GlobalCAD Hatch Manager 2018

Version 1.2

Getting Started Guide

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Introduction

Welcome to GlobalCAD Hatch Manager 2018, the solution to all your hatch creation and management needs. You can build entire libraries from scratch, add existing PAT files in seconds or create your own unique patterns from existing drawing objects. The software also links directly into the AutoCAD/BricsCAD *Boundary Hatch* (Bhatch) dialog, ensuring patterns remain fully featured.
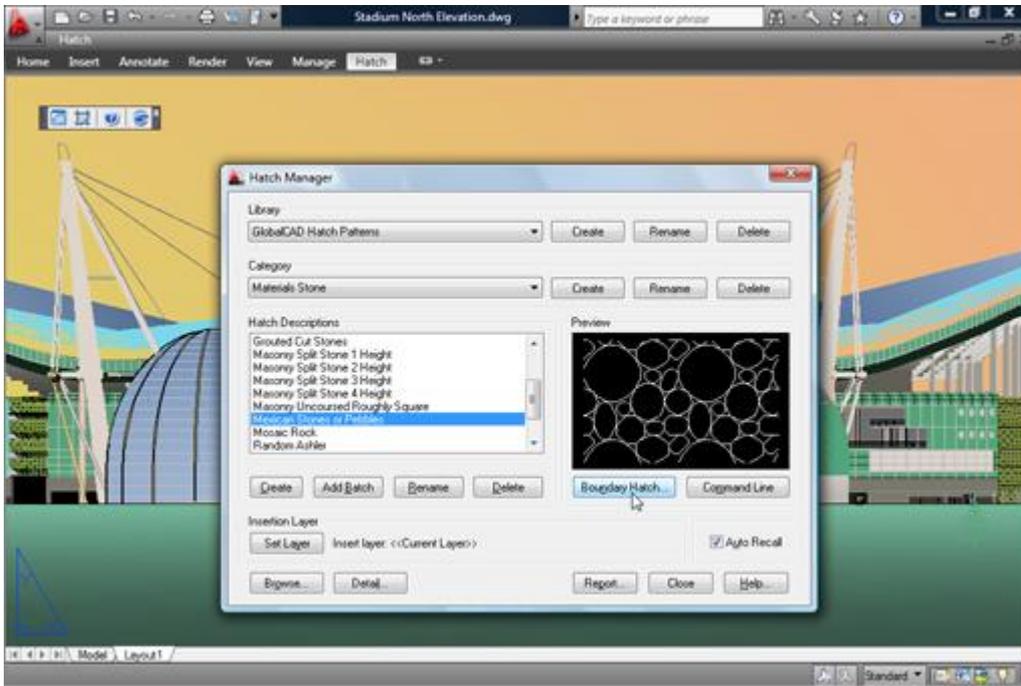
This user guide provides step-by-step instructions on getting started with GlobalCAD Hatch Manager. Additional product documents and/or tutorials are available from the relevant www.globalcad.com product page.

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GlobalCAD Hatch Manager 2018 is compatible with BricsCAD Pro/Platinum V11-V17 and the entire family of AutoCAD products including AutoCAD 2007-2018, AutoCAD Architecture, AutoCAD Civil 3D, AutoCAD Electrical, AutoCAD Land Desktop, AutoCAD Map 3D, AutoCAD Mechanical, AutoCAD MEP and AutoCAD P&ID.

The software can also be used in conjunction with other BricsCAD and AutoCAD third-party applications. Multi-user licensing options are available and provide support for all major network platforms including Windows Server.

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Acknowledgements

GlobalCAD Hatch Manager 2018 (version 1.2).

Our thanks go out to everyone involved in the development and production of GlobalCAD Hatch Manager 2018.

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To Display or Close Toolbars

Select the **Toolbars** entry from the **Hatch** drop-down menu.

- Right-click the background or title bar of any displayed toolbar, such as the GlobalCAD Hatch Manager toolbar.
- From the shortcut menu, select the toolbar you want to display or close.

Typing TOOLBAR at the AutoCAD/BricsCAD command line displays the Toolbars dialog box, where you can select the Hatch entry from the Menu Group drop-down list. From here the GlobalCAD Hatch Manager toolbar can be turned on or off or customized.

You can display multiple toolbars at once, and you can dock or float toolbars. Docked toolbars lock into place along the top, bottom, or sides of the AutoCAD/BricsCAD window. Floating toolbars move freely – move them using your pointing device. Floating toolbars can overlap other floating and docked toolbars. You can also hide toolbars until you need them.

Note – refer to the relevant **AutoCAD/BricsCAD Help** topics for further details on toolbars.

The Shortcut Keys

Use the shortcut keys (sometimes called accelerator keys) below at the AutoCAD/BricsCAD *command line* for quick access to GlobalCAD Hatch Manager tools.

Icon	Command	Shortcut	Description
	Hatch Manager	**HM**	GlobalCAD Hatch Manager enables you to create and manage hatch patterns. You can build entire libraries from scratch, add existing PAT files in seconds or create your own unique patterns from existing drawing objects.

Ordering Information

GlobalCAD Hatch Manager 2018 is compatible with BricsCAD Pro/Platinum V11-V17 and the entire family of AutoCAD products including AutoCAD 2007-2018, AutoCAD Architecture, AutoCAD Civil 3D, AutoCAD Electrical, AutoCAD Land Desktop, AutoCAD Map 3D, AutoCAD Mechanical, AutoCAD MEP and AutoCAD P&ID.

The software can also be used in conjunction with other BricsCAD and AutoCAD third-party applications. Multi-user licensing options are available and provide support for all major network platforms including Windows Server.

Free unlimited screen-based technical support is provided, with telephone options also available to registered customers. In addition, all GlobalCAD products carry a 30-day guarantee against defects in material and workmanship.

Purchase orders are accepted only from government and accredited educational institutions and major corporations, provided that they are submitted on purchase order forms with a purchase order number (net 30 days). Please be sure to include the standard order form with your order.

All product orders are dispatched with a printed invoice. For further details, please view the GlobalCAD Hatch Manager 2018 order form.

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Hatch Manager

GlobalCAD Hatch Manager provides the solution to all your hatch creation and management needs. You can build entire libraries from scratch, add existing PAT files in seconds or create your own unique patterns from existing drawing objects. The software also links directly into AutoCAD/BricsCAD *Boundary Hatch* (Bhatch) dialog, ensuring all your patterns remain fully featured with options such as associative and non-associative.

Patterns are organized within distinct libraries with advanced viewing capabilities. They can be identified fast and are accessible right when you need them. Management tools ensure the library database is always up to date, with the ability to view and print pattern details and other library information. Patterns can be contained on local drives or on a network.

With GlobalCAD Hatch Manager you can:

- Convert existing drawing entities, blocks and logos into hatch patterns.
- Capture and extract patterns you find in any drawing.
- Add multiple PAT files in seconds using the unique batch-processing tools.
- View and compare patterns quickly and easily within libraries.
- Avoid unnecessary duplication of patterns with full network compatibility.
- Secure your work with full library password protection.
- Effectively manage and keep track of all your hatch patterns.

Initial Steps

GlobalCAD Hatch Manager's main dialog displays the contents of the hatch pattern database. The current library and category is shown at the top with the relevant pattern descriptions listed below. Displayed right is the preview image for the pattern currently highlighted and below is shown the current layer for insertion. Libraries are stored within the GlobalCAD\...\Libs folder.
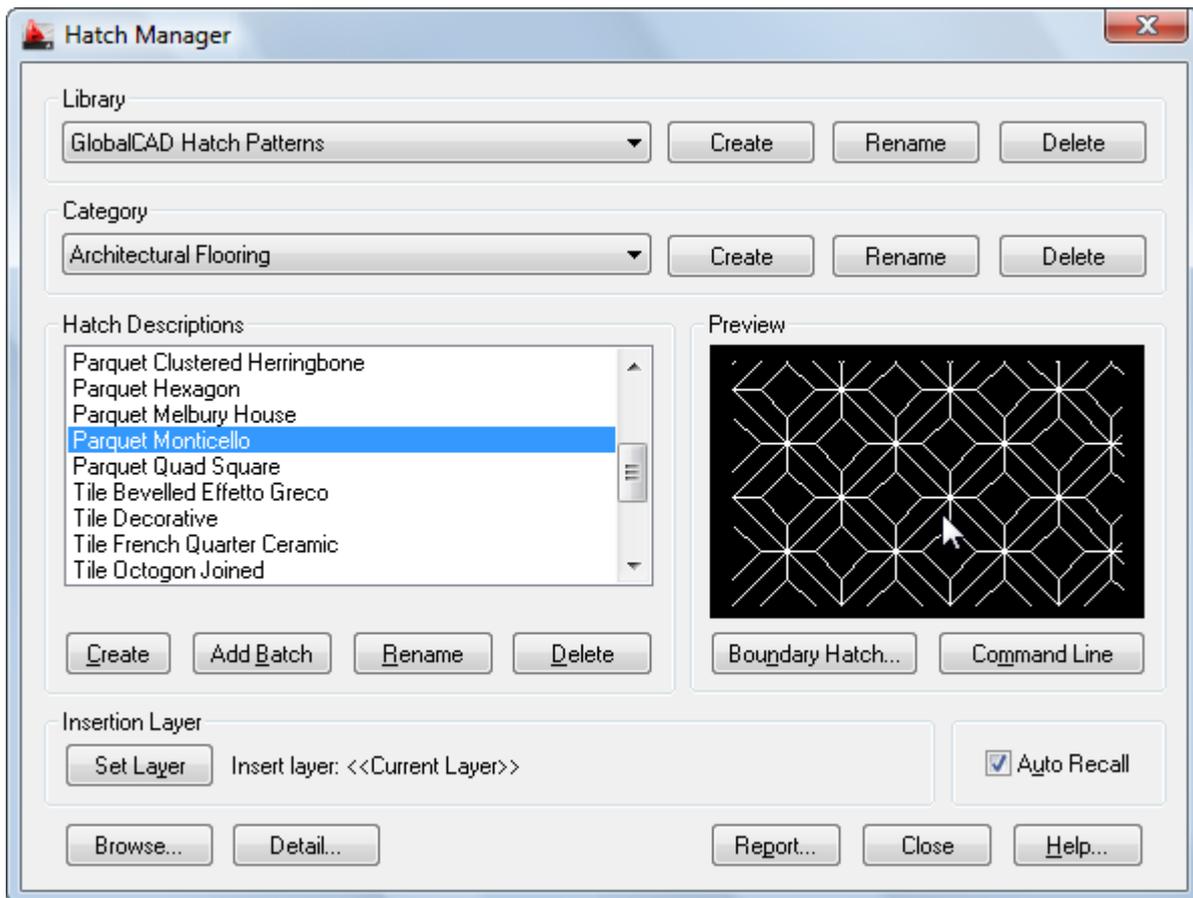
Creating a working library and category is the first step in adding your patterns to the database. The library can be assigned a full and meaningful description, such as the working discipline e.g. 'architectural hatch patterns' or maybe a project name.

Note when using the Add Batch feature to add multiple hatch patterns: To successfully add multiple patterns under Hatch Manager, each pattern must be capable of being independently generated within the current AutoCAD/BricsCAD session. This means that the .PAT file(s) is valid and opens without error.

Creating a Library

Select the **Create** button under the Library heading from the main display.

- Enter the proposed library description within the text box.
- Next, enter your signature details. Note the default shown is the user's login name.
- Choose **OK** to accept the descriptions and proceed.

To rename an existing library, pick the chosen description from the Library list box and click on the **Rename** button shown right. Next, enter the proposed new library heading within the text box and choose **OK** to accept this description.

Similarly, to delete an existing library, pick the chosen description from the Library list box and click on the **Delete** button shown right. Next, to confirm your wish to remove this library, click on the **OK** button shown or **Cancel** to exit.

Note that when a library is deleted, its corresponding contents (including patterns) are also deleted.

Creating a Category

Select the **Add** button under the Category heading from the main display.

- Enter the proposed category description within the text box.
- Choose **OK** to accept the description and proceed.

To rename an existing category, pick the chosen description from the Category list box and click on the **Rename** button shown right. Next, enter the proposed new category heading within the text box. Choose **OK** to accept this description.

Similarly, to delete an existing category, pick the chosen description from the Category list box and click on the **Delete** button shown right. Next, to confirm your wish to remove this category, click on the **OK** button shown or **Cancel** to exit.

Note that when a category is deleted, its corresponding contents (including patterns) are also deleted.
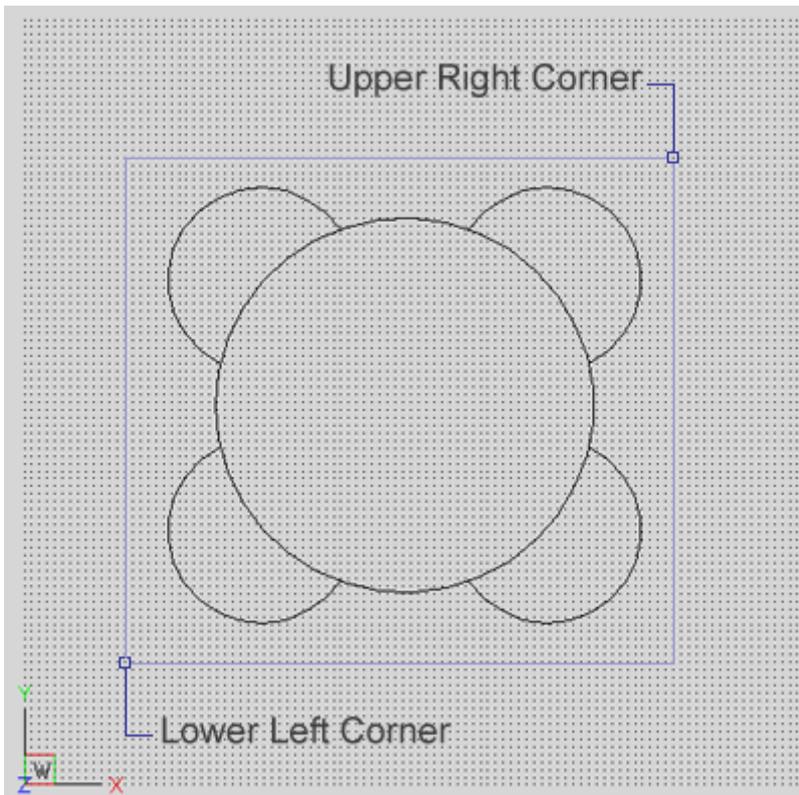
Creating a Hatch Pattern

Hatch patterns can be created from a wide range of existing drawing entities. In addition, advanced formatting options let you control the pattern resolution and spacing between each pattern repetition.

- Once you have created a library and category, select the **Create** button under the Hatch Descriptions heading from the main display.

- From the Create Hatch Pattern dialog, click the **Open Template** button under the Step 1 – Design heading.

  A drawing template (DWT file) will be loaded.

- Draw your hatch pattern design within the grid area shown. You can use standard AutoCAD/BricsCAD entities as part of your design e.g. Line, Pline, Point, Arc, Circle, Ellipse etc – even Blocks.

- Next, re-run GlobalCAD Hatch Manager (shortcut **HM**) and again select the **Create** button under the Hatch Descriptions heading from the main display.

- From the Create Hatch Pattern dialog, click the **Create Pattern** button under the Step 2 – Create heading.

- Specify the pattern **Lower Left Corner** and **Upper Right Corner**. This forms a crossing selection (a rectangular area drawn to select objects fully or partly within its borders) – also see explanation of **Clip Object Extents** option below.

- From the Create New Pattern dialog, enter a name and description for the hatch pattern.

  You can control the spacing between each repetition of the hatch pattern with **Hatch Spacing**. Setting the value to 1 will generate a space equal to the size of the pattern, applied to all four sides. The range is limited to 0-255 and is set to 0 by default (no spacing). Values within the range can also be set to one decimal point e.g. 0.5.

  The **Clip Object Extents** option relates to the way entities you select are processed during hatch pattern generation. If this option is on, the selection rectangle you specified in point 3 above, will be re-sized (if necessary) to the precise extents of the entities selected. This simplifies entity selection and means you do not have to manually locate and snap to the entity extents yourself. Alternatively, with the Clip Object Extents option turned off, any free space between the selection rectangle you specify and the entities will be used to determine the hatch spacing between each pattern repetition.

  You can also increase or reduce the **Curve Steps** by moving the slider – this option relates to the way in which curved entities such as arcs, circles and ellipses are represented within the hatch pattern. Increasing this value can create shapes that are more accurate representations of the selected curved entities.
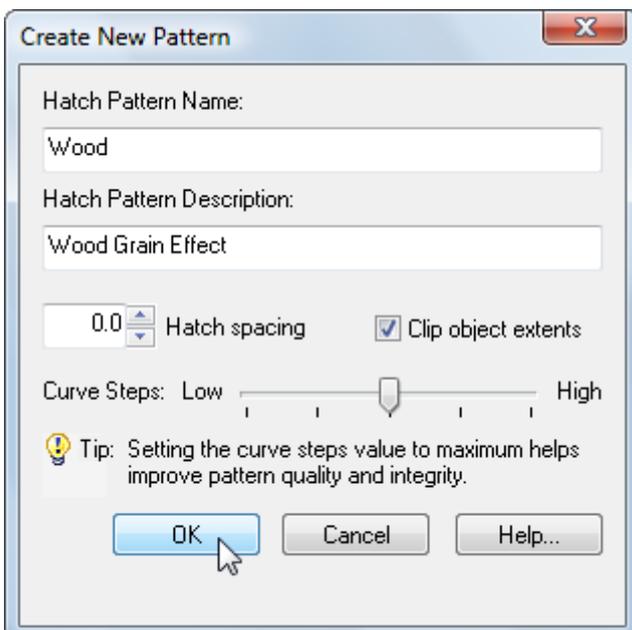
- Click on the **OK** button and wait for the hatch pattern definition to be generated – this may take a few seconds.

- Next, a dialog is displayed prompting for the **Preview Image Scale**. If you are satisfied with the image, click **Accept**. Otherwise, pick **Define Image Scale**, enter an alternative numerical value (non-zero) in the text box and click **Retry**. You can repeat this process until you are satisfied with the preview image.

  GlobalCAD Hatch Manager will automatically generate the pattern and zoom in around the selected objects to create the preview image.

Notes

- AutoCAD/BricsCAD currently does not support Spline or Text entities for hatch pattern creation. Curved entities increase processing time, please be patient as this can take some moments.
- All entities selected for hatch pattern creation must lie in the current UCS plane. Blocks must be uniformly scaled.

Troubleshooting

- The file size of hatch patterns can increase substantially when derived from entities where circles and/or arcs are present. To reduce pattern file size, replace circles and/or arcs with short line segments where possible.
- When hatching boundaries that are located a long distance from the current UCS origin, patterns may appear to 'break apart'. This is a known issue within AutoCAD/BricsCAD. In order to avoid this, temporarily set the UCS origin close to the proposed boundary by typing UCS followed by MOVE at the AutoCAD/BricsCAD command line. You can then set the UCS origin back to its default location once the pattern has been successfully generated.
- Occasionally, the default pattern scale of 1.0 in the AutoCAD/BricsCAD Boundary Hatch dialog generates the error message 'Hatch spacing too dense, or dash size too small'. This can be remedied by changing the AutoCAD/BricsCAD HPSCALE system variable from its default value of 1.0 to an alternative value such as 0.1.

Adding Multiple Patterns

Hatch patterns can also be added in multiple selections with the unique and powerful Add Batch feature. Use this method to create a complete category listing from a set of patterns stored anywhere on disk (local and network drives).

- Select the **Add Batch** button under Hatch Descriptions from the main display.

- From the Add Batch dialog the following options are available, according to preference:

  - Include sub-folders
  - Create categories from sub-folder names
  - Ignore duplicate-named hatch patterns
  - Ignore illegally-named hatch patterns

  The Advanced section of the dialog also provides an option to define the preview image scale for each new hatch pattern:

- Define preview image scale

  Choose the *Define preview image scale* option if you would like to manually specify how the hatch pattern will be displayed in the GlobalCAD Hatch Manager preview image. Each time a hatch pattern is loaded, a Preview Image dialog will be displayed, requesting the image scale to use. This value must be numerical and non-zero.

- Next, click on the **Browse** button to select the folder containing the relevant patterns. Note, if the *Include sub-folders* option has been specified, patterns contained within any sub-folders will also be added. In addition, selecting the *Create categories from sub-folder names* option means that new categories will be created, containing the contents of each sub-folder.

- Returning to the main Add Batch dialog, click on **OK** to proceed.

  Please wait while the patterns are now processed and added to the database. Once this operation is complete, the main GlobalCAD Hatch Manager dialog displays the current category and new pattern entries.

To rename an existing pattern description, pick the chosen description from the Hatch Descriptions box and click on the **Rename** button shown below. Next, enter the proposed new pattern name within the text box and choose **OK** to accept this description.

Similarly, to delete an existing pattern description, pick the chosen description from the Hatch Descriptions box and click on the **Delete** button shown below. Next, to confirm your wish to remove this description, click on the **OK** button shown or **Cancel** to exit.

Hatching Objects

You can utilize the standard AutoCAD/BricsCAD *Bhatch* or *Hatch* command to hatch objects in the current drawing by clicking on the **Boundary Hatch** or **Command Line** button.

The Boundary Hatch button displays the current hatch pattern in the standard AutoCAD/BricsCAD boundary hatch dialog. The Command Line button functions in the same way as the AutoCAD/BricsCAD standard hatch command i.e. it prompts for the scale, angle and objects to hatch at the AutoCAD/BricsCAD command line.

Setting the Insertion Layer

The layer upon which hatch patterns will be created is shown near the bottom of the main dialog display, under the heading Insertion Layer. The default insertion layer is 0. In order to change this setting:

- Select the **Set Layer** button. The existing drawing layers available are displayed in a text box.
- Select the desired layer for pattern creation and click on the **OK** button.

Note, to create a new layer, enter the new name in the Create New Layer text box below and click on the **OK** button. This will be created and made the current layer.

Browsing Libraries

Sometimes it is useful to view and compare hatch patterns simultaneously, usually in order to make an informed choice from similar patterns within a library. Using GlobalCAD Hatch Manager's Browse feature you can view patterns in this way, rapidly browsing an entire library if desired.
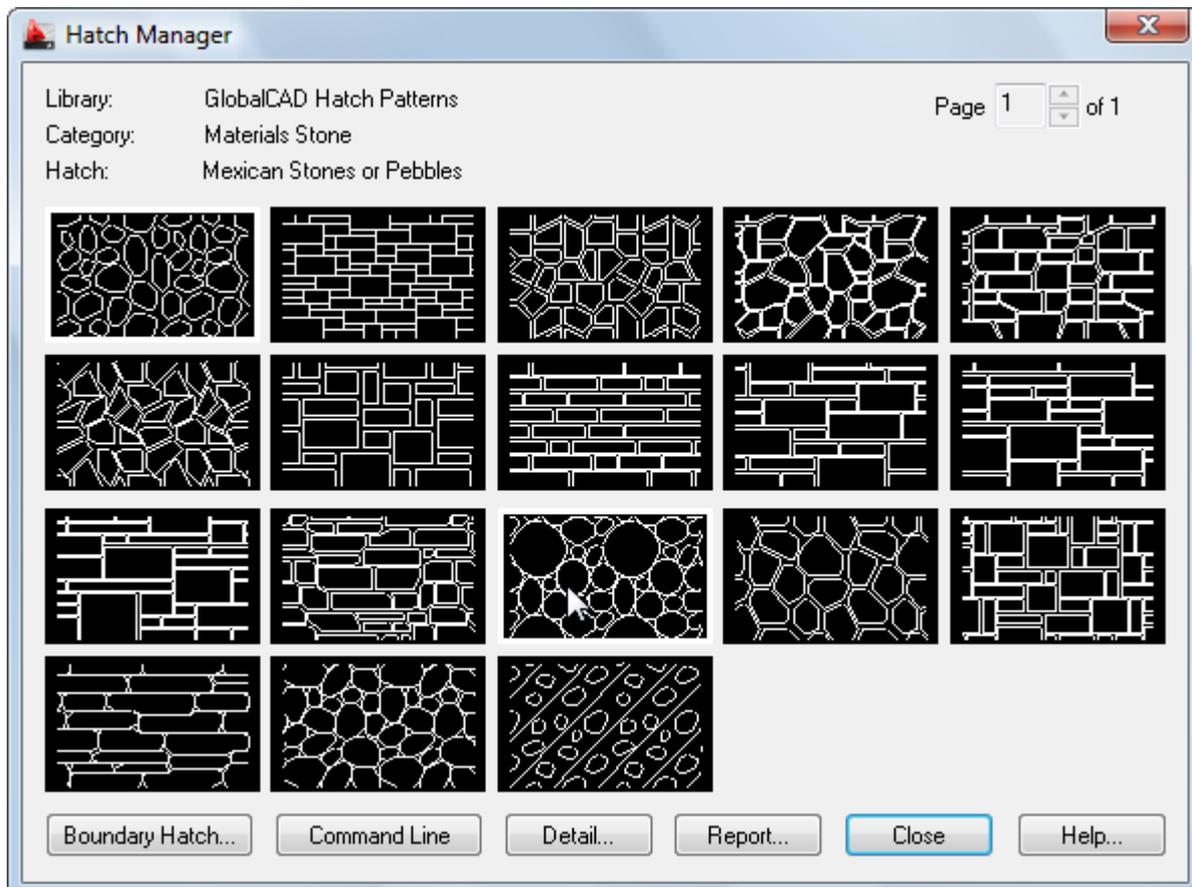
- Select the **Browse** button from the main display.

  The page scroll box is located in the top right-hand corner of the Browse dialog.

- Click on the scroll box arrows to change the page number to view.

Current Library Details

This feature displays information concerning the current library.

Select the **Detail** button from the main display and click on **OK** when finished.

Information displayed includes the library filename and folder location, the library description, creator, current category and total number of hatch patterns present within this category.

Library Protection

Once created, you may wish to protect specific libraries from accidental modification or deletion.

- Select the **Detail** button from the main display.
- Pick the **Library Protected** tick box at the base of the dialog display.
- Enter a unique password and confirm this in the text box below.

All library maintenance functions (i.e. Add, Delete and Rename) will now be disabled until the tick box is de-selected. Note that the original password specified must be re-entered in order to unprotect the library. It is recommended that you make a note of this and store it in a safe place.

Viewing the Hatch Report

Click on the **Report** button to display the full list of hatch patterns stored under the current category.

Patterns are listed in alphanumerical order.

Choose the **Print Report** button to obtain hardcopy records.