



# **TIBCO iProcess® Engine (DB2) for Linux**

## **Release Notes**

Version 11.10.0 | May 2025

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# New Features

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The following features have been added since the last major release of TIBCO iProcess® Engine (DB2) for Linux.

## Release 11.10.0

The following new features have been added in this release.

### Activation

Customers must activate this release as part of an installation or upgrade. The release functions only when it is activated with a license.

Generate a license to activate this product from the TIBCO Software Download site at <http://www.tibco.com/downloads>. Only customers with an active entitlement to this release can generate a license.

Activate TIBCO products using TIBCO® Activation Service software, which you can download from the TIBCO Software Download site.

For documentation of this release and for information about configuring of this product for activation, visit: <https://docs.tibco.com/products/tibco-activation-service>.

### IPAC - EAI Administration Interface Enhancement

EAI Administration with an improved interface is added to view configurable EAI plug-ins installed on the iProcess Engine. For more information, see the *TIBCO iProcess® Plug-in SDK User Guide*.

### EAIMAIL Plug-in Interface Enhancement

The UI for EAIMAIL Plug-in now has a **Attachments** tab to specify an attachment that you want to insert with your mail message. The body of the message has new options **Test Values**, **Test Mail**, **Preview**, **Load From File**. For more information, see the *TIBCO iProcess® Engine Email Plug-in User Guide*.

## Support for Node Rename of iProcess Installation

iProcess Engine now supports node rename commands to replicate easily iProcess Engine environments. For more information, see the *TIBCO iProcess® Engine Administrator's Guide*.

## Java Upgrade

The Java software is upgraded to 17.0.12.

## Replacing Highcharts with Apache eCharts

The graphs configured on the Monitoring page that were displayed using Highcharts are replaced with Apache eCharts. For more information, see the *TIBCO iProcess® Engine Administration Console User Guide*.

## Password Protected Downloads

Only password protected zip files are downloaded on both Windows and Linux. When you click the **Download** or **Download All** option, you should enter a password for the zip file. After you enter a password, the same password protected zip file is downloaded.

# Release 11.9.1

The following new features have been added in this release.

## Java Upgrade

From this release, the Java software is upgraded to 11.0.22.

## DataDirect Drivers

Removal of dependency on DataDirect drivers.

# Release 11.9.0

The following features have been added in this release.

## JMX is Now Disabled by Default (For Business Studio Users)

From this release, by default, JMX is disabled in iProcess Engine. Connecting to a background process by using the JMX port is permanently disabled. With an exception, you can enable this feature in the RPC\_TCP\_LI process by setting the process attribute `ENABLE_JMX_LISTENER` to 1. This exception is to support the deployment of procedures especially from the Business Studio. You must set the `ENABLE_JMX_LISTENER` process attribute first and then, restart the iProcess Engine.

## Support for Global Variables

From this release, the Global Variables feature is added with the following functionality:

- User-definable custom fields that can be accessed from within any procedure via the new `GLOBALVARIABLE` expression
- Developers to set configuration data external to the procedure and change it independently of the procedure definition
- `swadm` supports Set, Delete, Import, and Export of Global Variables
- The new iProcess Admin Console page to view, change, import, and export Global Variables

For more information, see *TIBCO iProcess® Engine Administrator's guide* and *TIBCO iProcess® Engine Admin Console Guide*.

## Encryption Improvements

From this release,

- Encryption for the RPC layer between the iProcess Workspace (Windows), Work Queue Server, and Work Item Server processes is improved
- Encryption protocol that is used between iProcess Server Objects and iProcess Objects Server is updated

## Support for Export and Import of iProcess Configuration

From this release, iProcess Engine supports export and import commands to easily replicate iProcess Engine environments. For more information, see *TIBCO iProcess® Engine Administrator's guide*.

# Release 11.8.0

The following new features have been added in this release.

## Support for Java 11

From this release, Java 11 Support for iProcess Engine (DB2) is provided.

## Support for Platforms

In this release, support for the following platforms have been added:

- Oracle Linux 7.6 (64 Bit)
- Oracle Linux 8.0 (64 Bit)
- Solaris (SPARC) 11.4 (64 Bit)
- Red Hat Enterprise Linux Server 7.6 (64-bit)
- Red Hat Enterprise Linux Server 8.0 (64-bit)
- SUSE Enterprise Linux 15 (64 Bit)
- Centos 7.6 (64 Bit)

## Support for Databases

In this release, support for no new database has been added.

## MEMO Efficiency Improvements

As of this release, the following enhancements have been made:

- USING\_BLOB flag allows a NULL value.
- In-place update of the MEMO is performed, instead of delete and insert.
- Memos are migrated in batches.

## IPAC enhancements

- Improved performance of Log Viewer Time Based filtering

- Handling of large numbers of Queues, Message Queue Messages and System Events has increased
- Filtering for Queues, Messages, and System Events has enhanced
- New filtering options to swadm and plist for Queues, Messages, and System Events has been added
- Existing Monitoring Graphs can be edited
- Support for more details has been added across all the nodes in a Node Cluster environment
- Support for Pagination from Server

## Customer Written Applications

If you have created any customized applications, such as SAL SDK, UVAPI plug-ins, NPSAL, or JAVA plug-in applications, you must update your applications to 64-bit, for the applications to run seamlessly.

# Release 11.7.0

The following new features have been added in this release.

## TIBCO iProcess<sup>®</sup> Engine Administration Console

TIBCO iProcess Engine Administration Console is a Graphical User Interface (GUI)-based tool that runs on the web. It can be used to perform the following administrative tasks:

- Control process operations (start, stop, pause, enable/disable, and delete).
- Configure resources such as process attributes, MBox queues, databases, port ranges, debug settings, and so on.
- Monitoring information, such as processes, queue information, logs, and so on.
- Monitoring performance based on CPU usage, memory usage, and so on.

For more information, see *TIBCO iProcess Engine Administration Console User's Guide*.



## Support for TIBCO iProcess Engine on Microsoft Azure

iProcess Engine can now be installed on the Microsoft Azure cloud platform. This enables you to host an existing installation or a completely new installation of iProcess Engine on Microsoft Azure.

For more information, see *TIBCO iProcess Engine Configuration Guide for Cloud*.

## swadm METRICS

This is a new swadm utility that you can use to query and export statistical iProcess Engine information. For more information on how to use this utility, see *TIBCO iProcess Engine Administrator's Guide*.

## Monitoring of Undelivered Queue Items

The integration capabilities of TIBCO Hawk have been extended to include a new interface **getUndeliveredCount** which allows monitoring undelivered queue items in iProcess Engine.

## Performance Improvements to Case Data Searching

The case data searching functionality has been enhanced to reduce search time and return search results faster.

## Support Oracle 12c R2 Database 12.2 and DB2 11.1

iProcess Engine now supports Oracle 12c R2 Database 12.2 and DB2 11.1 database servers.

# Release 11.6.1

The following new features have been added in this release.

## Support for Amazon Web Services (AWS) for TIBCO iProcess Engine for cloud

From this release, TIBCO iProcess Engine is now supported on the cloud through Amazon Web Services (AWS).

See *TIBCO iProcess Engine for Configuration Guide for Cloud* for more details.

## Release 11.6.0

The following new features have been added in this release.

### 64-bit Application

From this release, TIBCO iProcess Engine is a 64-bit application and can only be used on 64-bit operating systems against a 64-bit database. The executable process size of the 64-bit iProcess Engine application will increase (when compared to 32-bit versions in earlier releases), which depends on the application and amount of data. In general, the resident memory size of a process will increase by around 30%. Ensure that the machine to install iProcess Engine has sufficient memory to cater for this increase.



**Note:** To use any existing UVAPI plug-ins with iProcess Engine 11.6.0, you must rebuild the UVAPI package as a 64-bit library.

### Support for Java Version

From this release, Java Standard Edition 8 is supported. See *TIBCO iProcess Engine Installation guide* for details.

## Release 11.5.0

The following new features have been added in this release.

### System Events Management ([IPE-3416](#))

The following new functions have been added to manage system events:

- **Enable System Events Logging**

When installing TIBCO iProcess Engine, you can use the **Enable System Event Logging** configuration item in the **Configuration Options** menu configuration

option in the **Configuration** dialog box to specify whether or not you want to log system events information.

For more information about how to use this configuration item, see "Configuration Options Menu" in *TIBCO iProcess Engine Installation*.

The following tables are created to store information about system events logging:

- `system_event`: the table is used to store basic information about the system events.
- `system_event_conf`: the table is used to store system events configuration information.

#### • **Audit System Events**

You can use the `SYSTEM_EVENT_LOGGIN` process attribute to specify whether or not you want to audit system events after installing or upgrading to TIBCO iProcess Engine 11.5.0.

For more information, see "Activity Monitoring and Work Queue Delta Configuration" in *TIBCO iProcess Engine Administrator's Guide*.

#### • **Publish System Events**

You can use the `PUBLISH_SYS_EVENT_METHOD` process attribute to specify whether or not you want to publish system events. Before publishing a system event, ensure that the system event has been audited.

You can publish a system event by using Windows Event Viewer, TIBCO Hawk Agent, or the IAPJMS process.

- If you choose to publish a system event by using TIBCO Hawk Agent, you can use the `SE_WORKER_PORTNO` process attribute to specify a port number of the socket that is used for communications between the processes that audit the system events and the "worker" process. The "worker" process finally sends the events information to TIBCO Hawk Agent.
- If you choose to publish a system event by using the IAPJMS process, you can use the `SEJMS_TOPICNAME` attribute to specify the JMS topic name for the JMS destination that is used to publish the system event.

For more information, see "Activity Monitoring and Work Queue Delta Configuration" in *TIBCO iProcess Engine Administrator's Guide*.

#### • **Query System Events Information**

You can use the `plist -e` command to query information about a single or multiple system events.

For more information, see "System Event Information" in *TIBCO iProcess Engine Administrator's Guide*.

- **Turn Off System Events**

You can delete information about a single or multiple system events or clear information about system events ahead of a specified date from iProcess database by using the `swadm delete_system_event` command.

For more information, see "Removing System Events Information from the iProcess Database" in *TIBCO iProcess Engine Administrator's Guide*.

- **Import and Export System Events Configuration**

You can import a system event configuration file into TIBCO iProcess Engine by using the `swutil IMPEVENTCONF` command and export configuration information of a system event from TIBCO iProcess Engine to a command line by using the `swutil EXPEVENTCONF` command.

For more information, see *TIBCO iProcess swutil and swbatch Reference Guide*.

## Optimize SQL Statements Execution ([IPE-3455](#))

You can use the `sqloptim` file, which is located in the `SWDIR/etc` directory, to optimize execution of SQL statements in the database.

For more information, see "SWDIR\etc\sqloptim" in *TIBCO iProcess Engine Administrator's Guide*.

## Reduce Log in Time ([IPE-3468](#))

The average time for a user to log in to TIBCO iProcess Engine node is now identical no matter how many user groups and users have been created in this TIBCO iProcess Engine node if other system conditions remain unchanged.

For example, the average time for the user to log in to an iProcess Engine node with 500 users registered is the same as the average time for the user to log in to the same iProcess Engine node with 15000 users registered, if the other system conditions remain the same.

## Unlock Work Items ([IPE-3472](#))

You can use the `MN_UNLOCKER` process attribute to specify which iProcess users can have permission to unlock work items.

For more information, see "Process Management Configuration" in *TIBCO iProcess Engine Administrator's Guide*.

## **WRITELOG Function Introduced ( [IPE-3473](#) )**

You can use the WRITELOG function to write messages to a log file to trace and debug iProcess scripts issues.

For more information, see "Log Functions" in *TIBCO iProcess Expressions and Functions Reference Guide*.

## **Define the Maximum Size of Log Files ( [IPE-3476](#) )**

You can use the maxsize parameter in the DEBUG process attribute to define the maximum size of log files, except the sw\_error, sw\_warn, SWEntObjSvXX.log, and spodirectorXX.log files.

When the log files reach the maximum size, if the onfull parameter in the DEBUG process is set to save, the log files are archived.

The default value of the maxsize parameter is 20 GB, and the default value of the onfull parameter is save.

For more information, see "Monitoring Log files" in *TIBCO iProcess Engine Administrator's Guide*.

## **Define the Maximum Size of the sw\_warn and sw\_error Log Files ( [IPE-3477](#) )**

You can use the WARN\_ERROR\_LOG\_SIZE process attribute to define the maximum size of the sw\_warn and sw\_error log files. The default value of the WARN\_ERROR\_LOG\_SIZE process attribute is 2 GB.

For more information, see *TIBCO iProcess Engine Administrator's Guide*.

## **Work Items Are Unique to Users ( [IPE-3480](#) )**

Add requestid as the unique identifier for each work item so that each work item can only be locked by one user.

## Change Field Data Type (IPE-3513)

The BLOB (30K) data type in the pack\_memo, proc\_defn, memo, and user\_setting tables in the database has been changed to BLOB (2G).

From TIBCO iProcess Engine 11.5.0, all the new case memo data is stored in the nmemo and pack\_nmemo tables and the data type is BLOB (2G). Migrating the old case memo data from the memo and pack\_memo tables to the nmemo and pack\_nmemo tables is not supported for the DB2 database in this release. For more information, see *TIBCO iProcess Engine (DB2) Administrator's Guide*.

## Delayed Release Has Been Enhanced (IPE-3536)

The following features have been introduced to enhance the delayed release function:

- Add the SW\_DELAYED\_RELEASE\_ERR stored procedure in the iProcess database. TIBCO iProcess BusinessWorks Connector can trigger the SW\_DELAYED\_RELEASE\_ERR stored procedure to call and send the error message to the BG process if the iProcess Complete Delayed Release activity fails to complete delayed release of an EAI BusinessWorks step.

For more information, see "Delayed Release" in *TIBCO iProcess BusinessWorks Connector User's Guide*.

- Add the following system-defined message in the audit trail to trace the error message when performing delayed release of an EAI BusinessWorks step has failed:

088 StepDescription EAI delayed-release failed (error code (failure\_count, BG\_action) : error message)

For more information, see "Understanding Audit Trails" in *TIBCO iProcess Engine Administrator's Guide*.

## Support for Platforms

In this release, the following platforms are supported:

- Red Hat Enterprise Linux Server 5.10 (32-bit and 64-bit)
- Red Hat Enterprise Linux Advanced Platform 5.10 (32-bit and 64-bit)
- Red Hat Enterprise Linux Server 7.x (64-bit)

**i Note:** Any subsequent service packs release, such as 7.2 would also be supported.

## Support for Database

In this release, IBM DB2 10.5 is supported.

# Changes in Platform Support

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Supported platforms are not affected in this release. For a complete list of supported platforms, see the [Readme](#) file.



# Changes in Functionality

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No functionality changes have been made in this release of TIBCO iProcess® Engine (DB2) for Linux.

# Deprecated and Removed Features

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This section describes any features that have been deprecated or removed since release 11.5.0 of this product.

For deprecated features, if relevant, useful alternatives to the deprecated features are listed. Any use of a deprecated feature must be discontinued as it might be removed in a future release. You must avoid depending on the deprecated features and become familiar with the suggested alternative features.

No changes

## Release 11.10.0

The following feature has been deprecated or removed in this release of TIBCO iProcess® Engine (DB2) for Linux.

- Address Space Layout Randomization (ASLR) is disabled.

## Release 11.9.1

No features have been deprecated or removed in this release of TIBCO iProcess® Engine (DB2) for Linux.

## Release 11.9.0

The following feature has been removed in this release of TIBCO iProcess® Engine (DB2) for Linux.

## Removed Feature

From this release, the iProcess Server Manager is no longer supported.

# Release 11.8.0

## Deprecated Features

The following features are deprecated in this release:

- iProcess Decisions Server
- iProcess Decisions Studio
- iProcess Decisions Web Services

# Release 11.7.0

No features have been deprecated or removed as of this release of TIBCO iProcess Engine.

# Release 11.6.1

## Deprecated Features

The following features are deprecated in this release:

- TIBCO iProcess Objects (COM)
- TIBCO iProcess Objects (Java)

## Release 11.6.0

### Deprecated Features

The following features are deprecated in this release:

- TIBCO iProcess Client (ASP) and TIBCO iProcess Client (JSP) are deprecated and might be removed from a future release. You can use TIBCO iProcess Workspace (Browser) as an alternative client interface for TIBCO iProcess Suite.
- TIBCO iProcess Objects (C++) is deprecated and might be removed in a future release. You can use TIBCO iProcess Server Objects as an alternative interface for your iProcess applications.

### Removed Features

From this release, 32-bit environments are no longer supported.

## Release 11.5.0

No features are deprecated and removed in this release.

# Compatibility

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In addition to other versions of TIBCO iProcess® Suite components, the following TIBCO products have been successfully tested for compatibility with release 11.10.0 of TIBCO iProcess Engine.

Product	Version
iProcess Workspace (Browser)	11.10.0
iProcess Workspace Lite	1.2.0
TIBCO iProcess® Web Services Server Plug-in	11.9.0
TIBCO iProcess® Technology Plug-ins	11.10.0
TIBCO iProcess® Server Objects	11.10.0

For any queries regarding the product's compatibility with this version of iProcess Engine, contact TIBCO Support for further assistance.

# Closed Issues

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The following issues have been fixed since the last major release of TIBCO iProcess® Engine (DB2) for Linux.

## Release 11.10.0

Defect #	Description
IPE-7237	The Work Item Server(WIS) crashes when requesting a purge on a workitem.
IPE-7219	SPO server fails to read the login message after handshaking.
IPE-6832 ( <i>Parent id IPE-6172</i> )	Sequence flow condition does not work in procedure deployment.
IPE-6765	Fetching wrong CDQP information. Memory is getting corrupted due to 32-bit to 64-bit issue resulting into duplication of data leading to incorrect fetch.
IPE-6681 ( <i>Parent id IPE-6632</i> )	SPO threads hang due to RPC timeout issue caused by slow processing in the WIS.
IPE-6680 ( <i>Parent id IPE-6632</i> )	SPO threads hang due to RPC timeout issue caused by slow processing in the WIS.
IPE-6542	Address Space Layout Randomization (ASLR) is disabled in iPE Linux Oracle.
IPE-6508	There is an issue in the updating sequence of the process status for WIS Process.
IPE-6418 ( <i>Parent</i>	iProcess Addin for Business Studio failed to connect to BusinessWorks

Defect #	Description
<i>id IPE-6132)</i>	Server MBean.
IPE-6411 ( <i>Parent id IPE-6295)</i>	After upgrading iPE 11.8 to 11.9, the customer is facing issue with a memory leak with SPO.
IPE-6410	Duplicated ports being allocated for Process Monitoring.
IPE-6337 ( <i>Parent id IPE-6251)</i>	IPAC login issue when trying to login to IPAC with non-default user and LDAP SSL enabled.
IPE-6335	After you upgrade from iProcess version 11.5.0 to 11.8.1, GetACaseList call took more than 20 seconds to retrieve the case data.
IPE-6329	The Work Item Server crashes when a purge is requested on a work item.
IPE-6280	iPE fails to get MAXCASENUM for daily statistics processing with large case numbers.
IPE-6142	The BG crashes when the LDAP Server is reconnected from the iProcess Engine.
IPE-6113	Existing sub-case is taking newer version of sub-procedure.
IPE-6087	The BG crashes when the LDAP Server is reconnected from the iProcess Engine.
IPE-6056	Importing procedure from Business Studio or SWUTIL results in duplicate memo IDs when the procedure update has a minimum of two new fields, a memo array and a memo.
IPE-6011	The SPO/WQS process crashes intermittently on updating keys and in the event of concurrent log-in sessions.
IPE-5899	The memory leakage was observed in <code>swbgmbd.exe</code> .
IPE-5836 ( <i>Parent id IPE--5619)</i>	When the SPO server consumes 100% CPU, it does not respond to any requests.

# Release 11.9.1

Defect #	Description
IPE-6416 (Parent JIRA IPE-6132)	iProcess Addin for Business Studio failed to connect to BW Server MBean.
IPE-6334 (Parent JIRA IPE-6124)	Slow GetACaseList after upgrade to 11.8.1.
IPE-6332 (Parent JIRA IPE-6113)	Existing sub-case taking newer version of sub-procedure.
IPE-6330 (Parent JIRA IPE-6142)	LDAP Sync issue (BG crash) - When LDAP Server reconnected from iPE.
IPE-6328 (Parent JIRA IPE-6085)	Crash of WIS process on purge workitem.
IPE-6325 (Parent JIRA IPE-6064)	LDAP Sync leading to BG crash.
IPE-6324 (Parent JIRA IPE-6051)	Proc import with memo fields resulting in duplicate memo-ids.
IPE-6296	During Engine restart, ports are reserved for process monitoring, Sentinels request for free ports, creating a new socket, binding, and closing it. In this gap of open and close there is a window for another process to grab the port. The fix is to reduce the gap between socket close and the consumption of this port by Child process. This change will reduce, but not eliminate, the possibility of another process grabbing the port.



Defect #	Description
IPE-6295	A memory leak occurred due to calls to encrypt/decrypt keys.
IPE-6172	Any expression defined in a client for example Business Studio, that once translated to the native iProcess expression language, if the resulting expression is longer than 245 characters, then the deployment will be aborted and "IPEXPDLXFRERR" error is returned back to the client.
IPE-6011	The SPO/WQS process crashes intermittently on updating keys and in the event of concurrent log-in sessions.
IPE-5891	The WQS process crashes in the event of concurrent log-in sessions.

## Release 11.9.0

Defect #	Description
IPE-5802 ( <i>Parent JIRA IPE-5763</i> )	When reconnecting to the LDAP server, BG crashes during an LDAP synchronization.
IPE-5742	Unable to set few debug log parameters like log level, trace msg flag and so on for the SPO server via Process Attributes.
IPE-5689	When importing the configuration file, you cannot import the watcher or worker ports present in the <b>/etc/services</b> location.
IPE-5604	The log4j JAR file is upgraded to 2.17.2 version.
IPE-5589	The EncodeToUTF8 function fails to identify the correct char-set when translating from US-ASCII to UTF8.
IPE-5563 ( <i>Parent JIRA IPE-5388</i> )	The SPODIRECTOR file crashes when parsing the Client version.
IPE-5384	When you run the swinstall and swconfig files during installation, the segmentation fault occurs.

Defect #	Description
IPE-5327	When you run the following <b>plist</b> commands in socket mode, dumps are created <div> <pre>plist -Px plist -Px &lt;procname&gt; ALLVERS</pre> </div>

## Release 11.8.1

Defect #	Description
IPE-5535	Addressed the Apache Log4J vulnerability (CVE-2021-44228).
IPE-5330	IAPJMS to connect with EMS over SSL.

## Release 11.8.0

Key	Summary
IPE-5153	The line feed in the case description might cause SPO to fail intermittently .
IPE-4996	Use the ldapconf command line to set groupname, rolename, Qsupervisors and Userflags
IPE-15	The CDQP QINFO command imports fieldname in lowercase when the control file does not use R at the beginning of the file.
IPE-4987 (Parent JIRA IPSE- 260)	BG memory usage increases whenever LDAP FULL SYNC is performed in LDAPCONF.

Key	Summary
IPE-4953 <i>(Parent JIRA IPSE- 4952)</i>	WIS crashes while filtering work items if you use an asterisk (*) as a filter string.
IPE-4936	iProcess Engine startup status message for RPC_UDP_LI is not updated from STARTING to RUNNING.
IPE-4837	activity id is corrupted as a result swutil expmonitor and iapjms messages are not published
IPE-4839 <i>(Parent JIRA IPSE- 4838)</i>	Transaction control steps are failing due to wrong wait_id.
IPE-4036	Performance improvement for the fix for losing participants when performing full ldapsync.
IPE-1186	If you perform a non-root installation, the generated rootscrip includes switches to the useradd/usermod and groupadd commands instead of the actual commands.

## Release 11.7.0

Defect #	Description
IPE-4526	SW_DELAYED_RELEASE displayed an error on executing a stored procedure with DelayedReleaseId that has no failed count.
IPE-4525 <i>(Parent JIRA IPE-</i>	If you add multiple users in TIBCO iProcess Engine version 11.6.1 HF-011 via TIBCO iProcess Objects Server, a SAL system error occurs.

Defect #	Description
4501)	
IPE-4485 (Parent JIRA IPE- 4474)	The parsing logic of a major and minor version of a procedure by the iProcess Objects Server was incorrect.
IPE-4445 (Parent JIRA IPE- 4439)	When upgrading TIBCO iProcess Engine from version 11.4.0 to version 11.6.0, the backup tables were not dropped.
IPE-4443 (Parent JIRA IPE- 4442)	If you performed a full LDAP server synchronization, all participants were lost.
IPE-4429 (Parent JIRA IPE- 4411)	The JumpTo function on a closed case was stopped/restricted.
IPE-4419 (Parent JIRA IPE- 4418)	Background processes were suspended if a sub procedure with a failed withdrawal step was released.
IPE-4410 (Parent JIRA IPE- 4403)	The Unlock Workitem option does not work in a UTF-8 enabled iProcess Engine instance. As a result, the iProcess Objects Server returns the "item not found" error.
IPE-4401	After completing the first step in a case, by using the KEEP option from java clients like the iProcess Workspace (Browser) or iProcess Server Objects, results

Defect #	Description
(Parent JIRA IPE-4393)	in the iProcess Objects Server inserting the data into both pack_data and case_data tables.
IPE-4381 (Parent JIRA IPE-4380)	In cases when the background (BG) failed to process sub-cases, it did not roll back and continued purging cases and committed the transaction.
IPE-4375 (Parent JIRA IPE-4367)	Watcher and worker do not stop during restart as the iProcess Objects Director does not send a shutdown notification to the sentinel.
IPE-4355 (Parent JIRA IPE-4354)	TIBCO iProcess Engine can not fetch a Request ID due to lack of support for an older DelayedReleaseID format. This has been fixed by adding backward support for the older DelayedReleaseID format.
IPE-4306 (Parent JIRA IPE-4224)	The libgcc_s library was missing and the libiconv libraries had issues which resulted in errors during installation. These errors occurred because of the swconfig utility's dependency on these libraries.
IPE-4305 (Parent JIRA IPE-4297)	When recompiling the SAL SDK brokers, the interface to the Work Queue Server did not work returning the following error:  (count is 0 on sal_queues_count) and -11 ER_NOTFOUND
IPE-4287	TIBCO iProcess Engine encountered an error when loading an extremely high number of cases due to insufficient memory allocation to the iProcess Objects Server.
IPE-4244	A new parameter "proc_id" was added to the SW_GETCASE_STATUS stored

Defect #	Description
(Parent JIRA IPE- 4243)	procedure. This did not allow closing cases through SSOLITE.SW_CLOSE procedure on the iProcess Engine upgraded environment.  To fix this, the change to SW_GETCASE_STATUS has been reverted and SW_GETCASE_STATUS_EX that takes proc_id and casenum as input has been added.
IPE-4233  (Parent JIRA IPE- 3360)	The sw_casenum was not available in the first steps of the initial (init) script.
IPE-4232  (Parent JIRA IPE- 3963)	A memory leak occurs when trying to free the cache of the user member list.
IPE-4231  (Parent JIRA IPE- 3962)	A memory leak occurs in the SPO when tested by valgrind.
IPE-4223  (Parent JIRA IPE- 4189)	For a non-array memo field, the stored procedure was being saved as an array field.
IPE-4210  (Parent JIRA IPE- 4209)	While removing participants from the Work Queue Server, the queue record is locked causing the iProcess Objects Server process to be unresponsive.
IPE-4180  (Parent JIRA IPE-)	Any CASENUM greater than 2G resulted in a "case not found" error.

Defect #	Description
4179)	
IPE-4178	In iProcess Workspace (Browser), if you clicked the Use Default button in the column selector under the View menu, and then logged out from iProcess Workspace (Browser), the iProcess Objects Server crashed.

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Defect #	Description
IPE-4138	When a case data was set by TIBCO iProcess Objects Server, the numeric value got changed to a decimal value.
IPE-4128	An orphaned item is left in the queue until WIS restart.
IPE-4097	If there were any trailing spaces for input values in text and memo fields, TIBCO iProcess Objects Server deleted these spaces automatically.
IPE-3969 (Parent JIRA IPE- 3968)	When an additional user was added to the groupusers/iPrGroupUsers in Active Directory, the output and the LDAP server synchronization returned unreliable data.
IPE-3903	TIBCO iProcess Engine had returned an error when connecting to TIBCO iProcess Objects Server if the hostname was longer than 64 characters.
IPE-3897 (Parent JIRA IPE- 3899)	The Work Item Server (WIS) had a problem with sorting work item lists that contained both very low and very high CASENUMs.
IPE-3895	When upgrading TIBCO iProcess Engine, the upgrade failed when migrating process definition data (proc-defn).

Defect #	Description
IPE-3894	If you performed a swutil PROC RELEASE, and chose to migrate all cases (-m ALL) when there was no released version of the procedure, the cases were not migrated.
IPE-3893 (Parent JIRA IPE- 3879)	<p>The <i>swutil USERINFO</i> - command failed to remove a user from a group. For example, for a user <i>Usr00001</i> and group <i>Grp00002</i>, the command and corresponding error are:</p> <p><b>Command:</b> <i>swutil USERINFO -</i>  <i>M-Usr00001,Grp00002</i></p> <p><b>Error:</b> <i>Line 1: User Usr00001 is not a member of group Grp00002; line ignored</i></p> <p><i>^Z</i></p> <p><i>0 lines successfully processed</i></p>
IPE-3891	TIBCO iProcess Engine did not import queues if there were leading spaces, trailing spaces, and control characters, such as Carriage Return/Line Feed.
IPE-3890	The Work Queue Server crashed if there were leading spaces in the queue names.
IPE-3868 (Parent JIRA IPE- 3876)	<p>If you shut down TIBCO iProcess Engine and migrated cases to a new PROC RELEASE by using swutil, the pstafffc file crashed. The pstafffc01.log file listed the following errors:</p> <p><i>[P=06576][T=01668]160517212511.370102:O001: slist_add (): failed to reallocate object list (70, 4)</i></p> <p><i>[P=06576][T=01668]160517212511.370383:C001: lselect_casenum : Failed to add case number to slist</i></p> <p><i>[P=06576][T=01668]160517212511.370699:O001: slist_add (): failed to reallocate object list (70, 4)</i></p> <p><i>[P=06576][T=01668]160517212511.371000:C001: lselect_casenum : Failed to add case number to slist</i></p>
IPE-3864	The RPCBG crashed when TIBCO iProcess Engine was shut down.



Defect #	Description
(Parent JIRA IPE- 3831)	
IPE-3863  (Parent JIRA IPE- 3857)	Cases that were suspended, are displayed as active in the work queues.
IPE-3862  (Parent JIRA IPE- 3828)	SQL statement 36 cannot execute successfully when the case number is 2500009010.
IPE-3856  (Parent JIRA IPE- 3858)	The SSOLITE Stored Procedure SW_UNPACKRELEASEID did not get the procedure information by using case number, even when the procedure's version was in delayreleaseid.
IPE-3851	If you tried purging cases with a million sub-cases, the background process returned a memory error.
IPE-3846  (Parent JIRA IPE- 3848, IPE- 3850, IPE- 3854)	If you used the wrong password when you logged in to TIBCO iProcess Workspace (Browser) the first time, and then used the correct password to log in, the following error occasionally occurred:  <i>client connection refused; too many clients</i>
IPE-3845	TIBCO iProcess Engine admin user was not notified when sw_error and sw_warn logs were created.
IPE-3838	When upgrading from TIBCO iProcess Engine 11.5 to 11.6, with "Upgrade files only" selected, the installation failed.

Defect #	Description
IPE-3833 (Parent JIRA IPE- 3920)	The sentinel could not be started by using the <code>swstart -p</code> command when UTF-8 was enabled and UTF-8 database was used.
IPE-3825	The EAI Database (EAIDB) could not build the parameter mapping in case of a numeric input parameter, and an integer value above the default maximum.
IPE-3824	The features of the <code>SE_WORKER_PORTNO</code> parameter could not be disabled when required.
IPE-3821	The <code>move_server</code> command failed when executed from secondary servers.
IPE-3799	The database scripts failed when upgrading TIBCO iProcess Engine to version 11.5.
IPE-3674	When a queue was created with a space in the queue name, the <code>swutil CLEANITEM</code> command failed.
IPE-3670	When you started TIBCO iProcess Engine, it logged the message <i>set param.sticky_sal to 1</i> despite manually setting up <code>STICKY_SAL</code> initially.
IPE-3669	TIBCO iProcess Objects Server crashed when getting the memo data.
IPE-3659	When a background process debug string of <code>ALL=255</code> was enabled, changing the <code>IAPJMS_SIMPLETOPIC</code> flag value in TIBCO iProcess Engine from 1 to 0 and back to 1 caused all background processes with debugging enabled to crash.
IPE-3598	TIBCO iProcess Objects Server's memory allocation increased rapidly and the server crashed when it was scanned for vulnerabilities by a third-party software.
IPE-3360 (Parent JIRA IPE- 4069)	The <code>sw_casenum</code> was not available in the first steps of the initial (init) script.

Defect #	Description
IPE-3275	The default configuration for EAI_MAIL cause the background process(BG) sockets to close and produce duplicate background processes.
IPE-2782	The Work Item Server (WIS) crashed when publishing the work queue delta message.
IPE-2750	Post upgrade from TIBCO Process Engine version 9.0 to TIBCO iProcess Engine version 11.1, a case could not be closed through the SSOLITE.SW_CLOSE case procedure.
IPE-2680	TIBCO iProcess Objects server set a hard-coded value (7) to the umask.
IPE-2556	The swentobjsv crashed if it received an LV message when the DB_ENABLED configuration parameter was set to 0.
IPE-2374	When trying to fetch the SAL session handle, if the number of SAL sessions went beyond 0xFFFF, the attempt to fetch the handle failed.
IPE-2240	Some Work Item Server (WIS) filter expressions for a range of numerics did not work. Example: <ul style="list-style-type: none"> <li>NUM2=[50 60 70] - Failed with a SAL System Error</li> <li>NUM2=[50] - Failed with SAL System Error</li> <li>NUM2=["50" - "100"] - Did not return an error but fails to return items as the "100" appears to get truncated as the field length is only 2,0</li> </ul>
IPE-2222	When multiple cases were released, some or all deltas did not have the CDQP data.
IPE-2049	If an anonymous user tried to attempt an LQ (list user queue) of a user's queue to which they did not have access, the thread became unresponsive in the "acquire_user" stage.
IPE-2005	When the user started a new case, the undelivered work items for the case were not displayed in the Outstanding tab.
IPE-1965	When upgrading TIBCO iProcess Engine, with the IPEINSTALL user being different

Defect #	Description
	from the IPESERVICE user, the engine failed to start as some file permissions were not set correctly.
IPE-1768	When upgrading from TIBCO Process Engine to TIBCO iProcess Engine, the upgrade process ended without any prompt, in case of warnings.
IPE-1657	The SQL statement which cached the case counts blocked the database.
IPE-1611 (Parent JIRA IPE- 4034)	The background process had a memory leak when an event was published.
IPE-1548	In an EAI Database step, when you tried to call a procedure, the step was not executed and the following error was returned.  <i>Invalid Step Definition: No Stored procedure name</i>
IPE-1523	The Work Item Server (WIS) went into a deadlock if the parameter WIS_NEW_ITEM_BATCH_SIZE was not 0 and if a new work item arrived for an undelivered or test queue that did not exist.
IPE-1340	In instances where the Oracle server had to be restarted, some data in the background process was lost. This did not allow the processes to resume normally when the server was restarted.
IPE-1332	User authentication failed due to conflict between TIBCO iProcess Engine APIs and Active Directory APIs.
IPE-1301	When a user was deleted, the user's queue directory under \$SWDIR/queues was not removed.
IPE-1141	In the server manager under section queue management, the failed count/failout value for the messages for any queue were not correct.
IPE-1097	If there was a network error when connecting to the LDAP server, TIBCO iProcess Engine did not execute automatic reconnect attempts.

Defect #	Description
IPE-1085	The change password (chgpwd) process got locked if TIBCO iProcess Objects Server wrote MON at the time of fork.
IPE-1030	swadm and swconfig printed misleading messages on startup.
IPE-1029	The deadline tab for EAI Step Definitions was not disabled for non-delayed releases.
IPE-966	The case description was not updated in the CASE_INFORMATION field when the setCaseData () call was used.
IPE-947	Add Java library path to catalina.sh for the tomcat bundled with TIBCO iProcess Engine.
IPE-903	Work item did not appear in the Test work queue.
IPE-879	When TIBCO iProcess Objects Server was paused or resumed, the swsvrmgr did not show the correct server status until the server received a new TCP package.
IPE-841 (Parent JIRA IPE- 3880)	There was a timing issue between the background (BG) process and the Work Item Server (WIS) process which updated the staffo table. This resulted in the staffo entries with the locker column set but no locked bit set or expired auto-withdraw deadlines which did not let the Work Item Server (WIS) cache when deadlines recalculated.
IPE-797	swinstall failed to identify missing "command not found".
IPE-745	The sal_xpc_list_filter_cases () function did not handle expressions with OR correctly.
IPE-690	The IAP monitor did not fully support the field in which an array was defined.
IPE-167	The LDAP configuration or synchronization behavior was inconsistent when a user with an invalid MENUAME existed.

Defect #	Description
IPE-112	<p>If an EAIDB stored procedure returned an output parameter that had a null value, the following error occurred and the EAIDB step failed.</p> <p><i>sw_warn:</i></p> <p>2010/08/25 16:27:08.027943(BG:2:18413:2:EAIDB1:2552:DB1:pro:/proeai.c:81845:3601): 1869-Procedure:EAIDB1 EAI Step:DB1 Case:2552 EAI plug-in EAIRun_Call() failed, error: SQL_SYS_ERR - MS-SQL error code :-99999 - [IBM][CLI Driver] CLI0110E Invalid output or indicator buffer specified. SQLSTATE=22002</p> <p>2010/08/25 16:27:08.195189 (BG:2:18413:0:EAIDB1:2552:DB1:pro:/cplmain.c:81512:2388): 1631-WARNING: &lt;CPLInstruction - Error&gt; &lt;-2&gt; &lt;RELEASE&gt; &lt;RELEASE^sw111db2a^5:0.7^1^sw111db2a,swadmin,5102,sw111db2a^2552^2552^sw111db2a^swadmin^S1^Step1^3^25/08/2010^16:27^5102^sw111db2a^swadmin^1^&gt;</p> <p>2010/08/25 16:27:08.195243 (BG:2:18413:2:EAIDB1:2552:DB1:pro:/swbgmbd.c:82103:1113): 1864-Transaction failure : Reason code = -2</p>

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Defect #	Description
IPE-3640 (Parent JIRA IPE-3626)	If you specified a different value for the SW_CP_VALUE property other than the Priority property in the <b>Input</b> tab of the iProcess Complete Delayed Release activity, the message priority was not changed to the value specified in the SW_CP_VALUE property after completing the delayed release.
IPE-3687	TIBCO iProcess Objects Server crashed when multiple threads concurrently called the UVAPI interface.
IPE-3698	The status of the WISMBD process was not correct when WIS processes were suspended and the WISMBD process was stopped.

Defect #	Description
IPE-3700 (Parent JIRA IPE- 3681)	When the BG process was used to publish audited activity messages to the IAPJMS process, the IAPJMS process spent a lot of time looking up a dynamic JMS topic; therefore, both the IAPJMS process and BG process worked very slowly.
IPE-3710 (Parent JIRA IPE- 3707)	When you use the <b>swutil EVENT</b> command with an abox file to update field data, if the abox file contained a numeric field and the value of this field contained a leading zero with no decimal point, after updating, the leading zero in the value was removed and replaced with a decimal point behind the value in the database table. For example, if the original value was "09", the value in the database table was updated to ".9".
IPE-3720	When starting a case and executing a graft step use an sw_graft stored procedure or an iProcess Server Objects application, if the <b>auto-purge</b> option was enabled for the graft sub procedure, an error was returned to iProcess Workspace (Browser).
IPE-3741	The RPC_POOL process crashed when releasing an unreleased procedure that had configured case deadlines.
IPE-3753 (Parent JIRA IPE- 3692)	When multiple users attempted to log in to TIBCO iProcess Objects Server through different client applications (.net/java), a "No response from SPO Server" error message was displayed for certain users.
IPE-3754 (Parent JIRA IPE- 701)	Failed to upgrade an iProcess Engine node, if multiple iProcess Engine nodes with similar names, such as wx1234,wx12345, and wx12356, were installed on a machine.
IPE-3757 (Parent JIRA IPE- 3691)	If TIBCO iProcess Engine client connected to TIBCO iProcess Objects Server that had already exited, and it did not close the connection to TIBCO iProcess Objects Server, TIBCO iProcess Objects Server might crash.

Defect #	Description
IPE-3758	An error occurred by using the <b>save as &gt; new procedure</b> option to rename a procedure.
IPE-3759	The BG process crashed when running the SSOLITE stored procedure that contained graft steps.
IPE-3795	The standard file descriptor (for example, 0, 1, 2) was used in the RPC depository.

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Defect #	Description
IPE-701	When you used the <code>swstart</code> script located in the <code>\$WDIR/bin</code> directory to start all the server processes in a node cluster, if multiple nodes had similar names, the server processes did not start.
IPE-3141	The <code>step_addr</code> column of the <code>predict</code> table displayed <code>NOADDR</code> when a new user was added to TIBCO iProcess Engine.
IPE-3389	When installing TIBCO iProcess Engine, if the name and password of DB Schema Owner were not contained in the <code>passwd</code> file located in the <code>/etc</code> directory, the following error messages were displayed:  <pre>Checking DB connectivity and users... DB2 User (&lt;user_name&gt;) must be a member of the &lt;group_name&gt; group Press Enter to continue:</pre>
IPE-3390 (Parent JIRA IPE- 3326)	After starting TIBCO iProcess Engine, the <code>DBQD</code> process was continually logging entries into the <code>DBQD_1_stdout</code> log file, which was located in the <code>\$WDIR/logs/process/etc</code> directory.
IPE-3393	When using SSOLite stored procedures to start a case, the following error message was displayed:



Defect #	Description
	AliasControlDAO - Unable to populate sequence!
IPE-3394	When installing iProcess Engine, if you used JBoss EAP 6.1.0 as the JMS provider, the configuration information written to the <code>iapjms_classpath.properties</code> file that was located in the <code>\$SWDIR/etc</code> directory was incorrect.
IPE-3395 (Parent JIRA IPE- 3309)	After importing procedures through the XML Process Definition Language (XPDL) file, the access control on the library containing the imported procedures was reverted to the default settings.
IPE-3396	When calling the <code>triggerEvent()</code> method, TIBCO iProcess Objects Server process did not unlock the procedure cache if an error occurred.
IPE-3399	When you used TIBCO iProcess Objects Server process to cache a specified version of the procedure definition that did not exist in TIBCO iProcess Engine, the following error message was displayed in TIBCO iProcess Objects Server log file:  SPO did not unlock every read/write lock.
IPE-3400	When importing a procedure library by using the <code>swutil IMPORTLIB</code> command for the second time, if the description of the procedure exceeded 24 characters, the importing of the procedure library failed.
IPE-3414	When you use the <code>swsvrmgr START_NEW</code> command to start a new instance of the BG process, the Process Sentinels crashed.
IPE-3416	The following functions are introduced to manage system events: <ul style="list-style-type: none"> <li>• Enable system events logging</li> <li>• Audit system events</li> <li>• Publish system events</li> <li>• Query information about system events</li> <li>• Turn off system events</li> <li>• Import configuration files of system events into iProcess Engine</li> </ul>

Defect #	Description
	<ul style="list-style-type: none"> <li>Export configuration information of system events to a command line</li> </ul> <p>See <a href="#">System Events Management (IPE-3416)</a>.</p>
IPE-3421	When starting a case that contained a numeric field in iProcess Engine 11.4.1, if the NLS_LANG parameter was set to en_US and the decimal separator in the numeric field was set to the period character rather than the comma character, a warning message was displayed in the sw_warn file.
IPE-3424	A closed case was not opened by using SSOLite stored procedures.
IPE-3425	<p>After successfully caching a version of a procedure definition by using iProcess Objects Server process, the following error message was displayed in TIBCO iProcess Objects Server log file:</p> <pre>g_proc_cache_rwlock was read-locked. cache_the_procedure() SEO_node_namefind() failed.</pre>
IPE-3436	TIBCO iProcess Objects server process unlocked the read and write lock before locking the process cache.
IPE-3437 (Parent JIRA IPE-3380)	When running a script, which called the markfieldchanged function, to release work items, the work items were locked.
IPE-3441 (Parent JIRA IPE-3417)	When calling the GetNextDeltaItem() method to retrieve a new or modified work item from a work queue, the error message "invalid format of delta details from SAL" was recorded in TIBCO iProcess Objects Server log file.
IPE-3445	When deploying a procedure in TIBCO Business Studio, the procedure inherited the access control settings of the deployer, instead of the predefined access control settings from the procedure library.
IPE-3455	Add the sqloptim file, which is located in the SWDIR/etc directory, to optimize SQL statements execution.

Defect #	Description
	See <a href="#">Optimize SQL Statements Execution (IPE-3455)</a> .
IPE-3458	After upgrading TIBCO iProcess Engine from 11.1.1 to 11.4.1, the swdefs file was not successfully generated.
IPE-3459	When specifying values for fields in the case_data table, if <b>Support Unicode Encoding</b> was enabled and the length of the values exceeded the predefined size, the values were not truncated before they were stored in the table.
IPE-3463	When you use the swutil PROC RELEASE command to release a version of a procedure with the -M ALL option, if the required libraries and the EAI plug-in were not loaded because of an EAI failure, the specified version of the procedure was released, but all the active cases were not migrated to the new version.
IPE-3467	After forwarding work items to another queue, the Arrival-time attribute was not displayed correctly.
IPE-3468	Reduce the average time for a user to log in to TIBCO iProcess Engine node with many user groups and users created.  See <a href="#">Reduce Log in Time (IPE-3468)</a> .
IPE-3472	Add the MN_UNLOCKER process attribute to define who can have the permission to unlock work items.  See <a href="#">Unlock Work Items (IPE-3472)</a> .
IPE-3473	Add the WRITELOG function to write messages to log files.  See <a href="#">WRITELOG Function Introduced ( IPE-3473)</a> .
IPE-3476	Add support for defining the maximum size of log files.  See <a href="#">Define the Maximum Size of Log Files (IPE-3476)</a> .
IPE-3477	Add the WARN_ERROR_LOG_SIZE process attribute to define the maximum size of the sw_warn and sw_error log files.  See <a href="#">Define the Maximum Size of the sw_warn and sw_error Log Files (IPE-3477)</a> .

Defect #	Description
IPE-3480	Add the requestid as the unique identifier for each work item.  See <a href="#">Work Items Are Unique to Users (IPE-3480)</a> .
IPE-3486	When triggering a graft step, TIBCO iProcess Objects server crashed.
IPE-3491	When you use the SW_JUMPTO procedure to have a case jumped from its current step to another step in the sub-procedure if the case tag contained the main procedure name and the withdraw list was set to the asterisk (*) wildcard, the transaction failed and an error message was displayed in the sw_error file.
IPE-3496	The participation data within the WQS process was not unlocked after it was locked.  Monitor logic is added in the WQS process to accurately trace the locations where participation data is locked.
IPE-3497	The sw_partic_unlock_external() method was called to unlock a locker that was not created in the participation data.
IPE-3498	The sw_partic_unlock_external() method was not called to unlock a locker after the locker was created in the participation data.
IPE-3513	Change field data type in the database.  See <a href="#">Change Field Data Type (IPE-3513)</a> .
IPE-3536	Add the W_DELAYED_RELEASE_ERR stored procedure in the database and system-defined error message in the audit trail to trace delayed-release.  See <a href="#">Delayed Release Has Been Enhanced (IPE-3536)</a> .
IPE-3537	When installing TIBCO iProcess Engine, if you specified an incorrect password for the database user, no warning messages were displayed until the installation failed.
IPE-3538	When starting the iProcess Objects Server (SPO) process, the memory was rapidly consumed.

Defect #	Description
IPE-3588	When migrating only live cases from swutil by running the <code>swutil PROC RELEASE -M</code> command, all cases (including close cases) were migrated.
IPE-3615	When the <code>MakeProc</code> function was called to return the minor version of a released procedure, if the major version and minor version parameters were both set to <code>-1</code> in the function, an incorrect procedure version was returned.
IPE-3627	Upgrade Java 1.7 to new versions on the following platforms of iProcess Engine: <ul style="list-style-type: none"> <li>Windows, Linux, and Solaris: 1.7.0.75</li> <li>HP: 1.7.0.11</li> <li>AIX: 7.0.0.195</li> </ul>
IPE-3629	When you use the <code>trigger event</code> function in a script step to change the value of a memo field, if the new value of the memo field exceeded 4096 characters, the memo data stored in the memo table was incorrect.
IPE-3641	When completing a delayed-release in TIBCO ActiveMatrix BusinessWorks, if the <code>SW_CP_VALUE</code> field was set to a value, the value of the message priority in TIBCO iProcess Engine was not changed.
IPE-3642	TIBCO iProcess Engine failed to insert the outstanding workitems information into the <code>outstanding_addr</code> table.
IPE-3650	Upgrade Tomcat to version 7.0.59.

# Restrictions

The table lists the known restrictions in this release.

Key	Summary and Workaround
IPE-3113	<p><b>Summary</b> An error occurs when loading XPDL for a procedure library with any new functionality into iProcess Workspace (Windows), if the procedure library is saved as XPDL from a later version of TIBCO iProcess Engine, and loaded into an earlier version of TIBCO iProcess Engine.</p> <p><b>Workaround</b> TIBCO does not recommend that you import procedures, which are exported from a later version of TIBCO iProcess Engine to an earlier version of TIBCO iProcess Engine.</p> <p>For more information, see <i>TIBCO iProcess swutil and swbatch Reference Guide</i>.</p>
MR 40988	<p><b>Summary</b> When a procedure is exported to an XPDL file from TIBCO iProcess Workspace (Windows), no list or table information is included.</p> <p><b>Workaround</b> None.</p>
MR 35194	<p><b>Summary</b> The iProcess Server Manager does not support language translation.</p> <p><b>Workaround</b> None.</p>
CR 19520	<p><i>This applies to the iProcess Engine (DB2) for Linux only</i></p> <p><b>Summary</b> When <b>Setup</b> reaches the <b>Database Connection and Account Details</b> dialog box, the password information for the database users is automatically filled in. However, the dialog box uses the default passwords, not the passwords that have been set for the database users on the operating system.</p> <p><b>Workaround</b> You must reset these passwords to be the same as the passwords set for the database users on the operating system.</p>
CR 19010	<p><b>Summary</b> If the WIS process handles an update event (such as, from a</p>

Key	Summary and Workaround
	<p>\$SWDIR/bin/swutil <b>EVENT -p</b> \bin\swutil <b>EVENT -p</b> command) while a user has a work item open, the <b>Case Description</b> and <b>WQ Parameters</b> revert to the values they had before the update when the work item is kept.</p> <p><b>Workaround</b> None.</p>
CR 18799	<p><b>Summary</b> If lots of MOVESYSINFO operations are being performed by BG processes, then the other processes that must recache the user/group information might fail due to becoming deadlocked.</p> <p>It is also possible that the caching process might load group membership or attribute values that do not match the attributes or queues loaded. This is because the caching process would first load the queues, then the attributes, and finally the attribute values. If a MOVESYSINFO changed the attribute values before they were loaded then they might not match the attributes that were loaded before the MOVESYSINFO.</p> <p><b>Workaround</b> Once all operations have been completed, modify the user/group area and perform one last MOVESYSINFO.</p>
CR 18631	<p><b>Summary</b> If you have an outstanding test mail item for an unreleased procedure and you delete the step from the procedure that the outstanding mail refers to, the test mail item can no longer be accessed. This is to be expected as the step has been deleted from the procedure. However, if you then purge the case for this inaccessible step the case is purged but the item is never removed from the message queue.</p> <p><b>Workaround</b> Clean up the item by using the swutil CLEANITEM command.</p>
CR 18614	<p><b>Summary</b> When a user logs in to the iProcess Workspace (Windows) test queues are not displayed in Work Queue Manager. This is because the user's personal work queue (from which the test queues are created) has not been cached yet.</p> <p><b>Workaround</b> If a new work item is sent to a test queue this causes the <b>Rebuild List</b> button to appear. Alternatively, the user can select their personal work queue and press <b>F5</b>. This also causes the <b>Rebuild List</b> button to appear. Clicking <b>Rebuild List</b> displays the test queues.</p>

Key	Summary and Workaround
CR 18361	<p data-bbox="399 296 1382 363"><b>Summary</b> Performance on AIX systems can be very slow when opening cases from a queue.</p> <p data-bbox="399 396 1393 546"><b>Workaround</b> If the SERVERRUN function is being used frequently in one or many procedures, the <code>\$SWDIR/lib/fil.so</code> file must be "pinned" into the AIX Shared Memory, by ensuring that all users have read and execute permissions on the file. To do this, use the command</p> <pre data-bbox="399 575 800 602">chmod 555 \$SWDIR/lib/fil.so</pre>
CR 17603	<p data-bbox="399 653 1406 720"><b>Summary</b> The J2EE standard supports the use of different security credentials (username and password) for JNDI InitialContext and JMS connections.</p> <p data-bbox="399 753 1325 861">However, in this version of iProcess Engine, you can only define a single username and password for the <b>IAPJMS</b> process. The process uses these credentials for both JNDI InitialContext and JMS connections.</p> <p data-bbox="399 894 1369 1081">Note that the <b>IAPJMSConnect.SecurityPrinciple</b> property defines the username. The <b>IAPJMSConnect.SecurityCredentials</b> property defines the password. Both properties are defined in the <b>iapjms.properties</b> file. See Chapter 9, “Administering Activity Monitoring”, in the TIBCO iProcess Engine Administrator’s Guide for more information.</p> <p data-bbox="399 1115 651 1142"><b>Workaround</b> None.</p>
CR 17466	<p data-bbox="399 1192 1409 1344"><b>Summary</b> If you use iProcess activity monitoring, Monitor Event Detail (MED) messages with <b>ActivityIDs 16, 19, 20, 25, 26, and 28</b> do not display the name of the audit user in the <b>&lt;AuditUser&gt;</b> element. Instead, they display information that depends on the particular message.</p> <p data-bbox="399 1377 1409 1484">For example, when a sub-procedure is started a MED message with <b>ActivityID = 16</b> is generated. The <b>&lt;AuditUser&gt;</b> element in this case shows the SubCaseID of the sub-case that has been started, not the name of the audit user, as shown .</p> <pre data-bbox="431 1530 1360 1726"> &lt;AuditMessage&gt;Sub-Case started from "SUBCALL1"&lt;/AuditMessage&gt; &lt;AuditStep Name="SUBCALL1"&gt;   &lt;Description&gt;SUBCALL1&lt;/Description&gt;   &lt;AuditDate Microseconds="545547"&gt;2005-08- 24T14:57:56&lt;/AuditDate&gt;   &lt;AuditUser&gt;iPEPublication4:SUBPROC:1:201:201&lt;/AuditUser&gt; </pre>



Key	Summary and Workaround
	<div data-bbox="431 317 613 344" data-label="Text"> <pre>&lt;/AuditStep&gt;</pre> </div> <div data-bbox="399 407 1409 478" data-label="Text"> <p><b>Workaround</b> None. If you require additional information about the contents of the &lt;AuditUser&gt; element for one of these messages, contact TIBCO Support.</p> </div>
CR 16946	<div data-bbox="399 527 1398 716" data-label="Text"> <p><b>Summary</b> The iProcess Engine uses the SHMKEY_ID process attribute value when building the UNIX shared memory key that is allocated when the WQS process is started. If a shared memory conflict occurs, resulting in the WQS process being unable to start, you can change the SHMKEY_ID value to resolve the problem.</p> </div> <div data-bbox="399 747 1398 856" data-label="Text"> <p>However, changing the value of the SHMKEY_ID process attribute has no effect in this version of the iProcess Engine. You cannot use SHMKEY_ID to resolve shared memory conflicts.</p> </div> <div data-bbox="399 888 1409 959" data-label="Text"> <p><b>Workaround</b> See <a href="#">CR 16945</a> on <a href="#">CR 16945</a> for more information about alternative ways of resolving shared memory conflicts.</p> </div>
CR 16945	<div data-bbox="399 1008 1398 1157" data-label="Text"> <p><b>Summary</b> If the WQS process (or other iProcess Engine process) cannot obtain a shared memory segment when the iProcess Engine attempts to start, startup fails. Error messages <b>1974</b> and <b>1975</b> are written to the \$SWDIR/logs/sw_error file, such as,</p> </div> <div data-bbox="431 1203 1344 1400" data-label="Text"> <pre>2005/02/15 16:51:48 (WQS:1:18218:1:swadmin:/wqsindex.c:7.21:566): 1974-Failed to get shared memory handle for WQSINDEX 2005/02/15 16:51:48 (WQS:1:18218:1:swadmin:/wqsindex.c:7.21:677): 1975-WQS initialize failed, connected to shared memory for</pre> </div> <div data-bbox="399 1463 1398 1572" data-label="Text"> <p><b>Workaround</b> For more information about how to resolve this problem, please see the description of these errors in the <i>iProcess Engine System Messages Guide</i>. Note that:</p> </div> <div data-bbox="456 1600 1386 1761" data-label="List-Group"> <ul style="list-style-type: none"> <li>You can force the iProcess Engine to obtain a new shared memory key when it starts up. To do this: Move the <b>/var/tmp/nodename</b> directory (where nodename is the nodename of this iProcess Engine) to another location on the same</li> </ul> </div>

Key	Summary and Workaround
	<p>physical partition of the file system, such as, <code>/var/tmp/old/nodename</code>.</p> <p>Restart the iProcess Engine. The iProcess Engine must obtain a different shared memory key, allowing it to start successfully.</p> <ul style="list-style-type: none"> <li>• If you set debugging for the WQS process, the <b>shmget</b> call returns error code <b>22</b>.</li> <li>• Changing the value of the SHMKEY_ID process attribute has no effect in this iProcess Engine version. This is because of a current restriction in the product - see <a href="#">CR 16946</a> on <a href="#">CR 16946</a> for more information.</li> </ul>
CR 16924	<p><b>Summary</b> If the LD_LIBRARY_PATH environment variable contains Oracle libraries and DB2 libraries, and the Oracle libraries are listed first, the iProcess Engine will try to use the Oracle libraries instead of the DB2 ones. The iProcess Engine will therefore fail to start on DB2.</p> <p><b>Workaround</b> To avoid this problem, make sure that the DB2 libraries are listed in front of the Oracle libraries in LD_LIBRARY_PATH before you start the iProcess Engine.</p>
CR 16878	<p><b>Summary</b> Filtering a view of a case via TIBCO iProcess Objects Server with a filter expression that uses a Question mark (?) or Asterisk (*) wildcard character to match against SW_CASEREF causes an error. A 'SAL System Error' message is returned to TIBCO iProcess Objects (COM).</p> <p><b>Workaround</b> None.</p>
CR 15531	<p><b>Summary</b> Adding a numeric user attribute with decimal places creates an attribute with 24 Characters and no decimal places.</p> <p>This happens if the attribute is added by using the iProcess Administrator or via <code>\$SWDIR/bin/\bin\swutil USERINFO</code>. For example, if you add a numeric attribute with length 10.2, it is created as a numeric attribute with length 24.0.</p> <p><b>Workaround</b> None.</p>
CR 15311	<p><b>Summary</b> The following fields do not appear in the <b>Available Fields</b> list of fields in the <b>Inputs</b> or <b>Outputs</b> tab for iProcess Engine plug-ins:</p> <ul style="list-style-type: none"> <li>• SW_IP* Fields</li> </ul>

Key	Summary and Workaround
	<ul style="list-style-type: none"> <li>• SW_STEPNAME</li> <li>• SW_STEPDESC</li> </ul> <p><b>Workaround</b> None.</p>
CR 14598	<p><b>Summary</b> When you map sub-procedure output parameters to main procedure fields, you can define a private <b>Output Mapping</b> script that runs after all the mappings have been performed (for example, to perform additional field manipulation). These output mapping scripts are ignored when performing case prediction.</p> <p><b>Workaround</b> None.</p>
CR 14597	<p><b>Summary</b> If a memo field is defined as an input or output parameter for a sub-procedure, it is ignored when performing case prediction - no data is passed for the field.</p> <p><b>Workaround</b> None.</p>
CR 14225	<p><b>Summary</b> When viewing cases, filter criteria that use the Question mark (?) (such as SW_CASENUM ? "2") or regular expressions use the same character (SW_CASENUM ? "1234?") fail.</p> <p><b>Workaround</b> Use one of the following two workarounds:</p> <ul style="list-style-type: none"> <li>• Use the Equal sign (=) instead, such as, SW_CASENUM = "2", or</li> <li>• Use an Asterisk (*) wildcard character in the regular expression, such as "1234*". This succeeds, but produces a wider range of results than the ? character must; any case number that starts with 1234 matches.</li> </ul>
CR 12037	<p><b>Summary</b> You must not use any of the following special characters when naming new groups, roles, lists or tables:</p> <p>" \ / [ ] : ;   = , + * ? &lt; &gt; @ \0 "</p> <p><b>Workaround</b> None.</p>
CR 12024	<p><b>Summary</b> When adding a group into the LDAP directory, if the group name is longer than 11 characters, the following information is displayed in the sw_warn</p>

Key	Summary and Workaround
	<p>log file:</p> <p>The length of the group name is limited to 15 characters.</p> <p><b>Workaround</b> None.</p>

# Known Issues

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The following issues exist in this release of TIBCO iProcess Engine.

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## Summary and Workaround

**Summary** LDAP over SSL is not working. No problem with non-SSL LDAP.

**Workaround** None.

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**Summary** On SUSE Enterprise Linux 11, RPC portmapper service is started by rpcbind by default, which causes TIBCO iProcess Engine to fail to start.

**Workaround** Switch to *portmap* to start RPC services by following these steps:

1. Run `/etc/init.d/rpcbind stop` to stop RPC services.
2. Get the portmap RPM installation file from SUSE Enterprise Linux 11 installation disk and install portmap.
3. Run `/etc/init.d/portmap start` to start RPC services.

Then, the iProcess Engine can start successfully.

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**Summary** The `PM_AUTO_BOOT` parameter must not be set in a cluster of the TIBCO iProcess Engine nodes.

**Workaround** Follow these steps to set the `PM_AUTO_BOOT` parameter and start the cluster:

1. Set the `PM_AUTO_BOOT` parameter to `0`.
  2. Run `swstart -p` to start the sentinels on all nodes.
  3. Run `swstart` to start TIBCO iProcess Engine on any node.
- 

**Summary** If you select the option "User must change password at net logon" in Active Directory, and then sync to iProcess Engine, the user cannot log in to iProcess Engine.

**Workaround** None.

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**Summary** Operating system dates later than 31st December 2037 are not supported.

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**Summary and Workaround**

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Although designed to process dates up to the year 3000, the iProcess Suite has been modified - in the interests of data integrity - to shut down if the system date exceeds 31st December 2037.

The iProcess Suite uses the `time()` system call to get the system date and time. This call returns the system date and time as the number of seconds since midnight, 1st January 1970 as a signed integer (32-bits). This means that the `time()` function (which is commonly referred to as UNIX time) is unable to return a time beyond 19th January 2038, 03:14:07 UCT.

To protect the integrity of your iProcess installation, the iProcess Engine creates a file `$SWDIR/logs/sw_error/logs/sw_error` and shuts itself down if the system returns a date beyond 31 December 2037. Do not use operating system dates later than this. Potentially, ALL applications that use the time function are at risk beyond this date.

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**Summary** Same user logged on multiple times causes degradation/possible errors.

The same user logging on multiple times to the same iProcess Engine might result in performance degradation. iProcess Engine allows only one transaction to be processed at a time for users that are logged on multiple times to that server, resulting in slower processing.

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**Summary** Locking work items.

The SAL SDK allows long locking multiple times by the same user name. Consequently, in iProcess Engine, it is possible to lock the same work item from a work queue by using a different login session if there are two or more clients logged in as the same user name.

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**Summary** Text field attribute lengths stored in multiples of 24.

All attributes except for text fields are set to a length of 24 if a length is not specified or if some length (up to 24) is specified. Decimal places are not stored.

For text fields, length is set to 24 if no length is specified. If a length is specified, the actual length is the next multiple of 24, up to the maximum length of 255. For example, creating a text field 25 characters long results in the field being 48 characters long.

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**Summary** Audit filtering limitations on sub-cases.

When specifying an audit filter for a sub-case, or a parent case that contains a sub-case, the following limitation applies. If your filter criteria do not match the sub-case started audit entry in the parent case, no audit entries are returned for the sub-case, regardless of whether the

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### Summary and Workaround

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filter criteria matches audit entries of the sub-case.

The workaround for this is to specify the following in your AuditFilterExpr filter expression:

```
FILTER_FLAGS=[AF_ALL_SUBSTART]
```

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## Other Information

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### Clearing the **sw\_subscription\_list** Table

If you use the operating system **kill** command to terminate the (worker and watcher) process sentinel processes, or if the iProcess Engine crashes, rows may be left in the **sw\_subscription\_list** database table. This table is used by the iProcess Engine event daemon (which is provided by the watcher process sentinel process).

The following utilities use events, and use the **sw\_subscription\_list** database table to determine whether or not they must initialize a connection to the event daemon:

- **\$SWDIR/bin/swutil** (**pstaffer** and **stafffc**)
- **\$SWDIR/util/swadm**
- **\$SWDIR/util/swcdata**
- **\$SWDIR/util/sweaireg**

If you try to use one of these utilities while the iProcess Engine is not running *and* while the **sw\_subscription\_list** database table is not empty, the utility will attempt to create an RPC connection to the watcher process. Because the watcher process is not running:

- the utility will be unresponsive and then timeout, and
- error messages with message identifier 1903 may be written to the **\$SWDIR/logs/sw\_warn** or **\$SWDIR/logs/sw\_error** file. For example:

```
Failed to connect to the RPC Event Daemon after n attempts.  
SWRPCEV RPC Program Not Registered.
```

To avoid this problem, you must manually clear the contents of the **sw\_subscription\_list** database table before trying to use one of these utilities or restarting the iProcess Engine.



## Use \$SWDIR/util/plist

You can use the `$SWDIR/util/plist X\util\plist X` option to provide backward compatibility with Staffware 2000. For example, use `plist -pv` does not report counts, but you can use `plist -pvX` to specify Staffware 2000 compatibility so that counts are derived. Enter `$SWDIR/util/plist\util\plist` at the command line to display a full list of options.

## Number of File Descriptors per Process

The TIBCO iProcess Engine must be started with a sufficient number of available file descriptors per process based on the number of users. This is specified in the iProcess Engine using the NumFiles configuration parameter.

It is very difficult to know exactly how many files per user will be needed for the iProcess Engine since this number will vary depending on a number of factors that are unique to each site's procedures and transactions. The number of files could be as low as 4 files per user, but would not likely go above 12 files per user in a standard configuration. In addition, the iProcess Engine will use up to an additional 50 files independent of the number of users. Based on 1,000 users, the iProcess Engine would open somewhere from 4,050 to 10,150 files.

When the iProcess Engine is started, it attempts to set the number of files from the default number to the maximum number allowed. The default value can be displayed with the `ulimit -n` or `ulimit -Sn` commands ("S" indicating the "soft" or default limit). The maximum value can be displayed with the `ulimit -Hn` command ("H" indicating the "hard" or maximum limit).

The following formula can be used as a guideline to determine the number of file descriptors you need:

$$(12 * \text{Number of users}) + 100$$

For a default configuration, the default number of users is 1024, which means the upper file limit must be 12388  $((12 * 1024) + 100)$ .

The TIBCO iProcess Engine must be started by the background user (which defaults to "pro"), but only the superuser ("root") can increase the maximum ulimits. If the current per process maximum file limit is less than the number needed, either the number of open files per process must be raised for the entire system, or the root user can start a shell,

increase the file limits for that shell, and then "su" to the background user. (The name of the background user is listed on the second line of the \$SWDIR/swdefs file.)

It is *highly* recommended that the file limit be set as high as possible since the iProcess Engine will immediately exit if there are no more file descriptors available. Running the command `ulimit -n unlimited` will set the file limit to the operating system design limits. This command will only be successful if the system limits allow this.

## Must Normalize Case Data to View Cases

When you install iProcess Engine, there is a check box in the Configuration window that is used to enable a feature called CaseData Normalization. If you use an application developed with iProcess Objects or iProcess Server Objects, you *must* enable case data normalization. If it is not enabled, cases do not appear in the case list.

Case data normalization can be enabled during the installation or at a later time by using the Case Data Normalization utility, `swnormcd`.

For more information about case data normalization and how to use `swnormcd`, see *TIBCO iProcess Engine Administrator's Guide*.

## Upgrading from Earlier Version Might Cause Error Messages in Log File

Upgrading from an earlier version of iProcess Engine to version i10.0 (0.0) or later might cause error messages similar to the following error messages to appear in the iProcess Engine log file:

```
ERROR|error in sal_pver_audlist procname($EMAIL) err(0) curridx(1)
```

```
ERROR|error in sal_pver_audlist procname($SYSTEM) err(0)
curridx(1)
```

```
ERROR|error in sal_pver_audlist procname(CARPOOL) err(0)
curridx(1)
```

These messages are a result of the upgrade, but an error has not occurred. Disregard the messages.

# TIBCO Documentation and Support Services

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For information about this product, you can read the documentation, contact TIBCO Support, and join TIBCO Community.

## How to Access TIBCO Documentation

Documentation for TIBCO products is available on the [Product Documentation website](#), mainly in HTML and PDF formats.

The [Product Documentation website](#) is updated frequently and is more current than any other documentation included with the product.

## Product-Specific Documentation

The documentation for this product is available on the [TIBCO iProcess® Engine Product Documentation](#) page.

## How to Contact Support for TIBCO Products

You can contact the Support team in the following ways:

- To access the Support Knowledge Base and getting personalized content about products you are interested in, visit our [product Support website](#).
- To create a Support case, you must have a valid maintenance or support contract with a Cloud Software Group entity. You also need a username and password to log in to the [product Support website](#). If you do not have a username, you can request one by clicking **Register** on the website.

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