



Installation Guide

Version 4.3 – All Platforms

Table of Contents

Prerequisites	4
i. HIPPO deployment server	4
ii. Obtain license key	5
iii. Choose initial node monitored by HIPPO	5
iv. Choose initial Informatica Domain/Repository monitored by HIPPO	6
v. Ensure that a supported Browser is available to verify the installation	6
vi. Ensure that you have access to the Zendesk support system	7
Installation	8
i. Run installer on deployment server	8
i. Choose OS user	10
ii. Close installer	11
iii. Perform initial HIPPO configuration	12
iv. Download and install the initial HIPPO Collector	13
v. Log in to HIPPO!	13
Collector Installation	15
i. Download Collector	15
Windows	15
Unix / Linux	15
ii. Check Configuration File	16
iii. Check HIPPO Configuration Settings	16
iv. Deploy	16
HANC Installation	19
Automatic deploy via Windows service	19
Unix Command Line	20
Unix Wrapper Script	20
Managing the HIPPO Configuration	21
i. Licence Key Updates	21
ii. Domains	21
Deleting Domains	22
iii. Repositories	22
Deleting Repositories	25

iv. Hosts & Nodes.....	25
Deleting Hosts/Nodes	25
v. Collectors	26
vi. Projects	28
Appendix A - Changing the Root Installation Directory	29
Appendix B - Uninstalling HIPPO.....	31
Appendix C - HIPPO Web Server configuration	33
Appendix D - HIPPO Database configuration.....	34
Appendix E - Custom HIPPO Repository on Oracle.....	35
Appendix F - Custom HIPPO Web Server	36
Oracle Repository.....	36
Appendix G – Collector Configuration File.....	37
Appendix H – Privileges Required on Informatica Repos	38
Appendix I – Troubleshooting.....	40
Collector Issues	40
General.....	40
Diagnostic Information	40
Error Messages.....	40
Collector fails to start.....	41
Informatica commands (infacmd, pmcmd , pmrep) fail to execute from Collector	41
Problem starting Collector or HANC services	41
HIPPO Server Issues	42
HIPPO_www service fails to start	42
Database Connectivity Issues.....	43
Problems connecting to PostgreSQL (HIPPO Server)	43
Reconfigure Problems connecting to SQL Server	43

Prerequisites

Before installing HIPPO, it is necessary to determine some key information about your Informatica environment and where you wish HIPPO to be deployed.

Please ensure that you have reviewed and verified the following installation requirements.

Custom installations are possible where the HIPPO Repository, web server, or both are provided by custom components. Please refer to the Appendix for custom installation of HIPPO.

i. HIPPO deployment server

HIPPO is installed via the binary executable `hippoinstall_4_x.exe` which will have been supplied by your HIPPO representative. This is intended for servers running the Windows Operating system. The installer contains a built-in database engine for the HIPPO Repository and a pre-configured web server which is used to access HIPPO from your browser. Please contact your HIPPO representative if a bespoke deployment server is required.

Recommended Hardware

- 32 or 64-bit x86 CPU (2 cores x 2.4 GHz or greater)
- 4 GB of memory
- 2.5GB of local disk space plus 10GB per monitored node per year
- At least 1 NIC with statically allocated IP address

Required Ports

- Port 80 (or the custom port chosen, see “*Appendix C - HIPPO Web Server configuration*”) must be open to allow remote access to the web server. If there is already a web server (`httpd.exe`) running on the server on this port, then either this or the HIPPO port must be changed if both are to operate simultaneously.
- Port 5432 (or the custom port chosen, see “*Appendix D - HIPPO Database configuration*”) must be open so that the Collectors can access the database engine. Please ensure that communication is checked both ways from the Collector to the server where the HIPPO database is located.

Additional Requirements

- Administrative privileges are required to run the installer, as Windows services are created during the installation process.
- Java 1.6 or above is required to run the HIPPO Active Notification Centre (HANC) on the HIPPO deployment server. Version 1.6 is recommended. This version of Java is shipped with PowerCenter 9.1 and above.
- The default installation path which may be changed afterwards to the root of another drive, e.g. `D:\hippo`. See Appendix A for more details.

- The VC++ Redistributable package is a pre-requisite for both PostgreSQL and Apache which form part of the HIPPO installation. This is usually installed by default on Windows operating systems, and can be seen in the Control Panel “Add or Remove Programs”. The libraries can be downloaded from e.g. <http://www.microsoft.com/en-gb/download/details.aspx?id=29>.

ii. Obtain license key

A valid HIPPO license key is required for your HIPPO installation. Please contact your HIPPO representative to obtain a key prior to starting the installation process. The initial key will have the name `hippolicense.txt` (please do not rename this file).

iii. Choose initial node monitored by HIPPO

HIPPO monitors Informatica nodes using agents called *Collectors*, which must be installed on each node which is to be monitored. HIPPO Collectors retrieve operating system metrics and combine these with metrics from Informatica, and store the results in HIPPO Repository.

The Collector is a Java application that requires a Java runtime environment of at least version 1.6 to be available on the node itself (This version of java is installed by default with PowerCenter 9.1 and above). Therefore if the node does not already have version 1.6 or above installed then this must be completed before attempting to install the HIPPO Collector module. Please ensure that the `JAVA_HOME` path is configured correctly to point to the required Java environment.

In order to complete the configuration of each physical server to be monitored via the HIPPO User Interface, the following details are required:

- Host name
- Node name
- Operating system

For each Informatica node to be monitored you will need to:

- Note the IP address(s) for incorporation into the HIPPO license key.
- Create an installation directory on the host. The user under which the Collector will execute must have full privileges on this directory and its subdirectories.
- Each Collector requires up to 50 MB including all binaries and logs, plus temporary storage space to hold any Informatica session logs. Only one log is stored at a time and deleted after processing.
- Install Java 1.6 or above if required.
- Ensure that the user under which the Collector will execute has rights to execute Informatica commands, for example “[Informatica binary root]/infacmd.bat help” and “[Informatica binary root]/pmcmd version”.
- Please ensure that the `INFA_HOME` and `INFA_DOMAINS_FILE` environment variables are set correctly.
- Note the directory where the Informatica client binaries reside (infacmd, pmcmd and pmrep), e.g. `C:\Informatica\9.1.0\server\bin`.

- As stated above, the node must be able to communicate with the HIPPO server over port 5432 to allow data to be transmitted to, and received from, the HIPPO Repository database.

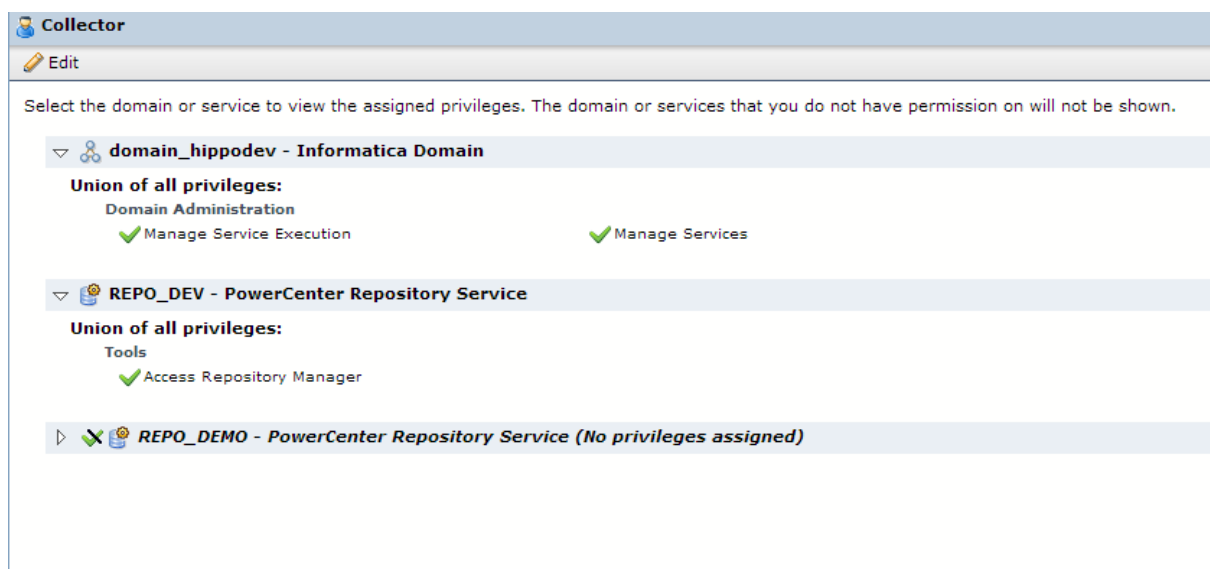
iv. Choose initial Informatica Domain/Repository monitored by HIPPO

HIPPO supports Informatica PowerCenter versions 8.6.1 and above.

The HIPPO Collector identifies, collects and processes statistics from the Informatica PowerCenter repositories that are to be monitored. HIPPO is a passive monitoring tool that does not modify the configuration or inhibit the operation of the Informatica environment that it monitors.

For each Informatica repository to be monitored:

- You will need to know the Informatica Domain name, Gateway Host name, Port and Web Services Hub URL (if applicable).
- An Informatica user must be available so that the Collectors may execute the Informatica client commands infacmd, pmcmd and pmrep. These commands are read-only and used for monitoring. The commands authenticate with the Informatica Domain using the account details stored in HIPPO for the Informatica Repository. Note this account will need the Manage Services privilege configured in the Informatica Domain.
- The minimum Domain and Repository privileges required are shown in the diagram below for the Repository REPO_DEV.



- Informatica Repository database type and connection details (e.g. Oracle, database server, port and schema user/password) need to be available.

v. Ensure that a supported Browser is available to verify the installation

HIPPO supports:

- Version 9 of Internet Explorer. For the avoidance of doubt, HIPPO does not support version 6, 7 or 8 of Internet Explorer since they cannot support HIPPO's interactive Timeline or Resource Explorer features.
- Chrome from Version 20.x onwards
- Mozilla/Firefox Version 14.x onwards.

vi. Ensure that you have access to the Zendesk support system

Vertoscope use the Zendesk Helpdesk system to support all users of their products. This ensures that log files and other debug information can be shared and that the whole of the support team are immediately informed of any support issues that you raise via the support ticket system in Zendesk. If you do not already have access to Zendesk then please inform your Vertoscope contact as soon as possible.

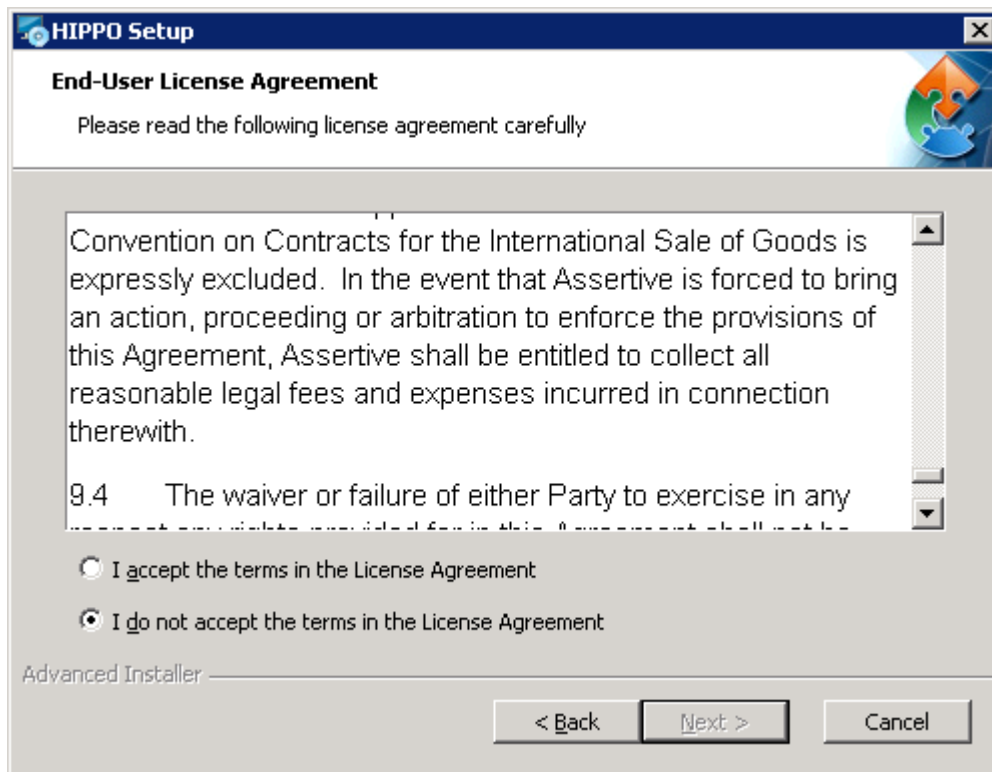
Installation

i. Run installer on deployment server

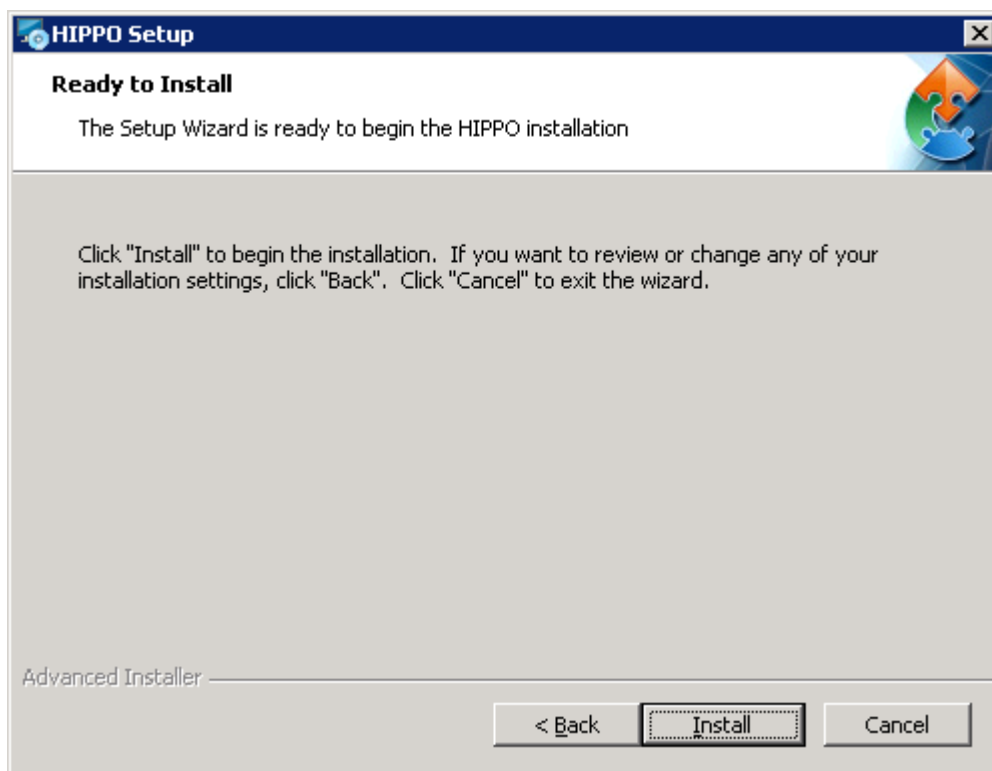
HIPPO is installed via the binary executable hippoinstall_4.x.exe which will have been supplied by your HIPPO representative. Begin the by opening the executable on the deployment server.



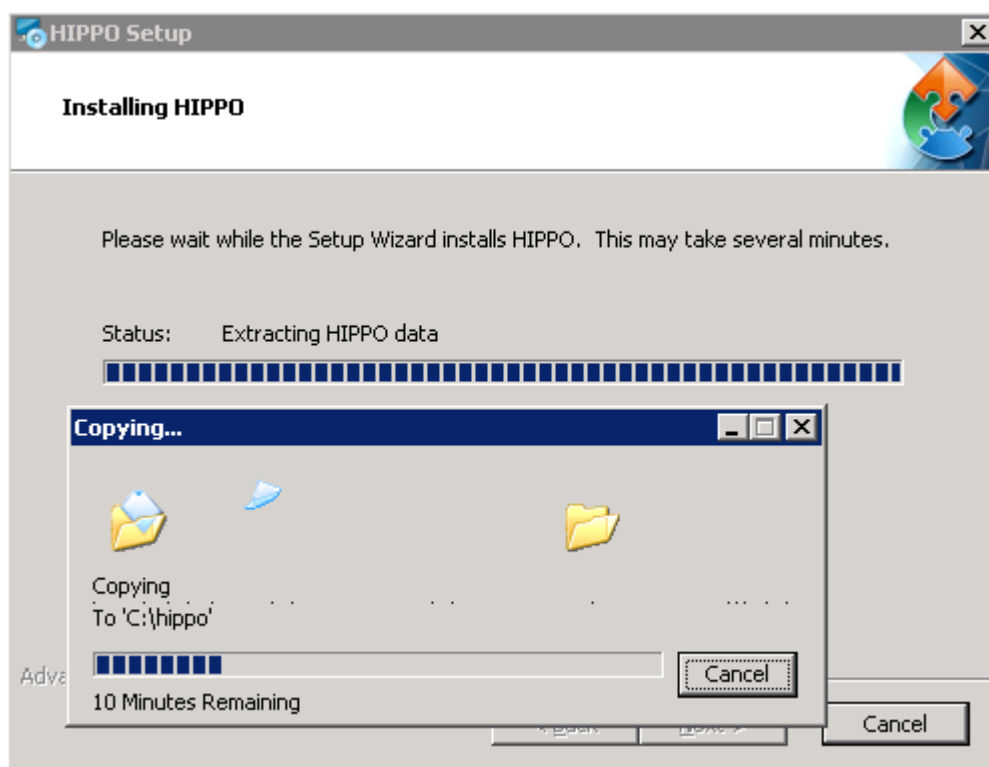
Click "Next" to move on to the Licence Agreement panel.



Review the terms of the Licence Agreement and, once accepted, Click “Next” to move on to pre-installation panel.



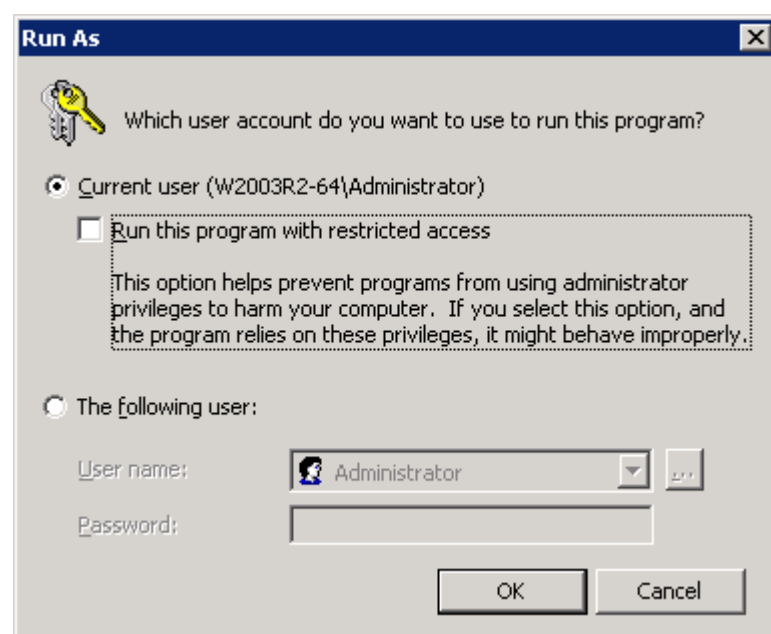
Click “Install” to begin the installation process. The installer will extract and set up the HIPPO web server, repository, and all necessary configuration files, and the process may take several minutes to complete.



i. Choose OS user

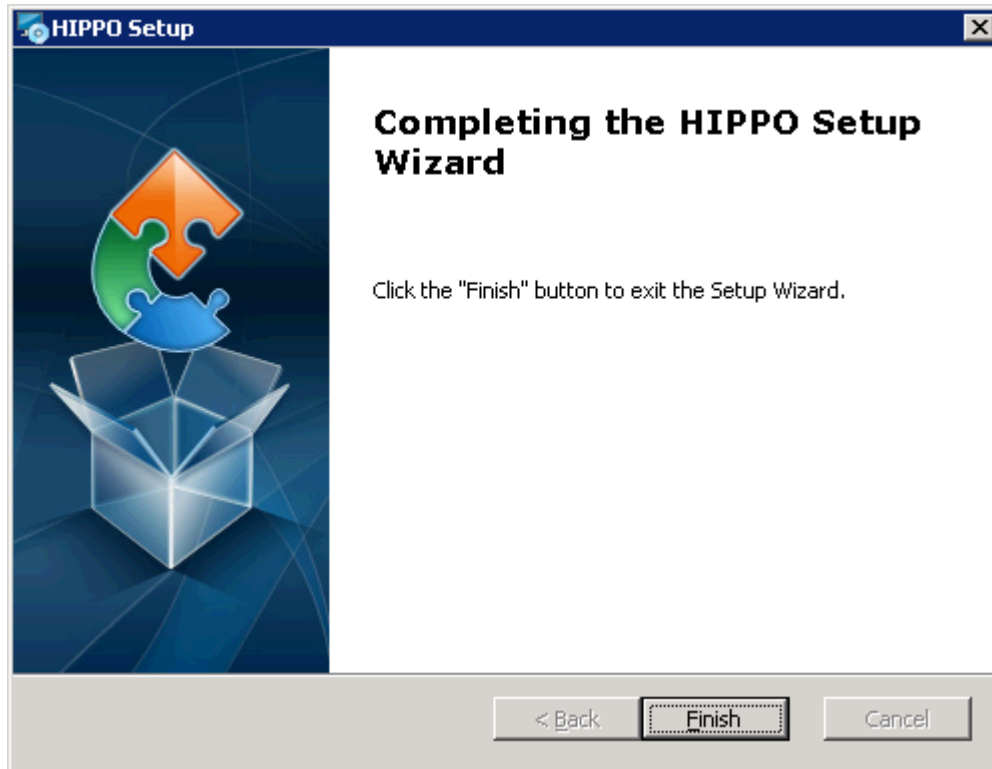
Once extraction is complete, choose the Operating System user under which the HIPPO processes should run (note this may not appear depending on your operating system).

Untick the checkbox for this and the next panels, as HIPPO needs to run with administrative privileges.



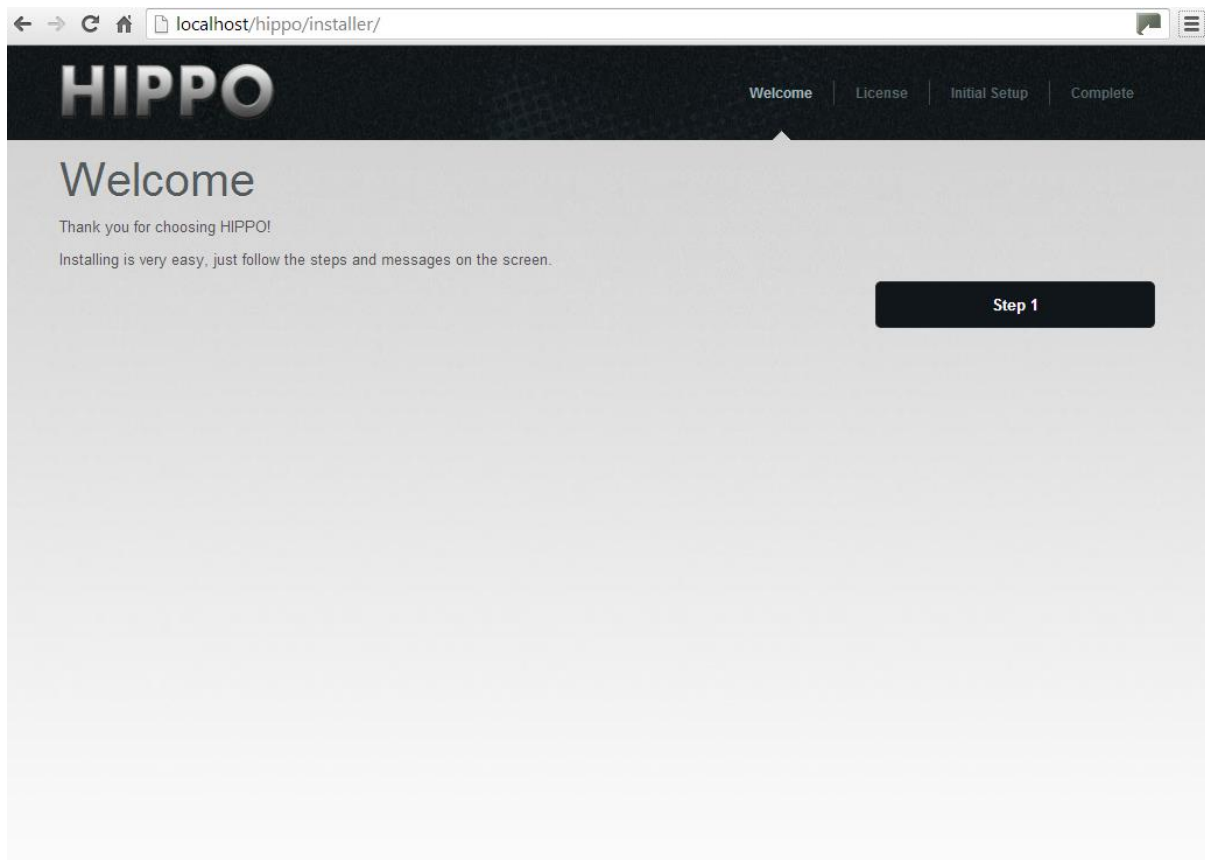
ii. Close installer

The HIPPO web server and repository will start automatically. Click “Finish” to complete the installation and exit the installer.



iii. Perform initial HIPPO configuration

The installation start page should be displayed.



Note

If an existing Oracle schema is to be used to act as the HIPPO Repository, it is necessary to manually enter the URL "localhost/hippo/installer/advanced/" to direct the browser to Step 1 of the Oracle installation screens.

Press the "Step 1" button to choose the License key supplied by your HIPPO representative:

- Browse to the key location using "Choose File"
- Select the key and click "Save Key"
- Note the file should be named "hippolicense.txt"

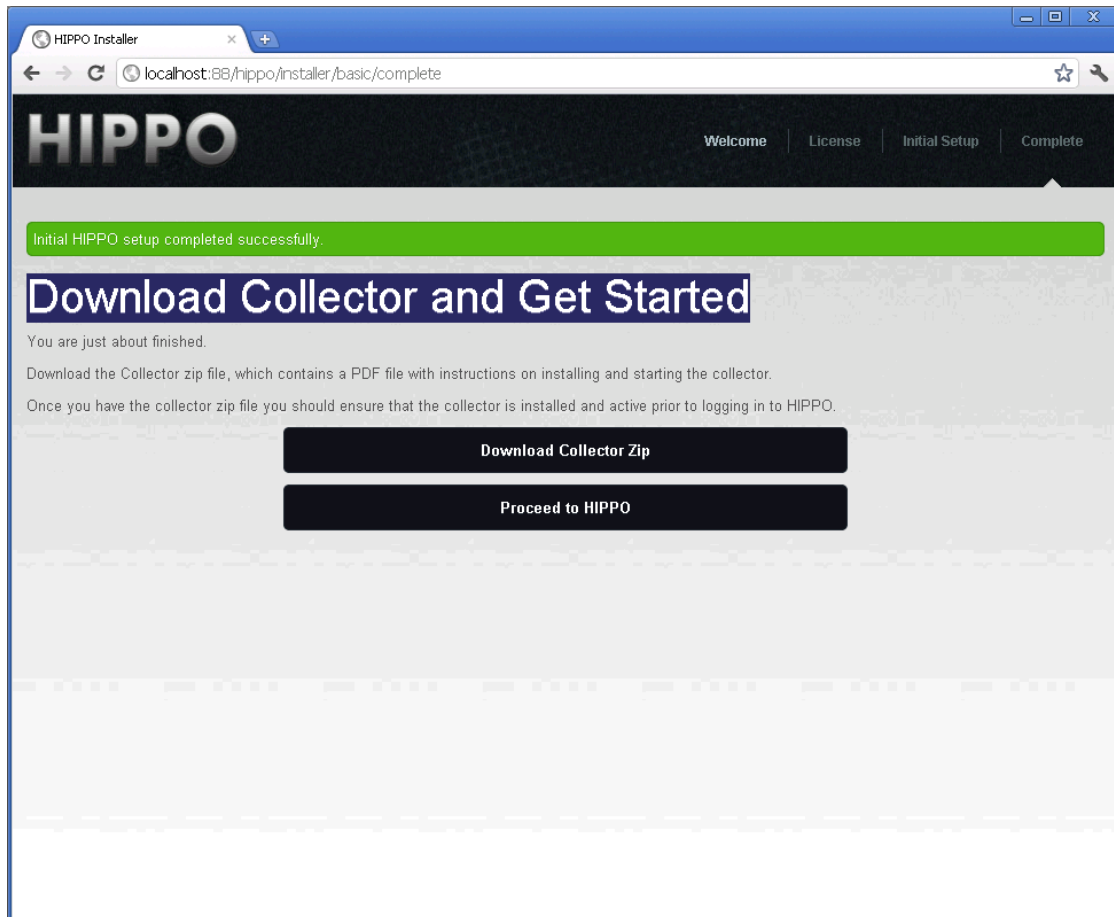
In the next step, parameters for the initial HIPPO Collector are entered. Complete the following sections:

- Host & Node – The physical host and Informatica node details.
- Domain – The Informatica domain details for the Informatica Repository to be monitored.
- Repository - The Informatica Repository to be monitored.
- Repository database – The connection details for the database where the underlying Informatica Repository data is stored.

Press “Save Details” to move on to the last step.

iv. Download and install the initial HIPPO Collector

For each PowerCenter server host to be monitored, a HIPPO Collector needs to be installed.



Select “Download Collector Zip” to download HIPPO_Core-x.zip, where x is the unique identifier given to the HIPPO Collector that has just been created in the steps above, to the required node. Follow the steps in the following section to install and start the Collector depending on the local operating system.

v. Log in to HIPPO!

On the final installation screen, click “Proceed to HIPPO” to begin working with the UI. The initial default username and password is “Administrator”, but the password must be changed after logging in for the first time:

The screenshot shows a web interface for changing a password. At the top, a message reads "You need to change your password...". Below this, there are two input fields: "New Password" and "Confirm Password". Both fields are filled with dots, indicating masked text. To the right of the "Confirm Password" field is an eye icon for toggling visibility. At the bottom right of the form is a blue button labeled "UPDATE PASSWORD".

HIPPO Administrators can manually change passwords at any time from within the UI by selecting Administrator -> Manage Users from the sidebar.

The values input during the HIPPO Collector set up in the steps above will now be visible in the Administrator screens. Please read the 'Getting started with HIPPO' guide to find out how to check time zones, define Projects and set up User accounts to enable you to begin using HIPPO successfully.

Collector Installation

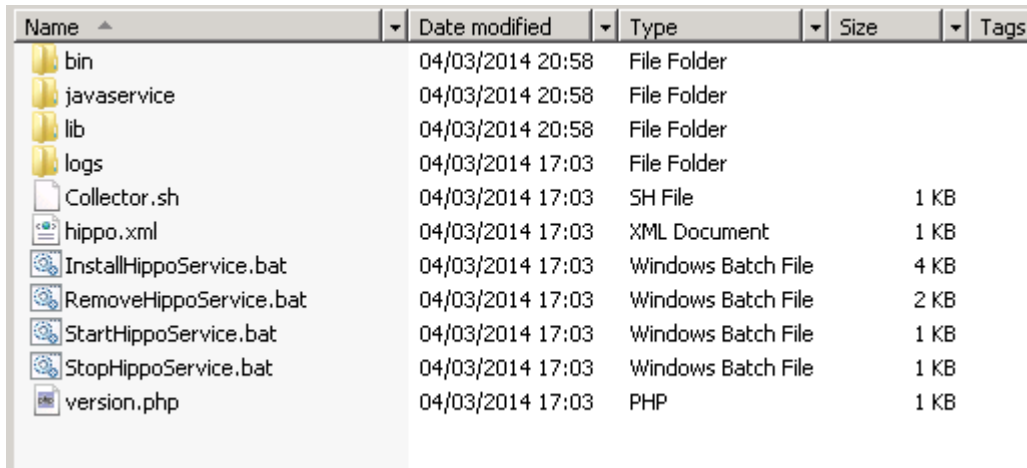
i. Download Collector

At the end of initial configuration there is the option to download the Collector binaries, which must be installed on every Informatica node you wish to monitor. The binaries can also be downloaded at any time from within the UI.

To do this, select Administrator -> HIPPO Config and select the Collector from the “Collectors” list. Then select ‘COLLECTOR ACTIONS -> Collector Zip’ to allow the zipped binaries to be downloaded.

Windows

Download, transfer and extract HIPPO_Core-x.zip into the directory created on the Informatica node in the prerequisites step. This is the Collector root directory, in which you should now see a file structure similar to that below.



Name	Date modified	Type	Size	Tags
bin	04/03/2014 20:58	File Folder		
javaservice	04/03/2014 20:58	File Folder		
lib	04/03/2014 20:58	File Folder		
logs	04/03/2014 17:03	File Folder		
Collector.sh	04/03/2014 17:03	SH File	1 KB	
hippo.xml	04/03/2014 17:03	XML Document	1 KB	
InstallHippoService.bat	04/03/2014 17:03	Windows Batch File	4 KB	
RemoveHippoService.bat	04/03/2014 17:03	Windows Batch File	2 KB	
StartHippoService.bat	04/03/2014 17:03	Windows Batch File	1 KB	
StopHippoService.bat	04/03/2014 17:03	Windows Batch File	1 KB	
version.php	04/03/2014 17:03	PHP	1 KB	

Ensure the user that will start the collector has full privileges on the hippo root and subdirectories, and can execute Informatica `Infacmd`, `pmcmd` and `pmrep` commands (see pre-requisites section).

The commands authenticate with the Informatica Domain using the account details stored in HIPPO for the Repositories. This account will need the Manage Services privilege configured in the Informatica Domain.

Unix / Linux

Download and extract HIPPO_Core-x.zip into the directory set aside in the prerequisites step, e.g. `/opt/local/hippocollector/hippo`. Open a shell in the HIPPO root directory, which in this case will be `/opt/local/hippocollector/hippo`. Ensure the user that will start the collector has full privileges on the hippo root and subdirectories, and can execute Informatica `Infacmd` and `pmrep` commands from the shell.

The commands authenticate with the Informatica Domain using the account details stored in HIPPO for the Repositories. This account will need the Manage Services privilege configured in the Informatica Domain.

ii. Check Configuration File

To connect to the HIPPO Repository, the collector uses the configuration file `hippo.xml`. If the Collector zip file was extracted from the UI then this should be pre-configured with the correct connection details.

In some circumstances, the HIPPO deployment server details could not be determined automatically and defaulted to “localhost”. Open or view `hippo.xml` and check that the parameter “`hippodbserver`” correctly references the server where the HIPPO Repository is located. If not, edit to the server name or IP address as appropriate for your network configuration. See Appendix E for more information on the configuration file.

iii. Check HIPPO Configuration Settings

The Collector has to make database connections to the HIPPO Repository and read/write files from the local file system. If assigned to monitor an Informatica Repository, the Collector also connects to this Repository’s database and executes Informatica client commands.

Therefore the Collector is dependent on several configuration settings, some set up manually during installation, which can be later modified via the UI Administration screens, and some dependent on the permissions of the user account used to install the Collector, which cannot.

To verify these settings the Collector populates diagnostics data to the user interface. This is visible by Administrators under the Administrator/HIPPO Status screen. The screen displays all current diagnostics errors and associated help text/explanations. These diagnostics point to underlying issues in communication with the Informatica environment and should be addressed before installing additional collectors.

A flag on the Administrator menu item and number on the HIPPO Status submenu item assist in highlighting any diagnostic errors.

iv. Deploy

Windows - Automatic deploy via Windows service

It is preferable to install the HIPPO Collector as a Windows service to allow background operation and ease of control. To do this, run

```
[hippo root]/InstallHippoService.bat [SERVICE_NAME] [32/64 BIT OVERRIDE]
```

where the optional parameters are:

- `SERVICE_NAME` - Any unique name you wish for the Collector service. If omitted the service defaults to `HippoService`.
- `32/64 BIT OVERRIDE` – The script detects if the underlying architecture is 32 or 64 bit and creates the service wrapper accordingly. In some environments, a 32-bit Informatica and/or Java installation may be installed on a 64-bit machine. In this case, the extra parameter `[32]` will force the wrapper to the 32-bit version.

Examples:

- `InstallHippoService.bat` - Creates default service `HippoService`.
- `InstallHippoService.bat myService` - Creates a service named `myService` but uses default Java installation.
- `InstallHippoService.bat myService 32` - Creates a service named `myService` using a 32-bit Java installation. `JAVA_HOME` must be set to point to this Java installation.

The service can be subsequently removed by stopping the collector and running `[hippo root]/RemoveHippoService.bat [SERVICE_NAME]`.

Start the Collector via either:

- The Windows Services Management Console (Windows -> Run -> `services.msc`)
- `[hippo root]/StartHippoService.bat [SERVICE_NAME]` where `SERVICE_NAME` must be specified if supplied in the step above.

Check in the Windows Services Management Console that the service has been created and is running. If there are any problems, check the log file:

`[hippo root]/logs/HippoCollector0.log`.

Windows - Manual deploy

Alternatively, the Collector can be run from a command prompt in `[hippo root]` using `Collector.bat`, or manually using one of the commands below:

```
java -jar bin/Collector.jar
```

The commands assume that `JAVA_HOME` has been set as in the previous section – If not, the full path to the Java executable must be provided. In all cases the Collector will be stopped if the command prompt is closed or a hard-reset is used.

Unix / Linux

Start the Collector in the background using the following command (using the full path to the Java executable if required):

```
nohup java -jar bin/Collector.jar &
```

The commands assume that `JAVA_HOME` has been set as in the previous section.

Wrapper script

Alternately, a wrapper script can be used:

```
nohup Collector.sh &
```

Note that this shell script requires the Bourne shell to execute and `JAVA_HOME` must be set via a local/global profile by, for example incorporating the commands:

```
export JAVA_HOME=/usr/java/1.6.0_27
```

```
export PATH=$PATH:/usr/java/1.6.0_27
```

HANC Installation

The HIPPO Active Notification Centre (HANC) has been designed to be installed and run on the HIPPO Application Server, as it communicates solely with the HIPPO Repository which is on the same physical machine.

HANC is pre-configured with a default HIPPO installation. However, HANC can be installed and run on another server if required, providing there is communication with the HIPPO Repository on (nominally) port 5432. The HANC binaries can be downloaded via the UI by selecting Administrator - > HIPPO Config and select HANC from the “Collectors” list. Then select ‘COLLECTOR ACTIONS -> HANC Zip’ to allow the zipped binaries to be downloaded.

Automatic deploy via Windows service

Wherever installed, Java 1.6 or above is required to run HANC (1.6 is recommended) and the environment variable JAVA_HOME must be set correctly. On the HIPPO Application Server, open a command prompt with administrative privileges and browse to C:\hippo\hanc. Execute the following batch script to create a Windows Service:

```
InstallHANCSERVICE.bat [SERVICE_NAME] [32/64 BIT OVERRIDE]
```

Where the optional parameters are:

- `SERVICE_NAME` - Any unique name you wish for the service. If omitted the service defaults to `HancService`.
- `32/64 BIT OVERRIDE` – The script detects if the underlying architecture is 32 or 64 bit and creates the service wrapper accordingly. In some environments, a 32-bit Java installation may be installed on a 64-bit machine. In this case, the extra parameter `[32]` will force the wrapper to the 32-bit version.

Examples:

- `InstallHANCSERVICE.bat` - Creates default service `HancService`.
- `InstallHANCSERVICE.bat myService` - Creates a service named `myService` but uses default Java installation.
- `InstallHANCSERVICE.bat myService 32` - Creates a service named `myService` using a 32-bit Java installation. `JAVA_HOME` must be set to point to this Java installation.

The service can be subsequently removed by stopping the collector and running

```
RemoveHANCSERVICE.bat [SERVICE_NAME].
```

Start HANC via either:

- The Windows Services Management Console (Windows -> Run -> `services.msc`)
- `StartHANCSERVICE.bat [SERVICE_NAME]` where `SERVICE_NAME` must be specified if supplied in the step above.

Check in the Windows Services Management Console that the service has been created and is running.

Unix Command Line

Start HANC in the background using the following command (using the full path to the Java executable if required):

```
nohup java -jar bin/hanc.jar &
```

The command assumes that `JAVA_HOME` has been set as in the previous section, and that `hippo.xml` contains the correct connection details to the HIPPO Repository.

Unix Wrapper Script

Alternatively, a wrapper script can be used:

```
nohup HANC.sh &
```

Note that this shell script requires the Bourne shell to execute and `JAVA_HOME` must be set via a local/global profile by, for example incorporating the commands:

```
export JAVA_HOME=/usr/java/1.6.0_27
export PATH=$PATH:/usr/java/1.6.0_27
```

Monitoring

If there are any problems, check the log file `[hanc root]/logs/HippoHanc0.log` or diagnostics data in the user interface. This is visible by Administrators under the Administrator/HIPPO Status screen. The screen displays all HANC diagnostics errors and associated help text/explanations.

HANC should start providing analysis and alerting immediately via the UI and, if configured, email. The email setting can be set via the UI Administrator screens and tested before creating any rules.

The status of HANC can be viewed in the UI Administrator screens where the service can also be stopped. More information on creating notification rules is given in the getting started guides as well as within the UI itself.

Managing the HIPPO Configuration

The initial configuration in the chapters above results in a fully-configured Collector, running on an Informatica node, which is collating both OS and PowerCenter information into the central HIPPO Repository. The data collected, and the charts showing this data in the UI are described in the *“Getting started with HIPPO v4.3”* and white paper *“HIPPO v4 The Monitoring, Alerting and Diagnostic solution for PowerCenter”*.

After verifying that data is being collected and the Collector is operating without error, additional Collectors can be added and maintained to monitor the rest of your Informatica estate.

Maintenance tasks can be carried out by HIPPO users with Administrative privileges. All the sections below assume that you are logged in to the HIPPO UI as such a user, and have selected “Administrator > HIPPO Config” from the left-hand menu.

i. Licence Key Updates

The total number of Collectors and the hosts they can run upon are governed by the HIPPO license key. Any questions or changes to this key should be discussed with your HIPPO representative.

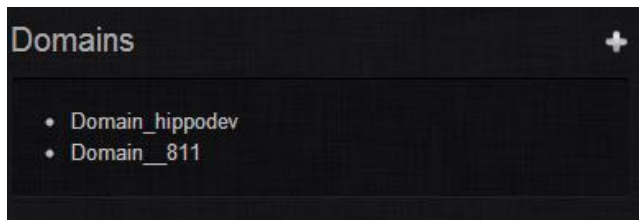
New/amended keys can be uploaded via the UI.



Press “Update License Key” and browse to the required license file. Note that any changes are reflected immediately – The Collectors and HANC pick up license changes on a regular basis.

ii. Domains

The Domains that HIPPO can monitor are maintained in this panel.



Click an existing Domain to edit, or “+” to identify a new Domain.

Enter/amend the Domain name, the Gateway Node (**Note** this is the *host* name e.g. myhost01, not the node name, e.g. node01_myhost01) and port number.

The Web Service URL is used by the UI to retrieve session logs in much the same way as they can be viewed in Informatica Workflow Monitor. This is not essential, but if not entered then the “Get Session Log” button will not work from a Session screen. A web services hub must be set up for the Domain/Repositories in the Informatica Admin Console, and the URL must match that shown when testing the services via the Console. Please refer to the Informatica guides for the configuration of web services. Note that the suffix “/services/BatchServices” is usually required to access Informatica web services from an Apache-based UI such as HIPPO.

Deleting Domains

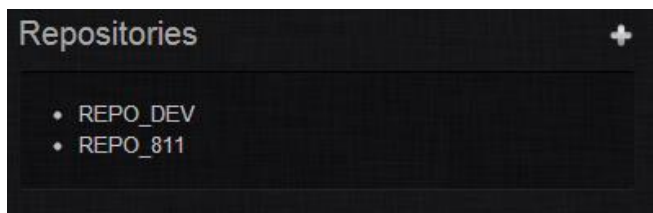
When editing a Domain you have the option to delete the Domain from HIPPO. **Note** that this can result in an incomplete configuration as:

- Any Repositories that depend on the Domain will no longer be correctly defined;
- Any Collectors monitoring these Repositories will no longer be able to collect data.

Pressing the “Cancel” button will cancel any changes.

iii. Repositories

The Repositories that HIPPO can monitor are maintained in this panel.



Click an existing Repository to edit, or “+” to identify a new Repository. Details are entered in two parts: The upper is for Informatica user details, the lower for the Repository database details.

A screenshot of the "Edit Repository" form. The title "Edit Repository" is at the top, followed by the instruction "Update Repository details below." The form is divided into two main sections: "Infa Repository" and "Infa Repository Database". The "Infa Repository" section contains five fields: "Infa Domain" (a dropdown menu showing "domain_mapp87"), "Infa Repository Name" (a text field with "test_repo"), "Infa Repository Username" (a text field with "Administrator"), "Infa Repository Password" (a password field with four asterisks), and "Confirm Password" (a password field with four asterisks). The "Infa Repository Database" section is currently collapsed. At the bottom of the form, there are two buttons: "Update Repository" (blue) and "Delete Repository" (red).

Select a previously created domain and enter details for the Informatica user that the HIPPO Collector will use to monitor the Repository. See the pre-requisite notes for what commands are executed and with what access requirements.

Edit Repository

Update Repository details below.

► Infa Repository

▼ Infa Repository Database

Infa Database Username	test_repo_DB
Infa Database Password	*****
Confirm Password	*****
Infa Database Type	ORACLE ▼
Infa Database Schema	
Infa Database Server	test_ORA_server
Infa Database Name	orclSID
Infa Database Port	1521

Update Repository
Delete Repository

Enter the details of the Repository database. The schema is not required for Oracle databases as it is specified by the database username. An example for SQLServer is given below.

Edit Repository

Update Repository details below.

► Infa Repository

▼ Infa Repository Database

Infa Database Username	test_repo_DB
Infa Database Password	*****
Confirm Password	*****
Infa Database Type	SQL Server ▼
Infa Database Schema	HIPPO_INSTANCE
Infa Database Server	test_SSR_server
Infa Database Name	PCRS_REPO
Infa Database Port	1432

Update Repository
Delete Repository

Deleting Repositories

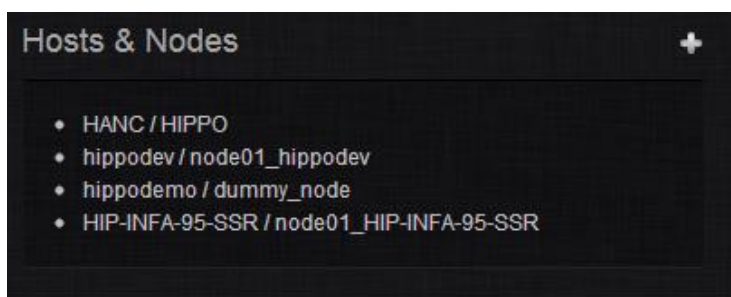
When editing a Repository you have the option to delete the Repository from HIPPO. **Note** that this can result in an incomplete configuration as:

- Any Collectors monitoring these Repositories will no longer be able to collect data.

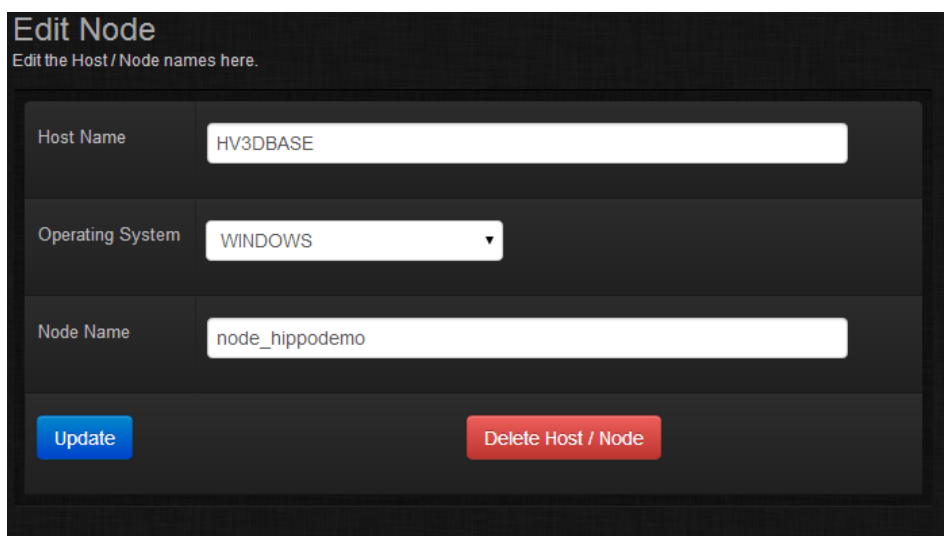
Pressing the “Cancel” button will cancel any changes.

iv. Hosts & Nodes

Use this panel to specify the host/node that a Collector will run on and monitor. Note the license requirements above.



Click an existing host/node to edit, or “+” to identify a new host/node. **Note** that HANC /HIPPO is required for correct operation of HANC and should not be edited or deleted.



Enter the host name (can be fully qualified, e.g. myhost.mydomain.com, but this is not necessary), the OS running on the host, and the Informatica node name.

Deleting Hosts/Nodes

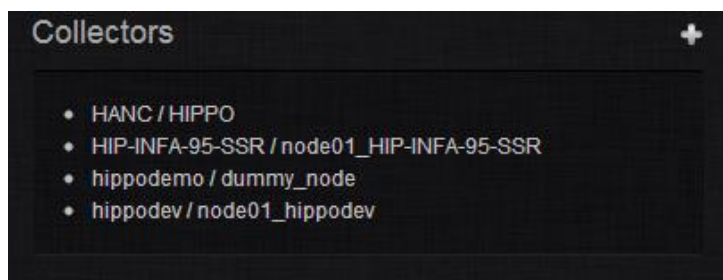
When editing a Host/Node you have the option to delete the Host/Node from HIPPO. **Note** that this can result in an incomplete configuration as:

- Any Collectors installed on the Host/Node will no longer be able to collect data.

Pressing the “Cancel” button will cancel any changes.

v. Collectors

Use this panel to specify Collectors, the host/node they will run on and which Informatica Repository or Repositories they will monitor.



Click an existing Collector to edit, or “+” to identify a new Collector.

If editing an existing Collector, then the status screen appears, which shows which code version is deployed, monitored Domains/Repositories (if any), status and so on. Logged messages are also shown along with an action button.

View Collector

COLLECTOR ACTIONS ▼

Details

Version

4.3.r3270

Domain / Repository

domain_hippodev / REPO_DEV

Current Status

RUNNING / OK

Collector Started

24/03/14 @ 12:44:38

Last Comm

25/03/14 @ 16:57:11

Logged Messages

Message	Occurrences	First Raised	Last Raised	Severity
Error checking monitored filesystem [x:\notareal\folder] [There are no more files.]	6	19/03/2014 @ 21:30...	25/03/2014 @ 16:32...	SEVERE
Infa Command timeout after 40000 milliseconds	2	19/03/2014 @ 21:46...	25/03/2014 @ 15:57...	WARNING
Could not get running session details on IS_DEV_1 [E:\Informatica\9.1.0\server...	2	20/03/2014 @ 10:07...	24/03/2014 @ 23:24...	WARNING

The action button “COLLECTOR ACTIONS” has several actions depending on the state of the Collector.

- "Edit Collector" – Always available. Opens the screen that allows the Collector properties to be viewed or changed (see below). This screen is also displayed when creating a new Collector.
- "Stop/Start/Restart/Terminate Collector" – Change the state of the Collector. Which options are available depend on the state of the Collector – These are described in detail in “*Getting started with HIPPO v4.3*”. See section “*Collector installation - Deploy*” in this document on starting a new Collector.

- "Collector XML" - Generate the hippo.xml configuration file, unique to this Collector, which should be transferred to the root HIPPO folder on the relevant host. See section *"Collector installation - Download Collector"* for details.
- "Collector Zip" - Generate the complete Collector installation, including the hippo.xml file, which should be transferred to the root HIPPO folder on the relevant host. See section *"Collector installation - Download Collector"* for details.

If "Edit Collector" is chosen then the following screen appears.

- Set the host. **Note** only one Collector may be assigned to a given host/node, so only those available will be in the drop-down.
- Assign Repositories to monitor.
 1. **Note** each Repository may only be assigned to one Collector. If all configured Repositories have already been assigned then none will be available. Please unassign from another Collector first if required.
 2. **Note** a Collector does not need to monitor a Repository. In fact, where several Integration Services are spread across a Grid environment, each node in the Grid having a Collector, only one Collector within this Grid will monitor the parent Repository.
 3. **Note** the Collector, if running, will need restarting if the Repository configuration changes. The Collector needs to establish communication with its assigned Repositories at start-up. The Collector can be restarted from the actions menu in the "View Collector" screen.
- Set the Infa Command Directory where the Informatica client binaries reside (infacmd, pmcmd and pmrep), e.g. C:\Informatica\9.1.0\server\bin.

The lower panel contains values which should not need to be changed in normal operation, and in fact can hinder the performance of the Collector unless care is taken. In brief:

- Elapsed Time Threshold – Global time over which a session may be profiled.
- Infa Poll Interval – How often the Collector polls the Informatica Domain.
- O/S Poll Interval – How often the Collector polls operating system.
- CMD Time Out Seconds – The time after which to abort Informatica commands such as `pmcmd`.

vi. Projects

Projects are integral to the analysis of data within HIPPO and are described in the “*Getting started with HIPPO v4.3*”.

Appendix A - Changing the Root Installation Directory

By default HIPPO creates and installs into the directory C:\hippo. This appendix describes how to change the directory. It is however necessary to keep the root at the base directory (e.g. D:\hippo etc.).

Stop & Remove the HIPPO Repository Service

The HIPPO Repository runs as a service and should be stopped and uninstalled before moving the source folder. Open the Windows Services Management Console and browse to “HIPPO_db”. Stop the service.

Open a Windows Command prompt and remove the Repository service:

```
sc delete HIPPO_db
```

Stop & Remove the HIPPO Web Server Service

The HIPPO Web Server runs as a service and should be stopped and uninstalled before moving the source folder. From the Windows Services Management Console and browse to “HIPPO_www”. Stop the service.

Open a Windows Command prompt and remove the Web service:

```
sc delete HIPPO_www
```

Move Root Directory

Move the entire hippo root folder to its new location. As mentioned above, it is necessary to keep the root at a base directory, i.e. [Drive]:/hippo.

Update Environment Variable

The Windows PATH environment variable needs to be updated with the new location of the HIPPO Repository. From the System Properties panel select the Advanced tab, click the Environment Variables button and change the System Variable PATH snippet containing `pgsql/bin`, for example:

Change `C:\hippo\pgsql\bin` → `[Drive]:\hippo\pgsql\bin`

Recreate & Restart the HIPPO Repository Service

From a Windows Command prompt, execute:

```
[Drive]:\hippo\pgsql\bin\pg_ctl.exe register -N HIPPO_db -D  
[Drive]:\hippo\data
```

From the Windows Services Management Console browse to “HIPPO_db” and start the service.

Recreate & Restart the HIPPO Web Server

From a Windows Command prompt, execute:

```
[Drive]:/hippo/apache/apache/bin/httpd.exe -k install -n HIPPO_www -f  
[Drive]:/hippo/apache/apache/conf/httpd.conf
```

From the Windows Services Management Console browse to “HIPPO_www” and start the service.

Check Configuration

Make sure that the HIPPO User Interface can be accessed and data can be viewed in the charts.

Appendix B - Uninstalling HIPPO

To remove HIPPO completely, follow these steps. Note that for major upgrades, some of the steps can be omitted.

Stop & Remove the Collectors

Log into the HIPPO UI as an Administrator and stop all the Collectors:

Administrator > HIPPO Config > Collectors > Stop Collector

- On Unix nodes where Collectors have been installed, the background HIPPO process should terminate. Confirm this is the case.
- On Windows nodes where Collectors have been installed, open the Windows Services Management Console and browse to `HippoService`. Stop the service. Open a Windows Command prompt and remove the service:

```
sc delete HippoService
```

If a major upgrade is being applied, for example HIPPO 3.0 -> 4.0, then it is *not* necessary to remove the entire directory tree where the HIPPO Collector is installed. It will suffice to replace the Collector executable with that supplied as part of the upgrade. The executable file is:

[HIPPO root]/collector/Collector.jar

If you wish to remove HIPPO completely, delete the entire directory tree where the HIPPO Collector is installed.

Stop & Remove the HIPPO Services

Log out of the HIPPO UI and close down the browser. Ensure all users have similarly logged out of the UI. On the HIPPO server, open the Windows Services Management Console and stop the following services:

HIPPO_db

HIPPO_www

HancService

Open a Windows Command prompt and remove the services:

```
sc delete HIPPO_db
```

```
sc delete HIPPO_www
```

```
sc delete HancService
```

Update Environment Variable

The Windows PATH environment variable on the HIPPO server needs to be updated. From the System Properties panel select the Advanced tab, click the Environment Variables button and find the System Variable PATH variable.

Remove C:\hippo\pgsql\bin

Uninstall the Software

On the HIPPO server, open the Control Panel/Add or Remove Programs console and uninstall HIPPO.

Delete the entire HIPPO installation on the file system:

C:\hippo

Appendix C - HIPPO Web Server configuration

The integrated web browser should have opened automatically at the end of the installation process, and the HIPPO initial configuration page opened.

If there is another web server (e.g. IIS) already running on the server, it is likely that it will already be using the default HIPPO Web Server port (80). If you wish to run both web servers simultaneously, it will be necessary to change the HIPPO web server port.

To do this, first ensure that the HIPPO Web Server is not running. Open the Windows Services Management Console (Windows -> Run -> services.msc) and browse to "HIPPO_www". Stop if required.

Next, open the Apache configuration file `C:\hippo\apache\apache\conf\httpd.conf` in a text editor. Find the line, near the top of the file, containing

```
Listen 80
```

Change "80" to another free port, such as "88". Save the file and restart the HIPPO web server from the Windows Services Management Console. Browse to e.g. `http://localhost:88/hippo/` and continue.

Appendix D - HIPPO Database configuration

The integrated database server should have opened automatically at the end of the installation process. This uses a default port 5432 which is highly unlikely to conflict with an existing service on the deployment server. However, the port can be changed if required.

To do this, first ensure that the HIPPO database is not running. Open the Windows Services Management Console (Windows -> Run -> services.msc) and browse to “HIPPO_db”. Stop if required.

Next, open the PostgreSQL configuration file `C:\hippo\data\postgresql.conf` in a text editor. Find the line, near the top of the file, containing

```
port = 5432
```

Change “5432” to another free port, such as “5444”. Save the file and restart the HIPPO database server from the Windows Services Management Console.

Appendix E - Custom HIPPO Repository on Oracle

The default HIPPO repository may be replaced by an Oracle database version 11gr2 and above. An Oracle client must be installed. It must be possible to `tnsping` the target database in which the HIPPO Repository schema will be created.

A schema is required to store the HIPPO data. The schema owner must have the following privileges granted:

```
Create table
Create bitmap index
Create procedure
Privileges on an appropriate tablespace
CONNECT Privilege
```

If the default HIPPO web server is being used, then the php initialisation file needs to be amended to enable the Oracle call Interface.

Open the file `C:/hippo/apache/php/php.ini` in an editor and uncomment the following line by removing the semicolon:

```
;extension=php_oci8.dll
```

change to

```
extension=php_oci8.dll
```

Save the file and restart the Apache web service “HIPPO_www”.

Note that this will require a 32 bit Oracle client installed on the webserver host.

If a custom web server is being used, then please refer to Appendix C.

Otherwise, the installation proceeds as normal from “*Run installer on deployment server*”, but remember to choose the custom installation path as per the text panel in “Perform initial HIPPO configuration”. The built-in database engine for the HIPPO Repository is no longer required and can be stopped. Refer to “*Stop & Remove the HIPPO Repository Service*” in Appendix A on how to do this.

Appendix F - Custom HIPPO Web Server

By default HIPPO comes with a pre-configured Apache web server. This has all the necessary drivers and modules included to use the HIPPO UI. However, this may be substituted by another Apache-based web server. Apache 2.5 or above is required with php 5.3 module or above, and configured with the necessary PostgreSQL modules to access the HIPPO Repository.

A file `hippo_4.x.zip` will have been supplied by your HIPPO representative, containing the full hippo web server source. Begin the process by extracting the zip archive to the `htdocs` folder of your web server, e.g. `/opt/apache/htdocs/hippo`.

Oracle Repository

If an Oracle database is being used in place of the default PostgreSQL installation, then Apache must be installed and compiled with the `oci8` (Oracle Call Interface) module configured as well as an Oracle client which is able to connect to the database instance. In this configuration, the file `ocitest.php` is provided in the document root to test the end-to-end connectivity.

Open this file in a text editor and edit the connection details to match those of the schema where the repository is to be created.

```
// Set connection details
$oraclehost   = 'my_ora_host';
$oraclesid    = 'my_ora_sid';
$username     = 'my_ora_usr';
$password     = 'my_ora_pwd';
```

Save the changes and using a web browser open the file (e.g. <http://localhost/hippo/ocitest.php>). The following message will indicate a correct configuration - if not, the relevant error message will be displayed.

```
Connection succeeded to username/**** @ oraclesid.
Connectivity OK message: [SUCCESS]
```

Appendix G – Collector Configuration File

The collector uses a configuration file `[hippo_root]/hippo.xml` to connect to the HIPPO Repository. In general these should not be changed as they may affect the operation or performance of the Collector. However in some circumstances, such as for debug or fault finding, these values may be changed.

For changes to take effect, the collector must be stopped and restarted after the changes. The main parameters are given below.

`"hippodbserver"` – Server where the HIPPO Repository is located.

`"hippodbportnumber"` – Port number used by the HIPPO Repository.

`"loglevel"` – Logging level. Default is INFO, but can change for progressively more logging to FINE, FINER and finally FINEST for very verbose logging. FINER is recommended when logs need to be sent to your HIPPO support representative for analysis.

`"logfiledir"` – Logging directory. Default is empty which causes the Collector to use the `[hippo_root]/logs`, but it can be changed to an explicit path.

`"hippologfilename"` – Collector logfile name, defaults to `HippoCollector[n].log` where `[n]` takes the values 0 to `"logfilecount"`.

`"hanclogfilefilename"` – HANC logfile name, defaults to `HippoCollector[n].log` where `[n]` takes the values 0 to `"logfilecount"`.

`"logfilecount"` – Total number of logfiles to keep. Logs roll over when the maximum is reached.

`"logfilelimit"` – Maximum size in bytes of a logfile before rolling to the next available.

`"hippocustomjdbc"` – Allows a fully-specified JDBC connection string to be supplied if the standard connection string is insufficient.

Appendix H – Privileges Required on Informatica Repos

HIPPO connects directly to the Informatica repository database. In order to achieve this you will be required to provide the connection details for each repository database.

The following is only applicable if you do not wish HIPPO to connect as the repository owner database account.

HIPPO requires read-only access to only a small number of structures within the Informatica repository. Some customers prefer to not allow connection as the schema owner, but instead to create a different database user with only the required privileges on each object granted.

The following is an example of how to achieve this in an Oracle environment, but the details of the grants required and the objects involved are the same across all database platforms supported by the Informatica.

1. Create the user database user

Note that HIPPO will not create any objects in this schema except for synonyms.

```
create user hippo_repos_user identified by hippo_repos_user;
grant connect to hippo_repos_user;
grant create synonym to hippo_repos_user;
Privileges on an appropriate tablespace or RESOURCE privilege.
```

2. Create the synonyms to the relevant objects

```
create synonym OPB_TASK_INST_RUN for [owner].OPB_TASK_INST_RUN;
create synonym OPB_TASK for [owner].OPB_TASK;
create synonym OPB_SUBJECT for [owner].OPB_SUBJECT;
create synonym OPB_OBJECT_TYPE for [owner].OPB_OBJECT_TYPE;
create synonym OPB_SERVER_INFO for [owner].OPB_SERVER_INFO;
create synonym OPB_CLIENT_CONN for [owner].OPB_CLIENT_CONN;
create synonym REP_WFLOW_RUN for [owner].REP_WFLOW_RUN;
create synonym OPB_SWIDGINST_LOG for [owner].OPB_SWIDGINST_LOG;
create synonym OPB_PERF_COUNT for [owner].OPB_PERF_COUNT;
create synonym OPB_WFLOW_RUN for [owner].OPB_WFLOW_RUN;
create synonym REP_SESSION_INSTANCES for
[owner].REP_SESSION_INSTANCES;
create synonym REP_SESS_CONFIG_PARM for
[owner].REP_SESS_CONFIG_PARM;
create synonym OPB_SWIDGET_INST for [owner].OPB_SWIDGET_INST;
create synonym OPB_MAPPING for [owner].OPB_MAPPING;
create synonym REP_ALL_TASKS for [owner].REP_ALL_TASKS;
```

3. Connect as the Repository Owner and grant SELECT to the newly created user on the relevant structures.

```
grant SELECT on OPB_TASK_INST_RUN to hippo_repos_user;
grant SELECT on OPB_TASK to hippo_repos_user;
```

```
grant SELECT on OPB_SUBJECT to hippo_repos_user;
grant SELECT on OPB_OBJECT_TYPE to hippo_repos_user;
grant SELECT on OPB_SERVER_INFO to hippo_repos_user;
grant SELECT on OPB_CLIENT_CONN to hippo_repos_user;
grant SELECT on REP_WFLOW_RUN to hippo_repos_user;
grant SELECT on OPB_SWIDGINST_LOG to hippo_repos_user;
grant SELECT on OPB_PERF_COUNT to hippo_repos_user;
grant SELECT on OPB_WFLOW_RUN to hippo_repos_user;
grant SELECT on REP_SESSION_INSTANCES to hippo_repos_user;
grant SELECT on REP_SESS_CONFIG_PARM to hippo_repos_user;
grant SELECT on OPB_SWIDGET_INST to hippo_repos_user;
grant SELECT on OPB_MAPPING to hippo_repos_user;
grant SELECT on REP_ALL_TASKS to hippo_repos_user;
```

Appendix I – Troubleshooting

The following lists some issues that may occur after installation and operation. Please refer to this section as it should solve the vast majority of problems.

Collector Issues

General

The Collectors run in the Informatica nodes and collect data on the underlying Operating System and Informatica processes running on the host. As they are pure Java they are platform independent, but each host is obviously different and there may be environmental issues.

In the first instance, refer to the “Prerequisites” sections of this document which covers file system and Informatica path settings, and should allow the Collector to be started.

Diagnostic Information

The status of the Collectors can be viewed by Administrators in the Administrator/HIPPO Status screen. The screen displays all current diagnostic errors and associated help text/explanations. The diagnostics can be clicked for more information. These diagnostics point to underlying issues in communication with either the OS or Informatica environments and should be addressed before installing additional collectors.

Error Messages

Expanding the accordion for a Collector gives access to a “Go to Collector” link which leads to the View Collector screen. This gives the following details about the Collector:

- Version
- Monitored Domain(s) and Repository(s)
- Current Status - State, one of {RUNNING, STOPPED, STARTING, STOPPING, TERMINATED or UNKNOWN} and Status, one of {OK, WARN, ALERT}
- Collector start date & time and last Communication time
- Logged messages – A sortable table listing all error messages logged by the Collector. Errors can be clicked for more information. The first, last and number of each error type is shown along with severity.

Diagnostics point to important issues with the Collector which may prevent it from starting or operating correctly. Errors usually mean that a Collector is still likely to be functioning, but there is a problem with an area (e.g. OS statistics) that may only be intermittent in nature. Errors are retained for a week, whereas diagnostics are revised every few minutes and cleared as necessary.

The screen also allows operation of the Collector clicking “COLLECTOR ACTIONS”. Depending on the state, the Collector may be started, stopped, restarted or terminated. These functions are useful for restarting a Collector after making a config change to clear an error.

Collector fails to start

Signatures

- The Collector fails to start and there is no data visible in the UI
- The Collector log files or logged messages in the UI -> Administrator -> HIPPO Status -> Go to collector screen show the message "Collector is running on host [x] but is configured in the UI for [y]"

Cause

- The host name entered during the installation and that reported to the Collector by the host Operating System are different. This is almost always down one of the values having a full domain postfix (e.g. servername.domain.co.uk) abut not the other.
- The value of "collectorid" in the hippo.xml file in the Collector source root folder on the Informatica host does not match that in the UI.

Solution

- To solve, log into the UI and go to the Administration > HIPPO Config screen and edit the host/node entry. Set the "Host Name" value to match that given by [x] in "Collector is running on host [x]" message. Restart the Collector.
- Regenerate the hippo.xml file for the Collector with UI -> Administrator -> HIPPO Config -> COLLECTOR ACTIONS -> Collector XML and either copy the file or replace the contents of the existing file on the Informatica host.

Informatica commands (infacmd, pmcmd , pmrep) fail to execute from Collector

Signatures

- The "Vital Signs" screen is empty or all red/failed despite the domain/repo known to be up.
- No session log files have been parsed (parse errors when viewing session in the UI, no transformation details available for sessions that should have been profiled).
- The collector log files "HippoCollector[n].log" have warning/error messages detailing Informatica command failures, or output such as "No gateway connectivity is provided for domain..."

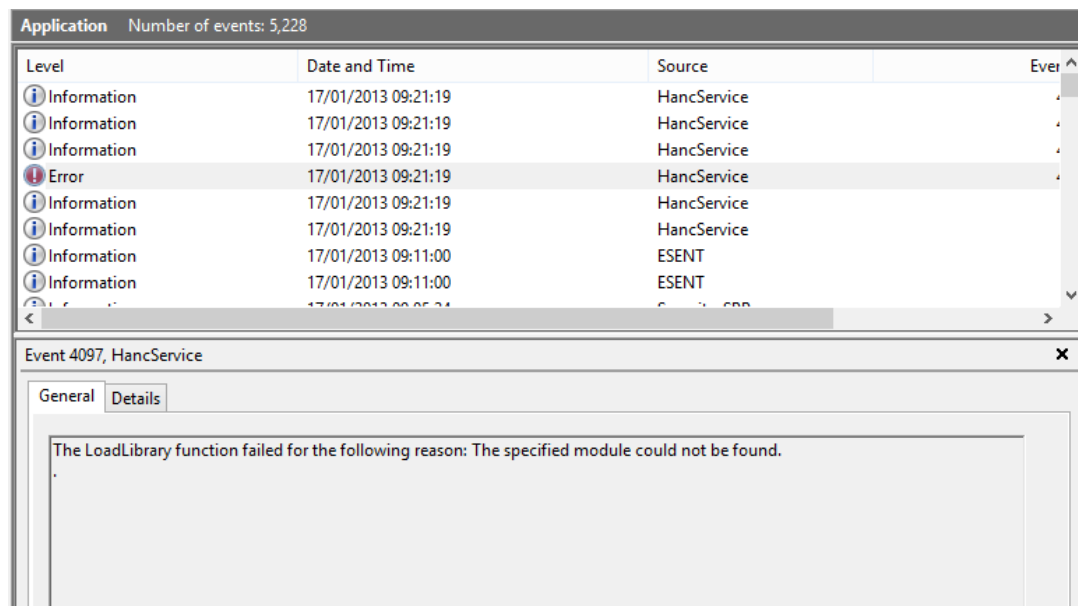
Causes/ Solutions

- The user the collector runs under does not have permissions to execute Informatica commands.
- The Informatica command root is incorrectly set (UI -> Administrator -> HIPPO Config -> Collectors -> Edit Collector -> Data Details -> Infa Command Directory).
- The environment variables INFA_HOME and INFA_DOMAINS_FILE need to be set.

Problem starting Collector or HANC services

Signatures

- The Collector service (HippoService) or HANC service (HancService) fails to start or stops almost immediately.
- No Collector or HANC log files are generated.
- The Application logs in Windows Event Viewer have warning or alert messages against HippoService or HancService (example below).



Cause

- The version of the service wrapper JavaService and version of Java are incompatible (32 vs 64 bit).
- JAVA_HOME is not set or does not point to the required Java installation.
- Some versions of Java and Windows require additional configuration

Solutions

- The wrapper script should match the version of Java that is being used to run the Collector or HANC service. The version of Java can be checked by executing "java -version" from a command prompt. The output has 64-bit mentioned if that is the case. See the section on using the override as described in the relevant section of this guide.
- Set the JAVA_HOME if not already set, e.g. C:\Program Files\Java\jdk1.6.0_45 (64-bit) or C:\Program Files (x86)\Java\jdk1.6.0_45 (32 bit).
- Windows Server 2012 and versions of Java 7 onwards may not be directly compatible with the Java service wrapper due to shared library configurations. A solution is to copy the dynamic library "msvcr100.dll" from the Java bin directory (e.g. C:\Program Files\Java\jdk1.7.0_79\bin) to the Java service directory (C:\hippo\hanc\javaservice).

After making each change:

- Remove the service from the command prompt (either "sc delete HippoService" or "sc delete HancService" as required, or using your custom service name) .
- Re-install the service using InstallHANCService.bat.

HIPPO Server Issues

HIPPO_www service fails to start

Signatures

- The Windows Application log may have errors associated with httpd.exe such as “The procedure entry point libiconv could not be located in the dynamic link library libiconv-2.dll”.
- When starting Apache by running `C:\hippo\apache\apache_start.bat` an error such as “PHP Startup: Unable to load dynamic library ‘xxxxx’ – The specified module could not be found” is raised.

Cause

- The Windows Apache and PostgreSQL binaries make use of the GNU libiconv unicode conversion library which is bundled with HIPPO. If another version of this library is already installed on the HIPPO server and in use, it will be used instead.

Solution

- To make sure the bundled version is used, edit the Windows PATH environment variable so that the entry “C:\hippo\pgsql\bin” is at the start of the PATH string. If it is missing, add to the start of the PATH string. Restart the HIPPO_www service.
- Any other issues will be shown in the output from running `C:\hippo\apache\apache_start.bat` from within a Command Prompt.

Database Connectivity Issues

Problems connecting to PostgreSQL (HIPPO Server)

Signatures

- A Collector or HANC does not appear as RUNNING in the HIPPO Status screen.
- No data is being collected or alerts are not being raised.
- There are no errors in the HIPPO Status screen.
- A Collector or HANC log contains error such as:

```
SEVERE: [DBC-001] Could not connect to POSTGRES Database with JDBC
String [jdbc:postgresql://localhost:5434/hippo]
```

```
org.postgresql.util.PSQLException: Connection refused. Check that the
hostname and port are correct and that the postmaster is accepting
TCP/IP connections.
```

Cause

- The setup of the PostgreSQL connection is incorrect.

Solution

- Edit the PostgreSQL connection details in the file `hippo.xml` which is located in the source directory for the Collector or HANC. Make sure the username, password and port are all correct. The default port is 5432, but this and the database password maybe changed as described in the HIPPO 4.3 Supplement.

Reconfigure Problems connecting to SQL Server

Signatures

- No task information is available within the user interface and there are SEVERE errors in the HIPPO Status screen.

Cause

- The setup of the SQL Server connection is incorrect.

Solution

- Reconfigure the SQL Server repository connection.
Go to Administrator -> HIPPO Config -> Click on the Repository Name.
Under the Infa Repository Database tab correct the configuration information.

Note that SQL Server must be able to accept incoming TCP/IP connections.

In a multi-instance environment please ensure the correct instance has been specified as below.

e.g.

Infa Database Schema : HIPPOINSTANCE (This is the instance name)

Infa Database Server : HIP-INFA-95-SSR (The hostname or IP address where the agent is listening)

Infa Database Name : PCRS_REPO (The DB Name)

Infa Database Port :1432 (As set in the TCP/IP protocol settings).

End of Document