hp Unified Correlation Analyzer

**Unified Correlation Analyzer
for
Event Based Correlation**

Version 3.0

Installation Guide

Edition: 1.0

For the HP-UX (11.31), Linux (RHEL 5.8 & 6.3) and Windows© Operating Systems

June 2013

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Preface

This guide describes how to install the product on the various supported platforms.

Product Name: Unified Correlation Analyzer for Event Based Correlation

Product Version: 3.0

Kit Version: V3.0

Intended Audience

Here are some recommendations based on possible reader profiles:

- Solution Developers
- Software Development Engineers

Software Versions

The term UNIX is used as a generic reference to the operating system, unless otherwise specified.

The software versions referred to in this document are as follows:

Product Version	Supported Operating systems
UCA for Event Based Correlation Server Version V3.0	- HP-UX 11.31 for Itanium - Red Hat Enterprise Linux Server release 5.8 & 6.3
UCA for Event Based Correlation Channel Adapter V3.0	- HP-UX 11.31 for Itanium - Red Hat Enterprise Linux Server release 5.8 & 6.3
UCA for Event Based Correlation Software Development Kit Version V3.0	- Windows XP / Vista - Windows Server 2007 - Windows 7 - Red Hat Enterprise Linux Server release 5.8 & 6.3

Table 1 - Software versions

Typographical Conventions

`Courier` Font:

- Source code and examples of file contents.
- Commands that you enter on the screen.
- Pathnames
- Keyboard key names

Italic Text:

- Filenames, programs and parameters.
- The names of other documents referenced in this manual.

Bold Text:

- To introduce new terms and to emphasize important words.

Associated Documents

The following documents contain useful reference information:

References

[R1] *Unified Correlation Analyzer for Event Based Correlation Reference Guide*

[R2] *Unified Correlation Analyzer for Event Based Correlation Value Pack Development Guide*

[R3] *Unified Correlation Analyzer for Event Based Correlation – Clustering and HA Guide*

[R4] *OSS Open Mediation Installation and Configuration Guide*

Support

Please visit our HP Software Support Online Web site at www.hp.com/go/hpsoftwaresupport for contact information, and details about HP Software products, services, and support.

The Software support area of the Software Web site includes the following:

- Downloadable documentation.
- Troubleshooting information.
- Patches and updates.
- Problem reporting.
- Training information.
- Support program information.

Chapter 1

Introduction

This guide describes the installation procedure for the UCA for EBC product.

For more information on the UCA for EBC product, please refer to the *Unified Correlation Analyzer for Event Based Correlation Reference Guide* [R1].

Chapter 2

UCA for EBC Server

The UCA for EBC Server product is delivered as a tar file named:

uca-ebc-server-kit-3.0-<os>.tar

where <os> is either *linux* for **Linux** systems or *hpux* for **HP-UX** systems.

This chapter describes the software prerequisites, installation steps, and gives a brief content description of the UCA for EBC Server kit.

2.1   Licensing

After installation, UCA for EBC will activate a trial license for 90 days (Instant-On license) that activates all features of the product for a trial period. After expiration of this trial period, a commercial license is needed to continue to use the product.

For any questions related to licensing, please get in touch with the UCA for EBC product management.

2.1.1 Obtaining a UCA for EBC license

A license key is required to use UCA for EBC. Licensing is managed with AutoPassJ (automatically installed alongside UCA for EBC). You must obtain a license key to be able to use the product past the 90-day trail period.

The standard process to get a license key is the following:

The system administrator of the product must go to the **Webware** web site and download the perpetual license to use the product. To request perpetual license keys, you need the following items:

- **Entitlement Certificate**, which contains the HP product number and order number (i.e. entitlement order number).
- **License owner contact information** (i.e. your company or organization information)
- **Locking ID values** (if required) to create license keys (e.g. Device Identifier, IP Address, MAC Address, Serial Number, WWN, etc...)

The best way to obtain product licenses is through the web site: **www.webware.hp.com**

You can also contact the HP Password Center by using fax, email, or phone. This information is available on the Password Request Form and the License Entitlement Certificate. In order to obtain product licenses, you need the License Entitlement Certificate.

2.1.2 License policy

A license check is performed for the following UCA for EBC features every time UCA for EBC Server is started:

- UCA for EBC Server
- UCA for EBC Topology Extension

You will need a valid license key to activate these features.

If you have no valid license key for the 'UCA for EBC Server' feature, UCA for EBC Server will not start.

If you have no valid license key for the 'UCA for EBC Topology Extension' feature, UCA for EBC Server will not start if you have enabled the use of the UCA for EBC topology database by setting the 'uca.ebc.topology' property to either of the following values: 'embedded', or 'external' in the UCA for EBC property file: *${UCA_EBC_DATA}/instances/<instance name>/conf/uca-ebc.properties* (by default */var/opt/UCA-EBC/instances/default/conf/uca-ebc.properties*).

In order to run UCA for EBC Server with the UCA for EBC Topology Extension, valid keys are needed for both the 'UCA for EBC Server' and the 'UCA for EBC Topology Extension' features.

In order to run UCA for EBC Server without the UCA for EBC Topology Extension, a valid key is needed only for the 'UCA for EBC Server' feature.

The following table shows the link between UCA for EBC product part numbers and features:

Product Part Number	Description	Enabled UCA for EBC features
JJ137FAE	UCA for EBC Server Production	UCA for EBC Server
JJ137FBE	UCA for EBC Server Production Cluster	UCA for EBC Server
JJ139FAE	UCA for EBC Dev Toolkit Production	UCA for EBC Dev Toolkit
JJ854FAE	UCA for EBC Topology Extension Production	UCA for EBC Topology Extension
JJ854FBE	UCA for EBC Topology Extension Cluster Production	UCA for EBC Topology Extension

Table 2 – UCA for EBC product part numbers and features

In addition to the UCA for EBC features mentioned above, the license policy for UCA for EBC also enables an UCA for EBC Instant-On feature (activated the first time you start UCA for EBC) that enables all UCA for EBC features for 90 days so that you can evaluate the product.

Upon activation of the UCA for EBC Instant-On feature, UCA for EBC automatically generates a corresponding license key that is added to the *license.txt* file located in the *${UCA_EBC_DATA}/instances/<instance name>/licenses* folder (by default */var/opt/UCA-EBC/instances/default/licenses*).

The *license.txt* file contains all license keys currently installed on UCA for EBC.

Note

As soon as a permanent license is installed in the *license.txt* file, the UCA for EBC Instant-On feature (that lets you use all features of UCA for EBC for a 90 day period so that you can evaluate the product) will be disabled.

In this case, you must add all the permanent licenses corresponding to the UCA for EBC features that you need to the *license.txt* file. For example, if you need the UCA for EBC Topology Extension feature, you need to add a UCA for EBC Topology Extension permanent license to the *license.txt* file.

2.1.3   Using the web site

Follow these steps to obtain your product licenses:

1. Go to **www.webware.hp.com**. This links you to the web site - **HP Licensing for Software**.

2. Click on the **Sign In** button. This takes you to the **HP Passport Sign-in** page.

3. Sign in using the User ID and Password associated with your **HP Passport**. You can request a new HP Passport if you don't have one already by clicking on the **New users – please register** link.

4. Click '**Sign In'**.

5. After successfully signing in, the home page of the **HP Licensing for Software** web site is displayed

6. Type your entitlement order number in the **Entitlement order number** (EON) text box. You order number is found on the License Entitlement Certificate (HP Order Number).

7. Click '**Go'**.

8.   Select the product(s) you are requesting a license key for in the list of products displayed in column 'Entitlement' by clicking the check box(es) next to the product name(s)

9. Click '**Activate'**.

10. For each product you selected, type the number of Licenses To Use (LTUs) (limited by the total number of LTUs available for the order) you wish to get in the 'Qty' field

11. For each product you selected, type the appropriate information in the 'Target' field (Server host name, IP address for the system where the software is installed...)

12. Click '**Finish'**.

13. A confirmation page is shown stating that an email has been automatically sent to you containing the license key(s) you have requested. The page also displays the license key(s) and provides links to email or display it(them) along with related information regarding the product(s) activation you have just performed.

2.1.4   Installing license keys on UCA for EBC

Once you have retrieved UCA for EBC license key(s), you will need to copy this(these) license key(s) to the *license.txt* file located in the *${UCA_EBC_DATA}/instances/<instance name>/licenses* folder (by default */var/opt/UCA-EBC/instances/default/licenses*).

In case you need to copy more than one UCA for EBC license key to the *license.txt* file, just append them to the *license.txt* file one after the other until all license keys are copied to the *license.txt* file.

In case you have installed more than one instance of UCA for EBC, you will need to repeat this process for each instance of UCA for EBC.

Note

UCA for EBC Server must be restarted in order for any change to the *license.txt* file to be taken into account.

2.1.5 Removing license keys from UCA for EBC

Removing expired UCA for EBC license key(s) involves removing these license keys from the *license.txt* file located in the *${UCA_EBC_DATA}/instances/<instance name>/licenses* folder (by default */var/opt/UCA-EBC/instances/default/licenses*).

If you have deployed multiple instances of UCA for EBC, you will need to repeat this process for each instance of UCA for EBC.

Note

UCA for EBC Server must be restarted in order for any change to the *license.txt* file to be taken into account.

2.2 Disk requirements

Here are the disk requirements for UCA for EBC:

On HP-UX:

Type	Disk requirements
Temporary disk space	120 MB minimum: • 60 MB minimum for the uca-ebc-kits-3.0-hpux.tar file • 60 MB minimum for the install-install-uca-ebc.sh and UCAEBCSERVERV3000F.depot files (expanded from the uca-ebc-kits-3.0-hpux.tar file)
Permanent disk space	75 MB minimum for UCA for EBC V3.0 installed on the system

Table 3 - Disk Requirements for UCA for EBC on HP-UX

On Linux:

Type	Disk requirements
Temporary disk space	120 MB minimum:

Type	Disk requirements
	• 60 MB minimum for the uca-ebc-kits-3.0-linux.tar file • 60 MB minimum for the install-uca-ebc.sh and UCA-EBCSERVER-V3.0-00F.noarch.rpm files (expanded from the uca-ebc-kits-3.0-linux.tar file)
Permanent disk space	75 MB minimum for UCA for EBC V3.0 installed on the system

Table 4 - Disk Requirements for UCA for EBC on Linux

2.3 Software prerequisites

2.3.1 Java

UCA for EBC V3.0 Server, UCA for EBC V3.0 Topology Extension, UCA for EBC V3.0 Development Toolkit, and UCA for EBC V3.0 Value Packs support both Java 1.6 and Java 1.7.

Any of the following versions of Java is needed:

Software	Version
Java JRE/JDK 6	1.6.0.08 (or later)
Java JRE/JDK 7	1.7.0.00 (or later)

Table 5 - Software Prerequisites for UCA for EBC Server

Notes

Please note that if your Value Packs are compiled with one version of Java, it is strongly recommended that UCA for EBC Server is also running the same version of Java to avoid running into compatibility issues between Java 6 and Java 7.

For more information on these compatibility issues, you can go to:

http://www.oracle.com/technetwork/java/javase/compatibility-417013.html

Java JRE (Java Runtime Environment) is enough for running UCA for EBC Server. However the Java JDK (Java Development Kit) comes with some useful debugging tools (jconsole, jvisualvm, etc...) that may help understanding the behavior of UCA for EBC Server. It is therefore recommended to install the JDK, instead of just installing the JRE.

On HP-UX:

To check if you already have Java installed:

```
$ swlist | grep Java
```

You should get an output similar to the following:

```
Java60JDK      1.6.0.08.00    Java 6.0 JDK for HP-UX
```

The latest JDK package for HP-UX can be downloaded (for free) from www.hp.com/go/java.

It is usually installed in the /opt/java6 or /opt/java7 folder.

On Linux:

To check if you already have Java installed:

```
$ rpm –qa | grep jdk
```

Red Hat Enterprise Linux Server comes with OpenJDK Java VM. You should get an output similar to the following (here 1.6.0 and 1.7.0 are installed):

```
java-1.6.0-openjdk-1.6.0.0-1.41.1.10.4.el6.x86_64
java-1.6.0-openjdk-devel-1.6.0.0-1.41.1.10.4.el6.x86_64
java-1.7.0-openjdk-1.7.0.9-2.3.4.1.el6_3.x86_64
java-1.7.0-openjdk-devel-1.7.0.9-2.3.4.1.el6_3.x86_64
```

You can also download (for free) the latest Java packages (HotSpot Java VM) from Oracle from http://java.com/en/download/manual.jsp. If this is installed (usually under /usr/java), you should get an output similar to the following:

```
jdk-1.6.0_23-fcs.x86_64
```

2.4   UCA for EBC Server installation

2.4.1   Pre-installation tasks

Before installing UCA for EBC Server on a system, you need to create a local "uca" user account on that system.

The local "uca" user account must have a *${HOME}* directory containing at least a .login or a .profile file.

The following super user command should create an acceptable "uca" user:

On HP-UX:

```
$ useradd -g <your uca group name here> -m -d /home/uca -s
/bin/csh uca
```

On Linux:

```
$ useradd -g <your uca group name here> -m -d /home/uca -s
/bin/bash uca
```

2.4.2   Product installation

2.4.2.1   Untar the archive in a temporary directory

As **root** user, untar the archive in a temporary local directory (For example: /tmp):

On HP-UX:

```
$ cd /tmp
$ tar -xvf <kit location>/uca-ebc-server-kit-3.0-hpux.tar
```

On Linux:

```
$ cd /tmp
$ tar -xvf <kit location>/uca-ebc-server-kit-3.0-linux.tar
```

2.4.2.2 Run the installation script

Depending on whether you wish to install the UCA for EBC Server at the default location, i.e. both the /opt/UCA-EBC and /var/opt/UCA-EBC directories, or an alternate location, run either of the following commands to execute the installation script.

To install UCA for EBC Server at the default location (in both the /opt/UCA-EBC and /var/opt/UCA-EBC directories), please execute the following command as **root** user:

On both HP-UX and Linux:

```
$ install-uca-ebc.sh
```

To install UCA for EBC Server at an alternate location of your choosing, please execute the following command as **root** user:

On both HP-UX and Linux:

```
$ install-uca-ebc.sh -r <Alternate root directory> -d
<Alternate data directory>
```

Note

The default root directory for UCA for EBC Server is /opt/UCA-EBC and the default data directory is /var/opt/UCA-EBC.

The root directory of UCA for EBC Server contains the "static" part of the UCA for EBC Server application (the binaries, libraries, javadoc, …) , while the data directory of UCA for EBC Server contains the "variable" part (the configuration, valuepacks, logs, …) for all instances.

Since UCA-EBC V2.0, multiple instances of UCA for EBC Server can be configured in the data directory.

2.4.3 File organization

UCA for EBC Server "static" part is installed under the *${UCA_EBC_HOME}* directory which is by default the /opt/UCA-EBC directory.

The following table describes the different sub-directories under the *${UCA_EBC_HOME}* root directory:

Subdirectories	Description
admin	*For Internal Use*
apidoc	Contains the Javadoc of the Java objects provided by UCA for EBC that can be used in Drools rules files.
bin	Contains the UCA for EBC executables

Subdirectories	Description
defaults	Contains the default: • configuration (in the conf/ sub-directory) • log db (in the logs/ sub-directory) • value packs (in the valuepacks/ sub-directory)
lib	Directory containing the JAR (Java ARchive) files needed by UCA for EBC
licenses	UCA for EBC 3rd party licences
schemas	XML Schema Definition files (XSD) used by UCA for EBC
webapp	Home directory for the UCA for EBC Admin Web User Interface. It contains the UCA for EBC Web UI (User Interface) WAR (Web application ARchive) file

Table 6 - Sub-directories of *${UCA_EBC_HOME}*

UCA for EBC Server "variable" part is installed under the *${UCA_EBC_DATA}* directory which is by default the /var/opt/UCA-EBC directory.

In the *${UCA_EBC_DATA}* directory, all instances of UCA-EBC are stored under the *${UCA_EBC_DATA}/instances* subdirectory. At installation, only a single instance is created under *${UCA_EBC_DATA}/instances/default.*

The tool *${UCA_EBC_HOME}/bin/uca-ebc-instance* allows to manage instances.

The following table describes the different sub-directories under the *${UCA_EBC_DATA}/instances/<instance-name>* data directory:

Subdirectories	Description
archive	Contains UCA for EBC value packs after they have been undeployed
conf	UCA for EBC Server configuration files directory. The default configuration files of UCA for EBC are located in the ${UCA_EBC_HOME}/defaults/conf directory. Note that for additional instances, the port numbers are automatically tuned and may not reflect the default ones.
deploy	Runtime directory for UCA for EBC Value Packs. UCA for EBC value packs are expanded into this folder when they have been deployed.
externallib	Directory containing the JAR (Java ARchive) files that are needed by several UCA for EBC Value Packs
licenses	Directory containing the *license.txt* file used for license checking.
logs	Logs directory (this directory is created after UCA for EBC is first started). The default log database files of UCA for EBC are located in the ${UCA_EBC_HOME}/defaults/logs

Subdirectories	Description
	directory.
users	Directory containing the local 'user' database.
valuepacks	This directory is the place where available UCA for EBC value packs reside before they are deployed. The default value packs delivered with UCA for EBC are located in the ${UCA_EBC_HOME}/defaults/valuepacks directory.
work	Directory used to store temporary files at runtime.

Table 7 - Sub-directories of *${UCA_EBC_DATA}/instances/<instance-name>*

2.4.4 Post-installation setup

2.4.4.1 Setting the JAVA_HOME environment variable

The JAVA_HOME environment variable must be set in the "uca" user's environment before using UCA for EBC software.

Depending on your shell, and the location of the Java JDK software, use one of the following commands to set the JAVA_HOME environment variable.

On HP-UX:

Example for **csh**-like shell:

```
$ setenv JAVA_HOME /opt/java6
```

Example for **sh**-like shell:

```
$ export JAVA_HOME=/opt/java6
```

On Linux:

Example for **csh**-like shell:

```
$ setenv JAVA_HOME /opt/java/jdk1.6.0_20
```

Example for **sh**-like shell:

```
$ export JAVA_HOME=/opt/java/jdk1.6.0_20
```

2.4.4.2 Setting the UCA for EBC environment variables

Several environment variables must be defined for UCA for EBC to work properly.

For that purpose, the UCA for EBC installation script installs two files in the UCA for EBC HOME directory (/opt/UCA-EBC by default):

- *${UCA_EBC_HOME}*/.environment.sh
- *${UCA_EBC_HOME}*/.environment.csh

These files can be used for setting the correct environment variables.

Depending on your shell, use one of the following commands to set the "uca" user's UCA for EBC environment variables and update the path:

On both HP-UX and Linux:

On **csh**-like shell:

```
$ source /opt/UCA-EBC/.environment.csh
```

On **sh**-like shell:

```
$ . /opt/UCA-EBC/.environment.sh
```

2.4.4.3 Migrating from an earlier UCA-EBC version.

In the case you had an earlier UCA for EBC version installed on your system, you probably already have UCA for EBC instances definitions that you want to keep.

The uca-ebc.properties file coming with the UCA for EBC version 3.0 has been enriched with some new settings. However the UCA for EBC installation script does not overwrite the existing version of this file with the new one in order to prevent losing some important (customer specific) customizations.

The changes in the uca-ebc.properties file must then be re-applied manually for all UCA for EBC instances.

Changes to apply:

For each instance, edit the file

*${UCA_EBC_DATA}/instances/<**your instance**>/conf/uca-ebc.properties*

then do :

1. **Change the uca-ebc.version property to new version:**

   uca.ebc.version=3.0

2. **Add the uca.ebc.serverhost property**

   uca.ebc.serverhost=<your local host name>

   the local host name is usually '**localhost**' but depending on your settings you may have to set here either the fully qualified DNS name of your server or its IP Address.

3. **Add the following section in the file:**

```
#################################################################
#                    DO NOT MODIFY the Following Properties
# property used by uca-ebc-admin tool
uca.ebc.jmx.url:service\:jmx\:rmi\://${uca.ebc.serverhost}/jndi/rmi\://${uca.ebc.serv
erhost}\:${uca.ebc.jmx.rmi.port}/uca-ebc

# properties used by uca-ebc-injector tool
java.naming.factory.initial = org.apache.activemq.jndi.ActiveMQInitialContextFactory
java.naming.provider.url =tcp\://${uca.ebc.serverhost}\:${uca.ebc.jms.broker.port}
# topic.[jndiName] = [physicalName]
topic.uca-ebc-alarms = com.hp.uca.ebc.alarms
#################################################################
```

Note : to prevent any errors you can copy such definitions from the uca-ebc.properties file provided at this location :

${UCA_EBC_HOME}/defaults/conf/uca-ebc.properties

2.4.4.4 Red Hat Linux firewall settings

Netfilter is a host-based firewall for Linux operating systems. It is included as part of the Linux distribution and it is activated by default on RHEL6. This firewall is controlled by the program called iptables. Netfilter filtering takes place at the kernel level, before a program can even process the data from the network packet.

Therefore, when iptables is up and filtering packets, its settings should be modified in order to let UCA for EBC work properly.

Let's suppose we have the default iptables configuration file.

```
# cat /etc/sysconfig/iptables
# Firewall configuration written by system-config-firewall
# Manual customization of this file is not recommended.
*filter
:INPUT ACCEPT [0:0]
:FORWARD ACCEPT [0:0]
:OUTPUT ACCEPT [0:0]
-A INPUT -m state --state ESTABLISHED,RELATED -j ACCEPT
-A INPUT -p icmp -j ACCEPT
-A INPUT -i lo -j ACCEPT
-A INPUT -m state --state NEW -m tcp -p tcp --dport 22 -j
ACCEPT
-A INPUT -j REJECT --reject-with icmp-host-prohibited
-A FORWARD -j REJECT --reject-with icmp-host-prohibited
COMMIT
```

On top of this, or on top of your current iptables settings, you will need to add filters to open ports used by each UCA for EBC instance.

By default, 3 chains are used : INPUT, OUTPUT, FORWARD. Please refer to the Red Hat Linux guide for a better understanding of what a chain is and what the packet matching rules are that apply within a chain.

Here we are going to create a new custom chain, used by INPUT, dedicated to control UCA for EBC ports, for example for the default instance.

Let's call it UCA-EBC. To do so, you will need to:

- Add 2 lines to define the UCA-EBC chain

- Add 1 line to open ports used by the UCA-EBC default instance

- Add optionally 1 line to open the port used by the UCA for EBC topology server (if installed)

Please make sure to specify the same port numbers as the ones defined in the ${UCA_EBC_DATA}/instances/<instance name>/conf/uca-ebc.properties file.

Please see below for an updated version of the configuration file (added lines are in blue):

```
# cat /etc/sysconfig/iptables
*filter
:INPUT ACCEPT [0:0]
:FORWARD ACCEPT [0:0]
:OUTPUT ACCEPT [2843:756710]
:UCA-EBC - [0:0]
-A INPUT -j UCA-EBC
-A INPUT -m state --state RELATED,ESTABLISHED -j ACCEPT
-A INPUT -p icmp -j ACCEPT
-A INPUT -i lo -j ACCEPT
```

```
-A INPUT -p tcp -m state --state NEW -m tcp --dport 22 -j
ACCEPT
-A UCA-EBC -p tcp -m multiport --dports 1100,8888,61666 -m
comment --comment "UCA-EBC default instance" -j ACCEPT
-A UCA-EBC -p tcp -m tcp --dport 7474 -m comment --comment
"UCA-EBC Topology Server Neo4J" -j ACCEPT
-A INPUT -j REJECT --reject-with icmp-host-prohibited
-A FORWARD -j REJECT --reject-with icmp-host-prohibited
COMMIT
```

Then, you need to validate your settings using the iptables command or the iptables service.

```
# service iptables restart
iptables: Flushing firewall rules:                    [  OK  ]
iptables: Setting chains to policy ACCEPT: filter     [  OK  ]
iptables: Unloading modules:                          [  OK  ]
iptables: Applying firewall rules:                    [  OK  ]
```

And then you need to check that your settings are up and running:

```
# iptables --list UCA-EBC
Chain UCA-EBC (1 references)
target     prot opt source               destination
ACCEPT     tcp  --  anywhere             anywhere
multiport dports mctp,ddi-tcp-1,61666 /* UCA-EBC default
instance */
ACCEPT     tcp  --  anywhere             anywhere
tcp dpt:7474 /* UCA-EBC Topology Server Neo4J */
```

Please make sure to open the ports for all UCA-EBC instances running on your server.

If everything is OK, please save your configuration so that it is taken into account after a reboot:

```
# service iptables save
iptables: Saving firewall rules to /etc/sysconfig/iptables:[
OK  ]
```

2.5   Uninstallation of UCA for EBC Server

The UCA for EBC Server product can be easily uninstalled by running the *uninstall-uca-ebc* script provided in the *${UCA_EBC_HOME}/bin* directory.

This uninstall utility must be run with the **root** privileges.

When the *uninstall-uca-ebc* tool is launched, it checks for all UCA for EBC Server native packages installed on your system and prompts you for the number associated with the package to be uninstalled:

On both HP-UX and Linux:

```
$ /opt/UCA-EBC/bin/uninstall-uca-ebc
```

You should get an output similar to the following text:

```
Here is the list of installed UCA-EBC packages:


        [0]     UCA-EBCSERVER-V3.0-00F

Enter the index number of UCA-EBC version to un-install:
```

By entering '0' (as in the example above), UCA for EBC Server version V3.0-00F will be removed.

UCA for EBC Channel Adapter

UCA for EBC Channel Adapter is delivered as an archive file named:

uca-ebc-ca-kit-3.0-<os>.tar

where <os> is either *linux* for **Linux** systems or *hpux* for **HP-UX** systems.

This chapter describes the software prerequisites, installation steps, and gives a brief content description of the UCA for EBC Channel Adapter kit.

3.1 Licensing

No extra license is required to run the UCA for EBC Channel Adapter.

Note

Please refer to Chapter 2.1 "*Licensing*" for more information on UCA for EBC licensing.

3.2 Disk requirements

Here are the disk requirements for the UCA for EBC Channel Adapter kit:

On HP-UX:

Type	Disk requirements
Temporary disk space	120 MB minimum: • 60 MB minimum for the uca-ebc-ca-kit-3.0-hpux.tar file • 60MB minimum for the install-uca-ebc-ca.sh and UCAEBCCAV3000F.depot files (expanded from the uca-ebc-ca-kit-3.0-hpux.tar file)
Permanent disk space	300 MB minimum for UCA for EBC Channel Adapter V3.0 installed on the system and deployed in an OSS Open Mediation V6.2 container

Table 8 - Disk Requirements for UCA for EBC Channel Adapter on HP-UX

On Linux:

Type	Disk requirements
Temporary disk space	120 MB minimum: • 60 MB minimum for the uca-ebc-ca-kit-3.0-linux.tar file • 60 MB minimum for the install-uca-ebc-ca.sh and UCA-EBCCA-V3.0-00F.noarch.rpm files (expanded from the uca-ebc-ca-kit-3.0-hpux.tar file)
Permanent disk space	300 MB minimum for UCA for EBC Channel Adapter V3.0 installed on the system and deployed in an OSS Open Mediation V6.2 container

Table 9 - Disk Requirements for UCA for EBC Channel Adapter on Linux

3.3   Software prerequisites

3.3.1 OSS Open Mediation V6.2

UCA for EBC Channel Adapter is a 'plugin' component for the "OSS Open Mediation V6.2" application.

As such, it requires that the "OSS Open Mediation V6.2" application be properly installed and configured on the system before installing the UCA for EBC Channel Adapter.

The following table lists the mandatory OSS Open Mediation V6.2 dependencies for UCA for EBC Channel Adapter:

Software	Package Reference (Linux)	Package Reference (HP-UX)
OSS Open Mediation V6.2 • Open Mediation	`ngossopenmediation-V620-01`	`NGOSSOPENMEDIATIONV62001`

Table 10 - Software Prerequisites for UCA for EBC Channel Adapter (Linux and HP-UX)

Depending on the configuration of your whole solution comprising UCA for EBC, OSS Open Mediation V6.2 (including Channel Adapters), and 3rd party products, you may also need to install the following optional component:

• The TeMIP Channel Adapter: if your solution involves TeMIP

• The Exec Channel Adapter: if you need the ability to execute shell scripts or executables in your solution

If either of these Channel Adapters are part of your solution then you need to install an extra OSS Open Mediation V6.2 package:

• NOM Basic SMX Components

The following table lists some of the optional OSS Open Mediation V6.2 dependencies for UCA for EBC Channel Adapter:

Software	Package Reference (Linux)	Package Reference (HP-UX)
OSS Open Mediation V6.2 • NOM Basic SMX Components • TeMIP Channel Adapter • Exec Channel Adapter	• `ngossnom-basic-smx-components-V620-01` • `ngosstemip-ca-V120-01` • `ngossexec-ca-V100-01`	• `NGOSSNOMBASICSMXCOMPONENT SV62001` • `NGOSSTEMIPCAV12001` • `NGOSSEXECCAV10001`

Table 11 – Optional software prerequisites for UCA for EBC Channel Adapter (Linux and HP-UX)

Note

Please refer to the *OSS Open Mediation Installation and configuration Guide* [R3] for information on how to properly install and configure OSS Open Mediation V6.2.

Before installing UCA for EBC Channel Adapter, you must identify the home directory of OSS Open Mediation and the default container number (by default, this is container 0).

3.4 UCA for EBC Channel Adapter installation

3.4.1 Product installation

3.4.1.1 Untar the archive in a temporary directory

As root user, untar the UCA for EBC Channel Adapter archive file under a temporary local directory (For example: `/tmp`):

On HP-UX:

```
$ cd /tmp
$ tar -xvf <kit location>/uca-ebc-ca-kit-3.0-hpux.tar
```

On Linux:

```
$ cd /tmp
$ tar -xvf <kit location>/uca-ebc-ca-kit-3.0-linux.tar
```

3.4.1.2 Run the installation script

Still as root user, run the package installation script:

On both HP-UX and Linux:

```
$ install-uca-ebc-ca.sh –o <OSS Open Mediation root directory>
[-r <UCA for EBC Channel Adapter installation directory>]
```

The <`OSS Open Mediation root directory`> parameter value represents the absolute path of the Installation Root directory of the OSS Open Mediation product (by default the `/opt/openmediation-V62` directory).

If OSS Open Mediation has been installed at an alternate location, please check with your system administrator to get the correct value for the installation directory of OSS Open Mediation V6.2.

The < `UCA for EBC Channel Adapter installation directory >` parameter value represents the absolute path of the UCA for EBC Channel Adapter installation directory (by default the standard UCA for EBC root directory: `/opt/UCA-EBC`).

Please execute the `install-uca-ebc-ca.sh -h` command for a description of all available options.

The UCA for EBC Channel adapter installation script creates a soft link in the < `OSS Open Mediation root directory>/ips` directory that links to the UCA for EBC Channel adapter installation directory.

3.4.2 File organization

The UCA for EBC Channel Adapter is installed in the root directory specified at installation (by default /opt/UCA-EBC).

The following table describes the different subdirectories contained in the delivery:

Directory	Description
ips/uca-ebc-ca-3.0/*etc*	Contains the configuration files (including the XSLT files used for mapping) for the UCA for EBC Channel Adapter
ips/uca-ebc-ca-3.0/*jbisa*	Contains the Service Assembly (to be deployed on an OSS Open Mediation V6.2 container) for the UCA for EBC Channel Adapter
ips/uca-ebc-ca-3.0/*misc*	Contains the XML Schema Definition files used by the UCA for EBC Channel Adapter
bin	Contains the UCA for EBC Channel Adapter uninstall script.

Table 12 – Sub-directories of UCA for EBC Channel Adapter installation directory

3.4.3 Post-installation setup

After the UCA for EBC Channel Adapter has been installed, a few tasks must be performed in order to complete the installation. These tasks are described in detail in the following paragraphs but for now, here's a summary of these tasks:

1. Install the UCA for EBC Channel Adapter on OSS Open Mediation

This task renders the UCA for EBC Channel Adapter available to be installed in an OSS Open Mediation container. This task is a pre-requisite for the next task.

2. Install the UCA for EBC Channel Adapter in an OSS Open Mediation container

This tasks installs the UCA for EBC Channel Adapter in an OSS Open Mediation container. The UCA for EBC Channel Adapter is ready to be configured but is not yet deployed. This means that the UCA for EBC Channel

Adapter will not be started when the OSS Open Mediation container is started. This task is a pre-requisite for the next task.

3. Configure the UCA for EBC Channel Adapter

This tasks configures the UCA for EBC Channel Adapter in an OSS Open Mediation container. Once the UCA for EBC Channel Adapter is configured, it becomes ready to be deployed in in an OSS Open Mediation container. This task is optional and depends on your configuration.

4. Deploy the UCA for EBC Channel Adapter in an OSS Open Mediation container

This tasks deploys (i.e. starts) UCA for EBC Channel Adapter in an OSS Open Mediation container. This means that the UCA for EBC Channel Adapter will be started whenever the OSS Open Mediation container is started.

Note

All commands in the following sub-sections must be run using the same user account that was used to perform OSS Open Mediation setup and is responsible for OSS Open Mediation administration.

3.4.3.1 Install the UCA for EBC Channel Adapter on OSS Open Mediation

Installing the UCA for EBC Channel Adapter on OSS Open Mediation is done using the following command (where < *OSS Open Mediation root directory>* represents the OSS Open Mediation root directory which, by default, translates to the /opt/openmediation-V62 directory):

On both HP-UX and Linux:

```
$ <OSS Open Mediation root directory>/bin/nom_admin --install-
ip uca-ebc-ca-3.0
```

Verify that the installation was successful by using the following command:

On both HP-UX and Linux:

```
$ <OSS Open Mediation root directory>/bin/nom_admin --list-ip
```

The following text should be displayed:

```
INSTALLED        uca-ebc-ca-3.0
```

Note

In a nutshell, the nom_admin --install-ip command copies the channel adapter's configuration files from **/opt**/openmediation-V62/ips to **/var/opt**/openmediation-V62/ips (assuming that OSS Open Mediation V6.2 is installed at the default location).

Once the channel adapter has been installed on OSS Open Mediation V6.2, it becomes ready to be deployed in an OSS Open Mediation V6.2 container, which we will described in next paragraph.

3.4.3.2 Install the UCA for EBC Channel Adapter in an OSS Open Mediation container

Deciding in which container number to install the UCA for EBC Channel Adapter depends entirely on your OSS Open Mediation configuration, how you choose to group channel adapters among containers and how to choose to distribute OSS Open Mediation accross containers.

The following command is an example that installs the UCA for EBC Channel Adapter in OSS Open Mediation container 0.

It is recommended in a first step (if we set aside OSS Open Mediation distribution considerations*) to install UCA for EBC Channel Adapter in OSS Open Mediation container 0, provided the other OSS Open Mediation Channel Adapters are also installed in container 0.

Depending on your configuration you may want to install the UCA for EBC Channel Adapter in container 0 or another container. Please adjust the sample command below to suit your needs.

On both HP-UX and Linux:

```
$ <OSS Open Mediation root directory>/bin/nom_admin --install-
ip-in-container 0 uca-ebc-ca-3.0
```

In order to check whether the installation was successful or not, you must first start container 0 (or whichever container number depending on your configuration).

If you do not wish to start container 0 just yet, please skip this verification and move to the next section explaining how to deploy the channel adapter in an OSS Open Mediation container.

Otherwise you can check whether container 0 is started or not, by issuing the following command:

On both HP-UX and Linux:

```
$ <OSS Open Mediation root directory>/bin/nom_admin --list-
container
```

The following text should be displayed:

```
List of the containers:
0        STARTED         Hub
```

If container 0 is not yet started, please issue the following command to start container 0:

On both HP-UX and Linux:

```
$ <OSS Open Mediation root directory>/bin/nom_admin --start-
container 0
```

The following text should be displayed:

```
Container instance number 0 has been STARTED.
```

Now that container 0 is started, you can issue the following command to verify whether the installation of UCA for EBC Channel Adapter in OSS Open Mediation container 0 was successful or not:

On both HP-UX and Linux:

```
$ <OSS Open Mediation root directory>/bin/nom_admin --list-ip-
in-container 0
```

The following text should be displayed:

```
...
INSTALLED IN INSTANCE          uca-ebc-ca-3.0
```

Note

* Please refer to the *OSS Open Mediation Installation and Configuration Guide* [R3] for more information on installation, configuration and <u>distribution</u> of OSS Open Mediation.

3.4.3.3 Configure the UCA for EBC Channel Adapter

The UCA for EBC Channel adapter needs to be configured if you want to remove the default traces (for example if you are in a production environment), if UCA for EBC Server doesn't run on the same system as OSS Open Mediation or if the UCA for EBC Server collection queue port number has been changed and is different from the default value of 61666.

Modifying the uca-ebc-ca.properties file

If UCA for EBC Server doesn't run on the same system as OSS Open Mediation or if the UCA for EBC Server collection queue port number has been changed and is different from the default value of 61666, the following configuration file needs to be updated:

```
/var/<OSS Open Mediation root
directory>/containers/instance-0/ips/uca-ebc-ca-
3.0/etc/uca-ebc-ca.properties
```

Where:

- <*OSS Open Mediation root directory*> stands for the OSS Open Mediation installation root directory, which, by default, translates to the /opt/openmediation-V62 directory
- **instance-0** is the OSS Open Mediation container instance folder name. Depending on you configuration, the container number could be different than 0. If this is the case, please adjust the name of the container instance folder accordingly

In this file, the `uca.ebc.jms.broker.host` and `uca.ebc.jms.broker.port` properties should be updated with the correct value for the UCA for EBC Server collection queue hostname and port number:

```
# UCA EBC Server to connect to
uca.ebc.jms.broker.host=localhost
uca.ebc.jms.broker.port=61666

# Action Service
action-service.host=0.0.0.0
action-service.port=26700
```

- Replace: *'localhost'* by the IP Address or full DNS name of the system running UCA for EBC Server

- Replace: '*61666*' by the correct port number for UCA for EBC Server collection queue port number (only if it is different from the default value of 61666)

Note

The port number for UCA for EBC default instance is 61666. The additional instances of UCA for EBC have different port numbers, so the above port number change is mandatory for accessing additional instances of UCA for EBC server.

If you modify the UCA for EBC Channel Adapter configuration while the UCA for EBC Channel Adapter is already deployed in an OSS Open Mediation container (this should not be the case if you're installing the UCA for EBC Channel Adapter for the first time following the instructions in these chapters), you will need to either undeploy then redeploy the UCA for EBC Channel Adapter in the container, or restart the container for the changes in the configuration to be taken into effect.

Below are the commands to issue to restart the OSS Open Mediation container where the UCA for EBC channel adapter is installed:

On both HP-UX and Linux:

```
$ <OSS Open Mediation root directory>/bin/nom_admin --shutdown-
container 0
```

The following text should be displayed:

```
Container instance number 0 has been SHUTDOWN.
```

On both HP-UX and Linux:

```
$ <OSS Open Mediation root directory>/bin/nom_admin --start-
container 0
```

The following text should be displayed:

```
Container instance number 0 has been STARTED.
```

3.4.3.4 Deploy the UCA for EBC Channel Adapter in an OSS Open Mediation container

In order to deploy the UCA for EBC channel adapter in OSS Open Mediation container 0, please issue the following command:

On both HP-UX and Linux:

```
$ <OSS Open Mediation root directory>/bin/nom_admin --deploy-
ip-in-container 0 uca-ebc-ca-3.0
```

Verify that the deployment was successful by using the following command (provided the container is started):

On both HP-UX and Linux:

```
$ <OSS Open Mediation root directory>/bin/nom_admin --list-ip-
in-container 0
```

The following text should be displayed:

```
...
DEPLOYED        uca-ebc-ca-3.0
```

The UCA for EBC Channel Adapter is now up and running in an OSS Open Mediation container.

3.5   Un-installation of UCA for EBC Channel Adapter

In order to uninstall the UCA for EBC Channel Adapter, you will need to:

1. Undeploy the UCA for EBC Channel Adapter from any OSS Open Mediation container where it has been deployed.

2. Uninstall the UCA for EBC Channel Adapter from any OSS Open Mediation container where it has been installed.

3. Uninstall the UCA for EBC Channel Adapter from OSS Open Mediation.

4. Uninstall the UCA for EBC Channel Adapter from the system.

Note

All commands in the following sub-sections (unless mentioned otherwise) must be run using the same user account that was used to perform OSS Open Mediation setup and is responsible for OSS Open Mediation administration.

3.5.1.1 Un-deploy the channel adapter from any OSS Open Mediation container

To un-deploy the UCA for EBC Channel Adapter from an OSS Open Mediation container, please execute the following command (repeat this command for each container where the UCA for EBC Channel Adapter is deployed):

On both HP-UX and Linux:

```
$ <OSS Open Mediation root directory>/bin/nom_admin --undeploy-
ip-in-container <container number> uca-ebc-ca-3.0
```

Verify that the undeployment was successful by using the following command (provided container <*container number*> is started):

On both HP-UX and Linux:

```
$ <OSS Open Mediation root directory>/bin/nom_admin --list-ip-
in-container <container number>
```

The following text should be displayed:

```
...
INSTALLED IN INSTANCE          uca-ebc-ca-3.0
```

3.5.1.2 Un-install the channel adapter from any OSS Open Mediation container

To un-install the UCA for EBC Channel Adapter from an OSS Open Mediation container, please execute the following command (repeat this command for each container where the UCA for EBC Channel Adapter is installed):

On both HP-UX and Linux:

```
$ <OSS Open Mediation root directory>/bin/nom_admin --remove-
ip-in-container <container number> uca-ebc-ca-3.0
```

Verify that the un-installation was successful by using the following command (provided container <*container number*> is started):

On both HP-UX and Linux:

```
$ <OSS Open Mediation root directory>/bin/nom_admin --list-ip-
in-container <container number>
```

The text displayed as a result of executing this command should not mention the uca-ebc-ca-3.0 installation package anymore.

3.5.1.3 Uninstall the channel adapter from OSS Open Mediation

To un-install the UCA for EBC Channel Adapter from OSS Open Mediation, please execute the following command:

On both HP-UX and Linux:

```
$ <OSS Open Mediation root directory>/bin/nom_admin --remove-ip
uca-ebc-ca-3.0
```

You can verify that the un-installation was successful by using the following command:

On both HP-UX and Linux:

```
$ <OSS Open Mediation root directory>/bin/nom_admin --list-ip
```

The following text should be displayed:

```
NOT INSTALLED          uca-ebc-ca-3.0
```

3.5.1.4 Un-install the channel adapter

The UCA for EBC Server product can be easily uninstalled by running the ***uninstall-uca-ebc-ca*** script provided in the <UCA for EBC Channel Adapter *Root Directory>/bin* directory.

This uninstall utility must be run with the **root** privileges.

When the ***uninstall-uca-ebc*** tool is launched, it checks for all UCA for EBC Server native packages installed on your system and prompts you for the number associated with the package to be uninstalled:

On both HP-UX and Linux:

```
$ /opt/UCA-EBC/bin/uninstall-uca-ebc
```

You should get an output similar to the following text:

```
Here is the list of installed UCA-EBC CA packages:


        [0]      UCA-EBCCA-V3.0-00F

Enter the index number of UCA-EBC version to un-install:
```

By entering '0' (as in the example above), UCA for EBC Channel Adapter version V3.0-00F will be removed.

UCA for EBC Development Kit

The UCA for EBC Development Kit is running and supported on Windows and Linux. It is delivered as follow:

On Windows XP/Vista, Windows 7, Windows Server 2007:

    uca-ebc-dev-kit-3.0-msi.zip

On Linux:

    uca-ebc-dev-kit-3.0-linux.tar

This chapter describes the software prerequisites, the installation steps, and gives a brief content description of the UCA for EBC Development kit.

4.1 Licensing

Please refer to Chapter 2.1 "*Licensing*" for more information on UCA for EBC Development Kit licensing.

4.2 Disk requirements

Here are the disk requirements for the UCA for EBC Development Kit:

On Windows:

Type	Disk requirements
Temporary disk space	130 MB minimum: • 65 MB minimum for the uca-ebc-dev-packaging-3.0-msi.zip file • 65 MB minimum for the UCA-EBCDEVTOOLKIT-V3.0-00F.msi file (expanded from the uca-ebc-dev-kit-3.0-msi.zip file)
Permanent disk space	80 MB minimum for UCA for EBC Development Kit V3.0 installed on the system

Table 13 - Disk Requirements for UCA for EBC Development Kit on Windows

On Linux:

Type	Disk requirements
Temporary disk space	130 MB minimum: • 65 MB minimum for the uca-ebc-kits-3.0-linux.tar file • 65 MB minimum for the install-uca-ebc.sh and UCA-EBC-DEVTOOLKIT-V3.0-00F.noarch.rpm files (expanded from the uca-ebc-dev-kit-3.0-linux.tar file)
Permanent disk space	80 MB minimum for UCA for EBC V3.0 installed on the system

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Table 14 - Disk Requirements for UCA for EBC Development Kit on Linux

</div>

4.3 Software prerequisites

4.3.1 Java

UCA for EBC V3.0 Server, UCA for EBC V3.0 Topology Extension, UCA for EBC V3.0 Development Toolkit, and UCA for EBC V3.0 Value Packs support both Java 1.6 and Java 1.7.

Any of the following versions of Java is needed:

Software	Version
Java JRE/JDK 6	1.6.0.08 (or later)
Java JRE/JDK 7	1.7.0.00 (or later)

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Table 15 - Software Prerequisites for UCA for EBC Development Kit

</div>

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Notes

</div>

Please note that if your Value Packs are compiled with one version of Java, it is strongly recommended that UCA for EBC Server is also running the same version of Java to avoid running into compatibility issues between Java 6 and Java 7.

For more information on these compatibility issues, you can go to:

http://www.oracle.com/technetwork/java/javase/compatibility-417013.html

Java JRE (Java Runtime Environment) is enough for using the UCA for EBC Development Kit. However the Java JDK (Java Development Kit) comes with some useful debugging tools (jconsole, jvisualvm, etc…) that may help. It is therefore recommended to install the JDK, instead of just installing the JRE.

The JAVA_HOME environment variable must be set before using UCA for EBC Development Kit:

On Windows:

In the *Control Panel*, Open *System Properties,* open the *Advanced* tab and click *Environment Variables*, then set the JAVA_HOME environment variable according to the location of your JDK:
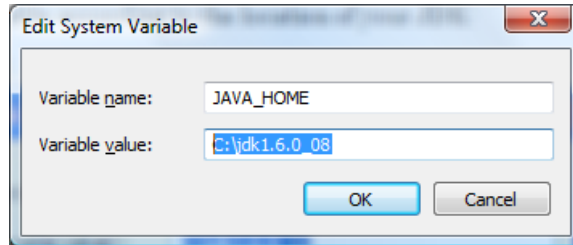
Figure 1 - Setting the JAVA_HOME environment variable on Windows systems

In case Java is not yet installed on your system, the latest JRE/JDK package for Microsoft Windows operating systems can be downloaded (for free) from http://java.com/en/download/manual.jsp.

On Linux:

Depending on your shell, and the location of the Java JRE/JDK software, please use one of the following commands to set the JAVA_HOME environment variable:

Example for **csh**-like shell:

```
$ setenv JAVA_HOME /opt/java/jdk1.6.0_20
```

Example for **sh**-like shell:

```
$ export JAVA_HOME=/opt/java/jdk1.6.0_20
```

To check if you already have Java installed:

```
$ rpm -qa | grep jdk
```

Red Hat Enterprise Linux Server comes with OpenJDK Java VM. You should get an output similar to the following (here 1.6.0 and 1.7.0 are installed):

```
java-1.6.0-openjdk-1.6.0.0-1.41.1.10.4.el6.x86_64
java-1.6.0-openjdk-devel-1.6.0.0-1.41.1.10.4.el6.x86_64
java-1.7.0-openjdk-1.7.0.9-2.3.4.1.el6_3.x86_64
java-1.7.0-openjdk-devel-1.7.0.9-2.3.4.1.el6_3.x86_64
```

You can also download (for free) the latest Java packages (HotSpot Java VM) from Oracle from http://java.com/en/download/manual.jsp. If this is installed (usually under /usr/java), you should get an output similar to the following:

```
jdk-1.6.0_23-fcs.x86_64
```

4.4 UCA for EBC Development Kit installation

4.4.1 Product Installation

On Windows:

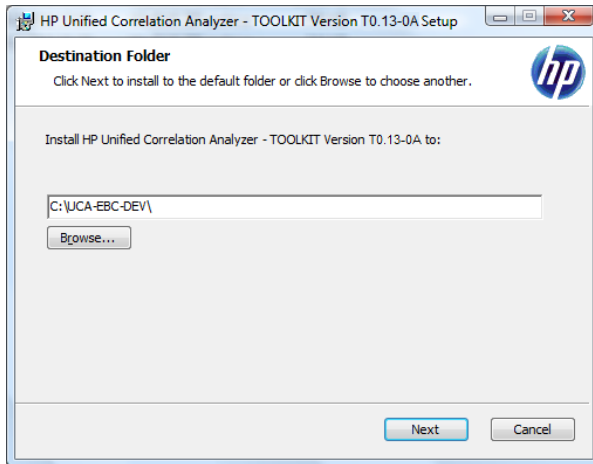Install the UCA for EBC Development Kit by executing the UCA-EBC-DEVTOOLKIT-V3.0-00F.msi file.

Figure 2 - Installing UCA for EBC Development Kit

By default, the UCA for EBC Development Kit is installed in the `C:\UCA-EBC-DEV` directory.

The installer automatically creates/updates some environment variables such as:

- The system's PATH environment variable is updated in order to make 3rd party product executables (i.e. Apache Ant) easily available

- The UCA_EBC_DEV_HOME environment variable that stores the UCA for EBC Development Kit root directory (by default `C:\UCA-EBC-DEV`) is updated

---

Note

On **Windows 7**, you must log off and log back in again in order for these new/updated environment variables to be taken into account.

On Linux:

- Untar the archive in a temporary directory:

  As **root** user, untar the archive in a temporary local directory (For example: /tmp):

```
$ cd /tmp
$ tar -xvf <kit location>/uca-ebc-dev-kit-3.0-linux.tar
```

- Run the installation script

  Depending on whether you wish to install the UCA for EBC Development Kit at the default location, i.e. /opt/UCA-EBC-DEV, or an alternate location, run either of the following commands to execute the installation script.

  To install UCA for EBC Development Kit at the default location (in /opt/UCA-EBC-DEV directory), please execute the following command as **root** user:

```
$ install-uca-ebc-dev.sh
```

  To install UCA for EBC Development Kit at an alternate location of your choosing, please execute the following command as **root** user:

```
$ install-uca-ebc-dev.sh –r <Alternate root directory>
```

- Post-installation setup : setting the environment variable

  The UCA for EBC Development Kit on Linux requires the UCA_EBC_DEV_HOME environment variable to be set in order to work properly.

  For that purpose, the UCA for EBC Development Kit installation script installs two files in the UCA for EBC Development Kit root directory:

  By default:

  - /opt/UCA-EBC-DEV/.dev_environment.sh
  - /opt/UCA-EBC-DEV/.dev_environment.csh

  These files can be used for setting the correct environment variables for the user account(s) that will be using the UCA for EBC Development Kit.

  Depending on your shell, use one of the following commands to set the UCA for EBC Development Kit environment variables and update the path:

  On **csh**-like shell:

```
$ source /opt/UCA-EBC-DEV/.dev_environment.csh
```

  On **sh**-like shell:

```
$ . /opt/UCA-EBC-DEV/.dev_environment.sh
```

4.4.2 File organization

The UCA for EBC Development Kit is installed under the %*UCA_EBC_DEV_HOME%* directory on Windows or the ${*UCA_EBC_DEV_HOME}* directory on Linux, which is by default the C:\UCA-EBC-DEV directory on Windows or the /opt/UCA-EBC-DEV directory on Linux.

The following table describes the different subdirectories under the %*UCA_EBC_DEV_HOME%* directory on Windows or the ${*UCA_EBC_DEV_HOME}* directory on Linux:

Directories	Description
3pp	Contains 3rd party products needed to build value packs, i.e. Apache Ant
apidoc	Contains the Javadoc of the Java objects provided by UCA for EBC that can be used in Drools rules files.

Directories	Description
bin	Contains the un-installer tool
cascading-example	Contains the source project of the Cascading value pack, with scenario definitions, filters, rules and associated JUnit tests.
eclipseplugin	Contains the eclipse plugin and associacted template files
lib	Contains the jar files needed by the UCA for EBC Development Kit
llef-example	Contains the source project of the "Low Level Event Filtering" example value pack, with scenario definitions, filters, rules and associated JUnit tests.
mediation-libs	Contains Jar files describing the mapping capabilities of both the UCA for EBC channel adapter and the TeMIP channel adapter
skeleton-project	Contains a sample "skeleton" project that can be used as a starting point for creating new UCA for EBC value packs.
topology-example	Contains a sample "topology" project that can be used as a starting point for creating new UCA for EBC value packs.

Table 16 - Sub-directories of UCA for EBC Development Kit installation directory

4.5   Un-installation of UCA for EBC Development Kit

In order to uninstall the UCA for EBC Development Kit, please follow the instructions below:

On Windows:

1. Go to the **Control Panel**

2. Select "**Program and Features**"

3. Right-click on "**HP UCA EBC Development toolkit – UCA-EBC-DEVTOOLKIT-V3.0-00F**"

4. Select "**Uninstall"**

On Linux:

```
$ /opt/UCA-EBC-DEV/bin/uninstall-uca-ebc-dev
```

You should get an output similar to the following text:

```
Here is the list of installed UCA-EBC-DEV packages:


        [0]     UCA-EBC-DEVTOOLKIT-V3.0-00F

Enter the index number of UCA-EBC-DEV version to un-install:
```

By entering '0' (as in the example above), UCA for EBC Development Toolkit version V3.0-00F will be removed.

Chapter 5

Code Signing

This Software Product from HP is digitally signed and accompanied by Gnu Privacy Guard (GnuPG) key.

5.1   On Red Hat Enterprise Linux and HP-UX platforms

Below mentioned procedure* allows you to assess the integrity of the delivered Product before installing it, by verifying the signature of the software packages.

Pick the signature (.sig) file shipped along with the product and use following GPG command

gpg --verify <product.sig> <product>
Example: gpg --verify VPNSVP-X51-3A.zip.sig VPNSVP-X51-3A.zip

Note: Look for the comments shown below in the command output
Good signature from "Hewlett-Packard Company (HP Code signing Service)"

===
Note: If you are not familiar with signature verification using GPG and intended to verify HP Product signature, follow the steps given below.

1. Check whether gnupg gpg is installed on the system. If no, install gnupg gpg

2. Configure GPG for accepting HP signature. The steps are the following:
    a. Log as root on your system
    b. Get the hpPublicKey from following location:
        https://h20392.www2.hp.com/portal/swdepot/displayProductInfo.do?productNumber=HPLinuxCodeSigning and save it as hpPublicKey.pub
        Note that the hpPublicKey file will be located in the root's home directory.
    c. Follow the instruction found at above URL in the "Verification using GPG" section.

HP strongly recommends using signature verification on its products, but there is no obligation.
Customers will have the choice of running this verification or not as per their IT Policies.

Glossary

UCA: Unified Correlation Analyzer

EBC: Event Based Correlation

IP: Installation Package for OSS Open Mediation V6.2

JDK: Java Development Kit

JMS: Java Messaging Service

JMX: Java Management eXtension, used to access or process action on the UCA for EBC product

JNDI: Java Naming and Directory Interface

JRE: Java Runtime Environment

Inference Engine: Process that uses a Rete algorithm

DRL: Drools Rule file

XML: Extensible Markup Language

XSD: Schema of an XML file, describing its structure

X733: Standard describing the structure of an Alarm used in telecommunication environment

EVP: UCA for EBC Value Pack

Comment [JT1]: I believe this is not used anymore. Do we remove?