

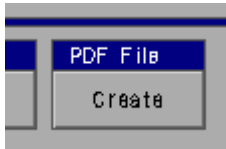
ARRIS 8.3 – New Features

Plotting

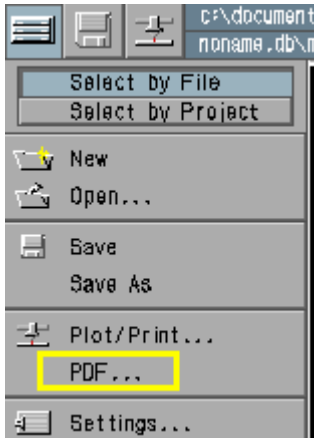
PDF Plotting

The plot functions for PDF have been moved to their own menu

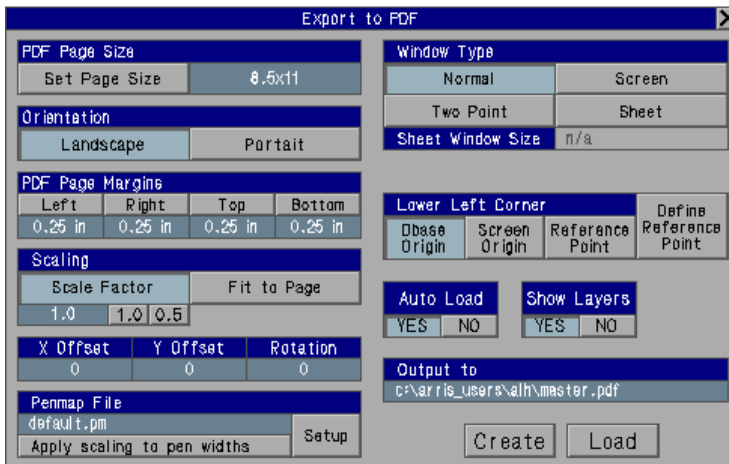
You can access it from a button at the lower right of the regular plot menu:



Or from the main **ARRIS** File menu



PDF has been given its own plot menu to minimize confusion on what drawings it can be used for (the current drawing. Saved drawings must be loaded first) and on sheet size.



PDF Page Size – Set to the size desired.

Orientation – Set the landscape for a page which is wider than it is tall.

Auto load – will automatically load the PDF file after it is created.

Page margin – sets a margin on the page. Unless you are using offsets and scales, you probably want a page margin for PDF. (Note: you automatically get margins on paper plots, as set by the plotter itself, but for PDF you need to specify the page margins.

Show Layers – will display the **ARRIS** layers in the PDF file, so that the viewer can turn layers on and off

Output to: This is where the PDF file will be stored.

We separated PDF from the regular plot for a couple of reasons.

1. PDF needs additional options - Auto Load, page rotation, and whether to include layers.

- It was inconvenient to have to have a separate button to set the PDF options.

2. PDF needs a page size (it does not default to your current plotter size, since that is inconvenient)

To set it, you had to click "fit to page", set the page size, and then remember to click "scale" again.

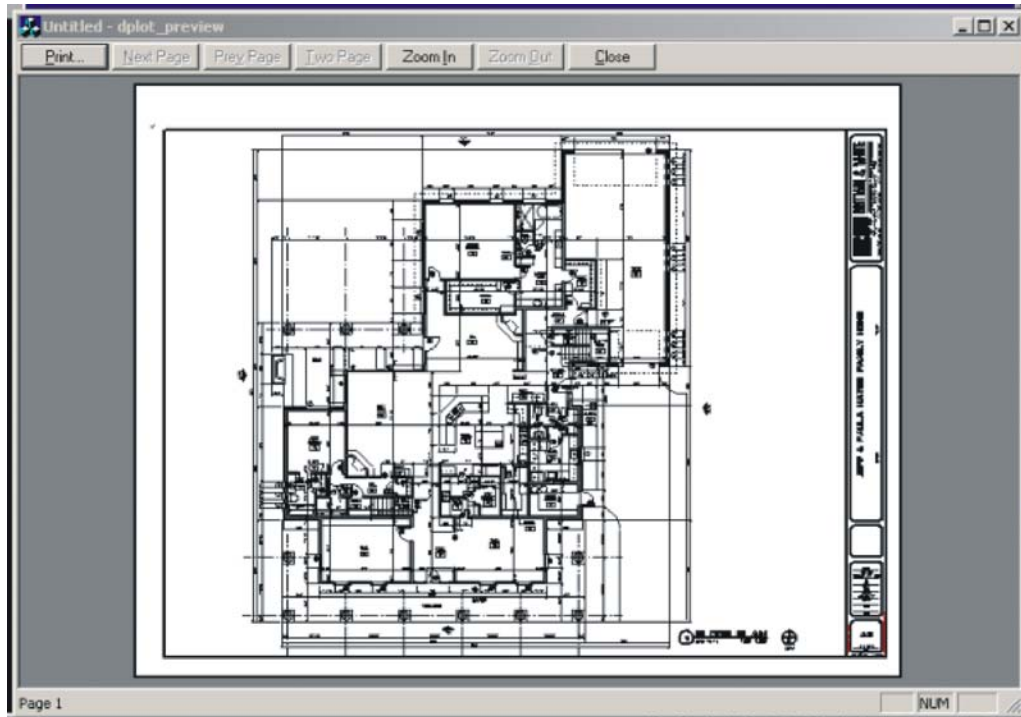
We found this confusing, and not intuitive.

3. PDF does not work with saved drawings. This will be in a future enhancement.

Print Preview

The print preview allows you to preview your work to show how the position and print size of the print job will appear on paper. This will eliminate the trial and error guesswork of getting all of your plot

settings correct. It will also allow you to see the results of applying various penmaps before the sheet is plotted. You can zoom in and out on the preview to examine an area closer before sending it to print.



The Print Preview function is found on the Plot menu next to the Execute Plot button.

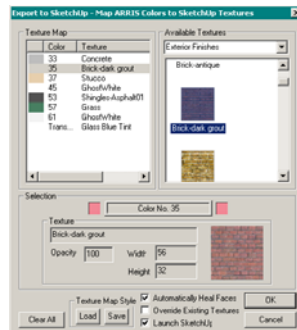
Default Pen Map

In **ARRIS 8.3**, if you load the plot menu and don't have a default pen map, a default.pm will automatically be created. This is to correct a problem where **ARRIS** assumes a software pen map if no default pen map is found, but the plot routines assume an 8-pen pen map and give unexpected results.

By always saving a default pen map (when none exists), we will eliminate that problem.

Interface To SketchUp

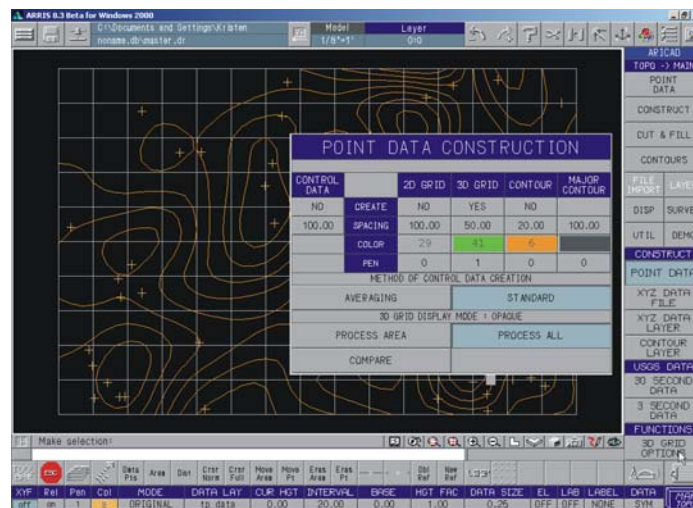
ARRIS 8.3 now exports a 3D model Directly to a .skp file. When exporting, you have the option of assigning textures to the SketchUp model by having them correspond to an **ARRIS** color.



When importing a model from SketchUp, textures in the model are remembered in **ARRIS** and are used if the model is subsequently exported back out to SketchUp.

ARICAD Topographer

ARRIS 8.3 integrates this powerful site planning and modeling tool into its arsenal as a plug-in. The Topographer is great for analyzing, designing or modifying terrain models to create accurate contour maps and to perform cut and fill calculations.



The topographer system is designed to create contour maps and 3D surface models from raw X,Y, Z data. Data may originate as surveying data, USGS data, or be generated by the user. Also, once a a existing and proposed model has been created of a particular site, it is possible to perform cut and fill calculations. Create quick, easy and accurate contour lines automatically You can create either "Mesh" or "Cake" 3D Terrain models from your contour data.

ARRIS Source Code

The **ARRIS** source code has been ported to C++. This, more modern, language will allow us to add and maintain features which will be supported by both the SUN and MS Windows versions of **ARRIS**. Also, the Application level source code for **ARRIS** Architect, 3D, Site, and Details in addition to basic **ARRIS** has been made available for anyone who wishes to customize their **ARRIS**.

Release for Sun Solaris

ARRIS 8.3 has been released for SUN SOLARIS

1. Hi-color works if you have a high-color video board
2. Raster images and Raster background work (in high color mode)
3. All bug fixes for the Windows version are included in **ARRIS 8.3** for SUN

Here are a few considerations:

1. If your video board only supports 256 colors, then high color features as well as bitmap feature will not work.

You can verify you settings by typing in:
`/usr/openwin/bin/xwininfo -info`

If it says 24, you have the best chance. (8 means 256 colors)

2. Only X11 has been implemented as a video driver.
3. The new versions of Sigmac and Menu source are in the folder

`$ARRIS/ade` (rather than `$ARRIS/src`)

4. Quick DXF and Quick DWG and EZ output are not implemented for the SUN version

5. Some scripts now end in .sh, e.g.:

arconfig.sh

rmarris.sh

install83_spin_xxx.sh (there is a new version for each spin)

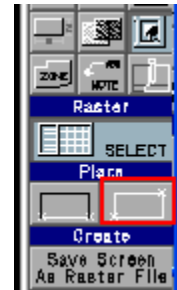
4. **ARRIS** is released as a .gz (GZIP) compressed file. It is automatically uncompressed and installed by the install83_spin_xxx.sh script.

a. Solaris versions prior to 5.8 (Release 8) do not have gzip to unzip this file. If this creates a problem for you, let us know and we make a CD release.

Bug Fixes

“Flashing Menu of Death” – fixed – when you selected an item on a read-only layer, and then brought up the layer menu, the query menu flashed for ever.

Fixed rectangular raster entity input to work



Appendix A – SUN color issues

1. To determine what frame buffer you have on your sun, use **prtconf**:

```
alh@Blade 1% /usr/sbin/prtconf -F
/pci@1f,0/SUNW,m64B@13:m640
```

2. You can also list the frame buffers in **\dev**

```
alh@Blade 7% /bin/ls -l /dev/fb*
total 128412
lrwxrwxrwx 1 root  root    35 Oct 29 10:26 /dev/fb ->
    /devices/pci@1f,0/SUNW,m64B@13:m640
lrwxrwxrwx 1 root  root    8 Apr 6 2004 /dev/fb0 -> fbs/m640
```

3. **Setting 24 bit frame buffer (info from SUN)**

In the past, OpenWindows would always use 8 bit PseudoColor as the default visual, even when a 24 bit frame buffer is being used. However this rule is now changing. Starting with the S24, OpenWindows will default to 24 bit TrueColor. This rule is expected to continue as new graphics products are developed, however 8 bit PseudoColor will remain the default visual for the existing 24 bit frame buffers, such as the SX, ZX, GT and GS.

A 24-bit TrueColor default reduces colormap flashing. DeskSet and other applications that are really visual-independent then don't take up entries in the colormap. Thus those applications that do care have more available.

It is expected that most applications will be able to use 24-bit TrueColor. Fewer and fewer people should have to play colormap tricks such as 4/4 double buffering or weird plane masking as screen update rates go up. Also, the data copy advantage of 8-bit pixels is going away with SX, S24 and future Frame Buffers.

You can alter the default depth or class by using the defdepth or defclass options to the server, thus:

```
openwin -dev /dev/fb0 defdepth 24
openwin -dev /dev/fb0 defclass TrueColor
```

Acceptable depths are 8 or 24; you cannot set a depth of 1. The nearest you can get to simulating a monochrome display is to select a greyscale visual (see below) and specifying the -2d flag to olwm

For information on the frame buffer from SUN, go to:

<http://service.uk/FAQ/FrameBuffer.html>

Appendix B - Sigmatic Changes

See document: \$ARRIS/doc/adeveloper83.doc for details.

Also, there is a document in \$ARRIS/ade/doc: gr_util.txt and gr_const.txt which outline the \$ utilities and # constants.