

SIGMA CONSULTING SERVICES, INC.
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Presents

For What It's Worth

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Here are another helping of ARRIS tip and tricks that I've accumulated since my previous newsletter that you might find useful. Some might be old and forgotten, but many are new and unique to the current release of ARRIS. Hopefully I am able to introduce at least one or two useful tidbits you didn't already know.

All Things Text

The first item in this issue is *all things text*. Even though text is one of the most commonly used CAD entities, I doubt that many users realize how many great text placement and text editing options are lurking out there on the *TEXT* menu and prompt line. For those of you who don't like to read prompts or documentation (so that would be everyone then), here's a quick explanation of some highly productive options you might have missed:



Placing Single & Paragraph Text

Sounds easy? What is there to learn about placing a string of text you say? Oddly enough, there are quite a few prompts and suggestions that appear as soon as you select a location to place your first string of text. Here's a quick review of the options in case you've never bothered to check them out:

1st prompt: *Location for text (F10: exit):*
use [] keys to rotate text in ?? deg. increments

Explanation: If you want to rotate your text even before you select its location point, press the] key for clockwise rotation or the [key for counterclockwise rotation. This way you don't have to preset the rotation before typing. To quickly reset the text rotation value back to "0", select the =0 icon next to the text *Rotation* setting on the bottom STATUS menu.

After selecting the location for your text, the next prompt reads:

2nd prompt: *Enter text (Ctrl-E: menu):*

Explanation: If you've never experimented with selecting the *Ctrl* key together with the letter 'e' at this point, go slap your forehead right now. The *Ctrl-E* will invoke the *Extended Character Set* menu that allows you to select from a list of all the characters created for that text font including all those hard-to-find special characters and symbols like \pm , *center line*, *degrees*, *fractions*, *diameter*, *delta* and many more. You can use the *Ctrl-E* option any time during the beginning, middle or end of your text string.

After entering the first text character the following additional options appear on the prompt line:

2nd prompt: *Enter text (Ctrl-E: menu, INS:complete, Fkey:relocate, TAB:zoom/pan):*

Explanation: *INS:complete* means that you can select the *INSERT* key at any time to indicate you are through typing and *insert* your current text string into the drawing.

Explanation: *Fkey:relocate* means you can select any of the function keys (F1-F12) when you are through typing (but before selecting the *ENTER* or *INSERT* keys) to drag and/or rotate your entire text string to a new, more desirable location or orientation on the drawing.

Explanation: *TAB:zoom/pan* means you can select the *TAB* key at any time which then activates the *zoom* and *pan* features. To *zoom* in our out, select the + or – key. To *pan*, select the ←, →, ↵ or ↓ arrows. This allows you to visually center the current text string (or paragraph) so it can be read more easily in case it starts to trail off the screen while typing. To return to typing mode, select the *TAB* or *ENTER* keys.

To finish entering text either select the *INSERT* key or the *ENTER* key (*twice* if you're using paragraph text mode). Now don't you wish you'd read those prompts sooner?

Now that we've covered all the options that appear on the prompt line, what about all the options that *don't* appear on the prompt line? That's right, there are even more *keyboard command shortcuts* that you can use while you're placing or editing text than just the ones discussed above. Here's a quick review:

Keyboard Command Shortcuts

The ←, →, ↵ and ↓ arrow keys let you move your cursor left or right in a text string or between lines in a paragraph without erasing any text.

HOME moves your cursor to the beginning of the current line of text.

END moves your cursor to the end of the current line of text.

PAGE UP moves your cursor up to the top (first line) of a paragraph of text.

PAGE DOWN moves your cursor down to the bottom (last line) of a paragraph of text.

CTRL-D deletes everything to the right of the cursor.

CTRL-F copies everything to the right of the cursor and places it into a copy buffer.

CTRL-R reformats a paragraph width after using the *Edit 2-Point Paragraph Text* edit.

CTRL-X cuts (deletes) everything to the right of the cursor and places it into a copy buffer.

CTRL-V pastes everything in the copy buffer to the right of the cursor.

ESC aborts the text edit or entry process and restores the text to its previous state.

Of course these cool keyboard command shortcuts are all well documented in the *ARRIS Encyclopedia* under *Text* (pgs. 626-627) but now you don't have to look them up.

If you aren't using these shortcuts while placing or editing text, especially paragraph text, you're not being nearly as efficient as you could be. Experiment with these sometime, believe me – you'll commit them to memory in no time.



Place Two-Point Paragraph Text

Here's a text placement option you can use to force a paragraph of text to fit between two points when there's only a limited amount of room available around a small detail or viewport boundary. The command begins by prompting you for the left and right margin limits of the paragraph. After that, every line of text you type will be automatically broken at the word space nearest the specified right margin – just like the old electric typewriters.



Edit 2-Point Paragraph Text

This text edit option lets you redefine the width of any paragraph of text after it has already been placed into the drawing. The paragraph doesn't need to have been defined using the *two-point* option described above. The command simply prompts you to select any paragraph of text to be modified and then it asks for the location of the new right margin point.

Once a new right margin point has been defined, use a *CTRL-R* key to *reformat* the width of the paragraph to adapt to the newly defined right margin (i.e. wider or narrower) than before.

Modifying The arris.ini File

Many users were not aware that a number of critical variables can be added or modified in the *arris.ini* file. Here's a quick list of the more useful variables and a brief explanation of their respective functions and sample values.

GWINSIZE = This variable controls the size of the startup ARRIS window. The value represents the X,Y size in pixels with the default set to 800,600. Most users have their screen resolution set to at least 1024,768. If so, setting the variable to *GWINSIZE=1024,768* will result in the ARRIS window being enlarged to fill your screen when you start a new session. To find your current screen resolution, right-click on your desktop (background) then select *Properties*, then the *Settings* tab. Your current resolution should be displayed near the bottom of the menu.

GRSTD = This variable does not exist in the default *arris.ini* file but can be added manually at any time. *GRSTD* is a variable which defines the location of the directory you are using as your *standards* directory. The use of a *standards* directory is an extremely powerful feature in ARRIS and should be strongly considered for all ARRIS installations, both large and small.

Think of it as a directory where you can store all of your offices standards so that they can be accessed from any project directory and by all users in a network. Typical items stored in the office standards directory are wall catalogs (fpln.dir), style catalogs (styles.dir), repeated item libraries, penmaps (.pm), colormaps (.cm), custom sigmac libraries (file.sm), custom menu libraries (user.ml), prototypical databases, etc. The office standards directory also provides an excellent, single-source location for global modifications to your office standards and avoids duplicate copies which might otherwise be stored in individual project directories.

Sample new setting: **GRSTD = C:\CAD Files\Standards**

GRUSRS = This variable does not exist in the default *arris.ini* file but can be added manually at any time. It controls the location of the Home directory for all ARRIS users. In Windows XP, the default location for the ARRIS users' Home directory is *Documents and Settings*

which is not my favorite location. To reset the Home directory back to ARRIS_users (for example), create a new C:\ARRIS_users directory and set the GRUSRS variable to:

GRUSRS =C:\ARRIS_users (Notice the variable pathname does not include the actual *user* name itself, just the name of the directory in which it will be stored.)

Now the next time you start an ARRIS session, your new Home directory (matching your Windows login name) will be created below the C:\ARRIS_users directory.

GSWAP = This variable does not exist in the default *arris.ini* file but can be added manually at any time. It controls the location of the directory ARRIS uses to write temporary files. If the pathname becomes too long, which sometimes happens in Windows XP, certain ARRIS functions are disabled such as creating repeated items. Setting this variable to a shorter pathname will correct this limitation.

Sample new setting: **GSWAP = C:\Windows\Temp**

To access the *arris.ini* file quickly, select *Start* → *Programs* → *ARRIS 8.?* → *Config*
To quickly review the settings of all of your variables from within the ARRIS program, select *Query* → *About ARRIS* or type the mnemonic command *vers* (version) at the ARRIS prompt line. To read more about additional variables that can be added to the *arris.ini* file, see the *Environmental Variables* chapter of the *ARRIS Encyclopedia*.

Did You Know?

Below is a hodge-podge of tips, tricks and suggestions – many of which have been posted on the ARRIS List Server over the past 6 months. However since many of you do not subscribe to this incredibly informative online ARRIS CAD forum, I have collected some of my favorites posting for your review. Thanks to all the ARRIS users who contributed their knowledge and experience.

- ❑ **ARRIS List Sever Archives** – Speaking of the ARRIS List Server, here is a link which accesses all the postings back to April, 2003 in case you missed any:

<http://lists.ezmeeting.com/pipermail/arriscad/>

If you would like to subscribe to this free email CAD forum hosted by Sigma Design, point your browser to: <http://www.arriscad.com/listserver.asp>

- ❑ **Creating JPG or BMP Files** – You can quickly create *.jpg* or *.bmp* raster files from anything on your computer desktop using your **eZ** software. From the **eZ** menu, select *File* → *Snapshot* → *Boxed Area*. Now toggle to any open application (using *ALT* with the *TAB* key). Your cursor will turn into a *box* icon which you can then use to *fence-in* and capture any area of the screen you wish. The image will now appear in the **eZ** screen.

To save the snapshot to a *.jpg* or *.bmp* file, select *File* → *Export* → *Screen* → *To Jpg* (for example). I used this same method to import the pictures of the ARRIS menu buttons within this newsletter.

- ❑ **Viewing Autocad 2004/2005 Drawings** – If you don't own a copy of Autocad for viewing more recent Autocad *.dwg* file versions like 2004 and 2005, they can be viewed using **eZ**. From the **eZ** menu, select *Tools* → *Options* → *Autocad 2004 2005 Reader*. Now open these files as usual by selecting *File* → *Open*.

- ❑ **ARRIS 8.old vs. 8.3 Compatibility** – In ARRIS 8.2 the display list precision was changed from “integer” to “floating point”. This means that drawings saved in 8.2 or 8.3 may generate display list-related error messages if they are opened in previous versions such as 8.1 or 8.0. One way to overcome this problem is to reset the display list precision in ARRIS 8.3 back to *integer* precision by typing this variable setting at the ARRIS prompt line: `$setvar(#vfltdelta,1)` Then recreate the display list (dlcr) for any drawings that have already been saved using the new *floating point* precision. The other way to fix this problem is to upgrade all your ARRIS seats to ARRIS 8.3. (spoken like a true ARRIS software reseller!). For the record, here’s a list of all the *vfltdelta* variable values:

- 0 *integer* precision for both database and display list calculations
- 1 *floating point* precision for database, *integer* precision for display list
- 2 *floating point* precision for both database and display list calculations

- ❑ **Setting Move/Copy Scale Value Using Points Option** – Below the ARRIS *Edit* and *Copy* menus, the Scale setting contains a *Points* option. This is useful for increasing or decreasing (rescaling?) entities based on the distance ratio between two *baseline* points and two *scaled* points. The ratio between the first pair and the second pair establishes the current scale factor value for subsequent *Move Scl/Rot* and *Copy Scl/Rot* modifications.
- ❑ **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 8.3 contains 15 predefined one and two-letter *alias* shortcut commands? If you’re using ARRIS 8.3, 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 83\lib` directory and have a ball!

You Should Have Been There!

This year’s **IABC Conference** here in beautiful Denver last March proved to be the best one yet! For a *Virtual Conference* experience, go to www.sigmadesign.com/IABC2005/ to see course summaries, photos and download seminar notes in PDF format.

Software Buzz

ARRIS 8.3 is now shipping!

- New seats of **ARRIS 8.3** can now be purchased for the unbelievably low price of **\$995!** In addition to receiving the entire **ARRIS Architect Studio**, this price also includes a free, 1-year **ARRIS Maintenance Subscription** which means you can download all the new ARRIS upgrades that become available for the next 12 months.
- *Sigma Design* and *@ Last Software* have joined forces to create one of the most compelling CAD/Design offerings available today. For the low price of **\$1,295**, ARRIS customers receive

the complete **ARRIS 8.3 Architect Studio** and a complete, full version of the award winning 3D design software, **SketchUp**. This bundle also includes the 1- year **ARRIS Maintenance Subscription** and is available for purchase immediately. For more information on the powerful SketchUp software visit www.sketchup.com.

- If you haven't upgraded to **ARRIS 8.3**, visit www.sigmaserv.com/ArrisNews.html and check out the *ARRIS 8.3 New Features* PDF file or contact me for details. The upgrade price is only **\$450** if you upgrade the same month your previous ARRIS Maintenance Subscription expires. The price is still only **\$500** if purchased within 30 days of the expiration date and **\$695** after that. All upgrades extend your ARRIS Maintenance Subscription for another year.
- **ARRIS 8.3** - This release brings the SUN Solaris version of UNIX and the MS Windows version back to the same source code, which means that most of the new ARRIS features which Windows customers have been enjoying are also available for SUN Solaris. The development team has converted the ARRIS source code from **C** to **C++**. **C++** is a more modern programming language and has many features which will make it easier to maintain and improve the ARRIS software for future versions.

A new **Print Preview** feature was added to **ARRIS 8.3** for Windows which displays precisely what ARRIS is going to send to the printer. This is a long awaited ARRIS feature and will save time (and paper) by allowing drawings to be previewed first before plotting or printing.

There is now a separate Plot Menu for creating PDF files. This time-saving menu contains features for *Auto Naming* and *Auto Loading* of PDF files. ARRIS PDF files now contain layer information that can be turned *on* or *off* when viewed with **Adobe Reader 6.0**.

SUN users will get the *double precision display list* as well as all the other bug fixes from ARRIS 8.1 and 8.2 releases. Also, the raster and high color features of ARRIS 8.1 and 8.2 are now available for UNIX. Although there is no *print preview* feature for SUN users, the **ARRIS to PDF** functions have been ported to **ARRIS 8.3** so SUN users can preview their plots in PDF format - and even print or plot them directly from **Adobe Reader**.

- The **7.3 Translator** from Expert Infocad is now shipping. It is a great new release that provides support for **ARRIS 8.2** and **AutoCAD 2004**. It was rewritten from scratch in C++ to be able to support more advanced AutoCAD features. For the first time, it will be translating *SOLID3D* entities (ACIS format) and *Spline* entities (NURBS curves) from AutoCAD to ARRIS. New 7.3 seats are priced at **\$275**, upgrades from version 7.2 at **\$150** and upgrades from 7.1 at **\$175**. Users with versions older than 2001 will need to purchase a new 7.3 seat.
- Jeff Small has improved the standard *Color Selection* menu of his **ARRIS++** 3rd party ARRIS application so that it now provides larger color swatches and color number displays for easier selection. The query *Distance* has also been enhanced to maintain a separate *historical* running total over multiple queries. New *Toolbar* box types which combine sets of 1x1, 1x2 or 2x2 boxes have also been added to improve flexibility for many purposes.

All of these enhancements and more can be viewed by pointing your browser to Jeff's web site at: <http://cjsa.home.comcast.net/aplus/>

Well fellow users, I hope you found this 3rd issue of **For What It's Worth** to be informative. Stay tuned for the next issue where I'll review some of the new **ARRIS 9.0** features.

Until then, if you would like to order ARRIS 8.3, ARRIS updates, eZ, or the Expert Translator software, Technical Support, ARRIS Training, Data Conversion, Colored Renderings or Architectural Drafting services, please don't hesitate to contact me using the information listed below. As always ...*operators are standing by!*