Problem

How do I install multiple versions, minor versions and patches of ACS on the same machine at the same time? How do I switch between different versions of ACS?

Solution

See also: FAQBuildACS

Standard installation

A standard ACS installation directory has the name defined by the major and minor version numbers:

- **/alma/ACS-X.Y**
  where **X** and **Y** are respectively the major and minor version numbers

A non-standard installation can be done in arbitrary directories, but for absolute path problems with the GNU gcc compiler and tcl/tk.

This convention is based on the rule that the tools distributed with ACS shall not change for a patch release (third version number) and patch releases have to be 100% backward compatible.

Patch releases

A patch release is installed by replacing the directories:

- **/alma/ACS-X.Y/acsdata**
- **/alma/ACS-X.Y/ACSSW**

with a new version.

The location of these two directories is controlled by the environment variables **$ACSDATA** and **$ACSROOT** and it is therefore possible to point to different patch versions simply by changing these two variables.

It is always possible to know what version/patch of ACS is installed in a certain directory tree by looking at the files:

- **/alma/ACS-Y.Y1/ACSSW/ACS_VERSION**
- **/alma/ACS-Y.Y1/ACSSW/ACS_PATCH_LEVEL**
- **/alma/ACS-Y.Y1/ACSSW/ACS_TAG**

where the actual name of **ACSSW** might depend on your installation.

Note: Notice that this cannot take into account patching done by hand.

New ACS build

A new build of ACS always creates a clean **ACSROOT** and **ACSDATA** directories, but also keeps a backup of the previously installed one.

In this way the new build replaces transparently the old one.

Starting with ACS 4.1, the ACS build procedure assigns if possible to these directories a name which is postfixed with the ACS version and patch level or, if pre-existing, the CVS tag. If a tag does not exist or the directories with that name already exist, it will generate a unique postfix (this was the only action before ACS 4.1)

The backup copy can be later removed or kept in parallel to the new one.

ACS update

Starting with ACS 4.1 the script **acsUpdate** is available to install a new ACS patch on top of a pre-existing installation of the same ACS major&minor version from a binary distribution tar file.

The **ACSROOT** and **ACSDATA** directories from the tar file replace the existing ones, but a backup copy of the previously installed ones is kept according to the same rules described above.

The backup copy can be later removed or kept in parallel to the new one.

Related articles

- How can more people do development with ACS on the same machine without disturbing each other?
- Which ports are used by ACS?