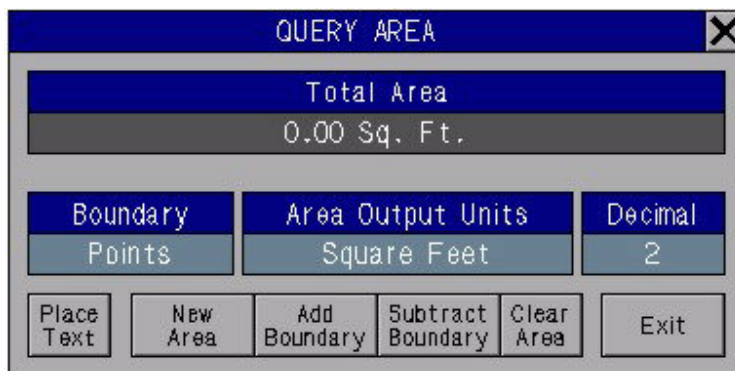


Hidden Features / Tips and Tricks

A Brief 9.x New Features Review

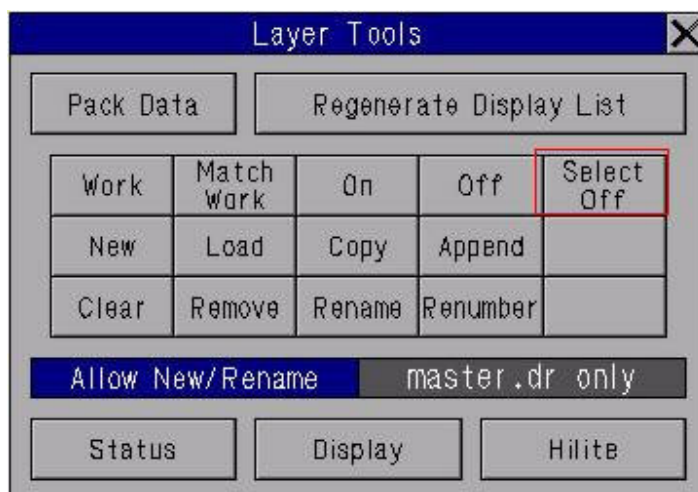
1. Query Area

A new and improved Query Area function has been added, including a new menu. This allows you to query the area of a single boundary or add/subtract multiple boundaries. Boundaries may be input by points, rectangle, zone, or chase. The Chase function as also been improved. The units of the area reported may be selected with choices including Square Feet, Square Inches, Square Yards, Acres, Square Miles, Square Millimeters, Square Centimeters, Square Meters, Hectares, and Square Kilometers.



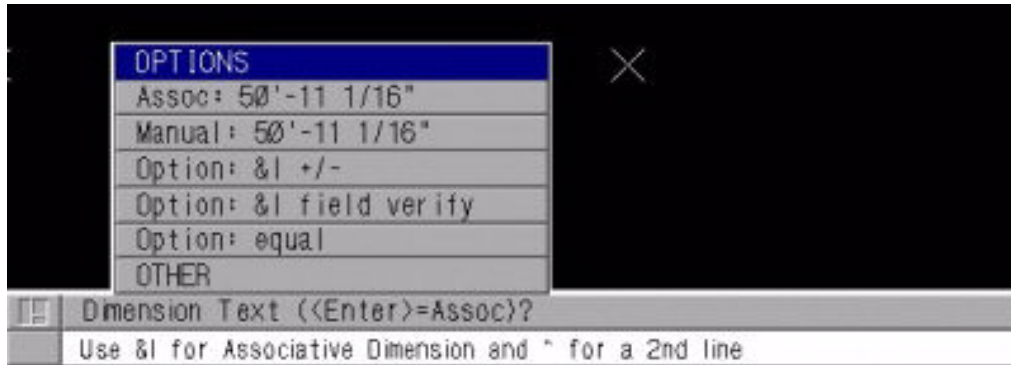
2. Layer Select Off

A new button has been added to the Layer Tools menu which allows you to turn one or more layer off sequentially by selecting an entity on that layer.



3. User Defined Manual Dimension Text

The user can now define a list of *manual* dimension text defaults such as "Equal" or "+/-" and have these appear as default choices in the manual dimension prompt.



4. External Layer Display

Layers which have been loaded from external databases now show with an "EXT" in the Permissions portion of the Layer menu.

Layer Menu										
1	Number	Name	Description	Entities	Modes					Perms
	141	ec1_power	1st elect: power	0	WK	E	S	D	OFF	RW
	142	ec1_light	1st elect: lighting	0	WK	E	S	D	OFF	RW
	143	ec1_text	1st elect: text, notes & legend	0	WK	E	S	D	OFF	RW
	150	fp1_plan	1st fpln: walls, doors & windows	119	WK	E	S	D	OFF	EXT/RO

Hidden Features

1. Double Reference-To-Point Button

Somewhere back a few versions ago a new button was added to the Line Construction Tool Menu that allows you to quickly double reference the endpoint of a line to a point with a single click rather than using the traditional multi-step sequence. The button also appears as an option below the Multiple Trim/Extend menu so that multiple line endpoints can be double referenced simultaneously.



2. Trim/Extend Inside or Outside of Fence

I recently ran across a lost mnemonic command named *mn_trim* that will allow you to cut an opening (either box-shaped or complex) in a group of lines and/or circles much the same way the *Cut Opening* button cuts holes in crosshatch patterns. Not only will it cut the circles, but it will do so without freezing them. Here's how the command sequence looks:

```
mn_trim          [Enter]
Area to delete?  [inside, outside]
```

If *inside* is selected (for example), the next prompt is...

```
1st fence point: (F10 for complex fence)
2nd fence point
```

You can then enter two diagonal points (or any complex fence) and all lines and circles inside the fence will be erased. Be careful when choosing the *outside* option unless you *really* want everything inside the fence protected and everything outside the fence erased...d'oh!

3. Using the `←` and `→` Arrows To Cycle Through Command History

I found this feature introduced in ARRIS 8 to be one of the most productive features in years. Put simply, you can scroll backwards and forwards through your keyboard input history by selecting the `←` and `→` arrows and recycle previously used mnemonics, text strings, coordinate entry, prompt responses etc. without having to reenter them. You can also use the `←` and `→` arrows to move the cursor left and right across the prompt line without erasing (backspacing) the text. In addition, the HOME key jumps your cursor at the beginning of the prompt line text string, the END key jumps you to the end of the prompt line. Here are some great applications I've found for this feature:

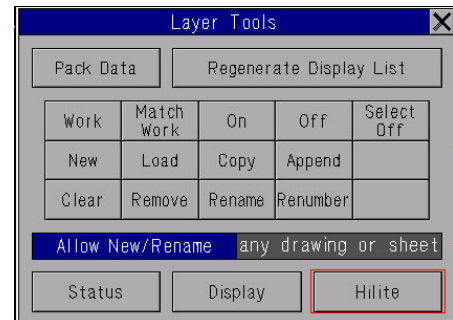
- Reusing layer names and/or descriptons when adding layers
- Recycling repeated coordinate input or fractional offset values
- Reusing room label or drawing name text strings
- Reusing text annotations that are similar to previous input

4. Layer Tools `Hilite`

I recently discovered a rather nice layer highlighting routine buried beneath the Layer Tools menu (right-click on Layer menu label) which highlights, in white, a specified layer. This is handy if you need to perform a quick review of your layer integrity.

The command contains a number of options for cycling through all the layers in the current drawing either starting with the *first* (lowest numbered) layer or the *first displayable* layer and then proceeds through the remainder of the drawing highlighting layers sequentially. Here's a look at the highlighting options after selecting the Hilite button:

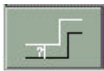
- First- *the first layer in the current drawing*
- Next - *the next layer after the current work layer*
- Work - *the current work layer*
- First Disp - *the first displayable layer*
- Next Disp- *the next displayable layer*
- Exit - *exits the highlight routine*



Did You Know?

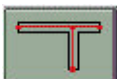
- ❑ Did you know that a *right-click* on the RI Select menu button always brings up the RI Pager menu in *catalog* mode, regardless of the current *library* or *catalog* mode setting?
- ❑ Did you know that a *right-click* on either the pen *or* the color icons from any Edit menu will change the selected entity's pen *and* color to the current pen *and* color simultaneously?
- ❑ Did you know a right-click on the *Trim or Extend Line* button will shortcut you to the tool which allows you to trim or extend a line or circle using *distance* instead?
- ❑ Did you know a right-click on the *Single or Running Line* buttons will shortcut you to the *Find Menu* for quick access to commonly used starting aids such as *midpoint of line* and *midpoint between two points*.
- ❑ Did you know that a new symbol number 30 was recently added to the available arrowhead and text leader symbols? It is single line *chevron* style arrowhead that can be selected via the dimension or text leader setup menus.
- ❑ Did you now that you can modify the ARRIS shortcut icon in Windows so that ARRIS will start up in your favorite directory? Just right click on the ARRIS shortcut icon, choose *Properties*, then the *Shortcut* tab. Type in the desired start up (Projects?) directory in the *Start In* box.

- Did you know you could turn on the *MS Window Ctrl Key Mapping* function from the *Preferences* menu in ARRIS 8? This allows you to do things like *save* by using a *Ctrl S* and invoke the *Plot* menu by using a *Ctrl P* for example. Some of my other favorites are *Ctrl V* for *pasting* from the ARRIS Clipboard, and *Ctrl O* for opening the *Drawing/Sheet Select* menu.
- Did you know there was a *Search Method* option on the *Edit* menu called *Select Single Entity From Inside Of Fence*? It can be used to cycle through multiple entities that share the same data point, such as RI's, so you can select only the one you wish to edit. How long has this option been on the *Edit* menu? Well, at least since ARRIS 2001 I'm embarrassed to report.
- Have you ever drawn a box and wanted to draw another offset box 2' larger without having to use *New Ref* with coordinates or (4) offset lines which have to be joined at the ends? There is a great *Offset Lines/Curves* button under the *Line Tools* menu that will do the job faster. The *Offset* button (see icon below) has 3 prompts.



Offset Line/Circle Button

- 1) *Offset distance? positive value offsets to right, negative to left.* Enter [2] for a 2-foot offset.
 - 2) *1st bndry pt (F4:chase, F:10 new offset):* [Select the right vertical line near the bottom corner using your F4 key]
 - 3) *Select end point (F10 for auto-chase):* [Press F10 key]. A new box 2' larger than the old box should appear. If the new box was drawn 2' smaller (inside) the existing box, your cursor wasn't close enough to the lower half of the line. Just select *Undo* and try it again. With a little practice, you can get it right first time. Also try experimenting using [-2] for a box that is 2' smaller than the existing box. (**Note:** this command will offset any combination of contiguous lines, circles or lines *and* circles (closed or open) not just boxes!
- If you've never used the *Display Wall Points* button to highlight the reference lines and intersections of smart walls you're missing out on a great troubleshooting and training tool (see icon below).



Display Wall Points Button

This button is located in the *Wall Tools* menu along with many other useful smart wall tools. I use this button so often that I've added it my TOOLBAR menu. However, I got tired of responding to the *Selection Method* prompt with *all*, so I modified the TOOLBAR command to `:mn_wlpts;all` so that the *all* response was automatic with a single button click.

- Did you know there's a powerful new feature under the ARRIS 8.x *Copy* menu called *Copy to Clipboard* and *Paste from Clipboard*? It saves a lot of time that used to be spent creating temporary RI's or copying entire layers when all you wanted was a portion of a layer. Be sure to pay attention to the *Layer Retain* status, it will determine upon which layers the copied and pasted entities are eventually placed. (Note: You can even use *Ctrl V* to paste the copied entities from the clipboard buffer at any time!).
- **Windows Explorer Access to Project Directories** – If you ever thought it would be handy to quickly access your current project (working) directory via *Windows Explorer* for administrative purposes from within ARRIS, here's a mnemonic command string that does just that. Since it would be difficult to type it more than once, you might want to store this one behind a TOOLBAR button: `$scall('explorer.exe /e,' + $getvar(#vwrkdir))`
- **ARRIS Alias Commands** – For those users who love to type, did you know that ARRIS contains 15 predefined one and two-letter *alias* shortcut commands? If you're using ARRIS 8.2, try typing these single character commands followed by the *Enter* key:

z (zoom), **l** (line), **c** (copy), **e** (erase), **m** (move). Or how about these two-character alias commands: **ri** (repeated item place), **tr** (trim/extend).

If you want to change the existing alias commands or add more, simply edit the *sys_aliases.st* file below the *C:\Program Files\ARRIS XX\lib* directory and knock yourself out!

- **Color Swap** - In ARRIS 9.1 there is a new mnemonic command `:colswap` which swaps the RGB values of colors 0 and 1. For standard colormaps, color 0 (screen background) is black and color 1 is white so it allows you to toggle the screen background between black and white.
- **Panning and Zooming** – If you are using a mouse with a scroll wheel you may have noticed you can use it to dynamically zoom in and out in ARRIS 9.x. Furthermore, you can hold down the CTRL key together with the left mouse button and pan at any time as well.

Bonus mouse feature: One of the features I accidentally discovered on my Microsoft IntelliMouse Explorer 2 is a Magnify feature which allows you to enlarge (magnify) everything within a user-defined box. It's like turning your cursor into a magnifying glass. This works with any application including ARRIS. It's very handy for reading the contents of a dimension string while zoomed out.