Release Notes for Platform Application Center

Platform Application Center
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Platform Computing

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What's new

New supported operating systems

Platform Application Center is now supported on Linux 2.6 glibc 2.3 x86 64 bit, Red Hat 6.1.

New supported browsers

Platform Application Center now supports Internet Explorer 9, and Firefox 7.

Enhanced failover with MySQL failover

Platform Application Center failover now includes the web server, reporting services, and optionally, the MySQL database.

Configuration files and binaries are stored on the shared filesystem, and EGO is used to manage failover services.

Two LSF master candidate hosts are used for failover. Should the primary host on which Platform Application Center is running fail, EGO can start Platform Application Center services and the MySQL database on the backup host.

New pacuninstall.sh uninstalls binaries and the MySQL database

There is a new uninstallation script `pacuninstall.sh` that not only removes all Platform Application Center binary files, but also the Platform Application Center MySQL database.

Last sort and filter settings saved

Platform Application Center now saves each user's last sort and filter. Users can log out and when they log in, they will be able to see the same sort and filters that they applied before logging out. Filter and sorting is also saved when the user navigates to a different page.

The following pages persist the last sort and filter performed by each user:

- Jobs
- Jobs > By State: Sort and filtering is saved for the states Running, Pending, Done, Exited, Suspended, Active.
- Jobs > Job Data > By Job
- Jobs > Job Data > By Flow
- Resources > Hosts
- Resources > Submission Templates > Flow Definitions
- Resources > Submission Templates > Application Templates
- Settings > Users > User and Group List

- Settings > Users > Roles and Permissions
- Reports > Standard Reports

New in application templates and submission forms

New application templates

The following application templates are now included:

- The new application template STAR-CCM allows you to submit jobs to the STAR-CCM+ application from CD-adapco.
- The new application template MATLAB allows you to submit jobs to the MATLAB application from The Mathworks, Inc.

New option in dropdown lists: Use Default

There is a new option for the dropdown lists Use Default. This is now the initial value for all dropdown lists. If the user does not select any values, the system will use the default value for that object. For example, if the object is queues, the system will use the default queue as defined in LSF when Use Default is used.

This enhancement will be automatically applied to all existing templates and submission forms that use the dropdown list field type.

Ability to upload multiple local files

You can now select multiple files when adding local files.

Multiple file selection has been enabled in:

- The Add Local File button of all templates and submission forms for all applications.
- The `Input File selection` type field when modifying application templates.
- All `<pac:option ...>` tags with the `type="file"` for creating custom pages. You do not need to make any changes.

  For example: `<pac:option id="INP_INPUT_FILE" type="file"/>`

Multiple file selection in Simple Browse field type

This enhancement has been applied to the Simple Browse field type accessible from Resources > Submission Templates > Application Templates, select an application click Add, select the field type Simple Browse.

A user can now click Browse and select multiple files by clicking the checkbox next to the file. Files are displayed in separate rows and can be individually removed if needed.

This enhancement will be automatically applied to all existing templates that use this field type.

New features related to flows

Command to run field can now display multiple lines

You can enter the command to run in Jobs > Submission Forms > Flow Forms. You can view a command that spans multiple lines in Jobs > By State, by selecting the state, selecting a flow, selecting the Flow Chart tab, right-clicking and selecting Open Definition for a job, job array, or local job.

New Description column on the Jobs page for flow descriptions

There is now a new column in all pages under the Jobs tab, Jobs navigation menu.

This column displays the flow description when a flow is triggered with a variable and JS_FLOW_DESCRIPTION set.

By default, the Description column is not displayed. To display it, select Options > Preferences, click to place a checkmark by the Description column and click OK.

Jobs and flows can now be monitored in the same window

Jobs and flows are now in the same window, accessible through Jobs > Jobs > By State. There is now a Type column by which you can sort.

Possible types are:

- Job
- Flow
- Array
- Group

Reorganization of pages for flow definitions

Pages related to flow definitions have been reorganized:

- Resources > Submission Templates > Flow Definitions: view flow definitions as a list or graphically and perform actions on the flow definitions: Hold, Release, Remove, Publish, Unpublish.
- Settings > System Services > Flow Manager Service: View the Process Manager server name, port, and statistics about the number of flows and flow definitions in each state, and set global variables for all flows.
- Jobs > Submission Forms > Flow Forms by User: Trigger a flow from a flow definition. Non-administrator users can see their own submitted flow definitions and all published flow definitions. Process Manager administrators and control administrators can see all submitted flow definitions and flows. Non-administrator users can see all published flow definitions only when the parameter JS_CHANGE_FLOW_OWNER is set to true in `js.conf`.
- Jobs > Jobs > By State > Pending User Input: View and complete manual jobs.
- Jobs > Job Alerts: View open alarms in the system.

Completion attributes for subflows and flow arrays now visible in Flow Chart tab

You can now view completion attributes for static and dynamic subflows, and flow attributes and completion attributes for static and dynamic flow arrays.

For subflows, select Jobs > Submission Forms > Flow Forms, select a flow, select the Flow Chart tab, select a subflow, right-click and choose Completion Attributes.

For flow arrays, select Jobs > Submission Forms > Flow Forms, select a flow, select the Flow Chart tab, select the flow array, right-click and select Expand. When the new page is displayed, right-click on the page, and select the Attributes menu item for flow arrays and the Completion Attributes menu item for flow array elements.

Hold and release for jobs in a flow

Platform Application Center: Go to Jobs > Jobs > By State > Running, select the flow, select the Flow Chart tab, select the job in the Waiting state, right-click, and choose Hold.

Description:

In some cases, you may want to stop a flow at a specific point so that you can fix problems. You can do this by putting a job in the Waiting state in the flow on hold.

Only the branch of the flow that contains the job that is On Hold pauses. Other branches of the flow continue to run.

When desired, you can then release the job that you have put on hold. The flow continues to run and the job receives the status Waiting.

You can put on hold LSF jobs, job submission scripts, local jobs and job arrays.

Rerun a flow while a job is still running

Platform Application Center: Select Jobs > Jobs > By State, select the flow, and click the Rerun button to display a window in which you can choose what to rerun in the flow.

Description:

In previous versions, you could only rerun flows that were in an Exited state. You can now rerun flows when the flow state is Running, Exited, or Done.

This is useful for flows that have several branches. When one branch fails, you can rerun the branch without waiting for other branches of the flow to complete.

You can:

- Set or unset starting points when there are still jobs running in the flow.
- Choose whether to rerun the flow from:
  - Starting points and exited work items. The flow will rerun from any starting points, exited work items, and, from the item following any manually completed jobs provided dependencies are met.
  - Starting points only. The flow will rerun only from starting points.

Note that you can only rerun a running flow if the part of the flow to be rerun does not overlap with items that are currently running.

Complete a manual job with an exit code

Platform Application Center: You can complete a manual job and specify an exit code through Jobs > Jobs > By State > Pending User Input, select the manual job, click the Complete Manual Job button.

Allow users to trigger other users' flows

The parameter setting in Process Manager also controls who can trigger other users' flows in Platform Application Center. In Platform Application Center, select Jobs > Flow Definitions > By User to trigger flows.

Description:

By default, only Process Manager administrators and Process Manager control administrators can trigger flows created by other users.

This feature only applies to flow definitions that have the status Published.

With the new parameter `JS_CHANGE_FLOW_OWNER=true` in `js.conf`, non-administrator users can trigger other users' flows. In this way, one user can submit flow definitions, and another user can trigger the flow from the flow definition, own the flow, and control it. The user who submitted the flow definition is the owner of the flow definition, the user who triggered the flow is the owner of the flow.

Restrict who can see the flow chart view

- Platform Process Manager: You set the parameter JS_LIMIT_FLOW_CHART_VIEW in js.conf and affects display of the flow chart and associated actions in Flow Manager and Platform Application Center.
- Platform Application Center: Flow Chart view is restricted along with associated actions based on the parameter set in Platform Process Manager.

Description:

There is a new parameter in `js.conf`, JS_LIMIT_FLOW_CHART_VIEW. This parameter allows you to restrict viewing the chart view of a flow and flow definition to only the Process Manager administrator and users who are both the flow definition owner and flow owner.

When this parameter is set to false, users who can view a flow or flow definition, can see everything about the flow: flow chart, general information, subflows and jobs, flow data, and flow history. These users can also perform job and subflow-specific actions.

When this parameter is set to true, there are restrictions on which users can see the flow chart of a flow and flow definition and associated actions the user can take on components of the flow.

New features related to the embedded Platform Analytics

HTTPS supported between Platform Application Center and Tableau

You can now configure HTTPS on both Platform Application Center and Tableau.You can configure HTTPS only for Platform Application Center, only for Tableau, or for both.

When you configure HTTPS for Platform Application Center, it affects access to the web server (URL will be https), access to Web Services, and the Report Builder (Report Builder will need a certificate to communicate with Platform Application Center).

When you configure HTTPS for Tableau, it affects report generation and Workbook access.

For more details and instructions, refer to *Administering Platform Analytics*.

System requirements

This section describes system requirements for installing and running Platform Application Center.

Supported operating systems

- Linux 2.6 glibc 2.3 x86 64 bit, Red Hat 5.x and 6.0, 6.1
- Linux 2.6 glibc 2.3 x86 64 bit, SUSE 10.x, SUSE 11.0, 11.1

Supported authentication

- Password File
- NIS
- LDAP
- AD (Active Directory)

Supported web browsers

- Internet Explorer 7, 8, and 9 on Windows
- Firefox 3.5, 3.6, and 7 on Windows

Important:

Adobe Flash version 8 or later is required to access report charts.

Supported Java Runtime Environment (JRE)

- JRE 1.6.0_10 or higher is required.

  JRE1.6.0_25 or higher is required for Internet Explorer 9, Firefox 7.
- The JRE add-on must be enabled.

Important:

A supported Java Runtime Environment(JRE) version must be enabled at the system level on the host on which the browser is running. Otherwise, Platform Application Center will not work properly. Select **Start** > **System** > **Control Panel** > **Java** and check that a supported version of the JRE is enabled.

Supported databases

- MySQL 5.0, 5.5
- Oracle 9i Enterprise Edition for production clusters
- Oracle 10g Enterprise Edition for production clusters

Important:

The Apache Derby database is no longer supported in Platform Application Center.

Supported LSF versions

- Platform LSF 7 Update 3 or higher
- Platform LSF 8.0
- Platform LSF 8.0.1

Supported Platform Process Manager versions

- Platform Process Manager 8.0
- Platform Process Manager 8.0.1
- Platform Process Manager 8.0.2

Supported Platform Analytics versions

- Platform Analytics 8.0
- Platform Analytics 8.0.2

Supported Platform License Scheduler versions

- Platform License Scheduler 8.0

Disk requirements

- Disk Size:

  Each host should have at least 350 MB of local disk space to install. To support ongoing logging of important data, we recommend 2 GB or more.
- Job Data:

  Make sure you have enough space for job data. By default, all job data is stored under the directory `/home/`.

Web server host

For best performance, do not use the LSF master host as the Platform Application Center web server host.

- If EGO is enabled, the web server must be one of the LSF master candidates.
- If EGO is disabled, any LSF server host can be the web server host as long as the host can access (read and write) the following:

  $LSF_ENVDIR

  $LSF_SERVERDIR

  $LSF_WORKDIR

  $LSF_LOGDIR

Tested applications

The following versions of supported applications have been tested with Platform Application Center:

Note:

These are tested application versions. Job submission forms can be customized to support other versions.

Application	Tested Versions
ABAQUS	• 6.9-1
ANSYS	• V121 • V120 • V110 • V100
BLAST	• 2.2.20
CFX	• CFX-5 (Ansys Suite)
CLUSTALW	• 2.1
CMGL_GEM	• 2008.12 • 2009.13
CMGL_IMEX	• 2008.11 • 2009.11
CMGL_STARS	• 2008.12 • 2009.11
ECLIPSE	• 2009.1 • 2010
FLUENT	• 12.1.2 • 12.0.16 • 6.3.26
HMMER	• 3.0
LS-DYNA	• 971 • 970
MATLAB	• R2011a
NASTRAN	• MSC 2008

Application	Tested Versions
NWCHEM	• 6.0
STAR-CCM+	• 6.02

Known Issues and Limitations

Issue	Description
Red Hat and SUSE bugs cause Java core dump in Platform Application Center with LDAP	Platform Application Center core dumps when LDAP is used with SUSE Linux 10.1 and Red Hat Enterprise Linux 5.6. These are operating system bugs. Refer to the following for more details: https://bugzilla.redhat.com/show_bug.cgi?id=703831 http://web.archiveorange.com/archive/v/wmeLDyjM2zfVYSysPMTh A workaround is to disable user groups in Platform Application Center by setting ENABLE_USERGROUP=N in pmc.conf.
Cannot generate Service Level Agreement (SLA) reports	If LSF 8.0 is used with Platform Application Center, Service Level Agreement (SLA) reports for resource-based SLA cannot be generated. Only reports for time-based SLA can be generated.
License file cannot include Platform Application Center 1.3 and 8.0	It is not supported to have both the Platform Application Center 1.3 license keys and the version 8.0 license keys in the same file. You cannot run both Platform Application Center 1.3 and 8.0 in parallel on the same hosts.
/var/logs/messages has multiple lines added for each action in Platform Application Center	For each user request, an action will be logged in the oeprating system /var/logs/messages file. This causes the log file to increase in size very quickly. The workaround is to disable the system log for /bin/sh -c.
Minimum RHEL5.3 and 5.5 missing compat-libstdc++-33-3.2.3-61	The compat-libstdc++-33-3.2.3-61 may be missing from the minimum RHEL 5.3 and 5.5 installation. Platform Application Center requires this package. Run the following commmands to make sure that the package is installed correctly: **1. pmcadmin stop** **2. yum install compat-libstdc++-33-3.2.3-61** **3. pmcadmin start**
File list display limitation	If a folder in a file list contains more than 4000 files or folders, Platform Application Center can only can display a maximum of 4000 files in a file selection list.
Special characters in file names	Special characters single quote (`'`), double quote (`"`) and dollar sign ($) are not supported in file names. File management and file selection in Platform Application Center will not work properly for files with these characters in the file name.

Issue	Description
Platform Application Center host cannot have underscores in the host name	This is a known issue in Internet Explorer and Firefox. On Internet Explorer, setting cookies fails when the host name of the server contains underscores (_). This issue prevents users from logging in to Platform Application Center. On Firefox, this issue causes downloading and uploading files to fail. To work around the problem, change the host name to remove underscores or use the IP address to access the Platform Application Center server.
Per-job remote Console is supported for shared disk installation only	For per-job remote consoles, Platform Application Center creates a VNC session file in `$GUI_WORKDIR`, which must be located a shared location (for example, `/opt/pac`). Platform Application Center cannot create a VNC session on compute nodes if `$GUI_WORKDIR` is a local directory. You must install Platform Application Center in a shared location enable failover to use the per-job remote consoles.
LSF API socket in use error with more than 15 users	When more than 15 users are logged in accessing application submission forms, monitoring jobs, etc., the LSF API gives socket in use errors. To work around the problem, the administrator must set the parameter LSF_NON_PRIVILEGED_PORTS=Y in `lsf.conf`.

Linux run level 5 required for RGS jobs	LSF RGS jobs require run level 5 in order to use `startx` to start the RGS sender process. If the run level is not 5, the X-Windows server cannot start. Make sure the Linux run level on your system is set to 5 (the default may be 3 or some other value on your system).
	1. Edit `/etc/inittab` and modify the following:
	`# Default runlevel. The runlevels used by RHS are:`
	`# 0-halt (Do NOT set initdefault to this)`
	`# 1-Single user mode`
	`# 2-Multiuser, without NFS (The same as 3, if you do not have networking)`
	`# 3-Full multiuser mode`
	`# 4-unused`
	`# 5-X11`
	`# 6-reboot (Do NOT set initdefault to this)`
	`#`
	`id:5:initdefault:`
	2. Reboot the machine to make the change take effect, or log on as root and start the X Server manually:
	`/sbin/init 5`

Job notification does not record status change from Exited to Pending	When job status changes from Exited to Pending the status change is not updated. For example, if you requeue an Exited job, status changes to Pending in LSF but the change is not displayed. When the job starts running, the status notification message changes to "Exited to Running". The Exited to Pending change is not shown.

Issue	Description
Cannot connect to server when opening a remote console	When a user tries to open a remote console through **Remote Consoles** > **Open my console**, a VNC console window is displayed, but cannot connect to the server. No VNC session is created on the master host. To work around the problem, check `$GUI_WORKDIR/.vnc` directory. Remove any `${user}` subdirectory for the user having a problem connecting. This will remove the VNC session file created in `$GUI_WORKDIR/.vnc/${user}`, and the user should be able to connect successfully.
Job Flows Global View display limitation	In the **Job Flows** > **Global View**, there is a limit to the number of dependencies that can be displayed. If the number of dependencies is more than 48, the name will be missing on some items in the view. The issue appears only on Firefox 3.6 with Shockwave 10 Flash plugin when the number of dependencies in the view is greater than 48.
Process Manager job templates are not supported	Platform Process Manager job templates are not supported in Platform Application Center. Use Platform Application Center application templates for job for submissions to job flows.
Access denied error when triggering job flow from a custom page	When triggering a job flow from a newly created custom submission form, an access denied error is displayed. To avoid this problem, you must restart Platform Application Center before using a new custom page added through a service in `services.xml`. New services are automatically synchronized with Platform Application Center access controls every host. To access a new custom page immediately, you must log out and log back in to Platform Application Center to have the new service to be added into the access controls.
Browser error when switching to HTTPS	After enabling HTTPS using `pmcadmin https enable`, Firefox and Internet Explorer complain that Platform Application Center uses an invalid untrusted security certificate. Platform Computing provides a self-signed security certificate for Platform Application Center. Because it is self-signed, the certificate is not trusted by the browser. When you get this error, you can tell your browser to treat the self-signed certificate as exception in browser security. On Internet Explorer, you see the error "Certificate Invalid": **1.** Click "View certificates". **2.** Click "Continue to this website (not recommended)." On Firefox, you see the error "This Connection is Untrusted": **1.** Under "What Should I Do?", click "I Understand the Risks". **2.** Click **Add Exception** to tell Firefox to start trusting the Platform certificate. **3.** On the Add Security Exception dialog, click **Confirm Security Exception**.

Get Technical Support

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Contact Platform Computing or your Platform Application Center vendor for technical support. Use one of the following to contact Platform technical support:

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support@platform.com

World Wide Web

www.platform.com

Mail

Platform Support
Platform Computing Inc.
3760 14th Avenue Markham
Ontario Canada L3R 3T7

When contacting Platform, please include the full name of your company.

See the Platform Web site at *www.platform.com/company/contact-us* for other contact information.

Get patch updates and other notifications

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To get security related issue notification from Platform Support, contact *securenotice-request@platform.com* with the subject line containing the word "subscribe".

Help and documentation

To get started using Platform Application Center, click Help in the Platform Application Center console.

To install Platform Application Center for the first time, see *Installing Platform Application Center*.

To upgrade from Platform Application Center version 1.3, 8.0, 8.0.1, see *Installing Platform Application Center*.

To configure and administer Platform Application Center, see *Administering Platform Application Center*.

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