

Lesser Known ARRIS Features

❖ The Details Plug-in

1. Masonry menu for drawing brick veneer walls
2. Concrete menu for drawing 'T' footing details
3. Steel menu for 'C' channel, 'L' channel, 'I' beams, trusses, decking and rebar
4. Timber menu for drawing beam sections, plywood, shingles and trusses
5. Misc. menu for drawing gyp. board, wire tile hangers, batt insulation, glazing and section breaks in piping
6. Loading standard details from the ARRIS Details Library

❖ RI Catalog Manager

Repeated Item Catalogs are an organization tool for repeated items which allows quick and easy location and selection of the desired item.

The *Repeated Item Catalog Manager* provides tools for creating, renaming, and deleting Repeated Item Catalogs, as well as tools for adding, deleting, and manipulating categories, headings and item entries within a catalog.

Benefits of Using RI Catalog Manager

1. Culls outdated, incorrect and/or mislabeled RI's from RI Select thumbnail menu
2. Increases productivity by reducing the selection to office standard RI's
3. Eliminates duplication of efforts in recreating the same RI over again
4. Reduces errors and increases consistency between users
5. Reduces ARRIS training time

System Administration Implications

1. Requires dedication, man-hours and expertise to administer and maintain catalog.
2. Requires rules for how, when and by who's authority will new items be added

❖ Adding Custom Smart Walls To Your Catalog

(See demonstration)

❖ Adding Custom Poche or Line Patterns To Your Smart Walls

Ever needed to add a custom poche pattern such as *batt insulation* to your smart walls? Well it can be done, and it's not that difficult – just follow these steps:

1. In a generic database, such as *noname.db*, draw a rectangle to serve as a sample smart wall segment of a width and length that will adequately represent

your new poche pattern (ex: 5 ½" x 10'-0"). For convenience sake, position the rectangle so that the lower-left corner is at database origin. Any pen and color will do at this point.

2. Now fill this *wall-shaped* box with your favorite poche pattern or custom line configuration at a scale and proportion that accurately represents how it should be displayed within a smart wall of similar dimensions. (Note: If you would like your pattern or custom lines to inherit the *current* color and/or pen each time it is placed, be sure to set your pen and/or color to *none* before drawing. If you are using a poche pattern, freeze the pattern after placement).
3. Next, erase the surrounding box lines so all that remains is the custom wall pattern.
4. Load, or create, an RI library that resides in your *Standards* directory (and is accessible to all users) into which you will archive your new custom wall pattern.
5. Now make a repeated item using the remaining pattern. When prompted for the RI origin point, simply respond with the coordinate *A0* if you had previously placed the lower-left corner of the pattern at database origin. When prompted for the RI name, respond with *poch###* where *###* is a number between *100* and *255* (inclusive).
6. This pattern number may now be specified as a valid *Poche Type* in the Custom Wall Designer when creating new smart walls that require this pattern.

❖ **Other Parametric Routines (Lavatories, Toilets, Elevators, etc.)**

(See demonstration)

❖ **Quick 3D Roof Parametric**

(See demonstration)

❖ **Customizing Your ARRIS TOOLBAR Menu**

Customizing your ARRIS *Toolbar* menu is a terrific way to increase productivity by reducing the number of button clicks. Rather than always browsing for commonly used commands that are buried behind multiple menus, why not assign the command or function directly to your TOOLBAR menu to allow one-click access?

1. Redefining the Button

The easiest way to do this is to select the button candidate you would like to add to your Toolbar menu by clicking on it with your *middle-mouse* button. If you don't have a 3-button mouse, reach up and select the button by pressing the *F2* key. This will bring up the *Quick Help* menu for the button you selected. Notice there is an option on this popup menu labeled *Toolbar*. When you select this button your cursor will become a *box* icon attached to a *rubber band* followed by the ARRIS prompt "*Select any other menu or drawing area to exit*". Now drag

your cursor down to the Toolbar menu and select any button you would like to replace with this new command by selecting it with your *left-mouse* button. Notice the Toolbar button representation now looks like the new command you just placed.

Another way to accomplish this same trick is to first identify the box on the Toolbar menu you would like to replace by selecting it with a *right-mouse* click. This will turn your cursor into a box icon with the word *Toolbar* below. Now select the desired new button from any ARRIS menu by selecting with the standard *left-mouse* button. This brings up the *Toolbar Setup* menu (more on this later). Simply click *OK* at the bottom of the popup menu and *voila*, the Toolbar button representation now looks like the new command you just reassigned.

2. Saving the Button Assignment(s)

To save this placement so it will reappear the next time you start an ARRIS session, select the Toolbar button labeled *TOOLBAR* (to the left of the *Stop Sign* icon). Then select *Save* from the menu, and then select the *def.* value which corresponds to your login name. Otherwise, your new Toolbar menu replacement button will only be temporary which may be okay if that was your intent.

3. Customizing Toolbar Button Assignments

Sometimes the commands stored on the Toolbar menu include both commands as well as built in responses. For example, the *Dist* button on the default Toolbar menu has a built in response for *2 points*, rather than the other possible response of *perimeter*. If that isn't the response you want, you can modify the response. Or you can modify other aspects of the Toolbar button command such as:

- The name of the command (including adding custom command names)
- The specific prompt response or responses
- The number of commands you wish to string together
- Display the button name as a *text string*
- Display the button as an *icon* using a repeated item

All these modifications can be accomplished by first selecting the Toolbar button with your *right-mouse* followed by a *left-mouse* click or *Enter* key. This brings up the *Toolbar Setup* menu mentioned in step 2 above which displays all the elements stored with the button such as the button *display mode* (i.e. text or icon) and the *command string(s)* and possible *prompt response(s)* invoked when the button is selected.

a) Using Text As A Toolbar Button Label

The Toolbar button mode can be changed by selecting *Icon* or *Text* from the upper left corner of the popup menu. If *Text* is selected, the desired button label will display whatever string of text is entered on the opposite line. To break the text into two lines, simply separate the two words with a *^* (*carat character*) such *Move^Area*.

b) Using an Icon As A Toolbar Button Label

If The Toolbar button mode is set to *Icon*, the desired button label will display whatever repeated item *name* and repeated item *library* are displayed in the two boxes on the opposite line respectively.

Using repeated items to graphically represent the button's function rather than just a cryptic string of text can be especially helpful in assisting new ARRIS users in coming up to speed faster (you know what they say about a picture's worth...). For example, I created icons of a text label, a footing detail and a company logo for my Toolbar buttons which bring up the RI Select menu for my notation RI's, my detail RI's, and my company standard RI's respectively.

If this sounds interesting, simply create an RI of any size, scale or color that you would like to use as a Toolbar icon. Keep it very simple since it will become greatly reduced to fit your Toolbar button. Now save the RI into a library that will always be accessible. I add my Toolbar RI's to a library named (oddly enough) *toolbar.ri* and store it in my *STANDARDS* directory.

To add the new RI as a Toolbar button icon, *right-click* on any Toolbar button, then hit *Enter*. Now select the *ICON* box at the top of the popup menu, then select the first empty box to the right and enter the name of your new RI. Now select the next box to the right and enter the name of the RI library into which it was stored.

Don't forget to save the Toolbar menu after customizing it by selecting the button labeled *Toolbar* (next to the *Stop Sign*), then choose *SAVE*, then select the *def:* option (which is typically your login name). This way each user can design their own icons or they can be shared by selecting the *save to STANDARDS* then *load from STANDARDS* options.

❖ Right-click Menu Commands

Are you tired of answering the same prompts or picking the same options for commands that you typically answer the same way every time? To reduce the number of mouse clicks and speed up your productivity, you can customize a *right-click* for certain menu buttons that automatically respond to the prompts the way that you usually do.

Let's say you're creating a preliminary drawing with lots of overlapping construction lines and you'd like to join the corners without having to perform a lot of trim and extend commands. As most of you know, setting the *fillet* or *chamfer* command to a zero radius will automatically join (i.e. double trim/extend) any two selected line endpoints. How about customizing the *Chamfer* button so that when you *right-click* it, it will automatically input zero chamfer values and quickly prepare you to start joining any two line endpoints? Just follow these easy steps:

1. Select the *Customization Menu* button (near the upper-right corner of your ARRIS menu next to the *Load Plug-in* button) and then select the *Right Mouse Command* menu (the mouse icon with the right button colored in red). Now drag your special *right-click* cursor down and select the *Chamfer* button under the *Place* label from the *Line* menu. This will bring up the *Right Click Setup* menu.

(Note: Some menu buttons will generate the message: *RC Command Uncustomizable* which means that you can't perform this operation here)

2. Under the *USER DEFINED* half of the menu, select the empty blue box to the right of the *DESCRIPTION* label and type in a description such as: *Chamfer with zero radius* or *Join Lines*.
3. Now select the empty blue box to the right of the *COMMAND* label and type:
`<:mn_chamfer;0;0`

(Note: The '<' is a special character which instructs ARRIS to first clear any pop-up menus that may be displayed in the drawing area. The `:mn_chamfer;0;0` tells ARRIS to type the *chamfer* command and enter a *zero* in response to the two prompts which ask for the two chamfer distances)

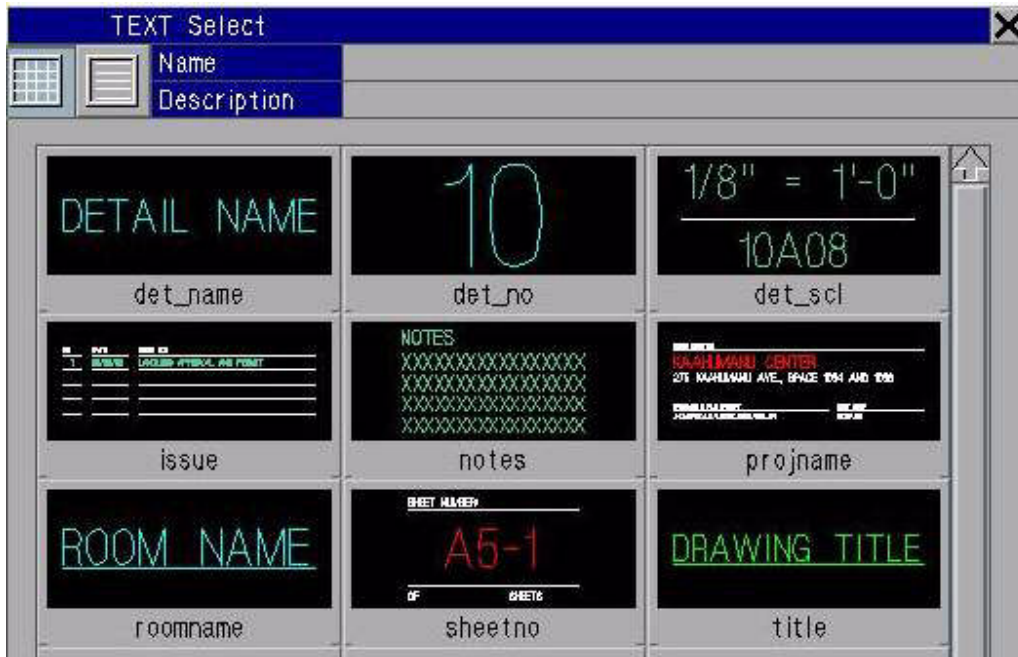
4. Now select *Accept* from the pop-up menu, and then select *Exit*.

Now, anytime you want to automatically join two line endpoints to form a corner, simply right-click on this box and avoid having to enter the chamfer values. Notice that the description you entered in step 2 above is displayed on the message line when this *right-click* command is initiated. A normal *left-click* on the box will still prompt you for the chamfer values as usual. If you want to return to the original behavior, repeat steps 1-3 above and when prompted to enter the command, select the "USE DEFAULT" option which will reset the originally assigned operation.

❖ **Thumbnails for Entity Style Select Menus**

In addition to creating custom RI icons for your TOOLBAR buttons, you can also create custom RI's for the sample thumbnails that ARRIS uses to represent your user-created Entity Styles for *text*, *line*, *pattern* and *dimension* entities. Why would you want to do this you ask? Well, to make it easier to associate the thumbnails with their usage of course. Trust me, new users love this.

For example, the Gap (ARRIS user extraordinaire) customized their ARRIS text style thumbnails to display the text sample in the context for which it would be used. For *Note* style text, they made an icon of a small paragraph of text. For *Sheet No.* text, they created the string **A5-1** in the color and font they used for sheet numbers. The same for *drawing label text*, *detail bubble text*, etc. (see partial *Text Select* menu below)



To do this, create an RI of any size, scale or color that you would like to use as a style sample for your thumbnail menu. Again, keep it very simple since it will be reduced to fit your sample thumbnail window.

The repeated item library, where ARRIS stores the sample thumbnails for the Entity Styles, is named *mn_sfikons.ri* and is located below the *styles.dir* directory in a sub directory named *default.prj* (or *xxxxx.prj* if you have renamed your directory to something more meaningful).

If you view the *mn_sfikons.ri* library via the *ARRIS Repeated Item Select* menu, you will see that all of the RI have special 3-letter prefixes such as *@dm* for dimension styles, *@ln* for line styles, etc. Although ARRIS won't let you create a new RI that starts with an *@* character, it will let you place any RI with an *@* character already in its name, freeze it, update it, and remake it using the existing name as the default value. This will allow you to overwrite the default entity thumbnail with one of your own design. You will be stuck with the previous RI name (derived from the style name given when it was created), so make sure the style names are accurate. Also, you are limited to 8-character style names so that ARRIS can put the 3-letter *@xx* prefix in front of the corresponding RI name.

Once you have updated the appropriate *mn_sfikons.ri* library with your custom RI's, be sure to make a backup copy of it in the same directory. I say this because the original will be overwritten the first time somebody accidentally selects the *Regen Ikons* button at the bottom of the Entity Select menu.