IBM

To: Licensees of IBM Workload Scheduler for z/OS, Version 9

Subject: Program Number 5698-T08 — Release 3, Modification Level 0
Features 5803, 5823, 5843, 5853, 5863

The material you have received is listed on the enclosed Packing List. Please review the Packing List to ensure you have received all items listed.

Attached to this memorandum:

- Summary of Changes.

- Interoperability.

- Additional Software.

- Known Problems.

Please refer to the attachment for further description.

IBM Software Manufacturing Solutions

Summary of Changes

The following new features have been included in IBM Workload Scheduler for z/OS Version 9— Release 3, Modification Level 0:

- Configuring a backup controller for disaster recovery

  You can configure a backup controller (also known as a remote hot standby controller) and use it to replace the primary controller in the event of a system or connection failure.

  The backup controller is continuously connected with the primary controller through TCP/IP and kept updated with all the required data When the backup controller takes over from the primary controller, the tracker, if running, switches the connection from the primary to the backup controller.

  For detailed information about configuring a backup controller, see IBM Workload Scheduler for z/OS: Managing the Workload and IBM Workload Scheduler for z/OS: Customization and Tuning.

- New CHECKROLE and KEEPALIVE parameters in BKPTOPTS

  The CHECKROLE and KEEPALIVE parameters have been added to the BKPTOPT statement.

  CHECKROLE determines if the controller configured as primary (with OPCHOST(YES) in the OPCOPTS statement) performs a check about the backup controller activity before starting. According to the result, the controller starts as primary controller or backup controller.

  KEEPALIVE sets the TCP_KeepAlive socket option for the current connection between the primary controller and backup controller. This allows the backup controller to be notified in a timely manner when an unexpected system failure occurs on the primary controller site.

- Workload Automation Programming Language

  The Workload Automation Programming Language is a programming language that provides you with easy access to the features of the IBM Workload Scheduler for z/OS Program Interface (PIF).

  Workload Automation Programming Language gives you full access to all the PIF commands in an easy-to-use syntax, as well as a Batch Loader feature for all elements of the database. Extended PIF commands perform more complex functions from a single statement, such as determining the status of elements, and access to the IBM Workload Scheduler for z/OS TSO commands from within the same command stream.

  For a detailed description about how to use Workload Automation Programming Language, see IBM Workload Scheduler Automation: Workload Automation Programming Language User's Guide and Reference.

- Optimizing how the risk level of critical jobs is determined

  For each critical job, you are now provided with a percentage indicating the confidence that the critical job meets its deadline.

  The confidence factor is calculated as the normal cumulative density function: it is th probability that the job will end within its deadline, calculated with a Gaussian function where the estimated end time is the mean, and the estimated end variance is the standard deviation.

The RISKCONFIDENCE parameter has been added to the JTOPTS initialization statement to influence the trigger that sets the high risk level for a critical job. When the confidence value of a critical job is lower than the RISKCONFIDENCE value, the Critical Path Handler task sets the critical job to a high risk level and notifies it to the controller EQQMLOG.

When the RISKCONFIDENCE parameter is not specified, the Critical Path Handler task sets the critical job to a high risk level when its estimated end time becomes later than the deadline.

- Optimizing your current plan by defining variable durations and variable deadlines

In the Application Description, for each operation making up an application, you can specify a variable duration and variable deadline to apply when the operation needs durations and deadlines that are different from the default. By associating each variable duration and deadline either with a run cycle defined in the application or with an external run cycle group, you prevent unnecessary alerts from being issued.

- Migrating the controller with the IWSZSELFUPGRADE job stream

You can upgrade the IBM Workload Scheduler for z/OS controller in an automatic way, with only few manual steps, by using the IWSZSELFUPGRADE job stream that is provided with the product.

Typically, a migration scenario includes required and optional steps. The IWSZSELFUPGRADE job stream runs the required steps, while a job is run to NOP all the operations that create the optional data sets (such as Restart and Cleanup or Reporting) that you do not want to upgrade or install.

IWSZSELFUPGRADE is provided in batch loader and Workload Automation Programming Language formats that you can import by using the UPGBLOAD o UPGWAPL sample, respectively.

- New FIRSTFDBK parameter in JTOPTS

The FIRSTFDBK parameter has been added to the JTOPTS statement. If you specify YES, every new job that you define in the AD database is updated with the actual duration at its first run, regardless of the estimated values. At the next run, the duration is updated according to the values that you set for LIMFDBK and SMOOTHING.

For a detailed description about JTOPTS, see IBM Workload Scheduler for z/OS: Customization and Tuning.

- Browsing a job log with IBM Tivoli Output Manager

Starting from Tivoli Workload Scheduler for z/OS V9.2, you can use IBM Tivoli Output Manager to view and manage the job logs for the operations scheduled on z/OS trackers. With the current version, you can also browse the job logs for operations scheduled on IBM Workload Scheduler for z/OS Agents.

To enable the integration between IBM Workload Scheduler for z/OS and Tivoli Output Manager, make sure that you have installed the require PTFs, as described in IBM Workload Scheduler for z/OS: Managing the Workload.

- RFE 17453 - Improving APAR Tape function

With the APAR Tape function you can now collect the new IBM Workload Scheduler for z/OS VSAM data sets XD1, XD2, and NXD primary, alternate, and new extended data).

4

For details about how to collect an APAR tape including data spaces, see IBM Workload Scheduler for z/OS: Diagnosis Guide and Reference. For details about how to update z/OS dump options, see IBM Workload Scheduler for z/OS: Planning and Installation.

- RFE 43961 - Improving how CP16 records are managed

A new parameter REMDSREC has been added to the BATCHOPT initializatio statement to control if the daily planning program ignores and does not carry forward any CP16 data store records that accumulated.

CP16 data store records accumulate in several situations, for example when the RCLEANUP parameter of BATCHOPT and the RCLEANUP parameter of OPCOPTS are set to different values. When you set REMDSREC=YES, accumulated CP16 records are deleted and message EQQ0548I is issued in the message log.

For detailed information about REMDSREC, see IBM Workload Scheduler f z/OS: Customization and Tuning.

- New message EQQA540E

For a job defined on a remote workstation (shadow job) you must set the automatic submission to Yes (Y), otherwise the cross dependencies feature does not work properly for that job. Message EQQA540E is now issued to alert you of this error.

- Discovery of the IBM Workload Scheduler for z/OS objects

To import the IBM Workload Scheduler for z/OS objects, such as jobs, job streams, and workstations, into the Tivoli Business Service Manager model, you can use the Discovery Library Toolkit.

The Discovery Library Toolkit allows you to provide resource information to the Change and Configuration Management Database (CCMDB) without the overhead of a Web Application Server, database, or any other component of middleware.

To integrate IBM Workload Scheduler for z/OS with CCMDB through the Discovery Library toolkit, you are provided with the two samples EQQTBSWS and EQQTBSAD that produce the input required to run the CCMDB Export tool.

The sample JCL to run the EQQTBSWS and EQQTBSAD samples is EQQTBSJ.

The following features that were implemented in IBM Workload Schedule and Dynamic Workload Console are available also for IBM Workload Scheduler for z/OS:

- IBM Workload Scheduler What-if Analysis

With IBM Workload Scheduler What-if Analysis you can modify the start date, add and delete dependencies, set the unavailability of the workstation, and highlight the critical path to simulate how these changes affect the plan and evaluate the effects.

The view is launched from a critical job.

The jobs are also visually represented in a Gantt chart, along with their dependencies.

- Creating a dynamic monitoring query

You can define a task to monitor objects in the plan either by typing a query in a query line or by selecting the options from the list of filter criteria that is displayed .

- Creating customized dashboards for monitoring purposes

Efficient workload monitoring allows for quick response.

Acting fast means you avoid putting your business at risk. Monitor and drill down on a predefined dashboard, or assemble the widgets provided to monitor only those parts of the workload you need, all in a single, consolidated view.

Interoperability

This section contains information about the interoperability of IBM Workload Scheduler for z/OS Version 9— Release 3, Modification Level 0 with:

* Dynamic Workload Console
* IBM Workload Scheduler for z/OS Agent

Dynamic Workload Console

The IBM Workload Scheduler for z/OS Version 9— Release 3, Modification Level 0 engine requires the Tivoli Dynamic Workload Console version 9.3.0.

The z/OS Connector version 9.3.0 is automatically installed when you install the IBM Dynamic Workload Console version 9.3.0.

Note: For detailed information about the system requirements, see the *System Requirements for Dynamic Workload Console version 9.3* at the following link: http://www-01.ibm.com/support/docview.wss?rs=672&uid=swg27041008.

The z/OS customers can download the IBM Dynamic Workload Console software for the z/OS operating system from Shopz in the form of DVD images (.iso files) that contain the initial release product repositories. For more information, see Shopz at https://www-304.ibm.com/software/shopzseries/ShopzSeries_public.wss.

IBM Workload Scheduler for z/OS Agent

For information about installing, upgrading, and uninstalling the z/OS Agent, see *IBM Workload Scheduler for z/OS Planning and Installation Guide*.

It is distributed with the CD/DVD *IBM Workload Scheduler for z/OS Agent 9.2 Multiplatform*.

The z/OS Agent requires one of the following operating systems:

Operating system
• AIX 5L, Versions 6.1, 7.1
• HP-UX, Version 11i v2 Itanium
• HP-UX, Version 11i v3 Itanium

Operating system
• Microsoft Windows Server 2008 R1/R2: Standard, Enterprise, and Data Center (64 bit)
• Microsoft Windows Server 2012 R1/R2: Standard and Data Center (64 bit)
• Microsoft Desktop Windows 7 Enterprise
• Microsoft Desktop Windows 8 Enterprise, Standard and Professional
• Microsoft Desktop Windows 8.1 Enterprise, Standard and Professional
• Red Hat Enterprise Linux 5.0 System x and eSeries (AMD64 and EMT64T) Kernel 32
• Red Hat Enterprise Linux 5.0 System x (AMD64 and EMT64T) Kernel 64
• Red Hat Enterprise Linux 5.0 System i Kernel 64
• Red Hat Enterprise Linux 5.0 System p Kernel 64
• Red Hat Enterprise Linux 5.0 System z Kernel 64
• Red Hat Enterprise Linux 6.0 System x and eSeries (AMD64 and EMT64T) Kernel 32
• Red Hat Enterprise Linux 6.0 System x (AMD64 and EMT64T) Kernel 64
• Red Hat Enterprise Linux 6.0 System i Kernel 64
• Red Hat Enterprise Linux 6.0 System p Kernel 64
• Red Hat Enterprise Linux 6.0 System z Kernel 64
• Red Hat Enterprise Linux 7.0 System x and eSeries (AMD64 and EMT64T) Kernel 32
• Red Hat Enterprise Linux 7.0 System x (AMD64 and EMT64T) Kernel 64
• Red Hat Enterprise Linux 7.0 System i Kernel 64
• Red Hat Enterprise Linux 7.0 System p Kernel 64
• Red Hat Enterprise Linux 7.0 System z Kernel 64
• Red Hat Desktop 5.0 and 6.0
• Solaris Operating Environment Versions 10, 10 AMD (Opteron), 11, 11 AMD (Opteron)

Operating system
• SUSE Linux Enterprise Server 10 System x (IA32) and eseries (AMD64 and EM64T) Kernel 32 • SUSE Linux Enterprise Server 10 System x Kernel 64 • SUSE Linux Enterprise Server 10 System i Kernel 64 • SUSE Linux Enterprise Server 10 System z Kernel 64 • SUSE Linux Enterprise Server 10 System p Kernel 64 • SUSE Linux Enterprise Server 10 Desktop Kernel x86-32, x86-64 • SUSE Linux Enterprise Server 11 System x (IA32) and eseries (AMD64 and EM64T) Kernel 32 • SUSE Linux Enterprise Server 11 System x Kernel 64 • SUSE Linux Enterprise Server 11 System i Kernel 64 • SUSE Linux Enterprise Server 11 System z Kernel 64 • SUSE Linux Enterprise Server 11 System p Kernel 64 • SUSE Linux Enterprise Server 11 Desktop Kernel x86-32, x86-64 • SUSE Linux Enterprise Server 12 System x Kernel 64 • SUSE Linux Enterprise Server 12 System z Kernel 64 • IBM i (i5/OS), Version 6.1, 7,1

The following table shows which versions of IBM Workload Scheduler for z/OS, IBM Dynamic Workload Console, z/OS connector, and IBM Workload Scheduler for z/OS agent, can work together:

IWS for z/OS	IDWC and z/OS connector	IWS for z/OS Agent	FTA
9.3.0	9.3.0	8.5.1, 8.6.0, 9.1.0, 9.2.0, 9.3.0	8.5.1, 8.6.0, 9.1.0, 9.2.0, 9.3.0
9.2.0	9.2.0, 9.3.0	8.5.1, 8.6.0, 9.1.0, 9.2.0, 9.3.0	8.5.1, 8.6.0, 9.1.0, 9.2.0, 9.3.0
9.1.0	9.1.0. 9.2.0, 9.3.0	8.5.1, 8.6.0, 9.1.0, 9.2.0, 9.3.0	8.5.1, 8.6.0, 9.1.0, 9.2.0, 9.3.0
8.6.0	8.6.0, 9.1.0, 9.2.0, 9.3.0	8.5.1, 8.6.0, 9.1.0, 9.2.0, 9.3.0	8.5.1, 8.6.0, 9.1.0, 9.2.0, 9.3.0

Notes:

- The z/OS connector version must be the same as the Dynamic Workload Console version.
- The Dynamic Workload Console version must be equal or higher than IBM Workload Scheduler for z/OS version.

Additional Software

This section contains information about the additional software distributed with IBM Workload Scheduler for z/OS Version 9— Release 3, Modification Level 0 via CD/DVD support:

> :*--

- LCD7-6516-02 IBM Workload Scheduler for z/OS 9.3.0 TEP Integration and Reporting features Agent for multiplatform :*---

  The installation CD contains the following directories:

  – *SendReportMacro*: contains the macro to send via email reports generated by running batch programs.

  – *Reporting*: contains the scripts used for DB2 reporting.

  – *TEPIntegration*: contains the scripts used for ITM/TEP (IBM Tivoli Monitoring/Tivoli Enterprise Portal) integration.

  > :*---

- LK4T-4917-02 IBM Dynamic Workload Console, zConn, and SDK 9.3.0 - Kit
  > :*---

  – LCD7-6517-02 IBM Workload Scheduler for z/OS 9.3.0 Dynamic Workload Console, z/OS Connector for AIX

  – LCD7-6518-02 IBM Workload Scheduler for z/OS 9.3.0 - Dynamic Workload Console, z/OS Connector, and TWS Integration Workbench for Windows X86-64

  – LCD7-6519-02 IBM Workload Scheduler for z/OS 9.3.0 - Dynamic Workload Console, z/OS Connector, and TWS Integration Workbench for Linux X86-64

  – LCD7-6520-02 IBM Workload Scheduler for z/OS 9.3.0 - Dynamic Workload Console, z/OS Connector for Linux S390

  – LCD7-6521-02 IBM Workload Scheduler Batch Reports MultiPlatform

  > :*---

- LCD7-5193-00 IBM DB2 10.5 WSE - for Linux on AMD64 and Intel EM64T systems (x64)
  > :*---

  – LCD7-5194-00 IBM DB2 10.5 WSE - for Linux on POWER (System i and System p) systems

  – LCD7-5195-00 IBM DB2 10.5 WSE - for Linux on System z

  – LCD7-5196-00 IBM DB2 10.5 WSE - for 64-bit AIX

  – LCD7-5197-00 IBM DB2 10.5 WSE - for HP-UX on HP Integrity Itanium-based systems

  – LCD7-5199-00 IBM 10.5 WSE - for Solaris on x64 systems

  – LCD7-5200-00 IBM 10.5 WSE - for Windows on 32-bit AMD and Intel systems (x86)

11

– LCD7-5901-00 IBM 10.5 WSE - for Windows on AMD64 and Intel„ EM64T systems (x64)

– LCD7-5902-00 IBM 10.5 WSE - Restricted Use - Quick Start and Activation

Known Problems

None

IBM

April 2015

References in this publication to IBM products, programs, or services do not imply that IBM intends to make these available in all countries in which IBM operates. Any reference to an IBM program product in this publication is not intended to state or imply that only IBM's program product may be used. Any functionally equivalent program may be used instead.

GC27-4088-02