organization are also available. For a list of redbooks related to Tivoli Information Management for z/OS and access to online redbooks, visit Web site http://www.redbooks.ibm.com or http://www.support.tivoli.com

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File Number: S370/30xx/4300 Program Number: 5697-SD9



Printed in the United States of America on recycled paper containing 10% recovered post-consumer fiber.

SC31-8752-00

