

Section 3

KeySCAPE LT Elements - Advanced Softworks Features

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KeySCAPE - Advanced Features

Creating your own Vegetation Symbol

KeySCAPE provides you with the facility to quickly create and add new symbols to the system, allowing you to develop your own graphic style for your drawings. You can add graphics to the specific symbol types, e.g. trees, benches, arrows, etc, to expand the default palettes. Also, KeySCAPE includes three blank Project Symbol libraries where you can add, and quickly retrieve, your own preferred graphics.

Drawing the Symbol

- From the **File** menu select **New** to start a new (Blank) drawing based on the ACADISO.dwt (*AutoCAD metric*) template or KSLTOSO.dwt (*KeySCAPE LT metric*) template.
- From the **Draw** pulldown menu, select **Circle>Centre, Radius**
- When requested at the command prompt to **Specify center point for circle**, enter **0,0**.

This will put the centre of the circle at the co-ordinate 0,0, the insertion reference point used when it is inserted in a KeySCAPE drawing later.

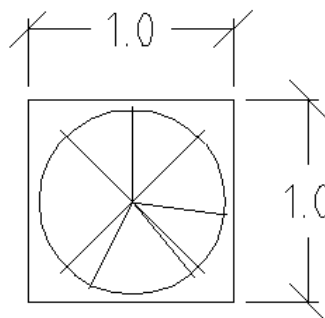
- When requested at the command prompt to **Specify radius of circle or [Diameter]**, enter (*a radius of*) **0.5**.

This will create a 1 unit diameter circle. This means that when it is inserted in to a drawing, you can define the spread of the vegetation drawing and the symbol will scale correctly.

- From **View>Zoom** menu select **Extents**. The circle will now fill the drawing editor.

*If the circle looks angular, from **View** menu select **Regen** to refresh the display and smooth the circle.*

- From **Format>Layer**, create a new layer called **T_plan_01** and assign the colour **64**, or other required, to the new layer.
- Make the layer T_plan_01 **Current**. Pick **[OK]**.
- Create, using AutoCAD's drawing tools, your own unique vegetation drawing using the construction circle as a guide, e.g.



- Once the symbol id defined, erase the construction circle used to define the drawing extents.
- From **View>Zoom** select **Extents**. The symbol will now fill the drawing editor.
- When you have created your symbol, select **File>Save** and navigate to the directory:

C:\KeySCAPE Systems Application Data\
 All Users\
 KeyCORE\
 Symbols\
 Project 1\
 Plan\
 Vegetation

- For the drawing name, enter **Mytree**, or other name as required, and select **Save**. Close the drawing
- The vegetation symbol will be added to the Project 1 Symbol Library.

Alternatively, you can save the drawing in the corresponding folder under Trees (typically Symbols\Trees\Plan\Vegetation) and it will then appear in the Trees symbol selector dialog within KeySCAPE next time you insert a tree symbol.

Using your New Symbol

- Open the drawing into which you wish to insert the new symbol.
- From **Core**, select **Project Libraries>Project 1**. The **Project 1** dialog appears.
- Select the **Plan** tab to display your plan symbol.
- **Double-click** the image icon. You are returned to the drawing editor.
- At the command line you are prompted:

Insertion Point:	<i>(Pick the insertion point of the tree)</i>
Spread:	<i>(Enter the spread of the tree)</i>
Height:	<i>(Enter the height of the tree)</i>
Rotation:	<i>(Enter the rotation for the tree)</i>

- The vegetation symbol you created will now appear in the drawing.

The symbol created will remain in the project library unless you choose to delete it using Windows Explorer.

KeySCAPE contains 3 project libraries. These allow you to create and add your own graphics to the system to build up your own palette of symbols for quick access to your preferred symbols. These can be accessed, as described above, or by using the shortcut keys:

P1- Project 1
P2- Project 2
P3- Project 3

Creating your own Vegetation Edge Pattern

KeySCAPE now provides you with the facility to quickly create and add new line patterns for use with hedges and planting areas, allowing you to develop your own graphic style for your drawings.

Drawing the Pattern

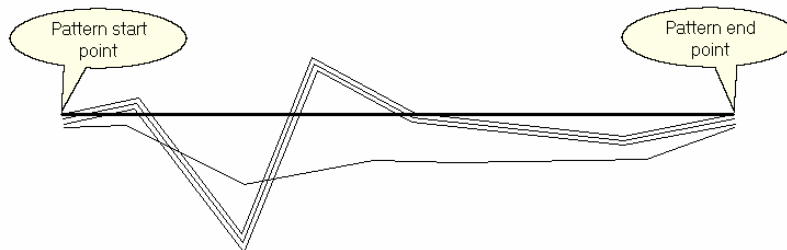
- From the **File** menu select **New** to start a new (Blank) drawing based on the ACADISO.dwt (*AutoCAD metric*) template or KSLTOSO.dwt (*KeySCAPE LT metric*) template.
- From the **Draw** pulldown menu, select **Line**.
- When requested at the command prompt to **Specify first point**: pick a point on the screen where you wish to start drawing the line. *This point does not need to be 0,0.*
- When requested at the command prompt to **Specify next point or**

[Undo]: enter **@1,0.** and press **Return**. This will draw a construction line 1 unit in the X and 0 in the Y.

- Press **Return** to complete the line command.
- From **View>Zoom**, select **Extents**. The line will now fill the drawing editor.
- This (*construction*) line will provide a template that ensures that the pattern scale and start point is set correctly.
- Create a new layer, e.g. **KST_PATTERN_01** and make the new layer **Current**.
- Pick **[OK]**.

IMPORTANT – Patterns *MUST* be drawn in metres, fit within 1 drawing unit, and must comprise of only **polylines or arc-segmented polylines** but *NOT* arcs, lines or circles.

- From the **Draw** toolbar, select **Polyline**.
- Using the construction line as a guide, draw the required pattern so that polyline fits between the start and endpoints of the line.

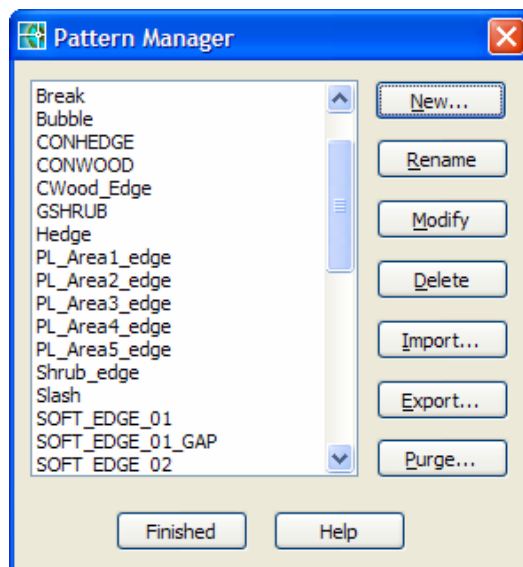


The pattern can be created from several polylines. These polylines do not need to start and end on the endpoints of the construction line but this will create gaps in the graphics when used later in the drawing.

- When the pattern is complete, you can convert it into a new pattern.

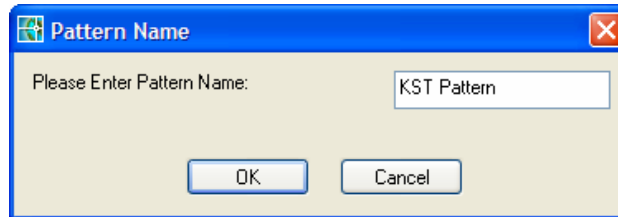
Converting the Drawing into a Pattern

- From the **Softworks** pulldown menu, select **Pattern Manager**. The **Pattern Manager** dialog will appear.



- Pick **[New]**. You are returned to the drawing.
- At the command line prompt to **Select Objects**: pick the polylines that defines the pattern, excluding the contraction line, although this should be filtered out, as it is a line not a polyline.
- At the command line prompt to **Select Pattern Origin**., using the OSNAP Endpoint, pick the end of the line at the start of the pattern (*furthest left*). The **Pattern Name** dialog appears.

You do not need to define the other end of the pattern as KeySCAPE assumes the length of the pattern is 1 unit, hence the purpose of the original construction line.



- Enter a new name for the pattern, e.g. **KST Pattern**.
- Pick **[OK]**. The **Pattern Manager** dialog will reappear and the pattern will be displayed in the list.
- Pick **[Finished]** to complete the creation of the pattern.

Saving the Pattern to Create a Preview Thumbnail

- Delete the construction line used to define the extents of the pattern but **NOT** the polylines that define the pattern.
- From **View>Zoom**, select **Extents** so the pattern fills the screen.
- From **File** select **Save**. The **Save** dialog appears.
- From the **Save in** dropdown list (*top of dialog*), navigate to the softworks edge pattern folders, typically:

```
C:\KeySCAPE Systems Application Data\
  All Users\
    KeySOFTWARES\
      Symbols\Patterns\
        Softworks Edges\
          Select Only
```

- Enter the name for the drawing name which **MUST** be the same name as the pattern defined above, e.g. **KST Pattern**.
- This will create a drawing (*preview thumbnail*) in the Patterns selection dialog.

Using your New Pattern

- Use the patterns you define when adding or modifying either a Planting Area or Hedge. See *Section 2 for information on creating and modifying Hedges and Planting Areas*.

Specification *Styles* allow you to define or redefine the display of specification information in the drawing.

Styles

Styles are a common means of displaying and modifying the appearance of an AutoCAD object in the drawing. You will be familiar with some of these using general AutoCAD, e.g. Text Styles, Dimension Styles, Plot Styles.

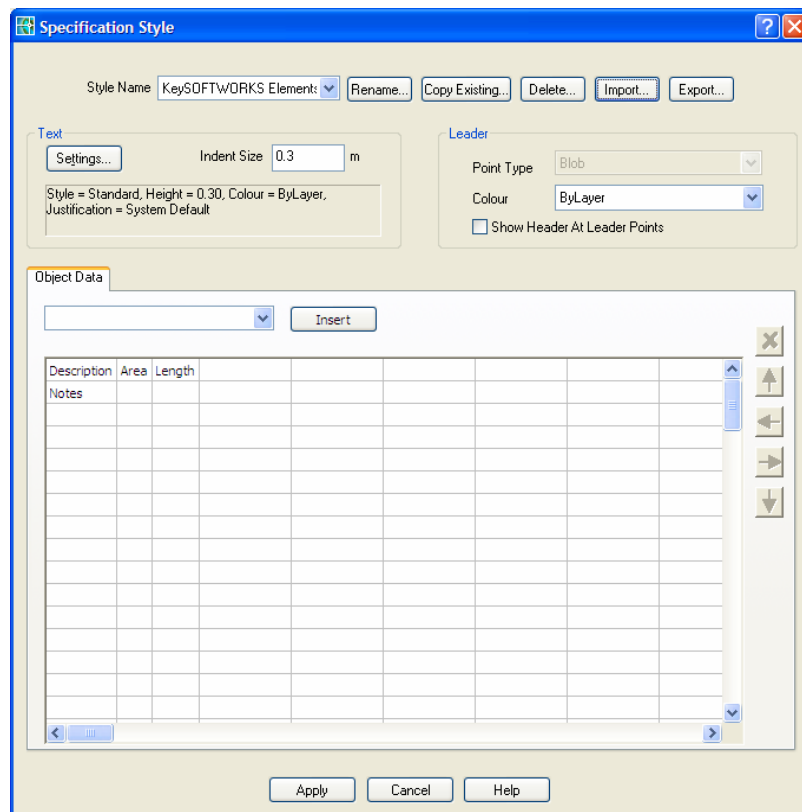
Autodesk has extended this functionality to control the display of objects in their own applications, such as Architectural Desktop, Map 3D, Civil Design. Styles allow you to quickly modify aspects of the object (or its display) and see the immediate affect of the change, not only to the main object but also to all "linked" objects, thus speeding up modifications to the drawing and the consideration of design options.


KeySCAPE uses Styles to control how information in a specification label or schedule is displayed. Drawing Setup (Core) allows you to create and define the default styles before you start drawing but you have the flexibility to create more styles and modify existing ones as you start designing.

Modify the Appearance of Plant Specification Text

Also refer to **Section 2: "Modifying a Specification – Specimen"** for information regarding changing the Specification text font, height, angle (rotation) and redefining the specification leader.

- From the **Softworks** pulldown, select **Specification Display>Styles**. The **Specification Style** dialog appears.



You can also access the specification styles from **Core>Drawing Setup>Softworks Styles (tab)>Specification Style>** 

You can modify the current style as follows:

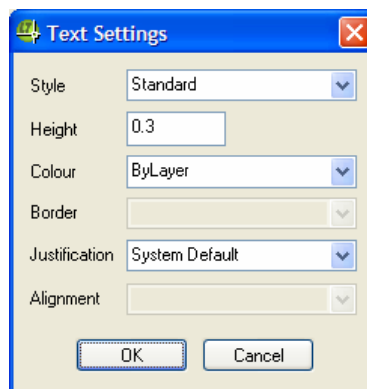
- Style Name** – drop down list showing the Specification Styles available in the current drawing. The default style, KeySOFTWORKS

Elements Standard will be created with every new drawing opened with KeySCAPE

- **[Rename...]** - allows you to rename the currently selected Style
- **[Copy Existing...]** - allows you to make a copy of the currently selected Style and edit the display specification information so the original style remains unedited.
- **[Delete...]** - allows you to delete the currently selected Style from the drawing. You will not be able to delete a style if it is being used in the drawing
- **[Import...] & [Export...]** - Specification Styles can be exported and imported as *.kis files. This provides the facility to export styles defined in one KeySCAPE drawing to import in another KeySCAPE drawing. If these files are held on a network, or shared drive, they can be used by several users, as required.

The default KeySOFTWARES Element Standard style will be created with every drawing opened with KeySCAPE. If you wish to define your own default template, modify and export your preferred style overwriting the KeySOFTWARES Elements Standard.kis file. It is recommended that you make a copy of the original file before overwriting it in case you need to restore the default installed style in the future.

- **Text - [Settings...]** - allows you to specify the text settings for the currently selected Style, including:



Style - pick from the list of current (*AutoCAD*) Text Styles defined in the drawing

Height - specify the height of the text relative to the current drawing units (M, MM or Inches)

Colour - select the preferred colour for the text as, by default, the text will take on the colour of the layer on which the object is inserted


Border - functionality not currently supported

Justification - defines whether the specification text is justified left, right or centred about the picked insertion point

Alignment - functionality not currently supported

- **Text - Indent Size []** - sets the size, based on your drawing units, of the indents used to display Object and Specification Data.
- **Leader** - allows you to specify the appearance of the leader, including:
 - Pointer Style** - uses a system default of Blob only. *Modification of this is not currently supported*
 - Colour** - allows you to define the colour of the leader as, by default, the leader will take on the colour of the layer on which the object is inserted.
 - Show Header At Leader Points** – allows you to replace leader

points with header text defined within the specification of the plant.

- **Object Data** (*tab*) - allows you to specify the data and display of general information (*e.g. area, length, etc.*) you wish to show in the current Style
- **[Insert]** - allows you to add specification data, chosen from the associated drop-down list, to a selected cell. This cell must be "active" (*selected*) and **blank** for the specification item to be inserted.
-  **Remove Data** - select the specification item you wish to remove and pick the delete button from the navigation bar
- **Navigation Buttons** - use the appropriate buttons to define/redefine the position of a selected specification item within the grid, and thus its eventual display location in the drawing



In addition to the navigation buttons, you can move single items within the grid using pick and then drag and drop,

Whilst a grid is used to set up the general position of specification information, KeySCAPE uses the settings defined in Text Size (Settings) and Indent Size to control the vertical and horizontal spacing of this information when displayed in the drawing. As such, use text size to control the vertical display and number of blank cells, in conjunction with Indent Size (in drawing units), to set the amount the text steps either in or out

- Pick **[Yes]** to accept the changes or **[No]** to cancel the command. If you pick yes, the appearance of the tags will change after a short time.

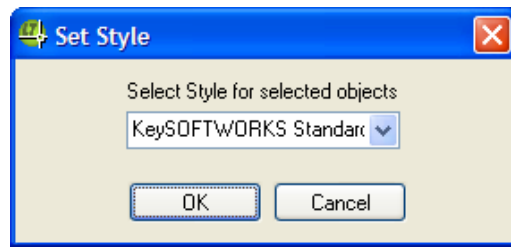
Standard Specification Styles

To help with the creation of specification styles, KeySCAPE includes several predefined styles. These can be imported in to the drawing from the styles folder and can be modified or used as a template for the creation new styles.

Assigning Specification Styles

When inserting a specification in the drawing the information will display according to the current style. However, you can have any number of styles available in a drawing and assign different styles to selected specifications, as required. You can assign a style to a specification, as follows:

- From the **Softworks** pulldown, select **Specification Display>Set Style**. You are returned to the drawing and prompted, at the command line, to **Select objects**:
- Select the specifications you wish to assign a different style.
- When all required specifications are selected, press **Return**. The **Set Style** dialog will appear.



- From the dropdown list, pick the specifications style you wish to apply to the selected specifications.
- Pick **[OK]** to assign the style.

Distributing KeySCAPE Drawings

KeySCAPE uses the latest AutoCAD-based, object-orientated design. Like Autodesk's own applications for Architecture, Mechanical and Civil design, KeySCAPE creates intelligent AutoCAD objects that are visible, but not be editable, in general AutoCAD. AutoCAD will usually show these objects using simplified proxy (image) graphics that will not be editable in AutoCAD unless you install the KeySCAPE object enablers for your version of AutoCAD. Depending on your AutoCAD settings, the proxy entities may display as bounding boxes or may not show them at all. See sections below for more information.

Sending KeySCAPE Drawings to AutoCAD Users

*Please follow the following procedures to ensure you save a drawing correctly **BEFORE** sending it to AutoCAD:*

- Open the drawing to be sent to the AutoCAD user
- At the command line enter **PROXYGRAPHICS** and press **Return**. The default value of the AutoCAD system variable should be 1. If it is set to 0, enter 1 and press Return.

The AutoCAD PROXYGRAPHICS system variable specifies whether images of proxy objects are saved in the drawing or not. If set to 1 the drawing saves the proxy graphic images so that they are available to display in AutoCAD. If set to 0, the proxy graphics images are NOT saved with the drawing and so, when opened in AutoCAD, KeySCAPE objects may not display or appear as bounding boxes.

- At the command line enter **ISAVEPERCENT** and press **Return**. The default value of the AutoCAD system variable should be 50, although not necessarily.

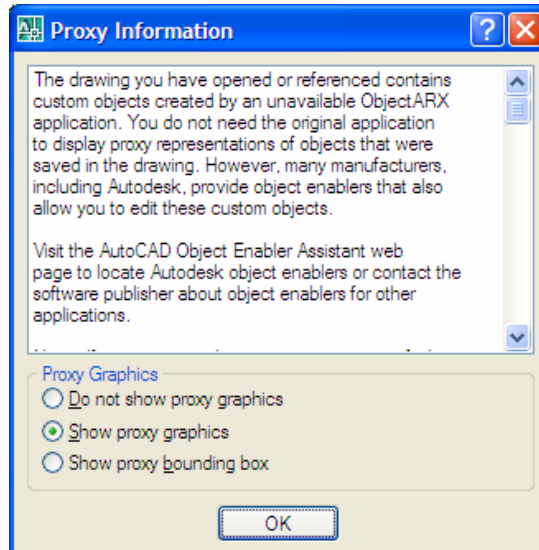
The AutoCAD ISAVEPERCENT (Incremental Save Percentage) system variable is a global setting (i.e. affects all drawings) that sets the percentage of potentially wasted space in a drawing file. If the Incremental Save Percentage is set to 0, every save is a full save. Full saves eliminate wasted space and can reduce drawing size but the performance of the SAVE and SAVEAS commands will slow significantly. Incremental saves are faster but they increase the size of your drawing as it includes wasted space. For optimum performance AutoCAD sets the default value to 50. That is, if less than half the drawing is modified between saves the change only information is appended to the drawing database. Conversely, if more than half the drawing is altered between saves, a full save is invoked.

- At the prompt: **Enter new value for ISAVEPERCENT**, enter **0** and press **Return**
- Save the drawing. This will invoke a full save of the drawing.
- At the command line enter **ISAVEPERCENT** and press **Return**.
- Enter **50** (or your previous value setting) and press **Return**
- Close the drawing
- Send your drawing to your client or design partner

Opening KeySCAPE Drawings in AutoCAD

Please advise your clients or design partner of the following procedures **BEFORE** they attempt to open a KeySCAPE drawing in AutoCAD

- When the AutoCAD user open the drawing in AutoCAD the Proxy Information dialog should appear



- Select the option **Show proxy graphics** and pick **[OK]** to open the drawing and display the KeySCAPE objects

What to do if the Proxy Information dialog does not appear AND the KeySCAPE graphics do not show

In this instance it is likely that the AutoCAD settings that control these options have been set to not display the Proxy Information dialog or, more importantly, to not show the proxy graphics. In this instance:

- With the drawing closed, at the command line enter **PROXYSHOW** and press **Return**. The current value of the AutoCAD system variable is displayed and is most likely to be set to 0, i.e. to not show proxy objects
- At the prompt: **Enter new value for PROXYSHOW**, enter **1** (to show proxy objects) and press **Return**

The AutoCAD PROXYSHOW system variable is a global setting (i.e. affects all drawings) that controls the display of proxy objects in an AutoCAD drawing where the application that created the objects is not available. The following options exist:

- 0 Proxy objects are not displayed
- 1 Graphic images are displayed for all proxy objects
- 2 Only the bounding box is displayed for all proxy objects

- **Open** the KeySCAPE drawing in AutoCAD and all the graphics will show as image entities only, i.e. not editable as AutoCAD objects

Object Enablers

If a drawing is opened with proxy graphics showing you will only have access to limited editing features on the object, e.g. delete. However, should you wish to undertake more detailed editing, you can request and install the KeySCAPE

Object Enablers for your version of AutoCAD. Once installed, this will give limited access to the objects and allow you to use most of the AutoCAD editing commands on KeySCAPE objects, e.g. copy, move, rotate, grips etc. However, it **does not** allow any access to the KeySCAPE user interface to edit settings, specifications or planting/hedge graphics. This information can only be edited in KeySCAPE. Any changes made in a KeySCAPE (object) enabled AutoCAD will be updated next time the drawing is opened in KeySCAPE.

SaveAs to earlier version of AutoCAD

Due to limitations imposed by Autodesk on objects, any KeySCAPE drawing that is created or opened and saved in a newer version of AutoCAD, **will not** be editable in versions of KeySCAPE running on earlier versions of AutoCAD, even though the KeySCAPE functionality may be identical, i.e. there is NO backward compatibility between AutoCAD/KeySCAPE objects. This also applies to the use of KeySCAPE enabled versions of AutoCAD. **There is no work round to this!**

Exploding KeySCAPE Objects

Limitations, imposed by Autodesk on custom objects prevent the use of **DXFOUT** and **DXFIN** unless the objects are exploded to simple drawing entities. These simplified versions of the objects have no intelligence but allow them to be edited in AutoCAD or other applications, such as SketchUp, Adobe Illustrator or CoreIDRAW

You can explode KeySCAPE objects using the AutoCAD Explode Command. However, you will need to **explode the objects twice** to get back to single AutoCAD entities. Please note that the following default results:

First use of the AutoCAD Explode Command on KeySCAPE objects –
explodes each object into individual AutoCAD blocks, i.e. one new block is created for each object.

Second use of the AutoCAD Explode Command on KeySCAPE objects –
explodes each individual AutoCAD block, derived from the objects, in to single editable AutoCAD entities.

IMPORTANT: Exploding the KeySCAPE objects WILL destroy all object functionality and associated intelligence, e.g. automatic update of plant number calculations and schedules. Once the drawing has been closed, the links can **NOT** be recreated automatically. Therefore, it is strongly recommended that you make a backup of the drawing (SaveAs) **BEFORE** exploding the objects. After exploding the drawing, your drawing size may increase considerably..