

Screen Definition Facility II

SX11-6088-03

**Reference Summary**

Release 4



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#### **Fourth Edition (March 1995)**

This edition applies to Release 4 Modification Level 0 of Screen Definition Facility II MVS, Program Number 5665-366, and to all subsequent releases and modifications until otherwise indicated in new editions. Make sure you are using the correct edition for the level of the product.

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## SDF II commands

This section lists and explains the SDF II panel commands and line commands.

Some commands have operands. In this summary, the syntax of the commands uses some special characters. These characters and their meanings follow:

- | This means "or." It separates two operands and indicates a choice.
- { } This means that the command *must* have one of the operands shown within the braces.
- [ ] This means that the command *may* have one of the operands shown within the square brackets.

In this summary, command names and operands look like this:

**caps {on | off}**

For all commands and operands, the minimum abbreviation supplied with SDF II is shown in bold type.

**Note:** Your system programmer may have changed command names, operands, and their abbreviations.

Variable values look like this:

*number*

Commands marked with \* are valid only in the panel editor.

## Panel commands

Generally, you enter panel commands on the command line. You can also assign panel commands to program function (PF) keys.

## PANEL COMMANDS

Commands disappear from the command line when you press the Enter key, unless you type an ampersand (&) in front of them.

A primary options panel is the first panel of the dialog you are in. The following are considered primary options panels:

- Select an SDF II Function panel
- List Objects panel
- Select SDF II Customization Dialog panel
- Select a Prototype Dialog panel.

Commands common to all panels follow:

- ? Display the last command entered in the command line, if it was an SDF II command.
- = Repeat the last command entered, if it was an SDF II command.
- =*n*[.*n*[.*n*]] Return to the primary options panel. The object you are editing is saved (if applicable). Then go to the dialog identified by *n*[.*n*[.*n*]].
- n*[.*n*[.*n*]] Go to the dialog identified by *n*[.*n*[.*n*]].
- attribute** Display the attributes assigned to the field that the cursor is in. This command is only available from the Define Attributes panel.\*
- autosave** *number* Automatically save the object each time you have made the specified number of changes. Turn off the autosave function with **au 0**.
- bottom** Go to the bottom of the window.
- box** Draw a box around the block defined by the **position** panel command. The box is drawn with field outlining attributes, if they are available.\*

## PANEL COMMANDS

### **cancel**

Leave the dialog and return to the primary options panel. Your input is not interpreted, and the object you are editing is not saved. The editor is left only if you have not changed the object.

### **caps {on | off}**

Specify whether the text of all modified format lines is to be translated to uppercase.\*

### **ccancel**

Leave the dialog and return to the primary options panel. Your input is not interpreted, and the object you are editing is not saved.

### **confirm {on | off}**

Specify whether the Confirm Delete panel is to be displayed.

### **copyblock**

Copy the block defined by the **position** panel command to the new position on the format marked by the cursor. The original block is not changed.\*

### **cualist**

This command displays a list of all CUA types, together with their associated attributes.

### **defaultab**

Create an action bar with default action bar and pull-down descriptions that conform to the CUA standard. (For ISPF panels only)

### **delblock**

Delete the block defined by the **position** panel command.\*

### **delbox**

Delete the box defined by the **position** panel command and earlier drawn by the **box** panel command.\*

## PANEL COMMANDS

### **down** [*lines* | *page* | *half* | *max* | *csr*]

Scroll towards the bottom of the window.  
*lines* is the number of lines to be scrolled.

### **edit** [*number*]

Go to the Edit dialog. *number* is one of the selection numbers that is displayed on the Select Edit Fields Dialog panel.\*

### **emphasis**

This command displays a list of all emphasis classes defined at your installation, together with their associated attributes.

### **end**

Leave the function. Your input is interpreted, and the object you are editing is saved (if applicable).

### **fieldattr** {**on** | **off**}

Specify whether the attribute lines are to be displayed.\*

### **format**

Display the field marks in all positions of the format fields.\*

### **fullscreen**

Use the whole screen in the Define Format dialog.\*

### **hex** [*hexadecimal-string*]

Query or define characters using hexadecimal notation.\*

### **hide**

In the Fields window of the Define Fields panel, do not show unplaced fields. On the Define MFS Characteristics panel, do not show unselected panel elements. In the Edit Action Bar Choice and Define ISPF Characteristics dialogs, show only the actual ISPF panel sections.\*

### **initial**

Display initial values in the Format window.\*

### **jump**

Move the cursor to each window in turn and then to the command line.

## PANEL COMMANDS

- left** [*columns* | **page** | **half** | **max** | **csr**]  
Scroll to the left of the window. *columns* is the number of columns to be scrolled.
- linecmd** {**on** | **off**}  
Specify whether the line command area is to be displayed. You can turn off the line command area only in the Format window.\*
- locate** *string*  
Search for an object on the List Objects panel whose name starts with the specified *string*.
- marks**  
Enter the Define Marks panel to edit the marks.\*
- moveblock**  
Move the block defined by the **position** panel command to the new position on the format marked by the cursor.\*
- name** Display the names of format elements in the Format window.\*
- nulls** {**on** | **off**}  
Specify whether trailing blanks on each format line are to be displayed as blanks or as nulls that allow insertions.\*
- number** {**on** | **off**}  
Specify whether line numbers are to be displayed in the line command area.
- position**  
Mark the current cursor position for one of these panel commands: **box**, **copyblock**, **delblock**, **delbox**, **moveblock**, or **repeat**.\*
- preserve** {**on** | **off**}  
Specify whether the data structure of the panel is preserved from change during an editing session or can be changed.

## PANEL COMMANDS

**quit** Leave the dialog. Your input is not interpreted, and the object you are editing is not saved. The dialog is left only if you have not changed the object.

**qquit** Leave the dialog. Your input is not interpreted, and the object you are editing is not saved.

**refresh**  
Refresh the display on the List Objects panel. The refreshed panel shows the changes made.

**repeat** *number*  
Define a repeat format. You can mark the extents of a repeat format either with the **position** panel command or, if the repeat format contains just one line, with the cursor position.\*

**restore**  
Restore the last correct state of the object.

**return**  
Return to the primary options panel. The object you are editing is saved (if applicable).

**right** [*columns* | **page** | **half** | **max** | *csr*]  
Scroll to the right of the window. *columns* is the number of columns to be scrolled.

**sample**  
Display in the Format window the sample values.\*

**save** [*name* [*library-identifier*]]  
Save the object you are editing. The *library-identifier* can be **A** through **Z** or **1** through **9**.

**sequence**  
This command reorders the selected data structure so that the fields are in the same order as they are on the selected format. If this is not possible, a message appears.

## LINE COMMANDS

**show** In the Fields window of the Define Fields panel, show unplaced fields. On the Define MFS Characteristics panel, show unselected panel elements. In the Edit Action Bar Choice and Define ISPF Characteristics dialogs, show all ISPF panel sections.\*

**switch** [*area-name*]  
Switch the panel editor from the main format to a scrollable area format or from a scrollable area format to the main format. When switching to a scrollable area format, the scrollable area can be identified via the *area-name* or using the cursor. (For ISPF panels only)

**test** Display the object as it will appear to the user of the application program.

**top** Go to the top of the window.

**up** [*lines* | *page* | *half* | *max* | *csr*]  
Scroll towards the top of the window. *lines* is the number of lines to be scrolled.

**view** [*reset*] [*column-name* {*y* | *n* | *a* | *width*}]  
Query or redefine the view of a dialog window. **reset** resets the original values for all columns.

### Line commands

Enter line commands in the line command area, which is the area to the left of the window. The commands are shown here in the form **command-name**[*number*]. However, you can enter the *number* ahead of the **command-name**. For example, you can enter either **(5** or **5(**.

**?** Display a help panel. Enter this command in the line command area of a list of messages.

**=** Repeat the previous line command. You can use this line command only on the List Objects panel.

## LINE COMMANDS

**/** Make this line the first line.

**( [number]**  
Shift the line one position or a specified number of positions to the left.\*

**(( [number]**  
Shift a block to the left. When paired with another **((** block command, the block of lines is shifted one position or a specified number of positions to the left.\*

**) [number]**  
Shift the line one position or a specified number of positions to the right.\*

**)) [number]**  
Shift a block to the right. When paired with another **))** block command, the block of lines is shifted one position or a specified number of positions to the right.\*

**a** Identify the line after which you want one or more lines copied by the **c** (copy) line command or by the **cc** (copy) block command, or moved by the **m** (move) line command or by the **mm** (move) block command.

**b** Identify the line before which you want one or more lines copied by the **c** (copy) line command or by the **cc** (copy) block command, or moved by the **m** (move) line command or by the **mm** (move) block command.

**c [number]**  
Copy one line or a specified number of lines. Use the **a** (after) or **b** (before) line command to indicate to where you want the line or lines copied.

On the List Objects panel, this line command copies the object. You cannot specify a *number*.

## LINE COMMANDS

- cc** Copy a block of lines. When paired with another **cc** block command, the block of lines is copied. Use the **a** (after) or **b** (before) line command to indicate to where you want the lines copied.
- col** Display a line indicating the column numbers. A line containing column numbers is put above the line on which you enter the command.\*
- cv** Convert the object. You can use this line command only on the List Objects panel.
- d** [*number*]  
Delete one line or a specified number of lines.  
  
On the List Objects panel, the **d** line command deletes the object. You cannot specify a *number*.
- dd** Delete a block of lines. When paired with another **dd** block command, the block of lines is deleted.
- e** [*number*]  
Edit the object. *number* is one of the selection numbers that are displayed on the editor's main menu. You can use this line command on the List Objects panel or the Define Panel List panel of the panel group editor.
- ex** Expand the element to the next level. You can use this line command only on the Specify Elements panel.
- g** Generate the object. You can use this line command only on the List Objects panel.
- hf** [*number*]  
Hide the field attribute lines for one line or a specified number of lines.\*

## LINE COMMANDS

### **i** [*number*]

Insert one line or a specified number of lines immediately after the line in which you type the command.

### **l** [*number*]

Translate the contents of one line or a specified number of lines to lowercase letters.

Note that the line command character is the letter **l** and not the number **1**.\*

### **ll**

Translate a block of lines to lowercase.

When paired with another **ll** block command, the contents of the block of lines are translated to lowercase letters. Note that the line command characters are the letters **ll** and not the number **11**.\*

### **m** [*number*]

Move one line or a specified number of lines from one place to another. Use the **a** (after) or **b** (before) line command to indicate to where you want the line or lines moved.

### **mm**

Move a block of lines. When paired with another **mm** block command, the block of lines is moved from one place to another. Use the **a** (after) or **b** (before) line command to indicate to where you want the lines moved.

### **p**

Print the object. You can use this line command only on the List Objects panel.

### **r** [*number*]

Repeat a line. A line is copied once or a specified number of times immediately after the line in which you type the command.

On the List Objects panel, the **r** line command renames the object. You cannot specify a *number*.

## LINE COMMANDS

### **rr** [*number*]

Repeat a block of lines. When paired with another **rr** block command, the block of lines is copied once or a specified number of times immediately after the line in which you type the second **rr** block command.

**s** Select for further processing the object named on the line.

### **sf** [*number*]

Show the field attribute lines for one line or a specified number of lines.\*

### **simulate**

Simulate your application by running the prototype.

**t** Test the object. This displays the panel as it will appear in an application. You can use this line command on the List Objects panel or the Define Panel List panel of the panel group editor.

### **u** [*number*]

Translate the contents of one line or a specified number of lines to uppercase letters.\*

**uu** Translate a block of lines to uppercase. When paired with another **uu** block command, the contents of the block of lines are translated to uppercase letters.\*

ATTRIBUTES

**Table of attributes**

This table lists the attributes you can use in SDF II. Not all attributes are available for all target systems. See the online reference for more information.

Type	Attribute	Explanation
Inherent field presentation attributes		
<b>Field format</b>	<b>ebcdic</b>	Use the EBCDIC character set.
	<b>dbcs</b>	Use the double-byte character set.
	<b>mixed</b> [ <i>nn</i> ]	Use both of the above character sets.
	<b>msupress</b> [ <i>nn</i> ]	Similar to mixed, but SO/SI characters require no position on the device.
	<b>defmixed</b>	Use the default field format.
	<b>format</b> <i>&amp;name</i>	Set the field format with the dialog variable <i>&amp;name</i> .
<b>Field attribute space</b>	<b>noattributes</b>	Field attributes require no position on the device.
Field presentation attributes		
<b>Protection</b>	<b>protected</b>	The user cannot type into the field.
	<b>unprotected</b>	The user can type into the field.
	<b>type</b> <i>&amp;name</i>	Set the protection with the dialog variable <i>&amp;name</i> .

ATTRIBUTES

Type	Attribute	Explanation
<b>Intensity</b>	<b>normal</b>	Display the field at normal intensity.
	<b>bright</b>	Display the field at bright intensity.
	<b>dark</b>	Do not display the contents of the field.
	<b>intens &amp;name</b>	Set the intensity with the dialog variable <i>&amp;name</i> .
<b>Extended highlighting</b>	<b>blinking</b>	Blink the field on and off.
	<b>underlined</b>	Display the field underlined.
	<b>reversevideo</b>	Display the field dark on a light background.
	<b>defhilite</b>	Use the default highlighting.
	<b>hilite &amp;name</b>	Set the highlighting with the dialog variable <i>&amp;name</i> .
<b>Color</b>	<b>blue</b>	Use blue.
	<b>red</b>	Use red.
	<b>pink</b>	Use pink.
	<b>green</b>	Use green.
	<b>turquoise</b>	Use turquoise.
	<b>yellow</b>	Use yellow.
	<b>white</b>	Use white (neutral).
	<b>defcolor</b>	Use the default color.
	<b>color &amp;name</b>	Set the color with the dialog variable <i>&amp;name</i> .

ATTRIBUTES

Type	Attribute	Explanation
<b>Cursor skip</b>	<b>skip</b>	Position the cursor at the beginning of the next field after information is entered or the Tab key is pressed.
	<b>skip &amp;name</b>	Set the attribute with the dialog variable <i>&amp;name</i> .
<b>Pro-grammed symbol set</b>	<b>pss {xx 'c'}</b>	Use the programmed symbol set that is defined by the character ( <i>c</i> ) in quotes or the hexadecimal value ( <i>xx</i> ).
	<b>defpss</b>	Use the default programmed symbol set.
<b>Field out- lining</b>	<b>oleft</b>	Draw a line to the left of the field.
	<b>oright</b>	Draw a line to the right of the field.
	<b>oover</b>	Draw a line over the field.
	<b>ounder</b>	Draw a line under the field.
	<b>box</b>	Draw a box around the field.
	<b>defoutline</b>	Use the default outlining.
	<b>outline &amp;name</b>	Set the outlining with the dialog variable <i>&amp;name</i> .
<b>Cursor position</b>	<b>cursor [nn]</b>	Place the cursor in position <i>nn</i> of the field. Position 1 is the default.

ATTRIBUTES

Type	Attribute	Explanation
Field validation	<b>enter</b>	Data needs to be entered into the field.
	<b>mfill</b>	The field needs to be filled completely with data.
	<b>trigger</b>	Data is passed to the application program when the cursor is moved out of the field.
	<b>defvalidation</b>	Use the default validation.
Field padding	<b>pad {xx 'c'}</b>	Pad the field with the character ( <i>c</i> ) specified in quotes or defined by the hexadecimal value ( <i>xx</i> ).
	<b>pad user</b>	ISPF controls the padding character.
	<b>pad nulls</b>	Pad field with nulls.
	<b>pad [xx 'c'1 user nulls] &amp;name</b>	Set the pad character with the dialog variable <i>&amp;name</i> .
	<b>padc</b>	Pad the field if it was initially null or blank. The same operands as for <b>pad</b> are valid.
Numeric field	<b>numeric</b>	Allow input of only numeric data.
Modified data tag	<b>mdt</b>	Set the modified data tag.
Strip	<b>strip</b>	Delete the pen detect designator character.
Density	<b>density nn</b>	Specify density as <i>nn</i> points per inch.
	<b>ldensity nn</b>	Specify density as <i>nn</i> lines per inch.

ATTRIBUTES

Type	Attribute	Explanation
<b>Detectable</b>	<b>detectable</b>	Make the field selectable by the cursor or detectable for a lightpen.
	<b>detectable</b> <i>&amp;name</i>	Set the detectability with the dialog variable <i>&amp;name</i> .
<b>Transparency</b>	<b>opaque</b>	Make underlying graphic space between characters invisible.
<b>Checkbox</b>	<b>ckbox</b>	Define a field as checkbox
Emphasis class		
<b>Emphasis class</b>	<b>class cc</b>	Use emphasis class <i>cc</i> to assign a class of presentation attributes.
Field application attributes		
<b>Justification</b>	<b>left</b>	Show the field left justified.
	<b>right</b>	Show the field right justified.
	<b>asis</b>	Show the field as it is.
	<b>just</b> <i>&amp;name</i>	Set the justification with the dialog variable <i>&amp;name</i> .
<b>Folding</b>	<b>caps [on]</b>	Translate characters to uppercase on input and output.
	<b>caps in</b>	Translate characters to uppercase on input.
	<b>caps out</b>	Translate characters to uppercase on output.
	<b>caps [on in out]</b> <i>&amp;name</i>	Set the folding attribute with the dialog variable <i>&amp;name</i> .

ATTRIBUTES

Type	Attribute	Explanation
<b>Fill</b>	<b>fill blank</b>	Fill any empty positions with blanks.
	<b>fill zero</b>	Fill any empty positions with zeros.
	<b>fill nulls</b>	Compress the message segment.
	<b>fill {xx 'c'}</b>	Fill the field with the character ( <i>c</i> ) specified in quotes or defined by the hexadecimal value ( <i>xx</i> ).
<b>Clear field</b>	<b>clear</b>	Clear a variable field before it is displayed.
<b>Graphic escape</b>	<b>ge</b>	Use an alternate character set to display this character.

Area attributes

<b>Scrollable</b>	<b>scroll</b>	The area can be scrolled (dynamic area).
<b>Extendable</b>	<b>extend</b>	The area can be extended (dynamic or scrollable).
<b>User action</b>	<b>usermod {xx 'c'}</b>	Set the attribute byte of the field to the character ( <i>c</i> ) specified in quotes or defined by the hexadecimal value ( <i>xx</i> ).
	<b>datamod {xx 'c'}</b>	Set the field character to the character ( <i>c</i> ) specified in quotes or defined by the hexadecimal value ( <i>xx</i> ).

## The main dialogs and functions

These are the main dialogs and functions of SDF II:

### 1 Panel Editor

Create or modify a panel.

#### 1 Characteristics

Define panel characteristics.

#### 2 Format

Define the format of the panel.

#### 3 Fields

Define the fields of the format.

#### 4 Attributes

Define the attributes of the format.

#### 5 Structure

Define the data structure of the panel.

#### 6 System

Define target-system-dependent information.

#### 7 Test

Show the panel in its run-time format.

#### 8 Instances

Define the panel instances.

#### 9 Field Editing

Define field editing and verification rules.

### 2 Panel Group Editor

Create or modify a panel group.

#### 1 Characteristics

Define target-system-dependent information.

#### 2 List

Define the list of panels in the panel group.

#### 3 Symbol sets

Define the list of programmed symbol sets.

#### 4 Layout test

Define the panels to be included in the test.

#### 5 Test

Show the panels in their run-time format.

#### 6 Instances

Define panel group instances.

## MAIN DIALOGS AND FUNCTIONS

### **3 Partition Set Editor**

Create or modify a partition set.

#### **1 Characteristics**

Define the usable area and character cell size.

#### **2 Partition layout**

Define the names and positions of the partitions.

#### **3 Test**

Show the layout of the partitions.

#### **4 Instances**

Define partition-set instances.

### **4 AID Table Editor**

Create or modify an AID table.

### **5 Control Table Editor**

Create or modify a control table.

### **6 Generate**

Generate control block source and data structure.

### **7 List Objects**

List the objects in the library.

### **8 Specify Libraries**

Define the library identifier and the search order.

### **9 Utilities**

Print, import, or convert objects; construct a panel; extract or modify panel data.

#### **1 Print**

Print objects.

#### **2 Import**

Import objects from other products.

#### **3 Convert**

Convert an object for use in another target system.

#### **5 Construct**

Construct a panel.

## MAIN DIALOGS AND FUNCTIONS

### **6 Extract**

Extract panel data and make available to a user exit.

### **7 Modify**

Modify extracted panel data, like for translations.

### **10 Profile**

Modify the editing defaults.

### **1 System environment**

Define the target environment.

### **2 Defaults**

Specify the overall editing defaults.

### **3 Dialogs**

Customize SDF II windows.

### **4 Printer**

Specify the size of a printed page.

### **5 ISPF parms**

Specify ISPF parameter options.

### **11 SDF II Prototype**

Define and run a prototype of your application.

### **12 System**

System administration.

### **13 Print reference**

Print the online reference.

### **R Reference**

View the online reference.

### **X Exit**

End the SDF II session.

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## **SDF II publications**

*Introducing SDF II Release 4 for MVS*, GH19-8261-0

Summarizes the functions, uses, requirements, and advantages of SDF II.

*SDF II Licensed Program Specifications*,  
GH19-6115-4

Contains the product specifications and warranty information.

*Designing Panels with SDF II*, SH19-8212-0

Introduces SDF II to new users and explains how to define panels. It also explains advanced functions of SDF II to experienced users and can be used as a reference to the functions of SDF II.

*SDF II Administrator's Guide*, SH19-8211-0

Describes how to customize SDF II on an MVS system. It also explains how to import objects into SDF II, how to set up libraries and work with them, how to run SDF II from batch, and how to identify and report faults in SDF II to IBM support personnel.

*General Introduction for Release 3.0*, GH19-6114-2

Summarizes the functions, uses, requirements, and advantages of SDF II for both VM and MVS environments, and lists all available Release 3 publications.



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