



**Importing Science Algorithms into Ir1  
DAAC**

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**Discussion Topics**

## Importing Science Algorithms into Ir1 DAAC



- Downloading Science Software from SCF
- Importing Elements into ClearCase from a CM Structure
- Checking Elements out of ClearCase
- Checking Elements into ClearCase
- Entering Elements into ClearCase

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### Discussion Topics

In this lesson we will learn how to:

- Download the science algorithm from SCF or other remote locations
- Import algorithms into Clearcase from another CM environment
- Check elements out of ClearCase for modification
- check elements back into ClearCase after modifications and making a new version
- Enter elements one at a time into Clearcase

### Downloading Science Software from SCF



- logon to sgi
- cd to your local directory where you want file to reside
- ftp to the host
- cd to the host directory where the file is located
- get file
- quit

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### Discussion Topics

We are notified by the SCF the the science software is ready to be shipped to the DAAC to integrate into the production system. In this part of the lesson we will cover the procedure for transferring the science software package from the SCF to the DAAC and how to bring it into ClearCase to prepare it for integration and testing.

The package will likely be in a tar file. So after downloading, you may need to untar the file. This will produce an exact copy of the science software package that was generated at the SCF with all the original subdirectories.

Only then you will be prepared to integrate the package into ClearCase.

We begin by outlining the process of transferring the science software tar file to your local environment.

**Step 1.** Enter: <login id> and <password> onto lr1

**Step 2.** Enter: cd <your local subdirectory to where you want the file to transfer>

**Step 3.** Enter: ftp <host name>

**Step 4.** Enter: login and password for the host

**Step 5.** cd to the host directory where the file resides

**Step 6.** get the file

**Step 7.** quit to get out of ftp

If you need to untar the file, you will type the following command:

```
tar -xvf <filename>
```

### Importing Elements into ClearCase from a CM Structure



- cd to the parent directory of the UNIX directory structure to be imported
- Type clearcvt\_unix <directory name which contains the directory structure>
- contact the system administrator to run the master conversion script

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### Discussion Topics

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The purpose of importing the science software elements into ClearCase is to track any and all future changes to the science algorithms, whether the changes are made by the SCF or by the DAAC science representative.

To be able to import the elements into ClearCase, the system administrator should have created a VOB for you and set up a view.

The procedure is as follows:

**Step 1.** cd to the parent directory of the UNIX directory structure to be imported.

**Step 2.** Type clearcvt\_unix <directory name which contains the directory structure>

**Step 3.** contact the system administrator so that he/she may set a view that has the default config spec, and runs the master conversion script created in step 2 above.

### Checking Elements Out of/into ClearCase



- Logon to sgi
- Setview
- Checkout element
- Edit algorithm
- Check in element

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### Discussion Topics

In order to make changes to any of the science algorithms, you must check out the file as a ClearCase element. ClearCase will allow you to then make necessary changes. Then you will check in the element as a new version.

The procedure is as follows:

**Step 1.** Logon to the sgi

**Step 2.** Enter: `cleartool setview <view name>`

The working view is started. It is assumed that a VOB and a view have been created and designated by CM for you to use.

**Step 3.** Enter: `cleartool checkout <file name>`

-nc stands for "no comment"

**Step 4.** Edit the file as necessary (using any editor that's available)

**NOTE.** Once the changes are made and the file is saved, you may then check the file back into ClearCase as a new permanent version.

The procedure to check in is:

**Step 1.** Enter: `cleartool checkin -nc <filename>`

## Entering Elements into ClearCase



**Assuming that a VOB and a view have been created for you:**

- Copy file to desired directory
- Checkout directory under ClearCase
- `mkelem -nc <filename>`

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### Discussion Topics

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You can also incorporate one or more files into ClearCase, if they were developed outside CM. This is how we do it:

We assume that a VOB has been already mounted at the UNIX directory to which the file (element) is to be installed.

**Step 1.** Enter: `cp <filename>` to desired directory

This copies desired file to the desired directory

**Step 2.** Enter: `cleartool checkout -nc <directory name>`

This checks out directory under ClearCase

**Step 3.** Enter: `cleartool mkelem -nc <filename>`

This creates a new element under ClearCase

**Step 4.** Enter: `cleartool ci -nc <directory name>`