

HPSA Extension Pack

Installation guide

Release V6.0



Legal Notices

Warranty.

Hewlett-Packard makes no warranty of any kind with regard to this manual, including, but not limited to, the implied warranties of merchantability and fitness for a particular purpose. Hewlett-Packard shall not be held liable for errors contained herein or direct, indirect, special, incidental or consequential damages in connection with the furnishing, performance, or use of this material.

A copy of the specific warranty terms applicable to your Hewlett-Packard product can be obtained from your local Sales and Service Office.

Restricted Rights Legend.

Use, duplication or disclosure by the U.S. Government is subject to restrictions as set forth in subparagraph (c)(1)(ii) of the Rights in Technical Data and Computer Software clause in DFARS 252.227-7013.

Hewlett-Packard Company United States of America

Rights for non-DOD U.S. Government Departments and Agencies are as set forth in FAR 52.227-19(c)(1,2).

Copyright Notices.

©Copyright 2001-2012 Hewlett-Packard Development Company, L.P., all rights reserved.

No part of this document may be copied, reproduced, or translated to another language without the prior written consent of Hewlett-Packard Company. The information contained in this material is subject to change without notice.

Trademark Notices.

Java™ is a trademark of Oracle and/or its affiliates.

Linux is a U.S. registered trademark of Linus Torvalds

Microsoft® is a U.S. registered trademark of Microsoft Corporation.

Oracle® is a trademark of Oracle and/or its affiliates.

UNIX® is a registered trademark of the Open Group.

Windows® and MS Windows® are U.S. registered trademarks of Microsoft Corporation.

All other product names are the property of their respective trademark or service mark holders and are hereby acknowledged.

Document id: EP-pd001701

Table of Contents

1 Introduction	8
1.1 Definitions	8
1.1.1 Acronyms	8
2 Prerequisites	9
3 Extension Pack installation.....	10
3.1 IPv6 and IPv4.....	10
3.2 Oracle Real Application Cluster (RAC).....	10
3.3 EP Installation Process	10
3.3.1 Javacvs.jar file installation	10
3.4 Installation example	11
4 Manual Deployment	14
4.1 ECP	14
4.2 Lock Manager.....	14
4.3 SOSA	15
5 Start up.....	16
5.1 Non-Root Startup (only on Unix).....	16
6 Uninstall.....	17
6.1 Uninstallation example.....	17
7 Solution Container maven plug-in.....	18

In This Guide

This document is a guide for the process of installation of the HPSA Extension Pack.

Audience

The audience for this guide is the Solutions Integrator (SI). The SI has a combination of some or all of the following capabilities:

Understands and has a solid working knowledge of:

- UNIX® commands
- Windows® system administration

Understands networking concepts and language

Is able to program in Java™ and XML

Understands security issues

Understands the customer's problem domain

Conventions

The following typographical conventions are used in this guide.

Font	What the Font Represents	Example
<i>Italic</i>	Book or manual titles, and man page names	Refer to the <i>HP Service Activator — Workflows and the Workflow Manager</i> and the <i>Javadocs</i> man page for more information.
	Provides emphasis	You <i>must</i> follow these steps.
	Specifies a variable that you must supply when entering a command	Run the command: <code>InventoryBuilder <sourceFiles></code>
	Parameters to a method	The <i>assigned_criteria</i> parameter returns an ACSE response.
Bold	New terms	The distinguishing attribute of this class...
Computer	Text and items on the computer screen	The system replies: <code>Press Enter</code>
	Command names	Use the <code>InventoryBuilder</code> command ...
	Method names	The <code>get_all_replies()</code> method does the following...
	File and directory names	Edit the file <code>\$ACTIVATOR_ETC/config/mwfm.xml</code>
	Process names	Check to see if <code>mwfm</code> is running.
	Window/dialog box names	In the <code>Test and Track</code> dialog...
	XML tag references	Use the <code><DBTable></code> tag to...
Computer Bold	Text that you must type	At the prompt, type: <code>ls -l</code>
Keycap	Keyboard keys	Press Return .
[Button]	Buttons on the user interface	Click [Delete]. Click the [Apply] button.
Menu Items	A menu name followed by a colon (:) means that you select the menu, then the item. When the	Select <code>Locate:Objects->by Comment</code> .

Font	What the Font Represents	Example
	item is followed by an arrow (->), a cascading menu follows	

Install Location Descriptors

The following names are used throughout this guide to define install locations.

Descriptor	What the Descriptor Represents
\$ACTIVATOR_OPT	The install base location of Service Activator. The UNIX location is <code>/opt/OV/ServiceActivator</code> The Windows location is <code><drive>:\HP\OpenView\ServiceActivator\</code>
\$ACTIVATOR_ETC	The install location of specific Service Activator configuration files. The UNIX location is <code>/etc/opt/OV/ServiceActivator</code> The Windows location is <code><drive>:\HP\OpenView\ServiceActivator\etc\</code>
\$ACTIVATOR_VAR	The install location of specific Service Activator logging files. The UNIX location is <code>/var/opt/OV/ServiceActivator</code> The Windows location is <code><drive>:\HP\OpenView\ServiceActivator\var\</code>
\$ACTIVATOR_BIN	The install location of specific Service Activator binary files. The UNIX location is <code>/opt/OV/ServiceActivator/bin</code> The Windows location is <code><drive>:\HP\OpenView\ServiceActivator\bin\</code>
\$JBOSS_HOME	HOME The install location for JBoss. The UNIX location is <code>/opt/HP/jboss</code> The Windows location is <code><drive>:\HP\jboss</code>
\$JBOSS_DEPLOY	The install location of the Service Activator JEE components. The UNIX location is <code>/opt/HP/jboss/standalone/deployments</code> The Windows location is <code><drive>:\HP\jboss\standalone\deployments</code>

\$ACTIVATOR_DB_USER	<p>The database user name you define.</p> <p>Suggestion: ovactivator</p>
\$ACTIVATOR_SSH_USER	<p>The Secure Shell user name you define.</p> <p>Suggestion: ovactusr</p>
\$SOSA_HOME	<p>The install base location of SOSA.</p> <p>The default UNIX location is /opt/OV/ServiceActivator/EP/SOSA</p> <p>The default Windows location is <drive>:\HP\OpenView\ServiceActivator\EP\SOSA\</p>
\$SOSA_BIN	<p>The install location of specific SOSA binary files.</p> <p>The default UNIX location is /opt/OV/ServiceActivator/EP/SOSA/bin</p> <p>The default Windows location is <drive>:\HP\OpenView\ServiceActivator\EP\SOSA\bin\</p>
\$SOSA_ETC	<p>The install location of specific SOSA configuration files.</p> <p>The default UNIX location is /opt/OV/ServiceActivator/EP/Sosa/config</p> <p>The default Windows location is <drive>:\HP\OpenView\ServiceActivator\EP\SOSA\config\</p>
\$ECP_HOME	<p>The install base location of Equipment Connections Pool.</p> <p>The default UNIX location is /opt/OV/ServiceActivator/EP/ECP</p> <p>The default Windows location is <drive>:\HP\OpenView\ServiceActivator\EP\ECP\</p>
\$ECP_BIN	<p>The install location of specific Equipment Connections Pool binary files.</p> <p>The default UNIX location is /opt/OV/ServiceActivator/EP/ECP/bin</p> <p>The default Windows location is <drive>:\HP\OpenView\ServiceActivator\EP\ECP\bin\</p>
\$ECP_ETC	<p>The install location of specific Equipment Connections Pool configuration files.</p> <p>The default UNIX location is /opt/OV/ServiceActivator/EP/ECP/conf</p> <p>The default Windows location is <drive>:\HP\OpenView\ServiceActivator\EP\ECP\conf\</p>

1 Introduction

1.1 Definitions

1.1.1 Acronyms

MWFM: Micro Work Flow Manager

HPSA: HP Service Activator

EP: Extension Pack

SC: Solution Container

2 Prerequisites

Before installing the HPSA Extension Pack the user must ensure that the follow requisites are accomplished:

- Software requisites
 - HPSA v6.0 installed in the target computer. On Windows environment it is mandatory that HPSA v6.0 is **installed in driver C**.
 - The hotfix HPSA-V6.0-1A-4 must be installed.
 - JDK 1.6 installed in the target computer.
 - Operating Systems: the same accepted by HPSA.
 - *Cygwin*: only in Windows environments
 - *Maven 1.0.2*. – Only if the Solution Container plug-in is going to be installed. See the chapter 7 for more details.
 - *Microsoft Internet Explorer 9.0 or Firefox 8*.
- Hardware requisites
 - The hardware requisites are the same as the ones specified for the HPSA.
- Backup requisites
 - ServiceActivator directory. This is **/hp/OpenView/ServiceActivator** in Windows and **/etc/opt/OV/ServiceActivator**, **/opt/OV/ServiceActivator** and **/var/opt/OV/ServiceActivator** in HPUX and Linux.
 - HPSA database user.
- The database users that will be configured for the Extension Pack must be created before the installation. Consult the installation properties to check the modules that needs database access. There is no problem to use the same database connection for more than one module.
- HPSA **must be stopped** during the installation process.

3 Extension Pack installation

3.1 IPv6 and IPv4

EP Supports both IPv4 and IPv6. The user should decide which protocol to use. Refer for HPSA Installation documentation for further information. Notice that, if using IPv6, EP configuration parameters use the following convention:

- If the parameter specifies an IP/Host name then the configured value should be a pure IPv6 (if an IP is to be configured)
- If the parameter specifies an URL, then the URL specification is followed, that is, IPv6 IPs should be between square brackets.

3.2 Oracle Real Application Cluster (RAC)

EP supports Oracle RAC. EP Installer will pick up the DB configuration from HPSA so, just by configuring Oracle RAC in ActivatorConfig (as a comma separated host list), EP will be configured to use Oracle RAC. See HPSA Installation documentation for further details.

3.3 EP Installation Process

Steps:

1. Explore the DVD with the HPSA EP v6.0 installer.
2. Unzip the HPSAEP60.zip file below the directory Binaries in a temporary directory in your hard disk. In Windows, you must copy it in drive C. Five directories will be created: bin, data, dist, etc and lib. The zip file can be unzipped the following way:

```
jar xvf HPSAEPV60.zip
```

3. Execute the *install.bat* (for Windows environment) or *install.sh* (for UNIX environment) decompressed in the previous step. You can find it below the *bin* directory. Select the *install* option.
4. You will be asked to provide database required information, such as the user name and the user password.
5. Now you are ready to start up the system (both HPSA and EP) once the process is finished.

Note: it is mandatory that an authentication module is configured in the *mwfm.xml* file before the HPSA Extension Pack is started up. Otherwise no user will be able to log on the system.

Note: if there were more users defined in the system than the system user it is highly recommended that the system user logs on the system and assigns these users the role *futuregui*. Otherwise, these users will be able to log in the system, but no menu option will be displayed in the menu bar since they don't have access permissions for anything.

3.3.1 Javacvs.jar file installation

The jar file javacvs must be manually downloaded from the internet. The file can be downloaded from <http://sourceforge.net/projects/javacvs/files/JavaCVS/>. The version to use is 0.4.1. This jar file is

only needed in case you want to use the workflow node AuditBackup. The jar file should be copied to \$JBOSS_DEPLOY/hpsa.ear/lib.

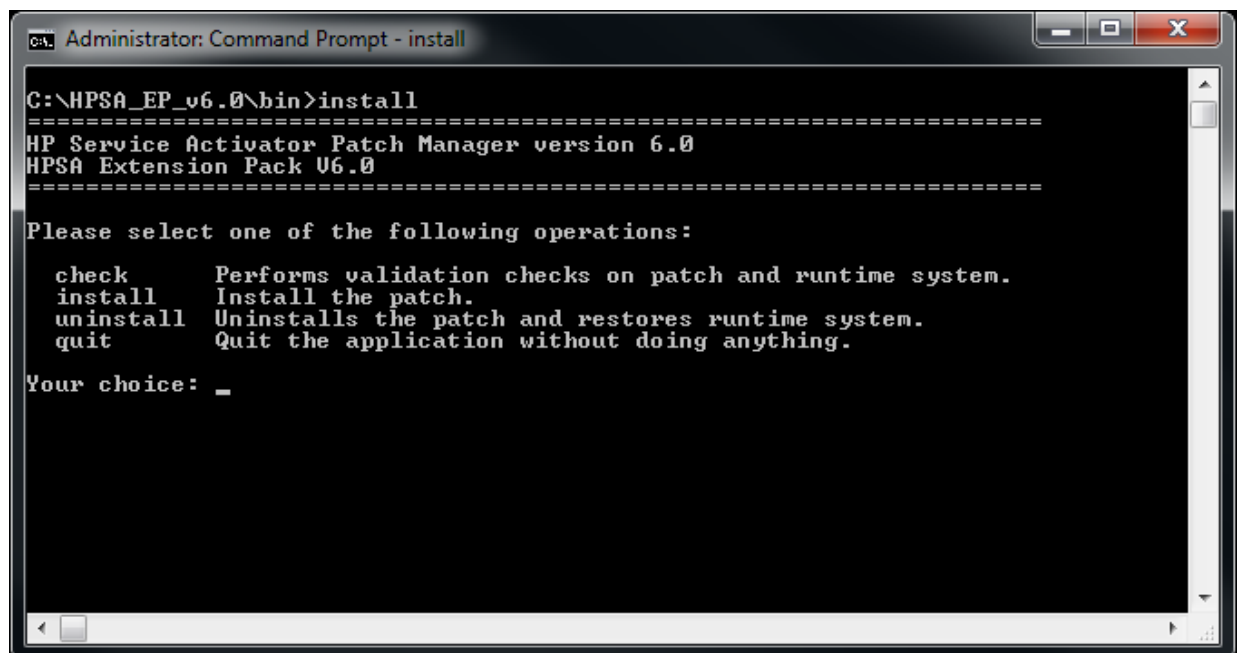
3.4 Installation example

Assume that the *HPSAEP60.zip* file below the *Binaries* directory has been decompressed in C:\HPSA_EP_v6.0.

Open a command line window and type:

```
C:\HPSA_EP_v6.0\bin>installer.bat
```

Four options will be displayed: *check*, *install*, *uninstall* and *quit*.



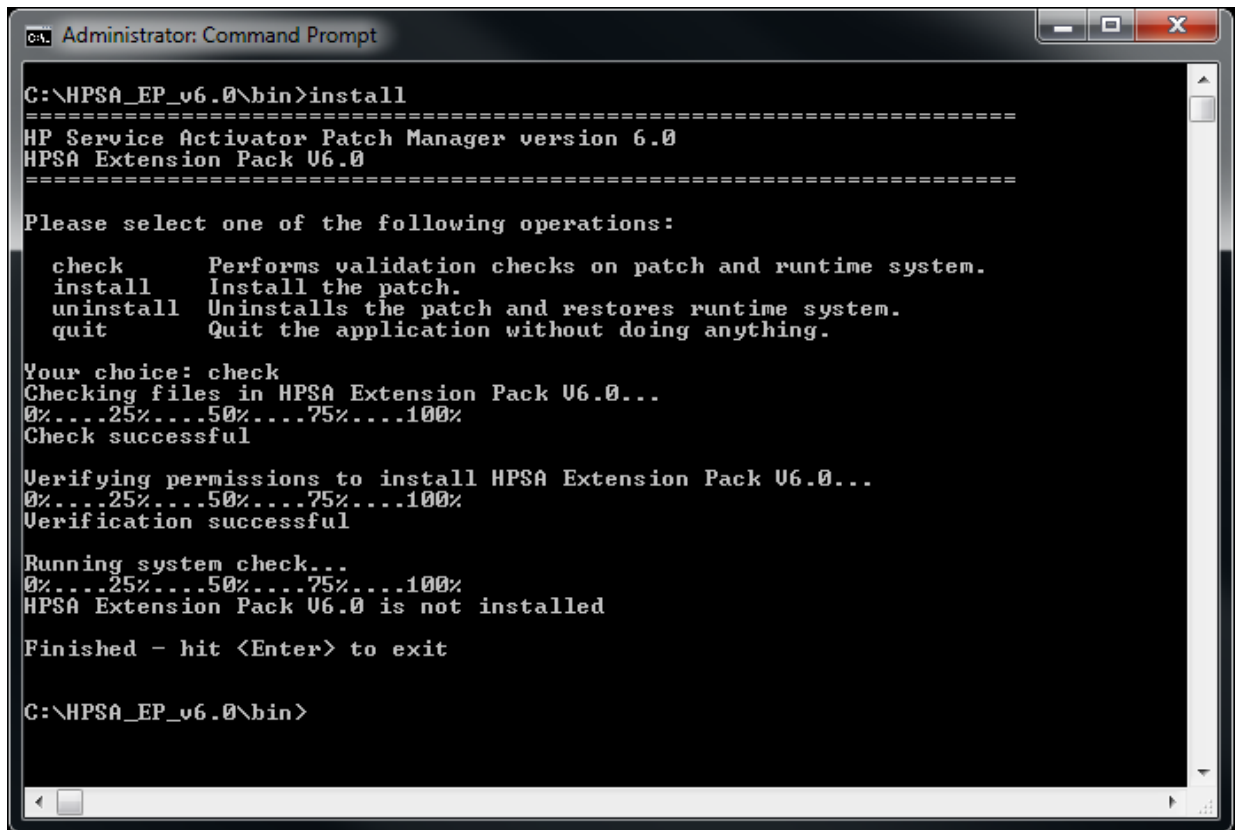
```
Administrator: Command Prompt - install
C:\HPSA_EP_v6.0\bin>install
=====
HP Service Activator Patch Manager version 6.0
HPSA Extension Pack U6.0
=====

Please select one of the following operations:

  check      Performs validation checks on patch and runtime system.
  install    Install the patch.
  uninstall  Uninstalls the patch and restores runtime system.
  quit       Quit the application without doing anything.

Your choice: _
```

Select *check*. This operation may take a few seconds. The result should be the same as:



```
Administrator: Command Prompt

C:\HPSA_EP_v6.0\bin>install
=====
HP Service Activator Patch Manager version 6.0
HPSA Extension Pack U6.0
=====

Please select one of the following operations:

  check      Performs validation checks on patch and runtime system.
  install    Install the patch.
  uninstall  Uninstalls the patch and restores runtime system.
  quit       Quit the application without doing anything.

Your choice: check
Checking files in HPSA Extension Pack U6.0...
0%...25%...50%...75%...100%
Check successful

Verifying permissions to install HPSA Extension Pack U6.0...
0%...25%...50%...75%...100%
Verification successful

Running system check...
0%...25%...50%...75%...100%
HPSA Extension Pack U6.0 is not installed

Finished - hit <Enter> to exit

C:\HPSA_EP_v6.0\bin>
```

As it can be seen, there is no previous version of HPSA Extension Pack installed, yet. Also, no files belonging to HPSA will be affected or modified.

Now select the install option. You can directly select this option by typing:

```
C:\HPSA_EP_v6.0\bin>installer.bat install
```

You will be asked to confirm the installation (you must answer *Yes* to proceed). It will take a few seconds to install HPSA Extension Pack v6.0.

On the next installer step, it will request the DB user and password, and proceed with copying the EP files. Once all the HPSA Extension Pack's files have been successfully deployed you will be asked to confirm you want to migrate the system database. If you answer *Yes*, the database will be migrated, otherwise it will be left as is.

```
C:\Windows\system32\cmd.exe
=====
HP Service Activator Patch Manager version 6.0
HPSA Extension Pack U6.0
=====

Please select one of the following operations:

  check      Performs validation checks on patch and runtime system.
  install    Install the patch.
  uninstall  Uninstalls the patch and restores runtime system.
  quit       Quit the application without doing anything.

Your choice: install
Checking files in HPSA Extension Pack U6.0...
0%...25%...50%...75%...100%
Check successful

Verifying permissions to install HPSA Extension Pack U6.0...
0%...25%...50%...75%...100%
Verification successful

Running system check...
0%...25%...50%...75%...100%
HPSA Extension Pack U6.0 is not installed

Are you sure that you want to install HPSA Extension Pack U6.0? [Yes/No] Yes

Backing up files...
0%...25%...50%...75%...100%
Success.

Installing HPSA Extension Pack U6.0...
0%...25%...50%...75%...100%
Success.

DB configuration:
  Host      : linux_db
  Port      : 1521
  Instance  : OUSA
Please enter DB user name: OUSA
Please enter DB password : OUSA
Success.
Installing database schema...
Do you wish to install the database? [Yes/No] Yes
Success.

It is highly recommended that you delete JBoss' temporary files.
Do you want to delete JBoss' temporary files? [Yes/No] Yes

Deleting files in JBoss' default tmp directory...
Success.

Finished - hit <Enter> to exit
```

4 Manual Deployment

Once the EP has been installed it is possible to manually deploy ECP, Lock Manager and SOSA to different environments where no HPSA needs to be running. However, some of its files need to be copied from an existing deployment to the new manually deployed EP. These files are the JBoss Modules libraries and the HPSA EAR libraries, which by default are located in:

```
C:\HP\jboss\modules [Windows environment]
C:\HP\jboss\standalone\deployments\hpsa.ear\lib [Windows environment]
```

Or, if UNIX environment:

```
/opt/HP/jboss/modules/ [UNIX environment]
/opt/HP/jboss/standalone/deployments/hpsa.ear/lib [UNIX environment]
```

These directories and their full contents need to be copied to the same path in the new manual deployment.

4.1 ECP

The ECP is installed by default in:

```
C:\HP\OpenView\ServiceActivator\EP\ECP [Windows environment]
```

Or, if UNIX environment:

```
/opt/OV/ServiceActivator/EP/ECP [UNIX environment]
```

To manually deploy it in a different environment, copy that directory to the new manual deployment.

If you choose not to install in the same path, then all the following files:

```
C:\HP\OpenView\ServiceActivator\EP\ECP\bin\*.bat [Windows environment]
C:\HP\OpenView\ServiceActivator\EP\ECP\conf\ecp.properties [Windows environment]
```

Or, if UNIX environment:

```
/opt/OV/ServiceActivator/EP/ECP/bin/*.sh [UNIX environment]
/opt/OV/ServiceActivator/EP/ECP/conf/ecp.properties [UNIX environment]
```

Will need to be updated, replacing the previous installation path with the new path, and giving a valid host/IP value to

```
RMI_HOST=
RMI_STUB_EXPORT_HOST=
```

If ECP needs to be accessed from a different host.

4.2 Lock Manager

The LM is installed by default in:

```
C:\HP\OpenView\ServiceActivator\EP\LockManager [Windows environment]
```

Or, if UNIX environment:

```
/opt/OV/ServiceActivator/EP/LockManager [UNIX environment]
```

To manually deploy it in a different environment, copy that directory to the new manual deployment.

If you choose not to install in the same path, then all the following files:

```
C:\HP\OpenView\ServiceActivator\EP\LockManager\bin\*.bat [Windows environment]
C:\HP\OpenView\ServiceActivator\EP\LockManager\conf\LockManager.properties [Windows environment]
```

Or, if UNIX environment:

```
/opt/OV/ServiceActivator/EP/LockManager/bin/*.sh [UNIX environment]
/opt/OV/ServiceActivator/EP/LockManager/conf/LockManager.properties [UNIX environment]
```

Will need to be updated, replacing the previous installation path with the new path, and giving a valid host/IP value to

```
RMI_HOST=
RMI_STUB_EXPORT_HOST=
```

If ECP needs to be accessed from a different host.

4.3 SOSA

SOSA is installed by default in:

```
C:\HP\OpenView\ServiceActivator\EP\SOSA [Windows environment]
```

Or, if UNIX environment:

```
/opt/OV/ServiceActivator/EP/SOSA [UNIX environment]
```

To install it in a different environment just move the default SOSA directory to the new location.

5 Start up

To start up the Extension Pack modules:

UNIX:

```
# start up the jboss instance of HPSA and Solution Container
/sbin/init.d/activator start           [HP-UX environment]
/etc/init.d/activator start           [Linux environment]

# start up the Lock Manager service
/opt/OV/ServiceActivator/EP/LockManager/bin/StartServer.sh

# start up SOSA
/opt/OV/ServiceActivator/EP/SOSA/bin/sosa.sh start

# start up the ECP service
/opt/OV/ServiceActivator/EP/ECP/bin/StartServer.sh
```

Windows:

```
# start up the jboss instance of HPSA and Solution Container via the
service menu, or by issuing the command:
net start "HP Service Activator"

# start up the Lock Manager service
C:\HP\OpenView\ServiceActivator\EP\LockManager\bin\StartServer.bat

# start up SOSA (**)
/cygdrive/c/HP/OpenView/ServiceActivator/EP/SOSA/bin/sosa_cygwin.sh start

# start up the ECP service
C:\HP\OpenView\ServiceActivator\EP\ECP\bin\StartServer.bat
```

(**): Sosa in Windows has to be started up through Cygwin.

All the modules can be administrated in the SC. The URL to access the SC is:

<http://localhost:8080/ep/jsp/future-gui/hpac.jsp>

5.1 Non-Root Startup (only on Unix)

In a Unix environment, to be able to run EP as a non-root user the administrator will need to run the script

```
$ACTIVATOR_BIN\AssignNonRoot
```

Notice that running that script will also affect HPSA and enable it to be run as a non-root user. See HPSA Installation guide for further details.

6 Uninstall

Steps:

1. Unzip the HPSAEP60.zip file below the directory Binaries in a temporary directory in your hard disk. In Windows, you must copy it in drive C. Five directories will be created: bin, data, dist, etc and lib. The zip file can be unzipped the following way:

```
jar xvf HPSAEPV60.zip
```

2. Execute the *installer.bat* (for Windows environment) or *installer.sh* (for UNIX environment) decompressed in the previous step. Select the *uninstall* option.

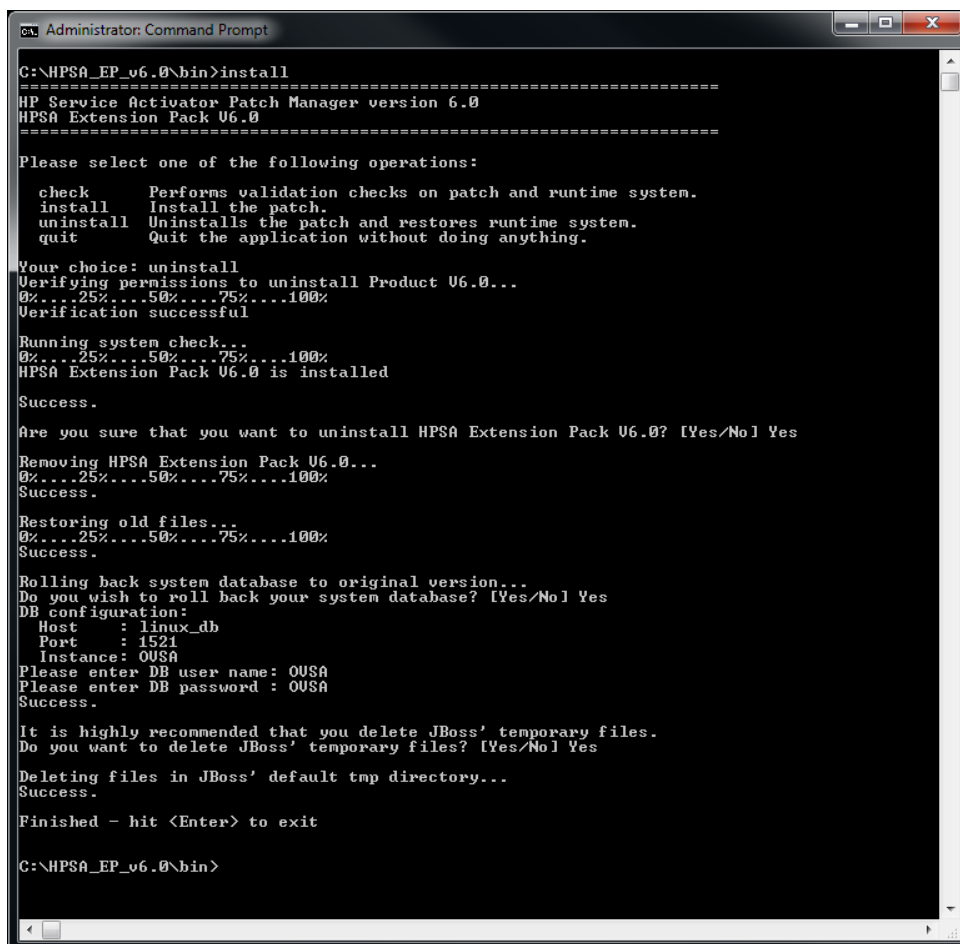
6.1 Uninstallation example

Assume that the *HPSAEP60.zip* file below the *Binaries* directory has been decompressed in *C:\HPSA_EP_v6.0*.

Open a command line window and type:

```
C:\HPSA_EP_v6.0\bin>installer.bat uninstall
```

You will be asked to confirm the uninstallation (you must answer Yes to proceed). You will also be asked for the database user name and password.



```
Administrator: Command Prompt
C:\HPSA_EP_v6.0\bin>install
=====
HP Service Activator Patch Manager version 6.0
HPSA Extension Pack U6.0
=====
Please select one of the following operations:
  check      Performs validation checks on patch and runtime system.
  install    Install the patch.
  uninstall  Uninstalls the patch and restores runtime system.
  quit      Quit the application without doing anything.

Your choice: uninstall
Verifying permissions to uninstall Product U6.0...
0%...25%...50%...75%...100%
Verification successful

Running system check...
0%...25%...50%...75%...100%
HPSA Extension Pack U6.0 is installed

Success.

Are you sure that you want to uninstall HPSA Extension Pack U6.0? [Yes/No] Yes
Removing HPSA Extension Pack U6.0...
0%...25%...50%...75%...100%
Success.

Restoring old files...
0%...25%...50%...75%...100%
Success.

Rolling back system database to original version...
Do you wish to roll back your system database? [Yes/No] Yes
DB configuration:
  Host      : linux_db
  Port     : 1521
  Instance : OUSA
Please enter DB user name: OUSA
Please enter DB password : OUSA
Success.

It is highly recommended that you delete JBoss' temporary files.
Do you want to delete JBoss' temporary files? [Yes/No] Yes
Deleting files in JBoss' default tmp directory...
Success.

Finished - hit <Enter> to exit

C:\HPSA_EP_v6.0\bin>
```

7 Solution Container maven plug-in

The HPSA extension pack provides a maven plug-in called *fg-plugin v1.1* used to define and deploy new applications in the Solution Container. This is a mandatory step if the user will create and install his own applications in the Solution Container.

Consult the EP Developer's Reference to see how to create new applications in the solution container with this plug-in.

The installation steps are:

1. Once the EP has been installed, move to:

```
C:\HP\OpenView\ServiceActivator\EP\fg-plugin
```

Or, if UNIX environment:

```
/opt/OV/ServiceActivator/EP/fg-plugin
```

2. Copy the *commons-digester-1.8.jar* (you can find it in the *hpsa.ear/lib* directory) to the maven repository below the *digester/jars* path (case sensitive).
3. Copy the *inventoryruntime.jar* (you can find it in the *lib* directory) to the maven repository below the *OVSA_Spain/jars* path (case sensitive).
4. Copy the *oracle_jdbc.jar* (you can find it as JBoss module) to the maven repository below the *oracle/jars* path (case sensitive).
5. Copy the *sc.jar* (you can find it in the *ep.war/WEB-INF/lib* directory) to the maven repository below the *OVSA_Spain/jars* path (case sensitive).
6. Copy the *struts-1.2.9.jar* (you can find it as a JBoss module) to the maven repository below the *struts/jars* path (case sensitive).
7. Copy the *fg-plugin-1.1.jar* to the maven repository below the *OVSA_Spain/plugins* path (case sensitive).
8. Open a command line window and execute:

```
maven plugin:download -DartifactId=fg-plugin -DgroupId=OVSA_Spain -  
Dversion=1.1
```