

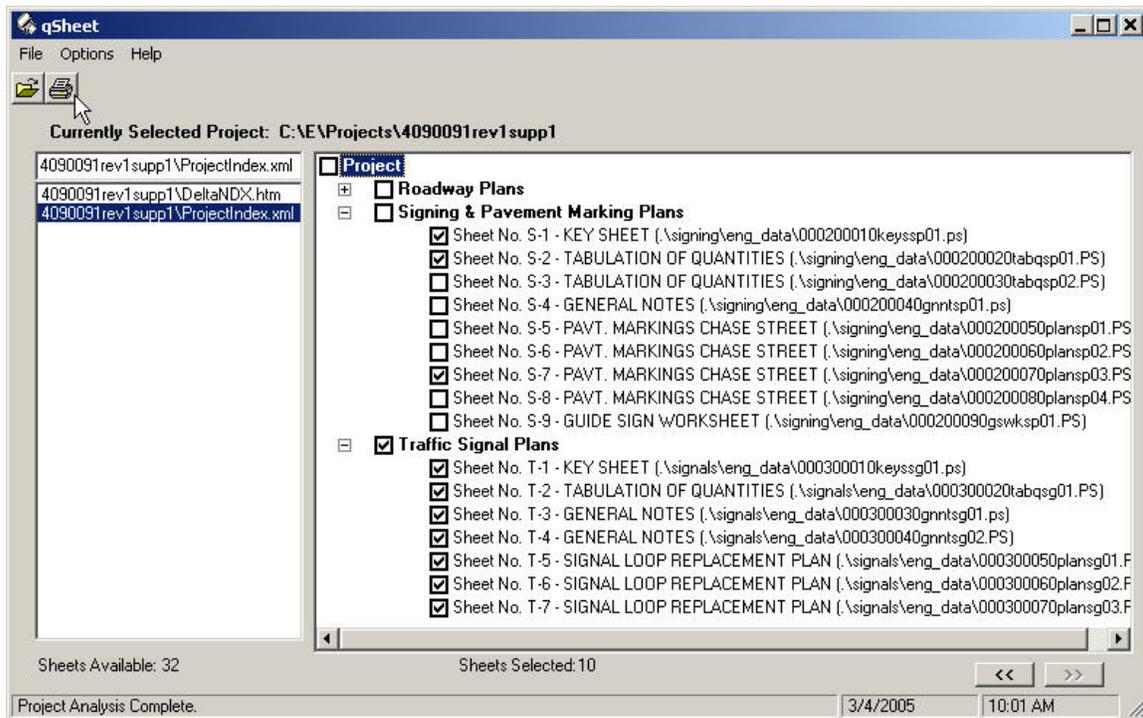
qSheet Detailed Documentation for Printing Plans

Introduction to qSheet

qSheet is intended to allow persons an easy means to print all or part of an indexed project sheet set. qSheet can print using either the Project Index (ProjectIndex.XML), or using the Revision Report (DeltaNDX.htm) as the input to determine which files are available to be printed. qSheet has been made 'strung project' aware, that is once a project directory is opened, it will search as sub-directories for Indexes or Revision reports for printing.

For printing execution, qSheet launches the selected file(s) onto the chosen printer/queue. For most file types, the associated application in Windows is evoked to aid with the printing process (for example Acrobat Reader for .PDF files). For PostScript files, the user has the option of either letting qSheet copy those directly to a PostScript compatible printer (called Postscript pass-through printing), or having qSheet convert PostScript files 'on-the-fly' to .PDF and launching the print using the converted .PDF as the print source. The second option requires that the GhostScript engine be loaded and properly selected (read more below). It is highly recommended that a printer/queue be configured where the default paper size is set for the desired paper size to be printed by qSheet.

qSheet's Interface



Toolbar Items

qSheet's toolbar offers the following functions:



Open Opens the project directory and analyzes project to find indexes for printing



Print Print selected items to the selected printer/queue

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Opening a Project Index

To open a project for printing, select either the 'Open' button in the task bar or 'File.. Open' from the menu at the top of the qSheet form. You will be given a dialog box that will allow you to navigate to your project's root directory. Select that directory, and qSheet searches for all Indexes and revision reports under that directory structure. As these are found, each will be validated (are the files being referenced found, and available for printing) before loading into the left pane tree view of the interface as shown above. Select the Index or report file in the left pane - the right pane will automatically load and refresh the available sheets to print.

If qSheet finds that an indexed sheet is missing from the project, an error message will be displayed and the project will continue to load without reference to the missing sheet.

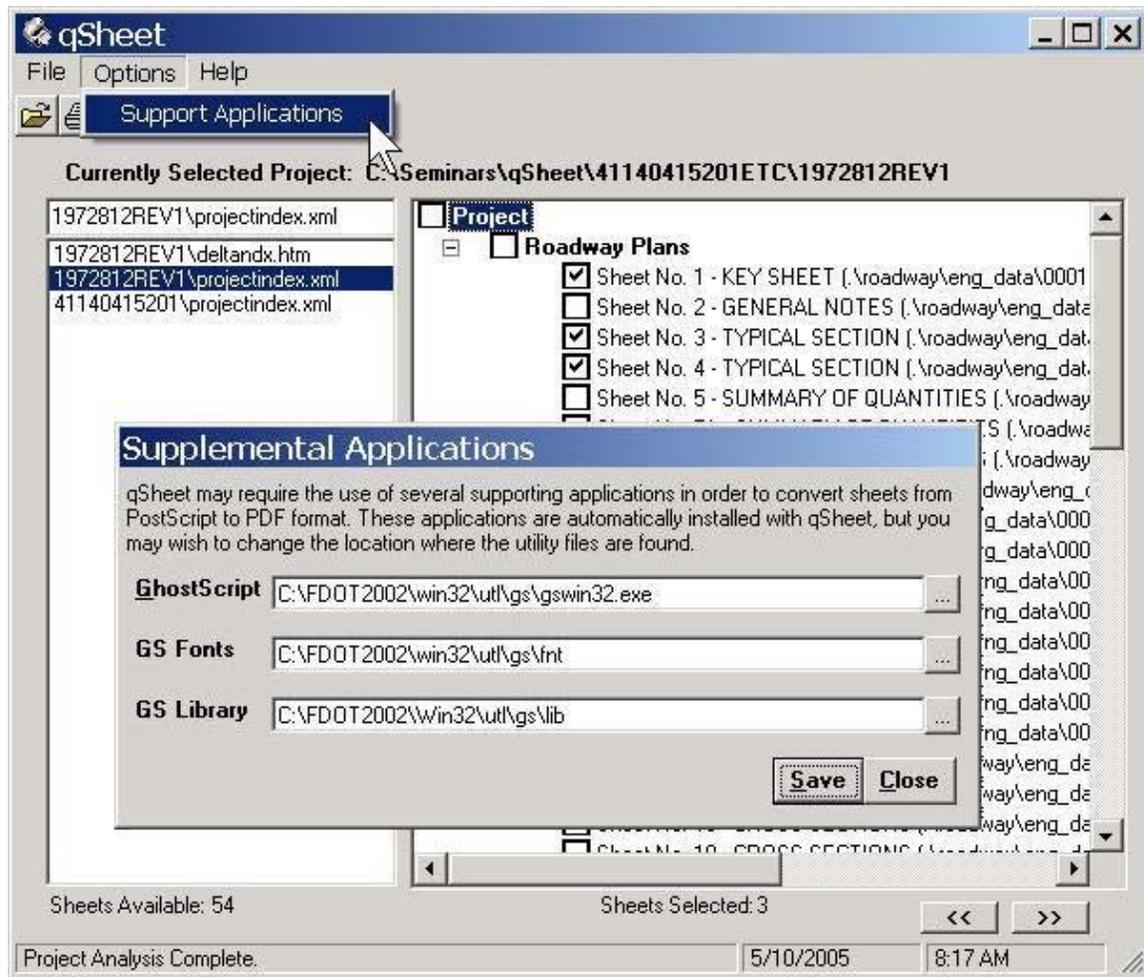
Selecting Items

Once the project index has been loaded, you may select the any sheets that you wish to print by checking the box next to the desired item. To unselect an item, simply click on the check box again. You may select or unselect a sheet a time, select or unselect all sheets within each component, or select or unselect the entire project.

Printing

Before printing you must configure qSheet. To do this select 'Options -> Support Applications' from the menu at the top of the qSheet form. The 'Supplemental Applications' dialog box will open. You may need to change the file paths for the GhostScript application before qSheet will be able to convert a Postscript file to PDF 'on-the-fly' for those who do not have a PostScript printer. GhostScript is automatically loaded with the FDOT Electronic Delivery software at the location shown in the image on the following page.

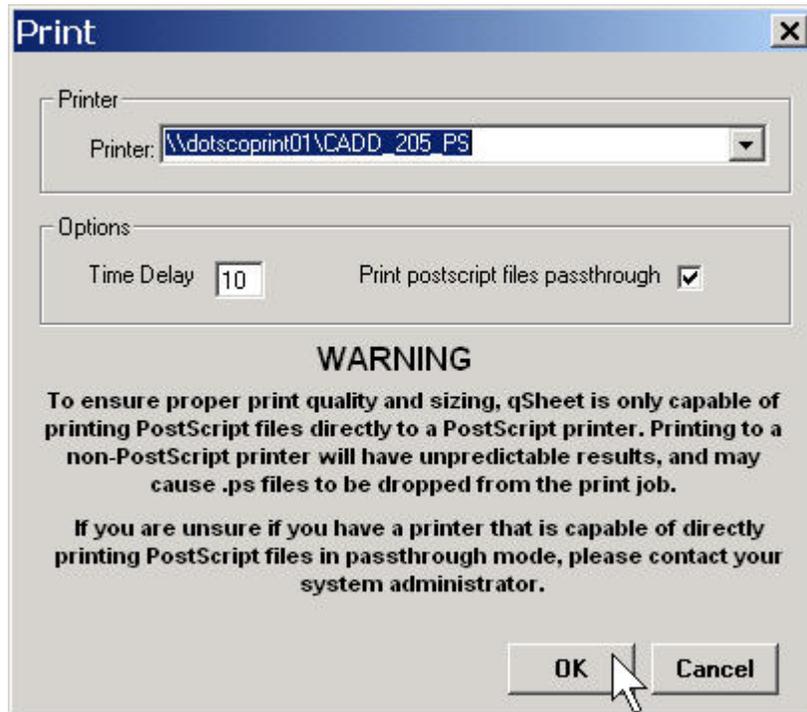
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When you are ready to print the files selected, choose the select File > Print... from the menu or choose the printer tool button on the toolbar.

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The following dialog will display to allow you to select the print queue that you wish to print to:



If you have a PostScript compatible printer, and want to print PostScript files by copying them directly to a Postscript printer, there is a check box on the "Print" dialog shown above. This is what is referred to as "pass-through" printing, because the PostScript files are not processed by the Windows printing process. Windows normally uses a helper application (the associated application) to process print requests. Pass-through printing bypasses the Windows print process for PostScript files only (all other file types printed are processed by the associated Windows applications).

When the "pass-through" option is selected, Postscript files will not be converted to PDF on-the-fly for printing and will copy directly to the printer/queue. The Time Delay has no effect, resulting in faster printing. This option may also result in more accurate printing because no supplemental conversion to PDF takes place.

Note for PostScript pass-through printing, qSheet executes the following console command in Windows:

```
copy /b filename.ps \\server\printer_name
```

In Windows, a printer can be named something other than the printer's "share" name on the network or server. qSheet can not resolve differences between those names (because it is executing a console copy command), so if you encounter problems in qSheet, where Postscript pass-through printing does not work, check the network share name of the printer and see if it is the same name as the printer name in the queue (which it should be). This can be done by looking at the sharing tab on the printer properties dialog for your printer.

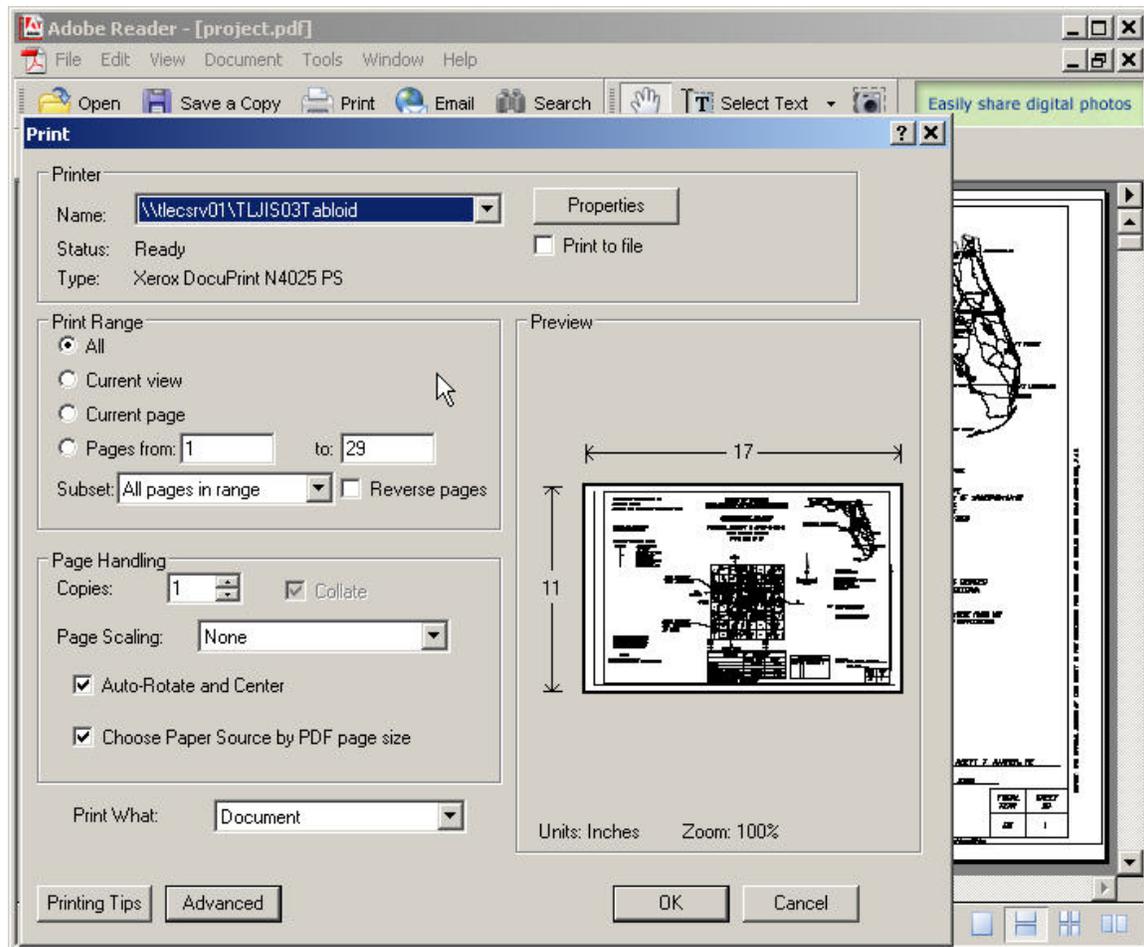
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If you do not have a Postscript printer and are printing Postscript files, you should print using the PDF conversion “on-the-fly” option. This option is selected by making sure the “pass-through” option is unchecked. qSheet will use GhostScript to convert PostScript files to PDF “on-the-fly”, using the GhostScript selected in the Supplemental Applications dialog shown above. The converted PostScript will be launched onto the Windows print process as PDF files (so the associated application for PDF printing – usually Adobe Acrobat - will handle the printing of converted PostScript -> PDF files). The converted PS -> PDF file is not stored on the disk permanently.

Also there is a Time Delay field that is initially set to 10 seconds (default). This time delay allows qSheet enough time to convert a Postscript file to PDF on-the-fly, send the PDF file to the Windows print queue, and allow Acrobat (or whatever your associated PDF printing program is) to spawn up and spool the print. If a problem occurs during printing you may need to increase the time delay field. For faster computers and print queues, the delay may be reduced at print time.

Make sure you have a print queue that has the default paper size set to size of paper you wish to get from the printer, and that the PDF printing settings are correctly established in Acrobat or Acrobat Reader (or whatever the associated application for handling PDF on your computer) before the printing session is started in qSheet. Below is a screenshot from Acrobat Reader 6, showing how the Print dialog needs to be set for correct printing of PostScript converted on-the-fly to PDF sheets:

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Note above that "Auto-Rotate and Center" is checked, "Choose Paper Source by PDF page size" is checked, "Page Scaling" is set to 'None' and a print queue established a default paper size for 11x17 (Tabloid) printing. You will also notice a 100% zoom scaling and the proper paper dimensions in the Preview window.

Once the print job is initiated, a status screen will keep you apprised of the progress of the printing queue. The application may be stopped at any time during the print preparation process by pressing the 'Cancel' button.

Printer Selection

Printer selection and setup can be the most difficult aspect of the project printing process. The following items should be considered when selecting and setting up your printer:

- If you are printing PostScript (.ps) files, you will normally need to print to a PostScript printer. Attempting to print a PostScript file on a non-PostScript printer can have very unpredictable results, from skipping the item in the print queue to printing enormous amounts of empty pages. If you are not sure that your printer is a PostScript printer, contact your systems administrator or check your printer manual.
- If you are printing the sheets as PostScript files converted "on-the-fly" to .PDF files, you will need to have a print queue available which sets the proper default paper size on your printer. The new queue will need to be setup with a default paper size (i.e. tabloid or 11x17) in order to print the sheets correctly and on the correct paper size for plans.

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- Get to know your printer settings. Sheets in your print queue that are not PostScript files will be printed at the default paper size that has been selected for your printer. This could result in .PDF sheet images being printed on letter-sized rather than tabloid (11x17)-sized paper. Once you have selected a sheet size, it will be applied to all non-PostScript files in your print queue, so you may wish to print letter-sized spec packages as a separate print job.
- Printing an entire project can require a large amount of resources for your printer, and can overwhelm the printer's print buffer if too much data is sent. Most network printers have 48-64 megabytes of internal memory, and this may not be enough for larger print jobs. We recommend against printing to a stand-alone network printer with limited buffer memory for large print jobs. Printing to a local printer or a network printer that is connected to a print server with additional storage capacity is preferred. If these are not available, you may have to print your project in batches.

Requirements

qSheet has been designed to run as a stand-alone application and requires no installation. It can be executed from read-only media, such as a CD-ROM.

Before a set of sheets can be printed, you must have a completed ProjectIndex.XML or DeltaNDX.HTM file at the root level(s) of the project or sub-project (strung projects).