



**IBM Tivoli Training  
Netcool/Proviso 4.4.3**

***Running an inventory profile***



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This IBM Education Assistant module describes how to run an inventory profile.

## Objectives

Upon completion of this module, you will be able to:

- Run an SNMP (Simple Network Management Protocol) inventory profile using the DataMart user interface
- Run an SNMP inventory profile using the command-line interface
- Run report grouping

Upon completion of this module, you will be able to run a Simple Network Management Protocol, or SNMP, inventory profile using the DataMart graphical user interface. You will also be able to run an SNMP inventory profile using the command-line interface. Finally, you will learn how to run report grouping using the DataMart graphical user interface and the command-line interface.

## Assumptions

Before undertaking these tasks:

- You must have a configured inventory profile
- The DataLoad collector must be running
- The Discovery server must be running
- You must log in to the DataMart host as **pvuser**

Before running an inventory profile, you must have one configured. Both the DataLoad collector managing the profile and the Discovery server must be running. Inventory tasks must be performed from the DataMart host using the **pvuser** UNIX<sup>®</sup> login.

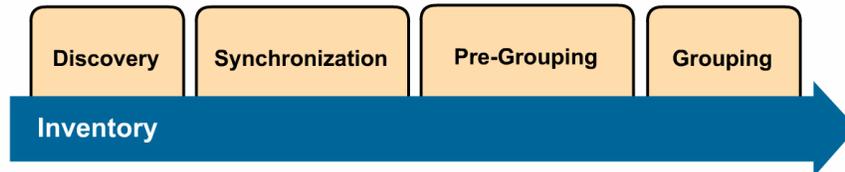
## Running an inventory profile

Inventory profiles can be run using the DataMart user interface or from the command-line interface

Inventory profiles are run periodically in a production environment, typically once a day

Inventory profiles can be run using the DataMart graphical user interface or the command-line interface. Typically, inventory profiles are run on a regular basis, such as once a day or once every other day. Inventory is commonly run using the command-line interface invoked from the crontab of the **pvuser** UNIX account.

## Modules in the inventory process



Inventory is run in four modules: discovery, synchronization, pre-grouping, and grouping.

During **discovery**, the DataLoad collector sends discovery formulas to network devices. Responses to the discovery formulas are stored in the DataMart file structure.

During **synchronization**, the results of the discovery are compared to previously discovered resources. Additions or changes to the network are loaded into the database.

During **pre-grouping**, relationships between resources are inspected using grouping rules. During **grouping**, the impact of the grouping rules on resource relationships are loaded into the database. If inventory is run from the DataMart graphical user interface, the pre-grouping and grouping modules are combined in one module called *automatic grouping*.

## Starting the DataMart Inventory Tool

To start the Inventory Tool:

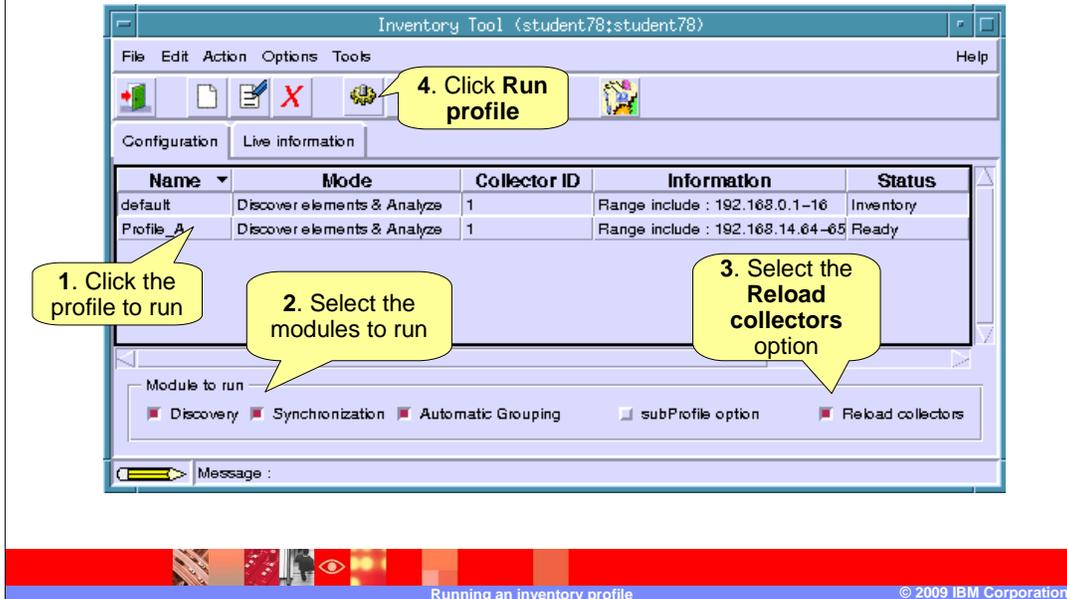
1. Set the **DISPLAY** environment variable
2. Set the DataMart variables to the environment of **pvuser** using the **dataMart.env** file
3. Start the Inventory Tool with the **inventory &** command.

The DataMart Inventory Tool is used to run an inventory profile.

To start the Inventory Tool:

1. Set the **DISPLAY** environment variable.
2. Set the DataMart variables into the environment of **pvuser** using the **dataMart.env** file. This file is found by default in the **/opt/datamart/** directory.
3. Start the Inventory Tool with the DataMart command **inventory**, followed by the ampersand character.

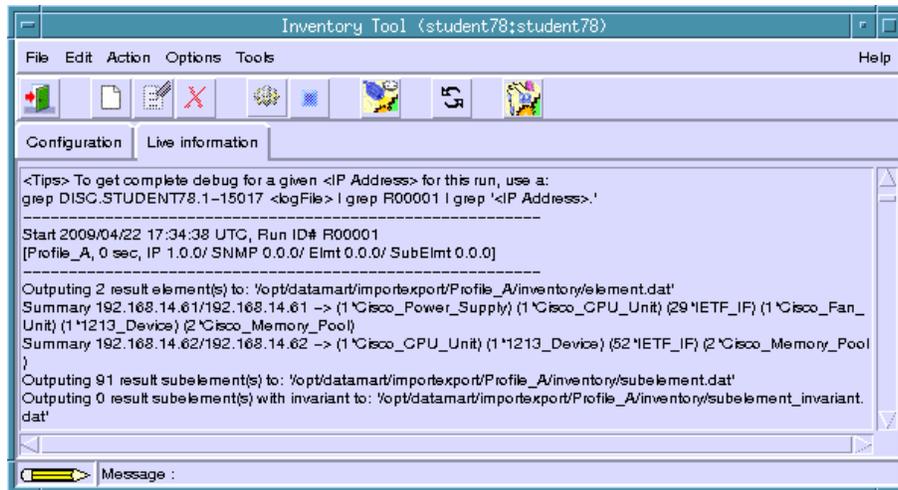
## Running an inventory profile using the DataMart user interface



Follow these steps to run an inventory profile:

1. Click the profile that will be run from the list of profiles.
2. Select the inventory modules that will be run for the profile. You can run discovery, synchronization, and automatic grouping. **Automatic grouping** is the combination of the pre-grouping and grouping modules.
3. Select the **Reload collectors** option. This option will update the scheduled list of events in the memory of the managing collector, if the collector is affected by the profile. It does not stop and start the DataLoad collector process.
4. To run the profile, either click the **Run profile** button, or click **Action > Run Profile** in the Inventory Tool menu.

## Inventory events on the Live information tab



Running an inventory profile

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Immediately after you click **Run profile**, the Inventory Tool window changes to display the **Live information** tab. This tab is a live view of the DataMart **TracInventory.log** file. After inventory has finished running, the log will stop.

## Running an inventory profile using the command-line interface

The **inventory** command is located in the **~/datamart/bin** directory. The **dataMart.env** environment variables must be set to run inventory

The command is run with the following four options:

- ▶ -noX (to run with no display)
- ▶ -name <Profile Name> (to specify which profile to run)
- ▶ -action <discovery | synchro | pregrouping | grouping | all>
- ▶ -reload <1 | 0> (to reload the DataLoad memory model)

Inventory profiles are more commonly run using the command-line interface. These are the minimum options needed to run a profile. The **inventory** command is followed by **noX** to run the Inventory Tool without starting the graphical interface.

The minimum options are:

- **name** followed by the name of the profile to run
- **action** followed by the modules to run (or all modules)
- **reload** followed by a 1 or 0. If followed by a 1, the reload option will reload the schedule of the managing DataLoad collector. If followed by a 0, the collector schedule will not be reloaded.

## Inventory command example

```
$ inventory -noX -name Profile_A -action all -reload 1
BeforeDiscovery for test : nothing to do
Running Discovery on profile : Profile_A (mode 1)
...
Discovery collector number: 1 (PONS:3002) (from profile )
Start Reload formulas on PONS:3002 ...
Initialization 2009/04/07 18:00:34 UTC, Run ID# R00004
<Tips> To get complete debug for a given <IP Address> for
this run, use a: grep DISC.PONS.1-2977 <logFile> | grep
R00004 | grep '<IP Address>.'
-----
Start 2009/04/07 18:00:34 UTC, Run ID# R00004
[test, 0 sec, IP 1.0.0/ SNMP 0.0.0/ Elmt 0.0.0/ SubElmt
0.0.0]
[test, 5 sec, IP done.2/ SNMP 0.1.1/ Elmt 0.0.1/ SubElmt...
```

In this example of the **inventory** command, the profile name is Profile\_A, all modules are run, and the schedule of the managing collector is reloaded. After the command is issued, a live view of the DataMart **TracInventory.log** file is displayed. After inventory has finished running, the log will stop.

## Running an inventory profile from crontab

```
0 0 * * * [ -f /opt/datamart/dataMart.env ] && [ -x  
/opt/datamart/bin/inventory ] && . /opt/datamart/dataMart.env &&  
inventory -noX -name Profile_A -action all -reload 1
```

### This example:

- Verifies that the DataMart environment variable file exists
- Verifies that the **inventory** command is able to run
- Loads the DataMart environment variables
- Runs all modules for the profile named Profile\_A
- Runs the profile every night at midnight

Inventory is a periodic operation and is typically run from the crontab of **pvuser**. Add the full **inventory** command and options to the crontab file of **pvuser**.

This example shows a crontab entry that:

- Verifies that the DataMart environment variable file is in place
- Verifies that the **inventory** command is able to run
- Loads the DataMart environment variables
- And runs Profile\_A with options

This profile will run every night at midnight.

## Report Grouping

If new groups are created when an inventory profile is run, existing reports must be deployed to the new groups. This task is called *report grouping*

Report grouping should be run after the inventory grouping module is run

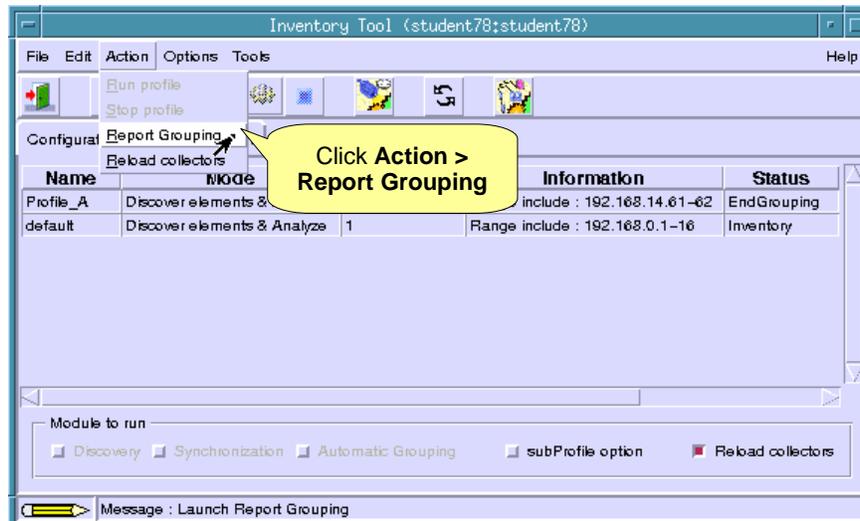
Report grouping can be run using the DataMart user interface or from the command-line interface

If new groups are created when grouping rules are applied to new resources, existing reports must be deployed to the new groups. This task is known as *report grouping*.

Report grouping should be run after the inventory grouping module is run so that new groups will be displayed in reports.

Report grouping can be run using the DataMart user interface or from the command-line interface.

## Running report grouping using the DataMart user interface



To run report grouping from the DataMart user interface, click **Action > Report Grouping** in the Inventory Tool menu.

## Running report grouping using the command-line interface

```
$ inventory -noX -reportGrouping
AutoGrouping : Loading rules ...
                Rule ~NOC Reporting~Interfaces~Vendor
Reports~Cisco (IOS v10)~%(AP_ifType) (13941) (1)
                Rule ~NOC
Reporting~Devices~Cisco~Environmental
Reports~%(Element.NAME)~%(CiscoEnvMonitor) (10549) (1)
                Rule ~NOC
Reporting~Devices~Cisco~Utilization (IOS
v10)~%(Element.NAME) (13974) (1)
                Rule ~NOC
Reporting~Devices~Cisco~Utilization (IOS
v11+)~%(Element.NAME) (10552) (1)
                Rule ~NOC
Reporting~Devices~Interfaces~%(Element.NAME) (50504) (1)
ReportGrouping : End
no Reload (-reload 0)
```

To run report grouping from the command-line interface, use the command **inventory -noX -reportGrouping**. The results of report grouping are displayed.

## Summary

You should now be able to:

- Run an SNMP (Simple Network Management Protocol) inventory profile using the DataMart user interface
- Run an SNMP inventory profile using the command-line interface
- Run report grouping

You should now be able to:

- Run an SNMP inventory profile using the DataMart user interface.
- Run an SNMP inventory profile using the command-line interface.
- Run report grouping using the both the DataMart graphical user interface and the command-line interface.

## Training roadmap for Netcool/Proviso

[http://www.ibm.com/software/tivoli/education/edu\\_prd.html](http://www.ibm.com/software/tivoli/education/edu_prd.html)

Use this link to explore the training roadmap for IBM Tivoli Netcool/Proviso.

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