

PLANTSCAPE SERVER

ADMINISTRATION AND ANALYSIS

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SESSION OBJECTIVES

At the end of this section of the course the student will be able to:

- Administer PlantScape Server Users
- Start and stop the PlantScape Server
- Load and unload the PlantScape Server database to and from the server memory
- Configure the PlantScape Control Panel settings
- Backup and recover the PlantScape Server database
- Analyse the Server's processor loading
- Analyse the non-Hybrid controller Point scanning load

REFERENCES

Knowledge Builder: Administration Guide

User Administration

Users

To be able to use a Windows NT computer you must log in with a valid username and password.

Groups

Each user is a member of one or more Groups.
Each Group enables a different level of access to Windows NT administration tasks

Group	Description
Administrators	Members can perform all administration tasks on the computer
Backup Operators	Members can bypass file security to backup files
Guests	Users granted Guest access to the computer
Power Users	Members can share directories and printers
Replicator	Supports file replication in a domain
Users	Ordinary users

PlantScape Server users

PlantScape Engineering Tools are installed on the server PC whilst logged on as username “ps_user”. During the installation of PlantScape Server three further user accounts are created (in addition to any others that may already have been created by the system administrator, or during the installation of Windows NT):

Username	Group	Notes	
ps_user	Administrators	Used by PSc Engineering Tools.	Caution DO NOT DELETE THESE USERS. The only remedy is to re-install PlantScape Eng Tools / Server.
erserver	Administrators		
mngr	Administrators	Used by PSc Server	
engr	Administrators	Recommended for use when performing administration tasks.	
oper	Users	Recommended for use by operators and other, non-administrative, personnel.	

User Administration.....continued

Adding a User

1	Choose: Start→Programs→Administrative Tools→User Manager
2	In the User Manager window double click on: either: Username engr if the new user will be a member of the Administrators group, or: Username oper if the new user will be a member of the Users group
3	Choose User→Copy In the copy dialogue box complete the details for the new user and click OK .

Changing Passwords

1	If your Username is not a member of the Administrators group go to step 5.
2	Choose: Start→Programs→Administrative Tools→User Manager
3	In the User Manager window double click on the Username whose password requires changing.
4	Enter the new password in the Password and Confirm Password fields and click OK . <div style="border: 1px solid black; padding: 10px; margin: 10px auto; width: 80%; text-align: center;">Caution If you have just changed the password for the user account “mngr” you must now change the password for the logon user account of ALL the associated PlantScape Server Services and the GDA Data Manager (refer to page 10).</div> You have now completed the password change.

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User Administration.....continued

5	Press <Ctrl>+<Alt>+ and click on Change Password .
6	<p>Enter your old password in the Old Password field.</p> <p>Enter your new password in the New Password and Confirm Password fields and click OK.</p> <p>When prompted with the message</p> <p>Password has been changed</p> <p>click OK to clear the message window and then click Cancel to clear the login window.</p>

Deleting a User

1	<p>Choose:</p> <p>Start→Programs→Administrative Tools→User Manager</p>
2	<p>In the User Manager window select the Username(s) that is(are) to be deleted</p> <div style="border: 1px solid black; padding: 10px; margin: 10px auto; width: fit-content;"> <p style="text-align: center;">Caution</p> <p style="text-align: center;">Do not select the usernames “ps_user”, “erserver”, or “mngr”,</p> <p style="text-align: center;">THESE ACCOUNTS MUST NOT BE DELETED.</p> <p style="text-align: center;">The only remedy is to re-install PlantScape Engineering Tools and/or Server.</p> </div>
3	<p>Either: choose User→Delete</p> <p>or: press </p>
4	Choose OK to confirm the delete
5	Choose Yes or Yes to All to delete the user(s)

Windows NT Services

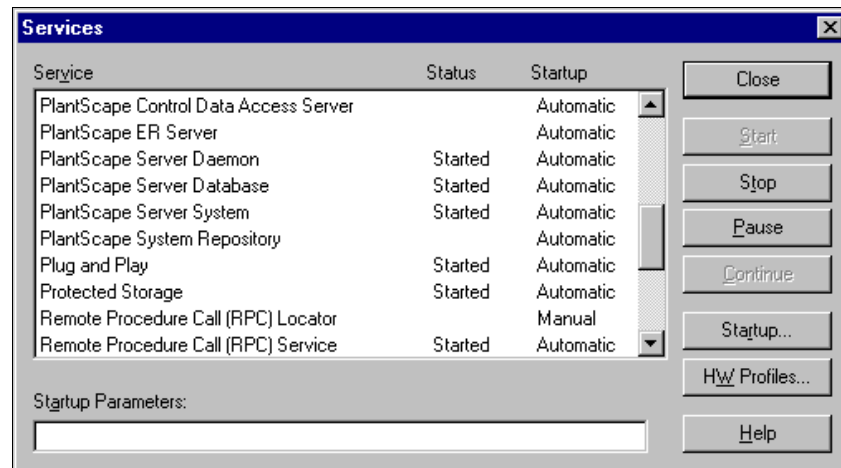
What are Services?

Services are programs that can run regardless of whether or not a user is logged in.

They also run regardless of who is logged in, and what groups they are members of.

Viewing Services

Choose **Start**→**Settings**→**Control Panel**→**Services**.



Each service:

- can be configured for automatic or manual startup, or disabled,
- can have its logon user account and password assigned,

Caution

The logon user account should not be changed.

If the password for the user account “mngr” has been changed the logon password must be changed to match the new one (refer to page 10).

- has its “started” or “not started” status indicated,
- can be started or stopped, if it has not been disabled

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Windows NT Services.....continued

PlantScape Server Services

The following services are created during the PlantScape installation:

Service Name	Description
PlantScape Control Data Access Server	Controls communications between the PlantScape Server realtime database and the Hybrid Controller.
PlantScape ER Server	Enables access to the Engineering Repository
PlantScape System Repository	Loads / unloads the memory resident portions of the Engineering Repository
RSLinx	The program used to communicate between the CDA Server and the Hybrid Controller
XLNet Daemon	Controls the daemon for use with the Honeywell XL5000 controllers
PlantScape Server Daemon	Controls the various daemons running in the Server; for example, point building
PlantScape Server Database	Loads / unloads the memory resident portions of the PlantScape Server database
PlantScape Server System	Controls the PlantScape Server system programs

PlantScape Server Services starting sequence

The starting sequence for the PlantScape Server services is:

1. PlantScape Server Database
2. PlantScape Server Daemon
3. PlantScape Server System

Therefore, to start ALL three services, start PlantScape Server System and the others will be started automatically

PlantScape Server services stopping sequence

The stopping sequence for the PlantScape Server services is:

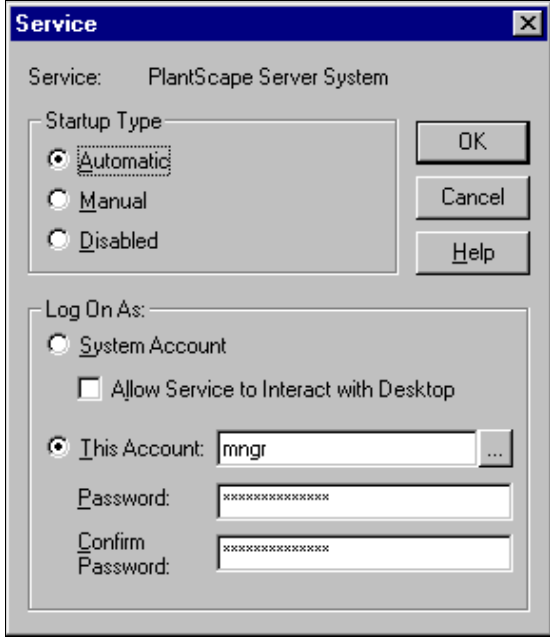
1. PlantScape Server System
2. PlantScape Server Daemon
3. PlantScape Server Database

Therefore, to stop ALL three services, stop PlantScape Server Database and the others will be stopped automatically

Windows NT Services.....continued

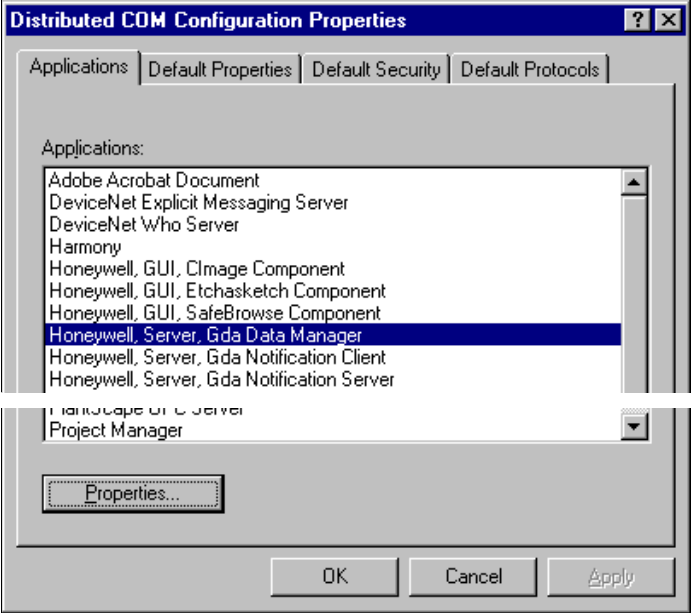
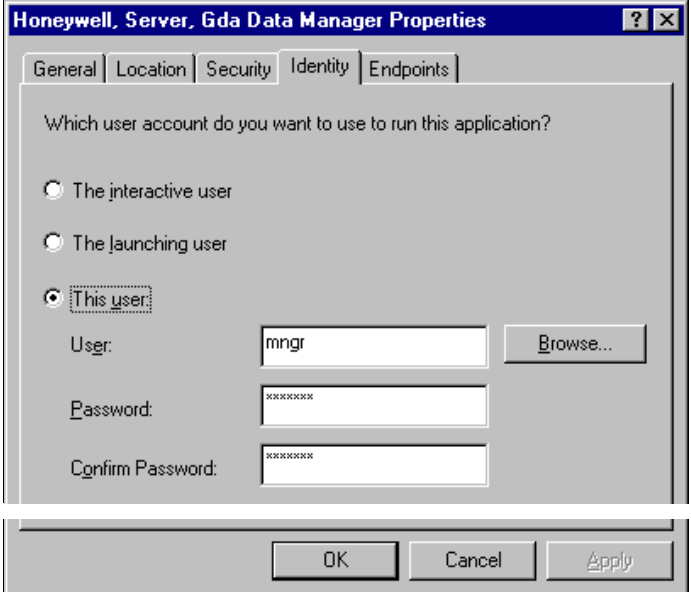
Changed Password for “mngr” User Account?

The logon user account for the PlantScape Server Services is “mngr”. If the password for “mngr” has been changed then it is necessary to perform the following procedure:

Step	Action
1	<p>Select the service PlantScape Server System and choose Startup...</p> 
2	Enter the new password and confirmation, and click OK .
3	<p>Repeat steps 2 and 3 for the services:</p> <ul style="list-style-type: none"> • PlantScape Server Daemon • PlantScape Server Database • XLNet Daemon (if used)
4	Close the Services dialogue box.

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Windows NT Services.....continued

5	<p>Open a Command Prompt and enter the command: dcomcnfg</p> 
6	<p>Select Honeywell, Server, Gda Data Manager, click Properties... and then select the Identity tab</p> 
7	<p>Enter the new password and confirmation, and click OK.</p>
8	<p>Repeat steps 6 and 7 for the applications:</p> <ul style="list-style-type: none"> • Honeywell, Server, Gda Notification Client • Honeywell, Server, Gda Notification Server • PlantScape OPC Server

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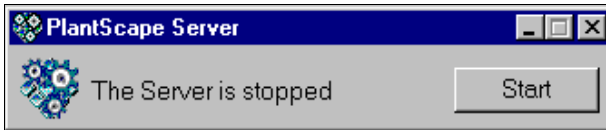
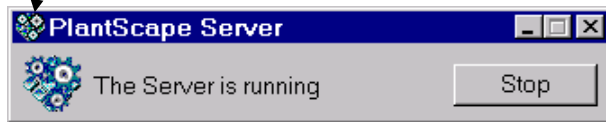

Windows NT Services.....continued

9	If this PlantScape Server is part of a system using Distributed Servers Architecture then you must make these changes on ALL the Servers in the system.
10	If this PlantScape Server is using either the OPC Driver or Interface, and the corresponding OPC client or server is on another PC, then you must update the password for the mngr account on that PC.
11	<div><p style="text-align: center;">Attention</p><p>If this PlantScape Server is re-installed, or upgraded to a new release, the password for the mngr user account will be reset to mngr123.</p><p>The above procedure must be repeated if the changed password for the mngr user account is required.</p></div>

Windows NT Services.....continued

Controlling the PlantScape Server Services' Status

There are a number of methods available to control the status of PlantScape Server services.
We will examine the simplest:

Step	Action
1	<p>Choose:</p> <p>Start→Programs→PlantScape Server→Start-Stop PlantScape Server</p> <p>The PlantScape Server window will display:</p>  <p>or:</p> 
2	<p>Clicking Start (Stop) will start (stop) the System service</p> <div style="border: 1px solid black; padding: 10px; text-align: center;"> <p>Attention</p> <p>After stopping the System service in this way, the Database and Daemon services will still be running.</p> </div>
3	<p>In order to get more control over the Server services click on the Control Icon in the top left corner</p>  <p>Choose Advanced→Full Mode</p>  <p>Access is available to all combinations of Server services.</p>

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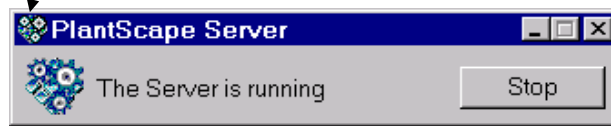
Windows NT Services.....continued

Controlling the PlantScape Server Services' Status

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In order to view the status of the Server services at all times click on the Control Icon in the top left corner



and check **Hide When Minimised** on.

When the window is minimised its notification icon will appear at the extreme right of the taskbar next to the time display



When the mouse pointer is held over this icon for a short time a notification will pop up indicating the status of the PlantScape Server services.

The indication will vary depending on whether **Full Mode** is on or off.

PlantScape Server Control Panel

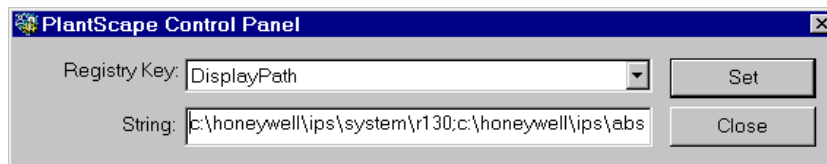
Introduction

A control panel is provided to set certain parameters that exist in the Windows NT Registry.

To view the control panel choose:

Start→Programs→PlantScape Server→

PlantScape Server Control Panel



The parameters that can be set are:

- Archive Directory
- Display Path
- Log File Size
- Report Font

Attention

Any changes to these settings will not be activated until the PSc System Service has been stopped and restarted.

Archive Directory

Defines the directory under which History Archives will be saved.

Display Path

Defines the display search path for the Server.

Required for named pages since they are exported to the Server realtime database at the time of request from a Station

Log File Size

Defines the size of the Server log file c:\honeywell\server\data\loga.

Report Font

Defines the font that will be used when printing reports.

Backups and Recoveries

Emergency Repair Disk

An emergency repair disk increases your chances of recovering a Windows NT system in the event of failure.

Refer to your Windows NT manuals for information on running the program **rdisk.exe**.

What to backup

If space on your backup medium is not at a premium then the simplest and most foolproof method is to backup the c:\honeywell folder and all its contents.

However, if you wish to reduce the time and space required for a backup then the following list of files and folders will act as a check list.

For the Hybrid Controller only:

- c:\honeywell\tps50\system\er\erdb_*.mdb
- c:\honeywell\tps50\system\er\cpm*.snapshot

For the Server:

- c:\honeywell\server\data*
 - c:\honeywell\server\user*
 - c:\honeywell\server\report*
 - c:\honeywell\server\archive*
 - c:\honeywell\server\evtarch\archive*
 - c:\honeywell\client\abstract*
 - c:\honeywell\client\system\r300\menu.txt and menu.ini
(if the Station menubar has been customised)
 - c:\honeywell\client\system\r300\sysnnn.dsp
(if system page *nnn* has been customised)
 - c:\honeywell\client\qckbld*.qdb
 - c:\winnt\system32\drivers\etc\hosts
-

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Backups and Recoveries.....continued

Points Database

Server stores its points database in a file named "points" which is located in the c:\honeywell\server\data directory.

Since the contents of the file "points" could be changed at any time a static copy must be made to protect against any possible corruption whilst the \data directory is being copied and/or backed up.

To do this open a Command Prompt and enter the command:

```
shheap 1 backup
```

This will produce a file named points.bak which is also located in the c:\honeywell\server\data directory.

Creating Backups

There are a number of ways to backup your PlantScape Server system:

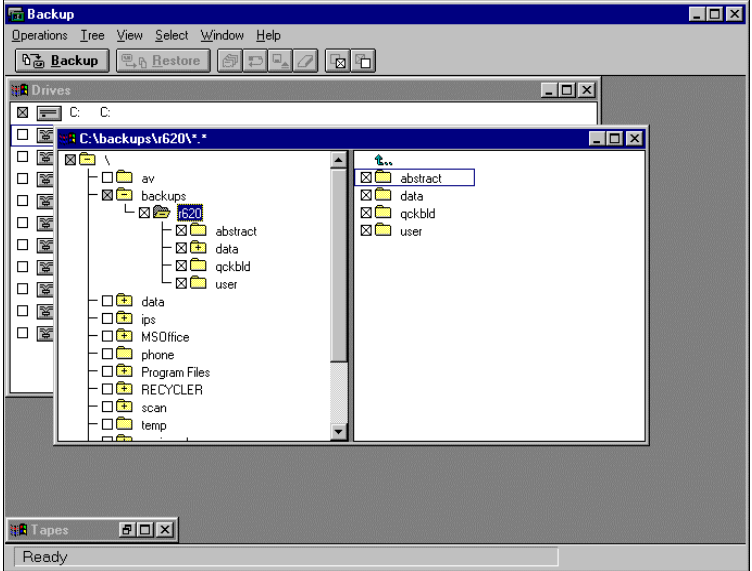
- Backing up selected files to a tape drive
- Copying selected files to an external disk drive

Backing Up to a Tape Drive

A backup utility **ntbackup.exe** is included in Windows NT.

However, it is not possible to use **ntbackup.exe** to backup files that are open, but it is possible to copy files that are open.

Therefore, to backup the server realtime database, the following procedure must be used:

1	Make a copy of the contents of c:\honeywell\server\data to a backup directory; for example, c:\backups.
2	<p>Choose: Start→Programs→Administrative Tools→Backup This starts the Windows NT backup utility, ntbackup.exe</p> 

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Backups and Recoveries.....continued

Backing Up to a Tape Drive

.....continued

3	Double click on the C: drive icon and on the subsequent directory names that you wish to expand.
4	Check the checkboxes next to the directory names that you wish to backup.
5	Click on Backup

Backing up to a Hard Disk Drive

It is a simple process to use the Microsoft Network and Explorer facilities to copy the c:\honeywell\server\data directory to either a removable hard disk drive connected to the PlantScape Server or a hard disk drive on a network connected computer.

Recovering the Server Database

To recover the PlantScape Server realtime database follow this procedure:

1	Stop the PlantScape Server Database service to unload the existing PlantScape Server database from memory.
2	Using ntbackup.exe , or Explorer, depending on how the backup was created, replace all the files in the directory c:\honeywell\server\data from the backups directory.
3	Start the PlantScape Server System service.

Recovering the Points Database

To recover the PlantScape Server points database follow this procedure:

1	Stop the PlantScape Server Database service to unload the existing PlantScape Server database from memory.
2	Rename the file named “points” to “points.old”
3	Rename the file “points.bak” to “points”
4	Start the PlantScape Server System service.

Trouble Shooting

What software and/or options is/are installed?

From Station choose:

System Menu→System Configuration→System Licence Details...

Or:

Start→Programs→PlantScape Server→Setup.

Click on **Next** then choose **List Installed PlantScape Server software** or **View software licence details.**

Monitor system load

Choose:

Start→Programs→Administrative Tools→Performance Monitor

Choose **Edit→Add to Chart**

Select:

Object : **Processor**

Counter : **% Procesor Time**

Click **Add** then **Done.**

Task Manager

The Task Manager displays information about running tasks.

To start the Task Manager, Right Click on an empty portion of the Taskbar and choose **Task Manager**, or press <Ctrl>+<Alt>+ and choose **Task Manager**

Click on the **Processes** tab to view data about the running processes.

PS

From a Command Prompt enter the command:

ps

The data displayed could be required by Honeywell Support staff when investigating possible problems with your Server.

Monitor scanning load

View Station page 10.

For details of each field refer to

Knowledge Builder:Guides→Server and Client Configuration→Advanced Point Configuration→Checking the scanning performance of your system.

Run **lisscn** to view all the scan packets.

Refer to *Knowledge Builder*:Guides→Server and Client Configuration→Appendices.

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Trouble Shooting.....continued

PlantScape Server Log file

The server keeps a log of error messages in a text file named:

c:\honeywell\server\data\loga

which backs up to **logb** when it is full.

An updating window of the most recent entries can be viewed by choosing:

Start→Programs→PlantScape Server Diagnostic Tools→

PlantScape Server Log

Viewing the Server Log should be one of the first actions when attempting to identify the cause of a Server problem.

Attention

Not all entries in the log file indicate that there is a problem with the Server, check with your local Honeywell support.

Communications Trace

The utility **trace** records the communications activity between the Server and a Station or a Channel.

To start a trace open a Command Prompt and enter the command:

trace nn

where: $nn = 20 + \text{Station Number}$, or

$nn = 59 + (2 \times \text{Channel Number})$

To stop the trace enter the command:

trace 0

To view the contents of the trace register enter the command:

trace > trace.dmp

and open the file c:\users\default\trace.dmp with a text editor.

Station Trace

A Station link can be traced from the Station end by:

1. Stopping the Station application
2. Start Station using the command:
station.exe setupfile.stn -t trace.txt
3. Perform the action causing problems
4. Stop Station and open the file c:\honeywell\client\station\trace.txt to review the results.

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Trouble Shooting.....continued

Controller Interface Testing

Choose:

Start→Programs→PlantScape Server Diagnostic Tools

to view all the non-Hybrid controller test programs.

Details of each one can be found in

Knowledge Builder:Guides→Server and Client Configuration→Appendices.

Points in a Controller

To view all the points in the Server database that have been configured in a specific non-Hybrid controller, from Station

choose: **System Menu→System Configuration→Controllers,**

or: **Configure→Hardware→Controllers**

and click **View Points** for the required controller.

The following page will be displayed listing all the parameters addressed in the controller:

Controller Point List	Controller	5	DBase Cont
LT301	PV		F:350 R:1 W:19 REAL
LT302	PV		F:350 R:1 W:21 REAL
LT303	PV		F:350 R:1 W:23 REAL
LT304	PV		F:350 R:1 W:25 REAL
LT305	PV		F:350 R:1 W:27 REAL
LT306	PV		F:350 R:1 W:29 REAL
LT307	PV		F:350 R:1 W:31 REAL
LT308	PV		F:350 R:1 W:33 REAL
LT309	PV		F:350 R:1 W:35 REAL
LT310	PV		F:350 R:1 W:37 REAL

Attention

This page will NOT display “dummy” points that have been associated with the selected controller, only those with an actual hardware address in the controller.

Further parameters can be viewed by pressing <Page Up> or <Page Down>.

Double Click on a Point ID to display that point’s Detail page.
