



WebSphere Product Center Release Notes for
Fix Pack 5.3.0.1

Note!

Before using this information and the product it supports, read the information in “Notices” at the end of this document.

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This edition of this document applies to WebSphere Product Version, version 5.3.0.1, and to all subsequent releases and modifications until otherwise indicated in new editions.

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1. Overview

This document addresses enhancements, product fixes, installation instructions, and other updated information for WebSphere Product Center Fix Pack 5.3.0.1

The following features were the main drivers for the delivery of this fix pack:

- Product fixes – Refer to Section 2.1
- Script compilation executed in compiled_only mode– Refer to Section 2.2
- Several performance enhancements to Portal
- Several performance enhancements merged from a previous releases:
 - 1) Improvements to item save and synchronization mechanism
 - 2) Search query optimization
 - 3) Lazy initialization of objects
 - 4) Object batching
 - 5) Improved script caching
 - 6) Improvements to mount manager
- **Note: Schema migration is required for this Fix Pack. Refer to Section 4.1.1**

1.1 Fix Pack requirements

WebSphere Product Center 5.3 must be installed prior to the application of Fix Pack 5.3.0.1

2. Product Fix History

2.1 5.3.0.1 Product fixes

Tracking Number	Description
23046	"Select for update" is used to lock rows to perform some operations, but not in DB2
21524	Error with running getXMLRepresentation() script
22997	Some script operations run failed on script_execution_mode=compiled_only
21960	Can not login wpc as trigo after create schema -- pt_BR
23045	Spell checker button causes display glitches in various locales
23085	javascript error occurs when trying to upload an image from local drive that doesn't exist
23059	Decimal displays in left pane when specifying zero for integer
23060	Exception occurred when inputting "-0" for "integer"
23096	White column appearing in Multi edit page
23099	Catalog and Hierarchy Contents not being imported correctly if items or categories have a relationship attribute specified. (Refer to Section

	2.1.1 for additional details)
23032	Locale access for role should be exported
JR23789	Workflow engine is holding up sessions and using up memory. <i>Additional optional parameter 'boolean iMmutable' is introduced in the script op getSpecByName().</i>

2.1.1 Fix details for 23099

Changes to WPC Scripts:

The catalog import script `migration_catalog_content_relationship_import.script` should be updated with the content of `$TOP/src/db/scripts/common/import/migration.ctg.relationship.import.script` for the target company.

The Hierarchy Import script `migration_category_tree_content_relationship_import.script` should be create with the content of `/scripts/import/ctr/migration_category_tree_content_relationship_import.script` for the target company.

Migration of Relationship attributes:

Once the import of all the catalog and hierarchy content is over

The following shell script should be executed to import Relationship information

`$TOP/bin/ importRelationshipsAsCompany.sh`

This shell script accepts the following parameters

```
./importRelationshipsAsCompany.sh --company_code=<cmp_code> --zip_path=<zip path of the content zip> --temp_folder=<tmp folder>
```

company_code - The company code of the target company

zip_path – The content zip file path. (This command has to be run for each of the content zip files)

temp_folder – Used for extracting the content zip and doing the process for importing the relationship attributes, At the end the content of temp_folder/imprel53 folder will be deleted. (imprel53 is a subfolder under temp_folder where the zip contents will be unzipped for processing and deleted once the processing is complete).

2.2 Script Operations executed in compiled_only mode

Script Operations can be run in three different execution modes.

1. not_compiled
2. compiled_if_available
3. compiled_only

This can be set in common.properties using parameter **script_execution_mode**. Once this parameter is set to particular execution mode, all the script operations are executed based on the mode set. But this can be overridden by adding an additional line at the beginning of script

```
//script_execution_mode=[not_compiled | compiled_if_available | compiled_only]
```

If the execution mode is **not_compiled**, then the script operations are directly executed and results are displayed to the user.

If the execution mode is set to **compiled_only**, the script is first parsed and converted to a java class and put under \$TOP/tmp folder. This java class is then compiled and executed.

If the execution mode is **compiled_if_available** then if the script is already compiled, then the class file is used for execution, else the script is executed in **not_compiled** mode.

If the script_execution_mode is **compiled_only**, then these are the points need to be taken care before executing the script.

1. Script should be compatible with java standards

a. All variables should be declared in the script before using it.

For ex.

```
var line=0;
out.println("forEachLine(bufReader,aLine) is executed!");
forEachLine(bufReader,aLine)
{
out.println(line++ + ". aLine: " + checkString(aLine,""));
}
```

In the above script operation, variable **aLine** is not declared before it is used in **forEachLine()** script operation. This should be written as

```
var aline=null;
forEachLine(bufReader,aLine)
{
out.println(line++ + ". aLine: " + checkString(aLine,""));
}
```

b. Declaration of Array variables

Array variables should be declared properly before using it in the script operations.

For ex.

```
var sArray = [];
sArray[0][0] = "a";
sArray[0][1] = "b";
sArray[1][0] = "c";
sArray[1][1] = "d";
out.println("sArray --->"+sArray);
```

This files in compiled_only mode as sArray is declared as single dimension but used as two-dimension array.

This script should be re-written as

```
var sArray = [];  
sArray[0] = [];  
sArray[0][0] = "a";  
sArray[0][1] = "b";  
sArray[1] = [];  
sArray[1][0] = "c";  
sArray[1][1] = "d";  
out.println("sArray --->" + sArray);
```

c. Usage of While() script Operation

While() script operation is used to re-iterate the statements until the condition is satisfied. Under `not_compiled` mode, this can be used as `while(true)`, `while(false)` & `while(1)`. But in `compiled_only` mode, we cannot use `while(1)` as this is not compatible with java standards because only Boolean type parameter is accepted in while operation. Therefore only `while(true)` & `while(false)` can be used in `compiled_only` mode.

2. Global variables are not allowed

All variables should have local scope, as global variables are not supported in `compiled_only` mode.

For example:

```
var a = 10;  
function s()  
{  
    out.writeln(a);  
}  
s();
```

This script cannot be compiled as the scope for variable 'a' is not within function s(). This has to be re-written as

```
var a = 10;  
function s(a)  
{  
    out.writeln(a);  
}  
s(a);
```

3. Only script operations that provide a java implementation can be used. Those are marked in `$TOP/etc/default/gen/script_operations.xml` by `compilable="true"`.

3. Issues and limitations

This maintenance release contains the following known issues:

Tracking Number	Description
22729	moveEntriesToColArea not working in IN function of a workflow step
23083	When an invalid entry is typed into lookup table attribute, application reverts attribute without error warning upon save

4. Installation

This section provides general guidelines to apply a maintenance release to WebSphere Product Center. Some information may differ depending on the methods used for previous installations. Contact your support representative for WebSphere Product Center with any installation issues.

4.1 Pre-requisite for 5.3.0.1

4.1.1 Schema changes

This Fix Pack requires a schema change for DB2 and Oracle databases. Execute the following SQL scripts.

- Migration SQL for DB2: **lck_migration_db2.sql**: LCK Table migration for DB2
- Migration SQL for Oracle: **lck_migration_oracle.sql**: LCK Table migration for Oracle

Download the migration SQL from the following link:

http://www-1.ibm.com/support/docview.wss?rs=2006&context=SSNJBH&dc=D400&uid=swg24012886&loc=en_US&cs=UTF-8&lang=en

4.2 Preparation

Before attempting to apply the latest Maintenance Release to WebSphere Product Center, the following preparation is recommended:

4.2.1 Stopping the whole application on the local machine

Complete the following steps to stop the WebSphere Product Center instance:

1. Check the scheduler to make sure there are no critical jobs that need to be completed. If the queue is clear, kill the scheduler manually by running the following script:

```
$TOP/bin/go/stop/stop_scheduler.sh
```

2. Abort the entire application by running the following script:

```
$TOP/bin/go/abort_local.sh
```


All services running on the local machine is aborted. The RMI registry is aborted.

Note: Check to make sure all processes have stopped using the 'ps' command.

Kill off any rogue "java" or "rmiregistry" processes that remain after shutting down the instance. Occasionally, it may take several attempts to kill off all java processes. Continue killing all java processes until they are all dead.

4.2.2 Backup

- **Create a full backup of the current WebSphere Product Center directories before applying the Fix Pack. The Fix Pack will overwrite files that have changed. If any issues occur, the backup will allow a rollback to a previous version**
- **It is recommended to apply the Fix Pack to a test system to identify any issues before applying the Fix Pack to a production system**
- **Perform a full backup of the database before applying the Fix Pack to a production system**

Note: Do not delete the old WebSphere Product Center version until performing thorough testing with the new installation.

4.2.3 Delete Tomcat working directory

For configurations using Tomcat, delete the Tomcat working directory using the following command:

```
rm -rf $TOP/etc/default/tomcat33/webapps/ccd
```

Once the working directory has been deleted, restart the application server and apply the Fix Pack.

4.3 Apply Fix Pack

To apply the Fix Pack to WebSphere Product Center, complete the following tasks:

- Unpack tar file
- Run WebSphere Application Server script
- Update configuration files
- Test installation

4.3.1 Unpack tar file

Purpose: To extract and update any new installation files into the current working directory

Note: GNU tar is needed to untar the WebSphere Product Center files.

1. Copy the WebSphere Product Center tar file to the user or temporary directory.

Example:

```
{HOME_OF_WPC}/tarballs
```

2. CD to \$TOP, the current working directory, and unpack the tar file:

Example:

Using GNU tar, the following command extracts and unzips the tar file using an absolute path:

```
tar zxvf  
/home/WPC/tarballs/wpc_5001_03_fixpak_from_5000_15_was5_db2.tgz
```

4.3.2 Run WebSphere Application Server script

After unpacking the tar file in the previous section, ensure that the default server (server1) is running and run the following WebSphere Application script:

```
$TOP/bin/websphere/install_war.sh
```

Note: Ensure that the default server (server1) is running, as it is required for the WebSphere Application Server script to work. If needed, start the WAS default server by issuing the following command as root:

```
${WAS_HOME}/bin/startServer.sh server1
```

4.3.3 Verify configuration files

Verify all configuration files required by the new installation and make any updates as needed. Refer to the backup copy of the configuration files for the previous installation if needed.

- ❑ common.properties
- ❑ admin_properties.xml
- ❑ init_ccd_vars.sh

❖ **common.properties**

On startup, the system will use this file to read in all system level parameters. This file includes settings for the database layer (connection parameters), directory settings, default character sets, thread-pooling parameters, and other settings, which are documented in the file.

File location: \$TOP/etc/default

❖ **admin_properties.xml**

This file is used by the administrative utilities to configure clusters of the application.

File location: \$TOP/etc/default

❖ **init_ccd_vars.sh**

The initialization file is the shell script that initializes the shell variables used by the system.

File location: \$TOP/setup

4.3.4 Run analyze_schema.sh

Recommended: It is recommended to run the analyze_schema.sh script once a week or when there is a twenty percent or more increase/change of data in the database.

Location: \$TOP/src/db/schema/util/analyze_schema.sh

The optimizer uses the catalog tables from a database to obtain information about the database, the amount of data in it, and other characteristics. It then uses this information to choose the best way to access the data. If current statistics are not available, the optimizer may choose an inefficient access plan based on inaccurate default statistics.

Therefore, it is highly recommended that you use the analyze_schema.sh script to collect current statistics on tables and indexes, especially if significant update activity has occurred since the last time the analyze_schema.sh was executed. This provides the optimizer with the most accurate information with which to determine the best access plan. On WPC databases it is recommended to run the analyze schema at least once a week.

To run analyze schema in DB2, refer to the WPC technote: Analyzing schema and collecting statistics in DB2 - <http://www-1.ibm.com/support/docview.wss?uid=swg21205939>

To run analyze schema in Oracle, refer to the WPC technote: Analyzing WebSphere Product Center schema and collecting statistics in Oracle - <http://www-1.ibm.com/support/docview.wss?uid=swg21206376>

4.4 Test Installation

4.4.1 Start WebSphere Product Center

To start the WebSphere Product Center, execute the following script:

```
$TOP/bin/go/start_local.sh
```

The script starts all the services needed to run WebSphere Product Center.

Note: This process should take approximately 30-40 seconds, depending on the speed of the processor.

4.4.2 Check status

Run the `$TOP/bin/go/rmi_status.sh` script that was provided by WebSphere Product Center and verify the following services have started correctly.

- `admin_<machine name>`
- `appsvr_<machine name>`
- `eventprocessor`
- `queuemanager`
- `scheduler`
- `workflow`

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