

Creating and Inserting Blocks

The following instructions will guide you through creating and inserting blocks into your drawing. Blocks are drawings that can be inserted, scaled, and rotated into another drawing and used over and over again within a single drawing or inserted into multiple drawings. They also form the basis of the creation of a symbol library.

There are two distinct types of blocks to use. As standard **block** is a drawing or symbol that can only be used repetitively within the current drawing. A **wblock** is a drawing or symbol that is created and stored permanently in a separate drawing file. **Wblocks** operate globally (w for “Write”) can be used repetitively in any drawing.

Carlson modules are displayed as {**Survey**}, main menus are displayed as [**Points**], and submenus and menu commands are displayed as <**Edit Points**>.

Creating a block

- 1) In the model space of your drawing draw the object that you wish to use over and over in the current drawing. Draw objects at 1:1 scale.
 - a. If you want the block to have the color and line type of the layer it will be inserted on be sure to set layer 0 as current before drawing the object.
 - b. If you want the block to maintain its own line type and layer upon insertion into the other drawing, then draw the object on its own layer.
- 2) Run the **Block** command: {**AC Module**} → [**Draw**] → <**Make...**> or Type the command **block** at the command line.
- 3) In the “Block Definition” window that appears, type the **name** you want to give this block.
- 4) In the “base point” section of the “Block Definition” window that appears, **select the pick point icon** and **snap** to the **base point** you want for your object.
- 5) In the “objects” section of the “Block Definition” window that appears, **Click the select objects icon** and **select the objects** that will be part of the block.
- 6) In the “settings” section of the “Block Definition” window that appears, **select “Unitless” for the units** you want block to be.
 - a. Be sure the “Allow Exploding” box is toggled **On**
 - b. **Select OK.**

Inserting a Block

- 7) Run the **Insert** command: **{AC Module} → [Insert] → <Block...>** or Type the command **insert** at the command line or **{Any CS Module} → [Draw] → <Insert...>**
- 8) In the “Insert” window that appears, the name of the block you just created should appear. If not, or if you have created multiple blocks in the current drawing, pull down for a list of named blocks. Select the one you want.
- 9) **Toggle On** the “specify on screen” settings for the **Insertion Point, Scale and Rotation**.
- 10) **Toggle On** the **Uniform Scale, Confirm** the **block units as “Unitless”**. Leave the block unit factor at 1.
- 11) **Select OK**.
- 12) A series of prompt will appear at the command line. Follow the prompts to:
 - a. **Specify** the **Insertion Point** of the block by clicking on screen or typing coordinates and then press “Enter”. AC will insert the block at its base point to the insertion point you select.
 - b. **Specify** the **Scale Factor** and press “Enter”.
 - c. **Specify** the **Rotation Angle** and press “Enter”.

Creating a Wblock

- 13) In the model space of your drawing draw the object that you wish to use over and over in any drawing now or in the future. Draw objects at 1:1 scale.
 - a. If you want the block to have the color and line type of the layer it will be inserted on be sure to set layer 0 as current before drawing the object.
 - b. If you want the block to maintain its own line type and layer upon insertion into the other drawing, then draw the object on its own layer.
- 14) Run the **Wblock** command: **{Any CS Module} → [Draw] → <Write block...>** or Type the command **wblock** at the command line.
- 15) In the “Write Block” window that appears, toggle if you wish to select **objects** to make into a block or select the entire drawing to be made into a block.
- 16) In the “base point” section of the “Write Block” window that appears, **select the pick point icon** and **snap** to the **base point** you want for your object.
- 17) In the “objects” section of the “Write Block” window that appears, **Click the select objects icon** and **select the objects** that will be part of the block.
- 18) In the “destination” section of the “Write Block” window that appears, **browse** to the directory you wish to save the drawing to.
- 19) The “Browse for Drawing File” window will appear. **Name** the block you wish to create. Click **Save**.
- 20) Confirm the **Insert Units** you wish to use (**Unitless**) and click **OK**.
- 21) Click **Yes** to the question “Include Autodesk Map information in export?”

- 22) **Browse** to the directory where the wblock should be stored. Confirm that the wblock just created is saved.

Inserting a WBlock

- 23) Run the **Insert** command: **{AC Module} → [Insert] → <Block...>** or Type the command **insert** at the command line or **{Any CS Module} → [Draw] → <Insert...>**
- 24) In the “Insert” window that appears, browse to the file of the wblock that you want.
- 25) **Toggle On** the “specify on screen” settings for the **Insertion Point, Scale and Rotation**.
- 26) **Toggle On** the **Uniform Scale, Confirm the block units as “Unitless”**. Leave the block unit factor at 1.
- 27) **Select OK**.
- 28) A series of prompt will appear at the command line. Follow the prompts to:
- Specify** the **Insertion Point** of the block by clicking on screen or typing coordinates and then press “Enter”. AC will insert the block at its base point to the insertion point you select.
 - Specify** the **Scale Factor** and press “Enter”.
 - Specify** the **Rotation Angle** and press “Enter”.

Editing a Block in Place

- 29) Edit the block : **{AC Module} → [Tools] → <XRef and Block In-place Editing> → <Edit Reference In-Place>**
- Selecting the block, right-clicking and selecting **<Edit Block in-place...>** may also work
- 30) **Select the block** to edit
- 31) In the “*Reference Edit*” window that appears, click “**OK**”
- 32) Notice the “Refedit Toolbar” that appears. Do not close this toolbar.
- The objects that are not part of the block should be faded. This is how you know you are in the reference editor.
- 33) **Make any changes** to the block that are needed.
- 34) **Exit the block** doing one of the following:
- To save** changes made, click on the **far right button** on the “Refedit Toolbar” (has the paperclip and computer disk on it)
 - In the window that appears, click “**OK**” to save the edits
 - To exit without making changes**, click on the **second button from the right** on the “Refedit Toolbar” (has the red X on it)
 - In the window that appears, click “**OK**” to discard any edits
 - If you happen to close the “Refedit Toolbar”, the commands can be accessed at: **{AC Module} → [Tools] → <XRef and Block In-place Editing>**