Autodesk® PowerShape®

PowerShape Administration Guide

AUTODESK

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Managing PowerShape

This user guide provides information on managing PowerShape, including:

- Configuring your system (see page 3).
- Setting up users (see page 4).
- Managing your data (see page 21).
- Solving common problems (see page 32).

Understanding the powershape.con file

The *powershape.con* file contains information about the configuration of your software. Optionally, you can create another file and customize the details.

The following assumes that C:\Program files\Autodesk\ is the default installation folder of the software.

The default *powershape.con* file is read from:

C:\Program files\Autodesk\PowerShapexxxxx\sys\misc\

where xxxxx is the version number of PowerShape and C is the disk on which PowerShape is installed.

You can make changes to the default *powershape.con* file, but these changes are overwritten when you install a new version of the software. To retain changes when future versions of the program are installed, create a customized version of the *powershape.con* file (see page 3).

Changes in this file overwrite the defaults in C:\Program files\Autodesk\PowerShapexxxxx\sys\misc\, because anything new that is added to the program is included before the customized settings are added.

If the default value is changed in the newly installed version, the user changes overwrite this. We recommend that you check the powershape.con file in the new release for changes.

Creating a customized powershape.con file

The following assumes that C:\Program files\Autodesk\ is the default installation folder of PowerShape.

To create a customized powershape.con file:

1 Navigate to C:\Program files\Autodesk

2 If there is no *config* folder, create a folder at the same level as the PowerShape folder called **config.**

3 In the config folder, create a new text file called *powershape.con*.

4 In *powershape.con* in C:\Program files\Autodesk\PowerShapexxxxx\sys\misc\, identify the string you want to change.

   For example, if you add the following to the custom *powershape.con*, the inside colour will be blue instead of red.

   ```
   inside_colour: 0.0, 0.0, 1.0
   ```

Monitor sizes

1:1 zoom is supported on widescreen monitors, but you can use powershape.con settings to specify an unusual size.

Model sizes

PowerShape supports model sizes over 2GB by default. This is controlled by the `large_sector_size` command in the powershape.con file:

`large_sector_size: true`

This resource takes effect on new models. Alternatively, use **Save As** to save older models with a new name. Models with larger sector sizes can be opened by with older versions of PowerShape.

Users

What is a user?

The software keeps a list of users; people who are set up to use PowerShape.

Each user is allocated a security level that gives them privileges associated with one of the roles below:
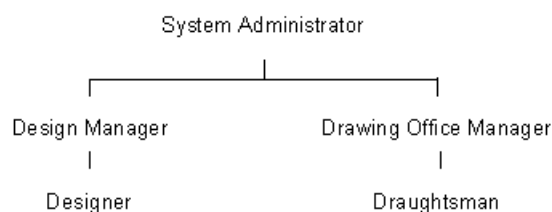
PowerShape restricts access to functionality by security level. For example, only a System Administrator or Drawing Office Manager can delete a database area.

The System Administrator is responsible for controlling the security and access rights of PowerShape users.

The following information is specified for each user:

- Short login name (often their initials or first name).
- User's full name.
- Password (optional).
- Security level.

- Pathname of a macro, which runs when the user logs on. This macro can set personal preferences, such as those available using the **Options** dialogs.

PowerShape can also:

- restrict a user from accessing specified models.
- store the models created by a user in a specified area on the network.

For further details, see Managing your data (see page 21).

What are security levels?

Security levels, as shown below, are assigned to each user. They control which administrative tasks a user can perform.

Level	Description
0	Used by Autodesk system support staff.
1	Allows access to all system administration and design functions. This level is assigned to the System Administrator.
2	Allows access to most system administration and all design functions. This level is usually assigned to the design office manager.
3	Allows access to design functions, but no access to administration functions. This level is assigned to the designers.

Setting up users

The first tasks your System Administrator must perform are to:

- identify who needs to access PowerShape.
- specify a naming-convention for models.
- establish the access rights that individuals and groups of users need for individual projects.

For further details, see Managing your data (see page 21).

When you run PowerShape for the first time, a new user is created for you using your Windows login name (with security level 3). Although you can set yourself up as a user by running PowerShape, you must have administrative privileges to set up other users.

To set up a new user:

1 Run PowerShape.

2   Double-click the Command box in the status bar to open the Command window.

3   In the Command window, type:

admin create user

4   Enter the login name of the user. This is usually the same as the user's system login name.

5   Enter a user password. Alternatively, if no password is required, type:

none

> *Windows and PowerShape passwords need not be the same. If you specify a PowerShape password, the user is prompted for it each time they start PowerShape.*

6   Enter the name of the user in single quotes, for example:

'Francis Dollarhyde'

7   Enter the security level of the user.

8   Enter the path of the login macro for the user. Alternatively, if no login macro is required, type:

none

and the default login macro (see page 6) is used.

What is the login macro?

The login macro is one of the macro files that run when you start PowerShape. It customizes the system to meet personal requirements. For example, you can add the required drawing standard to this macro so that PowerShape automatically uses it.

When PowerShape starts, three macros are run in the following order:

1   *preconfig.mac.*

2   user's login macro or login.mac (the default login macro).

3   *postconfig.mac.*

The following path is searched for the macros:

C:\Program Files\Autodesk\PowerShapexxxxx\lib\macro

The path you specified when the user was set up is searched for the user's login macro.

You can add commands to the default login macro, *login.mac*. When you create a user, if a path is given for the login macro and no file exists in the specified folder, the default login macro file is copied to the location. The user can then modify this file.

Use *preconfig.mac* and *postconfig.mac* to store organization-wide PowerShape commands. *postconfig.mac* gives you some control over the settings in the user's login.mac.

Logging in as another user

There is not necessarily a direct relationship between a Windows user and a PowerShape user. For example, you can log into Windows as user *ano*, and log into PowerShape as user *abc.* It is typical to have a PowerShape user set up for administration tasks (often called *admin)* so it is often convenient to swap between user and *admin* logins.

To log in as another user:

1 In the Command box, type **login.**

   A warning message is displayed if any open models have unsaved changes. Click **No** to cancel the login command and save your changes, or click **Yes** to continue.

2 Use the **Login** dialog to enter the user's **Login name** and **Password**.

3 Click **OK**.

   The security rights change to those of the new user.

   If the user is unknown to PowerShape, you can try again. If after six retries the login attempt has still not succeeded, the command is automatically aborted by PowerShape.

   To add a user to the list of known users, see Setting up users (see page 5).

Changing user passwords

To change your password:

1 Double-click the Command box in the status bar to open the Command window.

2 In the Command window, type:

   admin edit user

3 Type: **password**

4 Type your new password.

You may only change the password of users with a lower security level than your own.

To change another user's password:

1   Double-click the Command box in the status bar to open the Command window.

2   In the Command window, type:

    admin edit user

3   Type the user name of the user.

4   Type **password**

5   Type the user's new password.

Managing users

To display a list of existing users:

1   Double-click the Command box in the status bar to open the Command window.

2   In the Command window, type:

    admin state user

    This lists all the users and their login details.

To remove a user:

1   Double-click the Command box in the status bar to open the Command window.

2   In the Command window, type:

    admin delete user

3   Type the username and password of the user you want to remove.

Colour schemes

In PowerShape, you can edit the colours of the graphics using the Home tab > Style panel, or by selecting File > Options > Customize Colours to display the **View Appearance** dialog (for more information, see the Getting Started guide).

You can also specify your own colour scheme for graphics using two files; the colour table file, which stores the colour definitions, and the colour scheme file, which uses the colour definitions to create the colour scheme. You can edit both these files.

To specify a colour scheme for PowerShape, use information from the following sections:

Table of colour definitions (see page 9)

Colours used in PowerShape (see page 12)

Colour table

Given below is the colour table file provided with PowerShape. This contains the colour definitions.

```
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Black 0 0 0

White 1 1 1

Red 1 0 0

Green 0 1 0

Blue 0 0 1

Yellow 1 1 0

Cyan 0 1 1

Magenta 1 0 1

Orange 1.0 0.6 0.1

GreenYellow 0.6 0.83 0.0

BlueCyan 0.0 0.5 1.0

Black 0.0 0.0 0.0

GreenCyan 0.0 1.0 0.6

BlueMagenta 0.55 0.0 1.0

RedMagenta 1.0 0.0 0.55

FireBrick 0.75 0.13 0.13

Moccasin 1 0.89 0.71
```

```
Orchid 0.85 0.24 0.88
Violet 0.73 0.21 0.93
Tan 0.82 0.71 0.55
Navy 0 0 0.5
OldLace 0.99 0.96 0.90
Chocolate 0.82 0.41 0.12
Charteuse 0.5 1 0
Azure 0.94 1 1
MidGreen 0.2 0.8 0.3
PaleGrey 0.8 0.8 0.8
LightGrey 0.6 0.6 0.6
MidBlueGrey 0.33 0.33 0.45
DarkBlueGrey 0.34 0.34 0.5
MidGrey .5 .5 .5
DarkGrey 0.4 0.4 0.4
DarkSlate 0.28 0.35 0.55
DarkOrange 1 0.3 0.0
Yellowish 1.0 1.0 0.5
RedOrange 0.8 0.4 0.0
Pink 1.0 0.6 0.6
Maroon 0.6 0.0 0.4
Mauve 0.7 0.55 0.8
BottleGreen 0 0.75 0
Claret 0.8 0.0 0.7
Amber 0.8 0.5 0.0
BrightPink 1.0 0.7 0.7
DarkMagenta 1 0 0.75
ElectricBlue 0 .9 .9
Peppermint .5 1 .5
```

The number on the first line represents the number of colour definitions in the table.

The remaining lines each contain a colour definition. Each colour definition is defined as colour code name followed by its RGB colour mix.

PowerShape provides you with a variety of colour definitions, but it is possible to add your own colour definitions (see page 11).

Changing the colour definitions in the colour table file

To add or change colour definitions:

1 Create a copy of the *colour.tab* file in your home area. By default, the file is located in:

   C:\Program Files\Autodesk\PowerShapexxxxx\sys\hci\colourscheme

   where xxxxx is the version number of PowerShape and C is the disk on which PowerShape is installed.

2 Open the copy of *colour.tab* in a text editor.

3 Change the colours.

   For example, to add a new colour definition:

   1 Create a new line at the end of the file.

   2 Add a unique code name for the colour.

   3 Add the RGB mix for the colour. For example:

      ```
      RedOrange 0.8 0.4 0.0
      ```

   4 Edit the number on the first line of the file to match the new total number of colour definitions.

   5 Add an empty line at the end of the file.

   To edit a colour definition:

   6 Locate the colour definition you want to edit.

   7 Edit the RGB mix values to change the colour.

4 Save the file.

To use your edited copy of the *colour.tab* file, set the environment variable DCAM_COLOUR_TABLE to the path of your file. To do this:

1 From the Windows **Start** menu, select **Control Panel > Systems > Change settings,** or right-click the Windows button and select **System.**

   The **System Properties** dialog is displayed.

2 On the **Advanced** tab, click **Environment variables**.

3 Click **New** to create a **New User Variable**.

4 In the **Variable name** text box, type:

   DCAM_COLOUR_TABLE

5 In the **Variable value** text box, enter the pathname to your copy of the *colour.tab* file. For example:

   c:\mypsfiles\colour.tab

6 Click **OK** to accept the changes and close the dialogs and window.

Log out and into the system again for these changes to be effective.

Colours used in PowerShape

Given below are the contents of the file of colour definitions used by PowerShape:

 # Colour table

 # this supplies the colours displayed with

 # the colour selector and used to show each

 # line, etc displayed within the software.

#

 # The last five colours are used for

 # instrumentation.

#

 # Note use of backslash is required.

#

 # A colour entry like Red can also be

 # replaced with its rgb entry e.g.

 #   1 0 0

 # or

 #   1.0 0.0 0.0

 # ==

**colour_table: **

**16 **

**Black **

**White **

**Red **

**Green **

**Blue **

**ElectricBlue **

**DarkMagenta **

**Yellowish **

**Amber **

**BottleGreen **

**Peppermint **

**Yellow **

**BlueCyan **

**DarkOrange **

**BrightPink **

MidGrey

 # Now resources covering view background

 # colour, etc

graduated: on

top_colour: 0.0 0.0 0.0

bottom_colour: 0.2 0.4 0.8

 # Colour to use when rubber-banding to create

 # new lines, etc Get some slight blues and

 # reds with this colour but rubber-banding is

 # at least always visible

xor_colour: 1.0 1.0 1.0

#

 # Colours for dynamic editing of drafting

 # text

text_cursor_colour: Pink

text_box_colour: Green

text_box_highlight_colour: Cyan

#

 # Colours for the rotation tracker

 #   These are the colours of the lines and

 #   text of the rotation tracker controlled

 #   under tools -> options -> views ->

```
#   rotation tracker
#
#   Resources control line and text colours
#   when displaying the world axes or a
#   workplane axes system.
#
#   Resources also control the position of
#   the axes also which defaults to
#   bottom_left, but can be one of right,
#   left, top, bottom top_right, top_left,
#   bottom_right, and bottom_left.
#
#   The attenuation resource controls how
#   much colours of line and text are reduced
#   when an axes points away from the viewer.
#
rotation_tracker_line_colour: 0.4 0.95 1.0
rotation_tracker_text_colour: 0.4 0.95 1.0
rotation_tracker_active_colour: 1.0 1.0 1.0
rotation_tracker_workplane_line_colour: 0.4 0.95 1.0
rotation_tracker_workplane_text_colour: 0.4 0.95 1.0
rotation_tracker_pos_type: bottom_left
rotation_tracker_colour_attenuation: 0.7
```

We will now explain the contents of this file. Any line beginning with # is a comment. At the start of the file is a group of comments.

The colour table defines 16 colours used in PowerShape:

```
colour_table: \
16 \
Black \
White \
Red \
Green \
```

**Blue **

**ElectricBlue **

**DarkMagenta **

**Yellowish **

**Amber **

**BottleGreen **

**Peppermint **

**Yellow **

**BlueCyan **

**DarkOrange **

**BrightPink **

MidGrey

Each line of the colour table must end with \ except the last entry. The first line states that the colour table is being defined. On the second line of the table is a number. This number is the number of colours used in PowerShape and it must not change. The remaining lines each contain a colour code name that is defined in the colour table file called colour.tab. You can also define the colour as a RGB colour mix.

All of the colours are available in the **Main** and **Style** toolbars. You can use them to change the colour of objects.

Note that PowerShape uses the first 2 and the last 5 colours for specific purposes (see the table below).

Colour number	Colour in default file	What this colour shows in PowerShape
Colour 1	Black	Window background.
Colour 2	White	Default foreground colour for objects.
Colour 12	Yellow	Selected objects.
Colour 13	BlueCyan	Edit handles. Outside detail of the bright tracker ball.

Colour 14	DarkOrange	An object that can be selected when the intelligent cursor passes over. Selected surface curves. Surface normals. Inside detail of the bright tracker ball.
Colour 15	BrightPink	Secondary selections. Outside detail of the dull tracker ball.
Colour 16	MidGrey	A locked object. Detailed surface. Inside detail of the dull tracker ball.

If you change Colours 12 and 16, make sure Colour 12 is a bright colour and Colour 16 a shade of grey.

The next part of the file defines the background colour of view.

 # Now resources covering view background

 # colour, etc

graduated: on

top_colour: 0.0 0.0 0.0

bottom_colour: 0.2 0.4 0.8

It contains three variables: graduated, top_colour and bottom_colour. The variable graduated can be on or off. If it is off, the background colour is defined using the first colour of the colour table. If on, the views in PowerShape have a graduated background using the colours defined by the top_colour and bottom_colour variables.

The code below defines the colour of the rubber banding.

 # Colour to use when rubber-banding to create

 # new lines, etc Get some slight blues and

 # reds with this colour but rubber-banding is

 # at least always visible

xor_colour: 1.0 1.0 1.0

Similarly, the code below defines the colours used to dynamically edit text in the drafting module.

 # Colours for dynamic editing of drafting

 # text

text_cursor_colour: Pink

text_box_colour: Green

text_box_highlight_colour: Cyan

The code below defines the colour of the rotation tracker.

 # Colours for the rotation tracker

 #   These are the colours of the lines and

 #   text of the rotation tracker controlled

 #   under tools -> options -> views ->

 #   rotation tracker

#

 #   Resources control line and text colours

 #   when displaying the world axes or a

 #   workplane axes system.

#

 #   Resources also control the position of

 #   the axes also which defaults to

 #   bottom_left, but can be one of right,

 #   left, top, bottom top_right, top_left,

 #   bottom_right, and bottom_left.

#

 #   The attenuation resource controls how

 #   much colours of line and text are reduced

 #   when an axes points away from the viewer.

#

rotation_tracker_line_colour: 0.4 0.95 1.0

rotation_tracker_text_colour: 0.4 0.95 1.0

rotation_tracker_active_colour: 1.0 1.0 1.0

rotation_tracker_workplane_line_colour: 0.4 0.95 1.0

rotation_tracker_workplane_text_colour: 0.4 0.95 1.0

rotation_tracker_pos_type: bottom_left

rotation_tracker_colour_attenuation: 0.7

Changing the colours used by PowerShape

To change the default colours used by PowerShape:

1 Create a copy of the *default.scm* file to your home area. This file can be found at:

C:\ProgramFiles\Autodesk\PowerShapexxxxx\sys\hci\colourscheme\default.scm

where xxxxx is the version number of PowerShape and C is the disk on which PowerShape is installed.

2 Open your copy of the *default.scm* file in a text editor.

3 In this file, change the colours to your requirements by changing the code names of the colours.

> *All code names must exist in the colour table file (see page 9) (colour.tab) used by PowerShape.*
>
> *Make sure only 16 colours are used.*

4 Add an empty line at the end of the file.

5 Save the file with a new name.

To use the colour scheme in your copy of the *default.scm* file, do one of the following:

▪ Put the file in the folder:

C:\Program Files\Autodesk\PowerShapexxxxx\sys\hci\colourscheme

You can then select this file from the **Colour scheme** drop-down list, on the **Properties** page of the **Options** dialog.

▪ Set the environment variable DCAM_COLOUR_SCHEME (see page 18) to the path of your file.

> *If you want to add your file to our set, send us your file.*

Setting the DCAM_COLOUR_SCHEME environment variable

To set the DCAM_COLOUR_SCHEME environment variable:

1 On the Windows desktop, click **Start > Control Panel > Systems**. The **Systems** window of the **Control Panel** is displayed.

2 Click **Change settings**. The **System Properties** dialog is displayed.

3 On the **Advanced** tab, click **Environment variables**.

4 Click **New** to create a **New User Variable.**

5 In the **Variable name** text box, type:

DCAM_COLOUR_SCHEME

6 In the **Variable value** text box, enter the pathname to your copy of the *default.scm* file. For example:

c:\mypsfiles\default.scm

7 Click **OK** to accept the changes and close the dialogs and window.

> *Log out and into the system again for these changes to be effective.*

Setting up printers and plotters

Printers and plotters are handled by drivers supplied by their manufacturers. You must have the correct driver installed for the printer or plotter to work correctly.

To set up a printer or plotter:

1   In Windows click **Start** > **Devices and Printers**, or click the Windows button and select **Settings > Devices**.

    The **Devices and Printers** window of the **Control Panel** is displayed.

2   Click **Add a printer** to display the **Add Printer** Wizard.

3   Use the Wizard to install your driver.

When you have set up your printers and plotters in your operating system, they are automatically available in PowerShape.

Your installation of PowerShape should automatically use the printer that is attached to your system. However, if necessary, you can change the default settings of the printer that you use with PowerShape as follows:

1   Start PowerShape.

2   Select File > Print > Print Set-up to display the **Page Setup** dialog.

3   On the dialog, click the **Printer** button to display the **Print Setup** dialog.

4   Select a different printer, if necessary, using the **Name** drop-down list.

5   Use this dialog to change basic properties of the selected printer, such as **Paper Size**.

6   For further options, click the **Properties** button to display the **Document Properties** dialog to change the settings.

7   Click **OK** to accept the changes and close the dialog.

Managing your data

Naming your models

It is recommended that you set up a naming scheme on your system so that models can be found by user, department, or customer project.

To specify a naming scheme for models:

1   List the items to include in the name.

For example, you could include the following items in your model name:

- the part represented by the model

- the revision number of the geometry

- who produced the model

- the customer for whom the model is created

- the project in which the model is developed

2   Code the items.

If you have many items to include in your name, consider using codes to identify the items.

For our example, you could use:

- the part number to show the part represented by the model

- a number to show the revision number of the geometry

- the initials of the person who produced the model

- the name of the customer for whom the model is created

- the number of the project in which the model is developed

3   Order the items.

- Fix the order in which the items appear in the name.

- Position the unique part number, or the project number, at the beginning. This groups together all the models connected with that part or project in the model name lists.

4   Use separators between the items in the name.

If the coded items have a fixed number of characters, they do not need separators. However, we recommend using periods or other character as separators because they make the names easier to read.

In our example, the model name:

531.2.2500.perkins.rpg

indicates the following:

531 -	This model is associated to a part with the unique part number *531*.
2 -	This is the *second* revision of this model.
2500 -	This model was developed within project number *2500.*
Perkins -	This model was designed for the customer *Perkins.*
rpg -	This model was produced by a user whose initials are *rpg.*

5   Inform all users of the naming scheme.

Everyone must use the naming scheme for it to be successful.

It is important to understand the distinction between a *part* and a *model:*

- A *part* is a physical component that can be purchased or manufactured.

- A *model* is a computer-generated representation built by PowerShape to describe aspects of the part.

Although the part can be represented by one model, it is usually represented by several models. Some of the reasons for this are:

- The inside and outside geometry is created as separate models.

- Several sub-components are individually modelled.

- Models can contain drawings and the drawings are stored as individual models.

- It is important to name your models so that you know which *part* they represent.

Search patterns

If your model naming convention uses period separators between each component of the name, you can conduct sophisticated searches to find model names using patterns.

You can also use patterns to decide which models are stored where. For example, all model names matching the pattern *.abc* are saved in a specific database area. This may result in you having a model name that matches multiple patterns. Where a string of characters matches more than one pattern, the match is determined by the most closely matching pattern.

For example, *top.124* matches both the following patterns:

- ***1***

- ***.124**

Since *top.124* matches more characters in **.124*, that is the deciding pattern.

Setting up model database areas

When using the **Store in database** option, which can be set on the **Save Model As** dialog, models are placed in a general model database area by default. It is possible to set up new model database areas, where models belonging to a specific user or project can be stored. This avoids the issue of running out of disk space when sharing a central storage area. PowerShape can then place models with names matching specific patterns into these database areas.

Alternatively, users can store data locally on individual workstations. This speeds up PowerShape and reduces network traffic.

For further information, see:

- Setting up a database area for each user (see page 24)
- Setting up a database area for projects (see page 25)
- Moving a model from one database area to another (see page 26)

Setting up a database area for each user

It is useful to set up model databases for each user. This requires the model-naming convention includes the designer's initials such as **model.abc**, where **model** is the model name and **abc** is the user's initials. Create a folder on each user's hard disk and give it a suitable name. This folder is the database area and holds the user's models.

For example, assume you create a user called *abc* whose workstation is called *ws1.* You can create a folder called *parts* in the shared disk *local1* and tell PowerShape to store all models with names defined by the pattern **.abc* in the folder \\ws1\local1\parts. To do this:

1   Log on to PowerShape as a user with administrative privileges (for example, *admin).*

2   Double-click the Command box in the status bar to open the Command window.

3   In the Command window, type:

    admin create dbarea

4   Type in the pattern of the model name you want to store in a particular area. Include the pattern in single quotes ('), for example:

    '*.abc'

5   Type the path, again in single quotes, of where the models are to be stored. For example:

    '\\ws1\local1\parts\'

    Note the \ at the end of the path.

    All models with names ending **.abc** are put in \\ws1\local1\parts.

    Make sure paths are of the form:

    \\machine\folder\parts

    and not of the form:

    k:\parts

Setting up a database area for projects

Many organizations manage their design work as a set of projects. For example, a project may be a custom design for a specific customer, or an internal project to update an existing model. When you start a project, it is often useful to create a folder on the network. All models for this project can then be stored in this folder. The commands to set up a project are the same as those described in Setting up a database area for each user (see page 24) except the naming pattern uses the project name:

1   Create a folder in a suitable location. Use a meaningful name, which allows you to find the project. This holds the project's models.

2   Log on to PowerShape as a user with administrative privileges (for example, *admin).*

3   Double-click the Command box in the status bar to open the Command window.

4   In the Command window, type:

    admin create dbarea

5   Type the pattern of the project name you want to store in a particular area. Make sure you put the pattern in single quotes ('), for example:

    '*.proj1.*'

6   Type the path, again in single quotes, of where the models are to be stored. For example:

    '\\ws1\local1\project1\'

    Note the \ at the end of the path.

    All models with names matching ***.proj1.*** are saved in \\ws1\local1\project1.

    Make sure paths are of the form:

    \\machine\folder\project

    and not of the form:

    k:\project

Moving a model from one database area to another

When a project or model is completed, it may be necessary to move models to different database areas.

To move a model from one database area to another:

1   Click File > Save As. The **Save As** dialog is displayed.

2   Rename the model file to match the name pattern of the new database area.

Alternatively, rename the file with no naming pattern, to move it to a central location.

When a project is complete, you can save associated model files to a storage device and remove them from disk.

Access rights

Access rights control the operations that a user or a group of users can use on a model or group of models.

For example, you might want to allow all users full access only to the models they create, but read-only access to models created by other users. For a combination of user and model, the access rights that can be granted are:

- create
- delete
- read
- write

You can restrict how users can access the database areas by forcing them to create model names that end with their initials:

1   Log on to PowerShape as a user with administrative privileges (for example, *admin).*

2   Double-click the Command box in the status bar to open the Command window.

3   In the Command window, type:

admin create access

4   Type the pattern of model names that the user can operate on, in single quotes. For example:

'*.abc'

5   Type the initials of the user in single quotes. For example:

'abc'

You can type this string as a pattern so it can match more than one user. If the user's initials match more than one pattern, the access rights are determined by the most closely matching pattern.

6 Type the user's access rights to the models. You can choose from:

- **create**
- **delete**
- **read**
- **write**
- **none**

An example of this command is:

admin create access '*' 'abc' read

admin create access '*.abc' 'abc' create delete read write

User **abc** can read everyone else's models, but can only create, delete, read and write to models ending with the name **.abc.**

Backing up your data

We recommend that you protect your data and models by making daily backups of your databases. This involves copying the shared database, and all locally stored parts, models and drawings to a storage device, or using backup software. Then, if data is damaged, a recent copy can be retrieved.

PowerShape automatically checks for damage to models using the **File Doctor** during **Save** and **Save As** processes (see page 29). You can protect your work further by using the backup facilities available in PowerShape:

Backup when updating a model

When you create a new version of a model, a backup model called *Modelname_vN.psmodel_backup* is created by default, where *N* is the model version number of the model before it was updated. The backup is stored in the *Temp* folder, but you can set an alternative location for the backup folder using the *update_backup_path* setting in the *powershape.con* file.

You can disable this backup facility using one of the following:

- In the *powershape.con* file, use the setting:

  update_backup

- In the *login* macro, use:

  File OnUpdate Backup Off

The backup model does not appear in the shareddb, and can be deleted when no longer required.

Backup when opening a model

When a model is opened, PowerShape can automatically create a backup model called *Modelname_safe.psmodel*. The backup model is stored in the *Temp* folder.

To enable this backup facility, use one of the following methods:

- In the powershape.con file, use the setting:

  open_backup

- In the login macro, use:

  File OnOpen Backup On

To revert to the backup model:

1 Close the current model in PowerShape.

2 Select the model in Windows explorer and delete it.

3 Copy the safe model from the temp folder into the same folder as the updated model.

4 Rename the backup model to the name of the model deleted.

5 Open the model in PowerShape.

Manually using the File Doctor

If File Doctor is run in **Advanced Mode** using the **Check & Fix** option, and errors are found in the model, the following three files can be automatically created:

- *Modelname_datetime.psmodel* — the model as it was the last time it was opened/saved

- *Modelname_datetime.mac* — a macro of the commands run since the last time the model was opened/saved

- *Modelname_datetime.log* — the **File Doctor** log

These files are stored in the *Temp* folder. All three files should be sent to your local Support Department for analysis. You can restore a copy of your model that pre-dates the **File Doctor** fixes from the *Modelname_datetime.psmodel* file. The fixed file is resaved as *modelname.psmodel*.

To enable this backup facility, use one of the following methods:

- In the powershape.con file, use the setting:

  manual_filedoctor_backup

- In the login macro, use:

  File OnFileDoctor Backup On

Running File Doctor when using Save or Save As

If File Doctor finds errors during a model save, three files can be automatically created:

- *Modelname_datetime.psmodel* — the model as it was the last time it was opened/saved

- *Modelname_datetime.mac* — a macro of the commands run since the last time the model was opened/saved

- *Modelname_datetime.log* — the File Doctor log

These files are stored in the Temp folder. This folder is usually on the same drive as the software.

If these files are created, send them to your Support department for analysis.

You can enable this backup facility using one of the following methods:

- In the powershape.con file, use the setting:

  Save_backup

- In the login macro, use:

  File OnSave Backup On

Summary:

File Names	Modelname_datetime.psmodel Modelname_datetime.mac Modelname_datetime.log
Folder	Temp folder
Default action	Do not create the files
powershape.con	Save_backup
Command	File OnSave Backup On/Off

File Doctor runs by default during a Save As process. If there are errors, the model can be saved as *modelname_unsafe.psmodel*, fixed by the File Doctor and re-saved as *modelname.psmodel*.

The unsafe model is stored in the same folder as the model. If the model appears in the shareddb, so does the unsafe model.

The following three files can be created:

- *Modelname_datetime.psmodel* - the model as it was the last time it was opened/saved

- *Modelname_datetime.mac* - a macro of the commands run since the last time the model was opened/saved

- *Modelname_datetime.log* - the File Doctor log

These files are stored in the Temp folder. This folder is usually on the same drive as the software.

If these files are created, send them to your Support department for analysis.

You can enable this backup facility using one of the following methods:

- In the powershape.con file, use the setting:

  Saveas_backup

- In the login macro, use:

  File OnSaveAs Backup On

Summary:

Backup Name	Modelname_unsafe.psmodel
Backup folder	Same folder as the model
File Names	Modelname_datetime.psmodel Modelname_datetime.mac Modelname_datetime.log
Folder	Temp folder
Default action	Do not create the files
powershape.con	Saveas_backup
Command	File OnSaveAs Backup On/Off

Installation details

The shared database

PowerShape allows a group of users to share information that is applicable to everyone in the group. For example, the index of models being created, or standards. This information is stored in a shared database area called shareddb. By default, when you install PowerShape, each user has a private shared database area and parts areas where models are stored.

The shared database is located according to the default installation paths for your Windows operating system.

By default, Windows installation wizard installs folders in the following locations:

- C:\Program Files\Autodesk\PowerShapexxxxx

  where xxxxx is the version number of PowerShape and C is the disk on which PowerShape is installed.

- C:\Users\Public\Documents\Autodesk\shareddb

  or displayed as C:\Users\Public\Public Documents\Autodesk\shareddb

- C:\Users\Public\Documents\Autodesk\parts

  or displayed as C:\Users\Public\Public Documents\Autodesk\parts

User-specific files

It is possible to specify the location of user-specific files such as custom toolbars and shortcuts, so the same location is used for future versions of PowerShape. These files are stored in xxxx\PowerShape where xxxx is:

- C:\Users\[username]\AppData\Roaming
- the location indicated by your **HOME** variable.

To see C:\Users\[username]\AppData\Roaming, you must enable the display of hidden files in the folder properties.

To check this location, open the Command window and type print app.paths. The location is displayed next to Local config.

Trouble-shooting

This section describes typical problems that can be encountered on a PowerShape network and the solutions to those problems.

There are three classes of symptom that indicate problems with your software:

Class	Symptom
Crashing	Returns unexpectedly to the operating system.
Hanging	Being left in the program, but unable to do anything.
Error conditions (see page 36)	Shown by error messages. These may lead to crashing or hanging.

When you start PowerShape, the powershape_startup_log file is added to the tmp folder. This file contains details of the checks performed when starting PowerShape. It also contains any warnings and errors. Errors or warnings are also displayed in a dialog on the screen when you start PowerShape.

Crashing

For PowerShape crashing, a list of symptoms, their possible causes and solutions are given in the table below:

Symptom	Possible cause	Solution
Crash when trying to start PowerShape.	Incorrect installation.	See Installation problems (see page 39)
Crashing when trying to create a new graphics window. Crashing when trying to enter a "!" to issue an operating system command within the PowerShape Command window.	Insufficient virtual memory.	See Virtual memory problems (see page 40).
Program crashes when performing an action on a particular model, but other models behave normally.	Damaged models	See Corrupt databases (see page 41).

| Program crashes for no particular reason. | Software error. | If possible, capture any error messages displayed in the operating system's Command window and pass on to Software Support. See Software errors (see page 40). |

Hanging

If PowerShape hangs, use the following list of symptoms, their possible causes to identify a solution to the problem:

Symptom	Possible cause	Solution
Hangs on start up.	Incorrect dates in: C:\Program Files\Autodesk\PowerShapex xxxx \sys\hci where xxxxx is the version number of the software.	While access rights are not the cause of the problem, the solution involves changing them. See Operating system access rights (see page 44).
	Incorrect installation.	See Installation problems (see page 39).
	Insufficient virtual memory.	See Virtual memory problems (see page 40).
Hangs when trying to create a new graphics window. Hangs when trying to enter a "!" to issue an operating system command within the Command window.	Insufficient virtual memory.	See *Virtual memory problems* (see page 40).

Hangs, usually with a message in the terminal window about semaphore files.	Locked shared database tables.	See Locked shared database tables. (see page 42)
Hangs when trying to create or save a model and you do not get an error message.	Possible causes are insufficient disk space or a problem with the network.	See Network breakdowns (see page 44).
Hangs when performing an action on a particular model, but other models behave normally.	The model is damaged.	See Corrupt databases (see page 41).
Hangs for no particular reason.	Software error (see page 40).	If possible, capture any error messages displayed in the operating system Command window and send to Software Support.

Model recovery

If your PowerShape session crashes, it may be possible to recover the model you were working on. When you restart PowerShape after a crash, the following dialog is displayed:
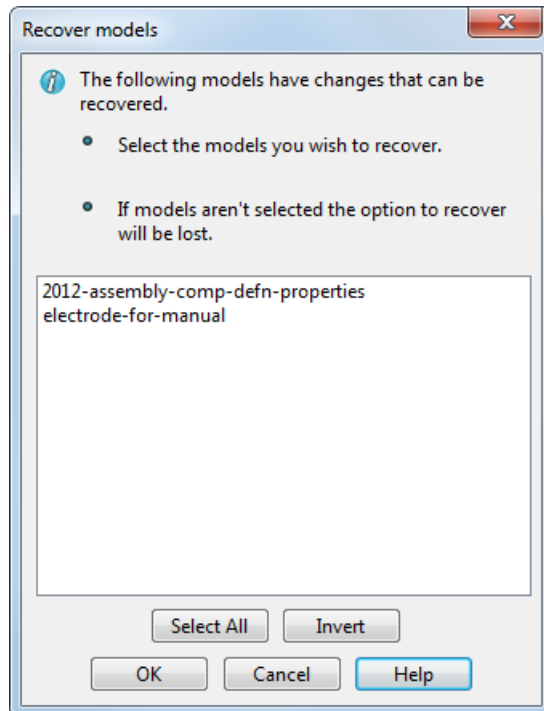
1 Select the models that you wish to recover. You can use **Select All** and **Invert** to select multiple models.

2 Click one of the following:

- **OK** to recover all selected models in the list.

- **Cancel** to cancel the recovery process. All recoverable changes are lost.

3 Following a recovery, you must save the model must to allow recovery from a second crash.

If your model contains no post-version 8 solid data (Parasolid), the models are recovered to the command before the crash.

If your model contains post-version 8 solid data (Parasolid), models can only be recovered to the state when the last autosave occurred.

*The time between autosaves is specified using the **Time between autosaves** option on the **Model** page of the **Options** dialog.*

Error conditions

When PowerShape encounters an error, it displays an error message in a dialog or in the Command window. The PowerShape message may be followed by a message in the operating system window, for example:

invalid argument to routine

IDTUP = 8764864

<....DBFAVA

<..DBGACH

-CLPRIN<out>

This section lists the error messages that may be displayed and indicates possible causes:

Error message:

`Another user is working on this model, please try later`

Possible cause	Solution
Sometimes lock files can be left in place in a model folder causing this message to appear even when no other person is using the model.	See Locked model database tables (see page 42).

Error message:

```
Assertion : <error>
… at line <number> of <file>
```

`Attempt to change an implicit attribute`

`Attempt to get/put off end of an array`

`Attempt to get/put wrong type of attribute`

`Invalid or unset list problem`

Possible cause	Solution
If the error occurs repeatedly when performing an action on a particular model, but other models behave normally, this may indicate the model is corrupted.	See Corrupt databases (see page 41). Also remember that corrupted models can also corrupt the program held in memory, so if the program does not crash you should exit and restart the program. Save your changes first (but to a new file).

Software error.	See Software errors (see page 40).

Error message:

`Unable to open database file`

Possible cause	Solution
Missing files or folders.	See Missing files or folders (see page 43).
Insufficient disk space.	See Insufficient disk space (see page 43).
Overly restrictive operating system access rights.	See Operating system access rights (see page 44).

Error message:

`Unrecognised database format`

`Out of date database format - update first`

`The database is corrupt`

Possible cause	Solution
One or more damaged database files.	See Corrupt databases (see page 41).

Error message:

`Unable to open virtual memory page file`

Possible cause	Solution
Operating system access rights may be preventing writes or deletes in the temporary or current folder.	See Operating system access rights (see page 44).

Error message:

`Attempt to read/write an invalid block number`

Possible cause	Solution
One or more database tables are corrupted. This could have happened some time ago or just before the message was raised.	See Corrupt databases (see page 41).

Error message:

Attempt to update in read mode ignored

Cannot find table …

Unknown table of type …

Possible cause	Solution
These indicate that there is probably a serious program error.	See Software errors (see page 40).

Error message:

Database table is open for read by another user - please wait

Database table is open for write by another user - please wait

These messages may repeat.

Possible cause	Solution
Some shared database tables are locked.	See Locked shared database tables (see page 42).
Overly restrictive operating system access rights in the shared database area.	See Operating system access rights (see page 44).
Insufficient disk space in the shared database area.	See Insufficient disk space (see page 43).

Error message:

Unable to create part database file

Unable to create model database file

Unable to create drawing database file

Possible cause	Solution
A network problem.	See Network breakdowns (see page 44).
Overly restrictive operating system access rights in the model database area.	See Operating system access rights.
Insufficient disk space in the shared database area.	See Insufficient disk space (see page 43).

Error message:

`Cannot find the details file`

`Unable to find database files`

Possible cause	Solution
There is a network problem.	See Network breakdowns (see page 44).
The required files or folders are missing.	See Missing files or folders (see page 43).
Overly restrictive operating system access rights in the model database area.	See Operating system access rights.
Insufficient disk space in the model database area.	See Insufficient disk space (see page 43).

Error message:

`Unable to open file <filename>`

`Unable to open part database file`

`Unable to open model database file`

`Unable to open drawing database file`

Possible cause	Solution
A network problem.	See Network breakdowns (see page 44).
The required files or folders are missing.	See Missing files or folders (see page 43).
Overly restrictive operating system access rights in the model database area.	See Operating system access rights.

Solving typical problems

Installation problems

Installation problems may happen if you the copy the software files manually, rather than using the installation program.

The installation program completes additional processes, such as setting up registry entries, and should always be used in preference to manual copying of files.

To fix installation problems:

1 Uninstall the software

2 Re-install it using the installation procedure provided with your downloaded files.

Virtual memory problem

Windows keeps a copy of every running program and space for its data, in a temporary file. Windows uses this file to swap information in and out of your computer's physical memory. This temporary file is referred to as virtual memory.

Windows normally manages your virtual memory files automatically, but needs to use disk space to do this. Your virtual memory is limited to the amount of physical disk space available on the computer's local disk. Ensure that at least 500 MB of free disk space is available before starting the program.

Windows can split virtual memory so that one running program image is stored on one disk, and another program is stored on a second disk. However, if a program starts on one disk and needs to expand in size, it must stay on the same disk. Thus you can find situations where virtual memory is exceeded (on one disk) while space is still available on another disk.

If have problems cause be insufficient virtual memory, check how you computer's virtual memory is configured (see Microsoft's documentation) and check for availability of disk space on all disks.

Software errors

Software errors are caused by faults in the PowerShape program code. Autodesk is careful to only release reliable software. However, problems caused by code errors are inevitable.

Do not ignore program errors. In many cases, PowerShape can appear to continues as normal, but the program could be damaged and cause corruption to your model. If you encounter a program error, we recommend that you log out immediately without saving your model.

If the program hangs, and you are unable to exit normally:

1 Press the **Ctrl+Shift+Esc** keys to display the **Task Manager** window.

2 Click the **Applications** tab.

3 Select **PowerShape** in the list of tasks.

4 Click **End Task**.

When you restart PowerShape, you run an undamaged copy of the software. If you have not saved the model since the problem began, the stored model is undamaged, but you must repeat any unsaved work.

If you suspect a model is damaged:

1 Open the model in PowerShape

2 Use the File Doctor to check and, if necessary, repair your model.

> *If logging out without saving could result in the loss of work, select File > Save As, save the model under a new name, and then run File Doctor on the updated model.*

If File Doctor corrects any faults or finds no faults, you can continue working. In these situations, we recommend you regularly save your model under a new name. If any model is corrupt, you can return to a previously saved instance.

You should report all program errors to Technical Support. They are often able to show you how to achieve the same results by a different route.

When reporting errors, supplying the following information will help identify the cause of the error:

- The error messages that appeared on your screen. Messages of the form **Assertion: <message> in <file> line <line number>** pin-point the problem.

- The models you were using and a sequence of commands (macro) that duplicates the problem. The more information you send, the more likely it is that we can find and fix the problem.

- The *.dmp* files created in the *temp* folder if PowerShape crashes are named using the following format:

   PowerShapeXXXXXx64_yyyymmdd-hhmmss.dmp

Corrupt databases

This problem can be caused by a program error, a lack of disk space when modifying the database, or when manually copying folders.

The **File Doctor** can detect and repair most types of corruption in the model and the shared database files, but can result in a significant loss of data. In such cases, you may need to restore the model or shared database from backups (see page 27).

Locked shared database tables

Lock files (called semaphores) are written and removed when users access the database. The purpose is to prevent more than one user from accessing the same files at the same time. Sometimes however, lock files can be left in the database or locked unnecessarily by the operating system.

To clear locks:

1 Ask all users to log out of PowerShape.

2 Type the following in the operating system's Command window:

check_dblocks -delete

This deletes unwanted semaphore files and operating system locks in the shared database areas.

It is always a good idea to investigate why the locks are still in place. It may be that a user has crashed out of PowerShape or someone has found a program error. If either is true you should investigate further. For further details, see Software errors (see page 40).

Locked model database tables

This problem can be caused by an unwanted lock file in a model folder or that another user is unnecessarily locking the model.

To clear locks:

1 Ask all users to log out of PowerShape.

2 Type the following in the operating system Command window:

check_dblocks -models -delete

This method can take a long time because it unlocks all files and folders in the model database areas.

If you are an experienced user of the operating system, us the following method:

1 Enter the following command in the PowerShape Command window:

admin state dbarea

This displays the pathname of the model or drawing folder in which the problem occurred.

2 Check that no users have this model open.

3 Delete the lock file as follows:

a Use Windows Explorer to find the locked folder.

b Select the lock file and press the **Delete** key.

As with all problems, it is always a good idea to investigate why the locks are still in place. It may be that a user has crashed out of PowerShape or perhaps someone has found a program error. If either is true, you should investigate further. For further details, see Software errors (see page 40).

Missing files or folders

The most likely problem is that files from a particular model are missing. In which case, restore from your storage device.

There are several reasons why files or folders may not be present:

- The files or folders may have been removed manually. You should actively discourage users from working in folders containing database files in case they accidentally delete the files. Only expert support staff should deliberately delete files in the database folders.

- A relative pathname was used when creating a new database area. This means that the folder can be accessed from where it was created, but from nowhere else. Always use the full pathname, for example, \\ws1\disk\models\

- A database area may have been created, but the corresponding folder might not have been created or it was subsequently removed.

- Files might be missing if at any stage PowerShape had issued a message that it was unable to create them. This could be due to access rights, insufficient disk space or due to other missing folders (as explained above).

Insufficient disk space

As you create new models, you will inevitably fill up your data storage disks. However, on a network installation, you will find that some disks fill up more quickly than others. If you have errors caused by lack of space, check all the disks on the network and attempt to find which has caused the problem. Bear in mind that files are created in the following areas:

- the model and drawing database areas
- the shared database area
- the temporary and current folders

The following are possible solutions:

- Delete temporary files. These start with the characters *'w_'*. Make sure all PowerShape users exit the program first.

- Archive some of the models.

- Create some new database areas to redistribute the available space.
- Add additional storage hardware to your network and create some new database areas.

Network breakdowns

Network breakdowns are usually caused by:

- disconnected cables
- failure of the network server program
- crashing of the network server program
- crashing of a connected workstation

Open the Windows Explorer and select each workstation. A warning is raised for those that cannot be reached. If you cannot see all the workstations, assign another drive to the missing ones. If the drive cannot be assigned, check the network cables are connected properly to that workstation. If this does not correct the fault, reboot the workstation and try again. If the fault persists, contact Technical Support.

Operating system access rights

It is normal to have different access rights in the various parts of a system. The table below shows the normal access rights for PowerShape:

Files/folders	Access rights
The contents of C:\Program Files\Autodesk\config	**read** and **execute** rights.
The contents of C:Program Files\Autodesk\PowerShapexxxxx\sys\exec64	**read** and **execute** rights.
The contents of all database areas and the temporary (or current) folders.	**read**, **write** and **execute** rights.
All folders in the product tree.	**read-only** access rights.

A shared database table consists of three files:

- **table.db**
- **table.sh**
- **table.pf**

If a table is correctly accessed, the file dates show the .db file as the most recently accessed, followed by the .pf file, followed by the .sh file.

Dates and times in a different order indicate a problem and PowerShape attempts to regenerate the files to correct the fault. To do this, PowerShape needs read and write access to all three files, otherwise it will hang when you start it.

The files in the shared database area should already have suitable access, but database tables also exist in the PowerShape product tree, which normally has read-only access rights. The files are in:

C:\Program Files\Autodesk\PowerShapexxxxx\sys\hci

where xxxxx is the version number, and all the sub-folders below this.

If you have a problem with the program hanging on start-up, provide **read**, **write** and **execute** rights to all files below:

C:\Program Files\Autodesk\PowerShapexxxxx\sys\hci

The next time PowerShape starts, it will correct the files and the hanging problem should correct itself. You should then return the access rights to read-only.

This problem results from an incorrect installation, or from subsequent 'tampering' with the installed files. Always use the installation procedure provided.

Commands

This section contains the commands and scripts to manage your PowerShape system. Commands are entered in the Command window.

To use the Command window:

1 Double-click the Command box in the status bar to open the Command window.

2 Type the commands in the Command window.

Commands can be used to control access rights (see page 46), model database areas (see page 49) and manage users (see page 50).

Access rights commands

Sites that have several departments using PowerShape and sharing the same database, or sites where models are confidential, can create access restrictions to prevent unauthorized access or deletion of models. This task is the responsibility of the System Administrator, and is done using the **Create Access** and **Delete Access** commands.

It may also be useful to restrict access when a model is complete, so that it cannot be accidentally deleted. Similarly, models can be protected from write access when they are approved, to ensure the model can only be revised by altering a copy of the original.

Create Access

This command creates an access restriction for users matching user_name_pattern accessing models matching model_name_pattern.

In the Command window, type:

ADMIN CREATE ACCESS 'model_name_pattern' 'user_name_pattern'

and then type in the access rights. Choose from:

- **CREATE**
- **DELETE**
- **READ**
- **WRITE**

You can specify these access rights in any order.

If no access is required, type:

NONE

For further details on patterns, see Search patterns (see page 23)

When PowerShape is first installed, all users have full access to all models.

To give users only limited access to models, first prevent all users from accessing any model by typing:

ADMIN CREATE ACCESS '*' '*' NONE

The rights to access specific groups of models can be given to specific groups of users, for example

ADMIN CREATE ACCESS 'SS' '*.SS' CREATE READ WRITE

When a user-model access check matches more than one pattern, the access rights are determined by the most closely matching pattern. For example, the highest number of exact character matches and ? wildcard matches in model_name_pattern and user_name_pattern.

Delete Access

This command deletes an access restriction created by the **CREATE ACCESS** command.

In the PowerShape Command window, type:

ADMIN DELETE ACCESS 'model_name_pattern' 'user_name_pattern'

The exact model_name_pattern and user_name_pattern used to create the access restriction must be given to delete it. If the patterns are not given on the same line as **Delete Access**, you are prompted for them in turn.

For further details on patterns, see Search patterns (see page 23)

An example of a complete **Create - Delete Access** sequence:

... > ADMIN CREATE ACCESS

Pattern matching models to be protected > 'me*'

Pattern matching users to be allowed access > 'ano*'

Access rights (CREATE/DELETE/READ/WRITE) > CREATE DELETE

...

...

... OTHER COMMANDS

...

... > ADMIN DELETE ACCESS

Model name pattern (as per STATE ACCESS) > 'me*'

User name pattern (as per STATE ACCESS) > 'ano*'

State Access

This command displays access rights in general or for specific models.

In the Command window, type:

ADMIN STATE ACCESS ALL

to display the access rights for all the models. This is the same as typing:

ADMIN STATE ACCESS

To display the access rights of those model names that match a pattern, type:

ADMIN STATE ACCESS 'model_name_pattern'

For further details on patterns, see Search patterns (see page 23)

State Access outputs the restrictions:

- set up by **Create Access**
- on the models specified in the command

For example, typing:

ADMIN STATE ACCESS 'fig*'

produces an output similar to:

Access restrictions

Model patterns	Users	Create	Delete	Read	Write
FIG*	*	Yes	No	Yes	No
SYM*	RPG	Yes	No	Yes	Yes

Model names	Delete	Read	Write
Fig1	No	Yes	No
Fig2	No	Yes	No

In this example, any user creating a model called FIG followed by any other characters gives that model read-only access. If user RPG creates a model SYM23, it cannot be deleted.

Model database areas commands

For details on model database areas, select from the following:

Print Model

This prints detailed information about the named model model_name.

In the Command window, type:

ADMIN PRINT MODEL model_name password

Any password given to the model when it was created must be given after the model name.

This prints the name of the model, any description, password, and standard given when the model was created. Also included are the model's minimum and maximum size, and if it is archived.

The format of the displayed table is:

Model details

============

Name Description Std Min corner Max corner Archived Password

TB1 Test Piece BSI -10 -10 -10 10 10 10 No   none

State Model

This displays information about one, some, or all models.

In the Command window, type:

ADMIN STATE MODEL ALL

to print information about all models. This is the same as typing:

ADMIN STATE MODEL

To display the information of models matching a pattern, type:

ADMIN STATE MODEL 'model_name_pattern'

A list of the models in the database is displayed, together with any description given when the model was created, and whether the model has been archived.

The information is output in a table format as shown below:-

Model details

============

Name	Description	Archived
AutoPart	A description of auto part	No

ARL		**Yes**
DEMO2	**Zylinderkopf**	**No**
...	**...**	**...**
...	**...**	**...**
...	**...**	**...**

For further details on patterns, see Search patterns (see page 23).

Users commands

PowerShape maintains a list of users who are allowed to login to it. The System Administrator may update this list and allocate a security rating to each user to control access to data. Each user may have an individual password.

When PowerShape starts, it checks the name of the user currently logged into the host computer. If this user name is not known, PowerShape asks for a login name. The System Administrator can create a new user at this point.

Security ratings are used to control access to model information and to other user's account information. For example, **Print User** and **State User** print the passwords of users who have lower security ratings than the person who is logged in.

Create User

This creates a user in the PowerShape user database.

In PowerShape's Command window, type:

ADMIN CREATE USER user_name password full_name security_rating config_file_name

If no password, or config file, is required, type NONE.

Only a security rating equal to, or lower, than the current users is accepted.

Delete User

This deletes the user user_name from the list of users allowed to use PowerShape.

In the PowerShape Command window, type:

ADMIN DELETE USER user_name password

If a password is specified for the use, you must enter it.

Edit User

This edits the user's password.

In PowerShape's Command window, type:

ADMIN EDIT USER user_name PASSWORD new_password

Print User

This prints details about a user.

In the Command window, type:

ADMIN PRINT USER user_name password

To print the details of the user who is currently logged in, enter *ME* as the *user_name.*

State User

This prints the user database in table format.

In the Command window, type:

ADMIN STATE USER

An example of the print out is given below.

User details

Login name	Password	Full name	Security level
RPG		**Razia Ghani**	**Sys. Admin**
KBH	**ninka**	**Karen Heesom**	**Draughtsperson**

Passwords are only printed when the user is a System Administrator.

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