

Upgrading your Platform Symphony Cluster

This process upgrades an existing cluster.

Can you upgrade your cluster with this method? 

Yes:
Any cluster running only Symphony 4.0, using a supported production database (if Derby database is used, upgrade is supported but old data will not be available).

No:

- Solaris hosts *
- Symphony version 3.x cluster **
- multiple versions of Symphony in the same cluster
- Symphony and LSF in the same cluster

* To upgrade Solaris compute hosts:
 1) Shut down Symphony 4.0 on your Solaris host.
 2) Back up and rename the Symphony 4.0 directory.
 3) Perform a parallel installation; see "Upgrading your Platform Symphony 3.x Cluster".
 4) Start Symphony 4.1.

** To upgrade a Symphony 3.x cluster, see "Upgrading your Platform Symphony 3.x Cluster".

For any other case, contact Platform

To install the upgrade, use the same installation packages that install a new cluster.

Start Process

Obtain the software from Platform Computing.
<http://my.platform.com>

Install the cluster upgrade

Prepare for a short period of cluster downtime.

 Once you choose to activate the cluster upgrade, you cannot reverse the process. Deactivation of the upgrade is a temporary step designed for troubleshooting purposes. All the changes you applied to cluster and application configurations after activation will be lost if you deactivate the upgrade.

Activate the cluster upgrade

Do any testing you want.

Okay?

Rerun **symactivate** again to deactivate the upgrade

Fix problems

On each host, log on as root and run:
egosetrc.sh

Linux cluster with automatic startup enabled?

Switch the application to the upgrade version

Okay?

Edit the application profile again to switch back to the original version.

Fix problems

End process

 **Be careful not to remove old binaries!**

Linux:
Never attempt to upgrade with rpm -U or uninstall with rpm -e. Either one automatically uninstalls the previous version binaries. Never uninstall previous versions of the software.

Windows:
Never use standard Windows tools such as Add/Remove Programs to uninstall the previous version after the upgrade.

Why?
If you uninstall the original installation, you remove cluster configuration files that are also used by the upgraded cluster. Your cluster cannot work if you accidentally uninstall the original software.

To safely "clean up" obsolete versions of Symphony, contact Platform.

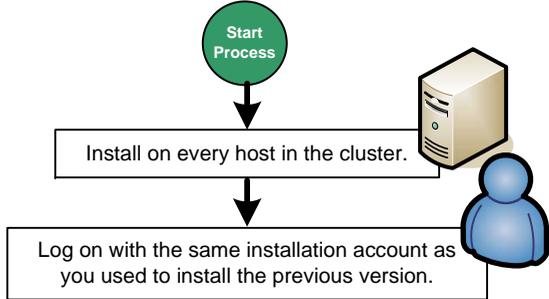
Installing the Upgrade

This process installs the upgrade on the hosts.

Upgrading your cluster to Symphony 4.1 preserves Symphony 4.0 functionality:

- upgrading preserves the cluster configuration
- upgrading preserves the historical data for reporting
- after upgrade, your existing 4.0 applications can run immediately
- you decide when to upgrade your existing applications to use version 4.1 functionality; keep the Symphony 4.0 functionality in the cluster for as long as you wish to continue using your 4.0 applications
- Symphony clients version 3.1, 3.2, and 4.0 can all interact with the upgraded cluster, no need to upgrade clients (if you add Symphony 4.1 clients, remember they cannot interact with 4.0 applications)
- new applications are created as version 4.1

A Symphony 4.1 cluster created through the normal new cluster installation cannot run applications under a Symphony 4.0 environment.



Installation phase does not interfere with the running cluster:

- installation puts the upgrade version 4.1 binaries on each host
- no changes to runtime environment for existing applications...
- no impact on cluster operation. Symphony continues to run and applications use the existing 4.0 binaries, even after the installation of upgrade version binaries
- set your own schedule for performing the installation on each host
- after all hosts have the new software installed, choose your own time to activate the upgrade at the cluster level

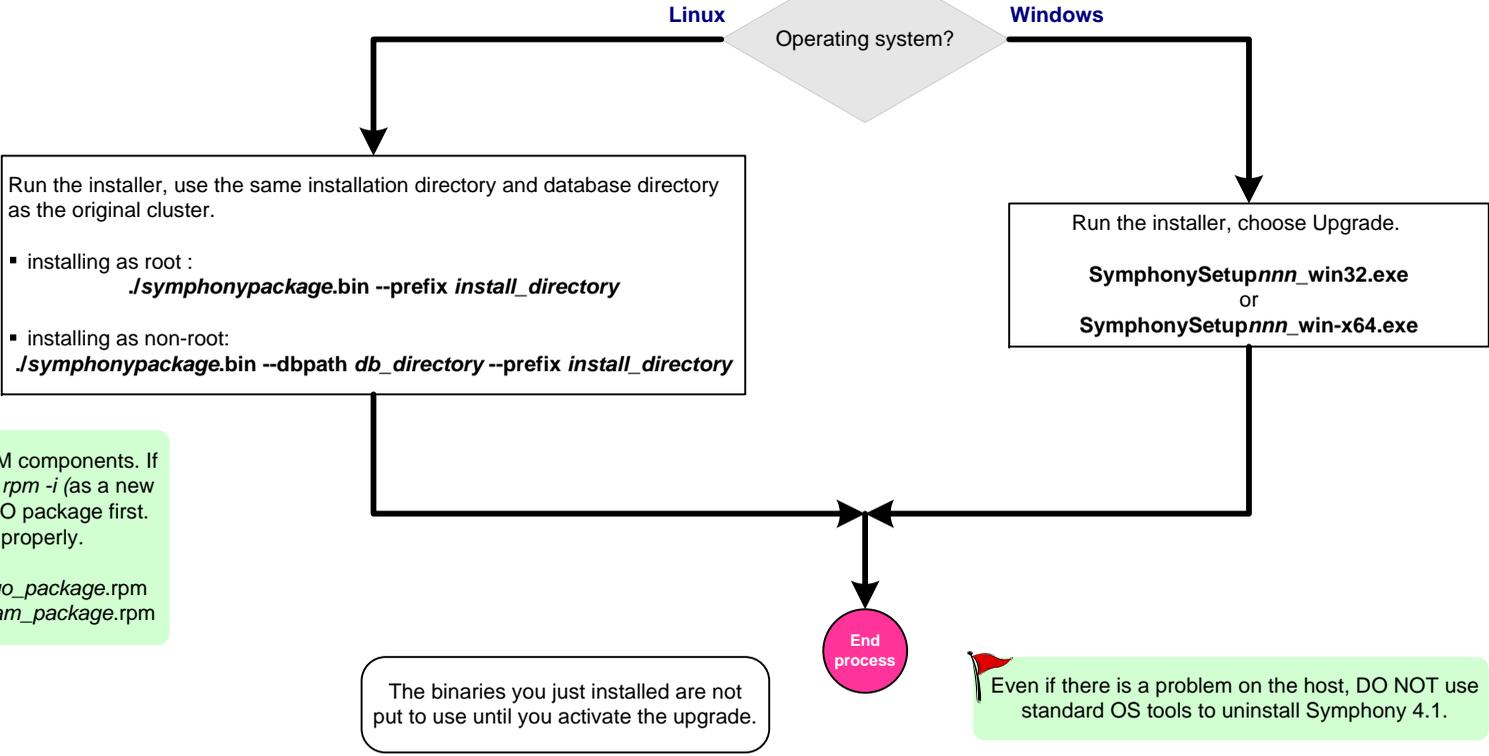
If you activate the upgrade at the cluster level without installing the upgrade on a particular host, the cluster works but that host does not support Symphony 4.1 functionality and may no longer support Symphony 4.0 functionality. You can install and activate the upgrade on that host at a later time.

RPM versions earlier than 4.2.x require the RPM_INSTALL_PREFIX environment variable (instead of the --prefix option)

Except for installation directory, all environment variables required for installation of a new cluster are ignored when installing the upgrade.

Never use `rpm -U` to upgrade EGO or SOAM components. If you must use `.rpm` packages to install, use `rpm -i` (as a new installation), use `--force`, and install the EGO package first. The installer will install the upgrade properly.

```
rpm -ivh --force --prefix install_directory ego_package.rpm
rpm -ivh --force --prefix install_directory soam_package.rpm
```



If you need to use `.msi` packages instead, refer to the alternate instructions in the grid install guide. Specify the same installation directory as the existing cluster.

The binaries you just installed are not put to use until you activate the upgrade.

Even if there is a problem on the host, DO NOT use standard OS tools to uninstall Symphony 4.1.



Activating the Upgrade

This process activates the upgrade in an existing cluster.

Activation phase enables Symphony 4.1 functionality quickly and safely:

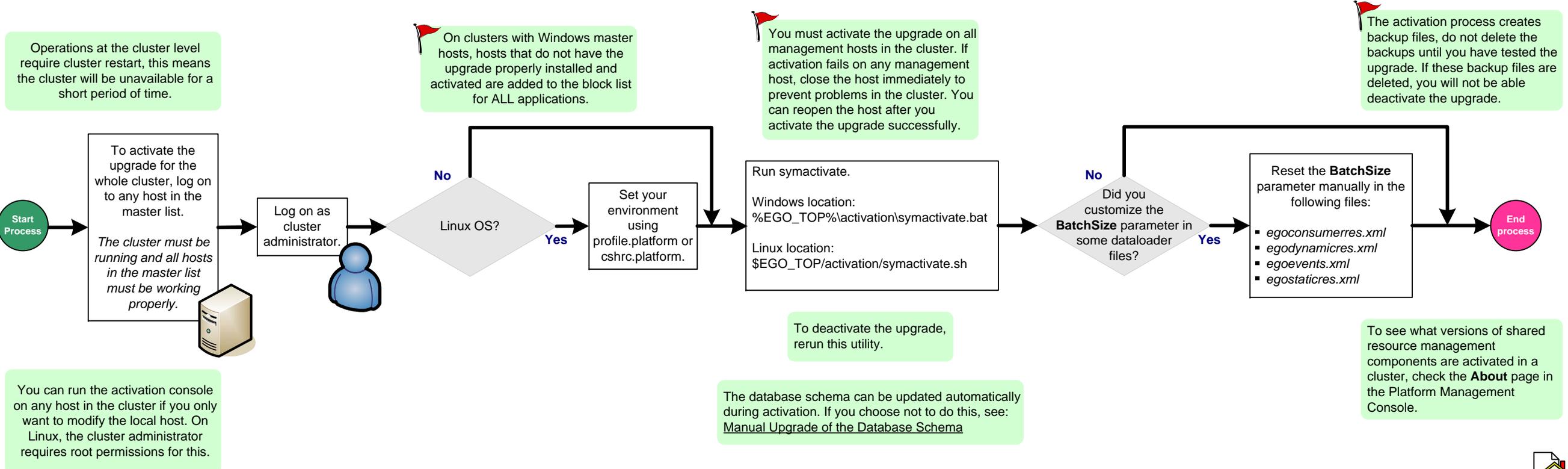
- the Activation Console automates the process, it is available on every host after installation
- activating the upgrade at the cluster level affects all hosts in the cluster at once
- activation sets configuration and environment to the upgrade version, and shared resource management components all switch to using the upgraded version of the binaries (EGO, PMC, PERF, SD)
- SOAM components on each host switch to using the upgraded version of the binaries
- the process automatically verifies the success of the activation
- the process automatically backs up application profiles and configuration files for all hosts and EGO services
- binaries from the previous version are preserved

Activation is low-risk: if the cluster has any problem after activation, the cluster can be deactivated in the same way -- no need to uninstall or reinstall.

Deactivation option is available for troubleshooting:

- the Activation Console that automates the process is available on every host after installation
- deactivation is as easy as activation; with simple configuration and environment changes, you can temporarily restore the cluster to the previous working state
- EGO service configuration is restored from backup (use binaries from previous version). This includes consumers, resource plans, applications, users and passwords.
- specific host configuration is restored from backup (use binaries from previous version)
- applications using the upgrade version are disabled

Deactivation does not restore old workload, remove data from the database, or remove packages deployed to the repository. There is no need to modify data schema, the upgraded data schema is backwards compatible.



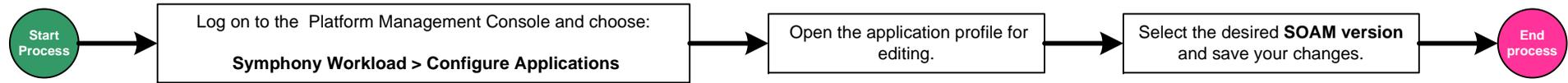
Switching the Application

This process switches the application to the upgrade version.

Application switching is easy:

- the Platform Management Console automates the process
- any existing application can take advantage of the upgrade version functionality just by switching to the upgrade version
- set your own schedule to switch each application individually, at your convenience

If you discover any problem after switching the application, just switch it back to the previous version.



Manual Upgrade of the Database Schema

The cluster cannot write new data to the database until you update the database schema.

 The database schema may be upgraded automatically during the activation phase. If this was successful, do not perform the steps in this section.

Optional method to upgrade the database schema manually

