



Project and Portfolio Management Center™



U.S. Daylight Savings Time Impacts and Changes

Versions: 5.5, 6.0, and 7.0

Executive Summary

This document provides information and guidelines for compliance with the revised dates of Daylight Saving Time (DST) as outlined in the U.S. Energy Policy Act of 2005.

This information is of importance to U.S and Canadian customers.

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Background Information

The United States and parts of Canada are extending the period of Daylight Saving Time (DST) beginning in 2007. From 2007 onward, DST will commence on the second Sunday in March (three weeks earlier than previously) and end on the first Sunday in November (one week later than previously).

How Is PPM Impacted?

Project and Portfolio Management Center (formerly Mercury IT Governance Center) versions 5.5, 6.0, and 7.0 software, both Workbench and application server, are Java applications. They rely on the underlying Java Virtual Machine (JVM) to implement the DST rules that are used by certain features of the products. While there are no Project and Portfolio Management Center (PPM) software changes that are required to support the new DST rules, certain underlying architecture components of PPM will need to be updated. Patches for these components may include, but are not limited to:

- PPM application server operating system patch
- PPM application server Java version patch or upgrade
- Operating system (OS) patch for the PPM database server
- Oracle database (DB) patch for the PPM database
- Operating system patch for PPM client machines
- Operating system patches for other PPM infrastructure components like Web servers, Documentum, and so forth
- Java version upgrade or patch for Documentum content server
- Client side (desktop) Java plug-in upgrade or patch for Workbench users

PPM features known to be affected by the new DST rules are listed below. The impact of not updating your infrastructure will result in incorrect timestamps and timestamps, services or reports running at incorrect times, and transactional data with incorrect timestamp. It is essential that you take the necessary steps to ensure your infrastructure has the relevant updates.

1. Time Management SLA: Delinquent Time Sheet SLA notifications
2. Workflow step execution by the scheduler including report generation
3. Project Management Task violation SLA identification and notifications

4. Periodicity of the various asynchronous services
5. User login time that is displayed in the Dashboard (upper right corner)

Purpose of This Document

The information provided in this document is intended as a reference for customers to understand the impact of the new DST rules on the PPM product. The PPM application utilizes the Java Virtual Machine for its time zone functionality and does not require any code changes in order to comply with the new DST rules. There may be instances where a customer needs to apply a PPM Service Pack in order to achieve compatibility with new operating system or database version that contains the new DST rules.

It is important that customers review the impact of DST changes with their respective server and database administrators to ensure compliance with the new DST rules as well as with the PPM Compatibility Matrix for your PPM version. The latest versions of these documents are available on the Download Center as follows:

- ITG 5.5: <http://support.mercury.com/announcements/CSO/ITG/ITGCompatibility55.pdf>
- ITG 6.0: <http://itg.merc-int.com/support/download/docs/60/SysReqsCompatMx.pdf>
- PPM 7.0: <http://itg.merc-int.com/support/download/docs/70/SysReqs.pdf>

Specific questions with respect to the application of operating system or database patches should be directed to the respective vendor. For any questions regarding PPM compatibility that may not have been addressed in this document, please contact PPM customer support.

Steps Needed to Protect the PPM Application

PPM Software. No change is required for PPM software to support the new DST rules. You may be required to apply a PPM Service Pack (SP) in order to maintain compatibility with another part of the infrastructure that requires an update.

Operating System. New time zone rules may cause inaccurate system date and time if not addressed and may lead to unpredictable consequences depending on system usage. You must apply the relevant OS patch for new DST rules (available for all platforms). OS patches should be applied for all tiers of the PPM application including the application server, database server, Web servers, and client machines. See table below for specific OS patches.

Java. The Java Runtime Environment (JRE) stores its own rules about DST observance all around the globe. Older JREs will have outdated time zone rules and as a result, applications running on an older JRE may report incorrect time from March 11, 2007 through April 2, 2007 and from October 29, 2007 through November 4, 2007. Customers are encouraged to upgrade or patch their current JVM to be compatibility with the new DST rules and the PPM compatibility matrix (see table below for details).

Oracle DB. There are two data types affected by the new DST rules - `TIMESTAMP WITH TIME ZONE` and `TIMESTAMP WITH LOCAL TIME ZONE`. PPM does not use either of these data types in the PPM DB schema, but Oracle 10i internally uses these data types and therefore may report incorrect time from March 11, 2007 through April 2, 2007 and from October 29, 2007 through November 4, 2007. Customers should apply the Oracle DST compatibility updates for their DB version (see table below for details).

PPM Thick Client - Workbench. Run the Workbench using a Java plug-in that includes the new DST rules. Customers should adjust the version of the Java plug-in in the `server.conf` that controls the version that is automatically downloaded for users (see table below for details).

Document Repository. PPM has two flavors of document repository for storing attachments: NFS based file system and EMC's Documentum Content Server (DCS). OEM bundles of the DCS are available from the download center. The Documentum Content Server depends on the JVM for its DST rules. Run the Documentum Content Server using the JVM that includes new DST rules.

Operating System Patches for New US DST Rules

The following table provides the list of OS Vendors and their patches for the DST rule changes. Any questions regarding OS compatibility with the new DST rules should be directed to your OS vendor. This information has been provided by the OS vendors and is included here for your reference. It is not the responsibility of PPM product support team to manage this information.

| Vendor | OS Patch |
|-----------|---|
| Microsoft | Microsoft patch information: http://support.microsoft.com/kb/928388/en-us |
| Sun | Solaris patch information: http://sunsolve.sun.com/search/document.do?assetkey=1-26-102775-1 SPARC Platform: <ul style="list-style-type: none"> ■ Solaris 8 with patches 109809-02 (or later) and 108993-52 (or later) ■ Solaris 9 with patches 113225-03 (or later) and 112874-33 (or later) ■ Solaris 10 with patches 122032-01 (or later) and 119689-07 (or later) X86 Platform: <ul style="list-style-type: none"> ■ Solaris 8 with patches 109810-02 (or later) and 108994-52 (or later) ■ Solaris 9 with patches 116545-02 (or later) and 114432-23 (or later) ■ Solaris 10 with patches 122033-01 (or later) and 121208-03 (or later) |
| IBM | AIX patches: IBM AIX 5.3: <ul style="list-style-type: none"> ■ Apply APAR IY75211 (http://www-1.ibm.com/support/docview.wss?uid=isg1IY75211) Included in 5.3.0.40 which was included in 5300-04 IBM AIX 5.2: <ul style="list-style-type: none"> ■ Apply APAR IY75213 (http://www-1.ibm.com/support/docview.wss?uid=isg1IY75213) Included in 5.2.0.85 which was included in 5200-08 IBM AIX 5.1: <ul style="list-style-type: none"> ■ Apply APAR IY75214 (http://www-1.ibm.com/support/docview.wss?uid=isg1IY75214) |

| | |
|----------------------|---|
| <p>HP-UX</p> | <p>HP patches:</p> <p>HP-UX 11.23:</p> <ul style="list-style-type: none"> ■ Apply patch PHCO_34375 <p>HP-UX 11.11:</p> <ul style="list-style-type: none"> ■ Apply patch PHCO_34342 <p>HP-UX 11.00:</p> <ul style="list-style-type: none"> ■ Apply patch PHCO_34266 <p>The above patches are also available within the following later patches:</p> <p>HP-UX 11.23:</p> <ul style="list-style-type: none"> ■ Apply PHCO_34669 (http://www1.itrc.hp.com/service/patch/patchDetail.do?admit=-682735245+1166326913250+28353475&patchid=PHCO_34669&BC=main%7Csearch%7C&sel=%7Bhpux%3A11.23%2C%7D) <p>HP-UX 11.11:</p> <ul style="list-style-type: none"> ■ Apply PHCO_34668 (http://www1.itrc.hp.com/service/patch/patchDetail.do?patchid=PHCO_34668&sel=%7Bhpux:11.11,%7D&BC=main%7Csearch%7C) <p>HP-UX 11.0:</p> <ul style="list-style-type: none"> ■ Apply PHCO-34673 (http://www1.itrc.hp.com/service/patch/patchDetail.do?patchid=PHCO_34673&sel=%7Bhpux:11.00,%7D&BC=main%7Csearch%7C) |
| <p>Red Hat Linux</p> | <p>Red Hat Linux information:</p> <p>Red Hat Enterprise Linux 3 (RHEL3):</p> <ul style="list-style-type: none"> ■ http://rhn.redhat.com/errata/RHEA-2005-655.html <p>Red Hat Enterprise Linux 4 (RHEL4):</p> <ul style="list-style-type: none"> ■ http://rhn.redhat.com/errata/RHEA-2005-655.html |

Patching or Upgrading Your Java Version to Support New DST Rules

The PPM product currently supports Java versions from three different vendors: Sun, IBM, and HP. Each Java vendor has provided patches or upgrades in order to comply with the new DST rules. It is important that the steps taken to update your Java version comply with the new DST rules and also the PPM compatibility matrix of supported configurations for your PPM version.

There are two options for updating your Java version to be compliant with new DST rules:

- Upgrade to the new Java version that is compliant with the new US DST rules where the new version is also support by the PPM product (Java 1.4.2_12 for PPM 6.0 and 7.0).



Note

Java 5 (1.5) is not supported for the PPM application server on any PPM version.

- Apply a time zone update patch for your current version of Java. Each Java vendor has provided a tool (such as Sun’s TZ Updater utility) that will simply update the time zone files within your current JDK in order to support the new DST rules.

| PPM Version | PPM Supported SDK Version | Recommended Action |
|---|---------------------------|---|
| 7.0 | 1.4.2_12 | No action needed. |
| 6.0 SP14 (or later) | 1.4.2_12 | Upgrade to Java 1.4.2_12 http://java.sun.com/developer/technicalArticles/Intl/USDST/ http://www.hp.com/products1/unix/java/?jumpid=go/java http://www-128.ibm.com/developerworks/java/jdk/dst/index.html |
| PPM 6.0 SP13 (or earlier, including all PPM 5.5 versions) | 1.4.2_06 | Update your existing Java version using the appropriate vendor TZ Updater tool. Sun's TZ Updater utility: <ul style="list-style-type: none"> ■ http://www.javaworld.com/javaworld/jw-12-2006/jw-1201-dst.html HP's TZ Updater Utility: <ul style="list-style-type: none"> ■ http://www.hp.com/products1/unix/java/DST-US.html IBM's TZ Updater Utility: <ul style="list-style-type: none"> ■ http://www-128.ibm.com/developerworks/java/jdk/dst/index.html ■ http://download.boulder.ibm.com/ibmdl/pub/software/dw/jdk/dst/readme.htm |

Patching or Upgrading Your Oracle Version to Support New DST Rules

The PPM product currently supports several different Oracle database versions depending on which PPM version you are using. It is important that any changes to your Oracle database version remain compatible with the supported versions in the PPM compatibility matrix. The latest PPM compatibility matrix for each supported PPM version is provided below:

- ITG 5.5: <http://support.mercury.com/announcements/CSO/ITG/ITGCompatibility55.pdf>
- ITG 6.0: <http://itg.merc-int.com/support/download/docs/60/SysReqsCompatMx.pdf>
- PPM 7.0: <http://itg.merc-int.com/support/download/docs/70/SysReqs.pdf>

| PPM Version | PPM Supported Oracle Versions | Recommended Action |
|-------------|--|---------------------------------------|
| 7.0 | <ul style="list-style-type: none"> ■ Oracle 9.2.0.7 including RAC ■ Oracle 10.1.0.4 including RAC ■ Oracle 10.2.0.2 including RAC | Oracle Metalink Document ID: 402742.1 |
| 6.0 | <ul style="list-style-type: none"> ■ Oracle 9.2.0.5 ■ Oracle 9.2.0.6 including RAC (support starting with SP2) ■ Oracle 9.2.0.7 including RAC (support starting with SP9) ■ Oracle 10.1.0.3 including RAC ■ Oracle 10.1.0.4 including RAC (support starting with SP9) ■ Oracle 10.1.0.5 including RAC (support starting with SP14) ■ Oracle 10.2.0.1 including RAC (support starting with SP10) ■ Oracle 10.2.0.2 including RAC (support starting with SP13) | Oracle Metalink Document ID: 402742.1 |
| 5.5 | <ul style="list-style-type: none"> ■ Oracle 9.2.0.5 ■ Oracle 10.1.0.3 including RAC | Oracle Metalink Document ID: 396387.1 |

Patching or Upgrading JRE Plug-In Version Used by PPM Workbench

| PPM Version | DST-Compatible PPM Supported JRE Versions | Recommended Action |
|-------------|--|--|
| 7.0 | <ul style="list-style-type: none"> ■ 1.4.2_12 ■ 1.5.0_06 (Java 5 Update 6) | <p>In <code>server.conf</code>, set the following parameter as appropriate:</p> <ul style="list-style-type: none"> ■ <code>com.kintana.core.server.WORKBENCH_PLUGIN_VERSION=1.4.2_12</code> ■ <code>com.kintana.core.server.WORKBENCH_PLUGIN_VERSION =1.5.0_06</code> |
| 6.0 | <ul style="list-style-type: none"> ■ 1.4.2_12 ■ 1.5.0_06 (Java 5 Update 6) | <p>In <code>server.conf</code>, set the following parameter as appropriate:</p> <ul style="list-style-type: none"> ■ <code>com.kintana.core.server.WORKBENCH_PLUGIN_VERSION =1.4.2_12</code> ■ <code>com.kintana.core.server.WORKBENCH_PLUGIN_VERSION =1.5.0_06</code> |
| 5.5 | <ul style="list-style-type: none"> ■ 1.4.2_12 | <p>In <code>server.conf</code>, set the following parameter:</p> <ul style="list-style-type: none"> ■ <code>com.kintana.core.server.WORKBENCH_PLUGIN_VERSION =1.4.2_12</code> |

Updating Documentum Content Server for New DST Rules

| PPM Version | Recommended Action |
|-------------|---|
| 6.0 and 7.0 | <p>See:</p> <ul style="list-style-type: none"> ■ http://support.mercury.com/announcements/CSO/ITG/Documentum-2006_12_05_DST_TechAlert.pdf |