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## Chapter 22: File Exchange Procedures

### Introduction

When a project is ready for construction, all the sheets in the plans need to be converted to a PDF files. The Acquisitions Team in Program Administration will use these files for their inclusion in the Electronic Bid Solicitation. The following Workflows will describe the methods that can be used to produce the PDF files.

### Workflow 1: Creating PDF Files Using Print/Plot in MicroStation J.

1. *Open a file using MicroStation J, fence the sheet to be plotted.*
2. *Select the Print/Plot dialog using the MicroStation pulldown menus. File > Print/Plot. Be sure the Fence (view x) is shown.*

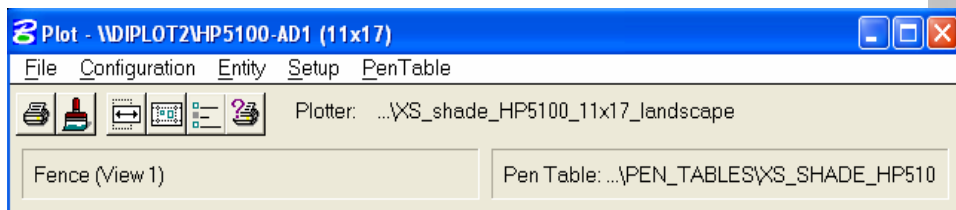


Figure 22-1: MicroStation J - Print/Plot

3. *Select the PDF Plot Driver File. Setup>Driver.*
4. *Consultants should choose the applicable PDF Plot Driver files setup for their printers.*
5. *For CFLHD employees it will be in N:\\Standards\\Plotting\\PrintPlot\\plotdrv directory. For example Design Area 2 should choose \\Plotdrv\_Ad2\\HP5100(bw11x17) \\XS\_shade\_HP5100\_11x17\_landscape.plt for cross section sheets. Select the appropriate .plt for plan & profile sheets, no shade plans and cross section sheets (portrait and landscape).*
6. *When you select the plot driver, the pentable is attached. If there is a project specific pentable used for normal plotting, attach the pentable, Select PenTable>Load. For CFLHD employees it will be in N:\\Standards\\Plotting\\PrintPlot\\Pen\_tables directory.*
7. *Select Setup> Page.*
8. *In the Print Setup dialog, use the pulldown arrow and Select Adobe PDF.*

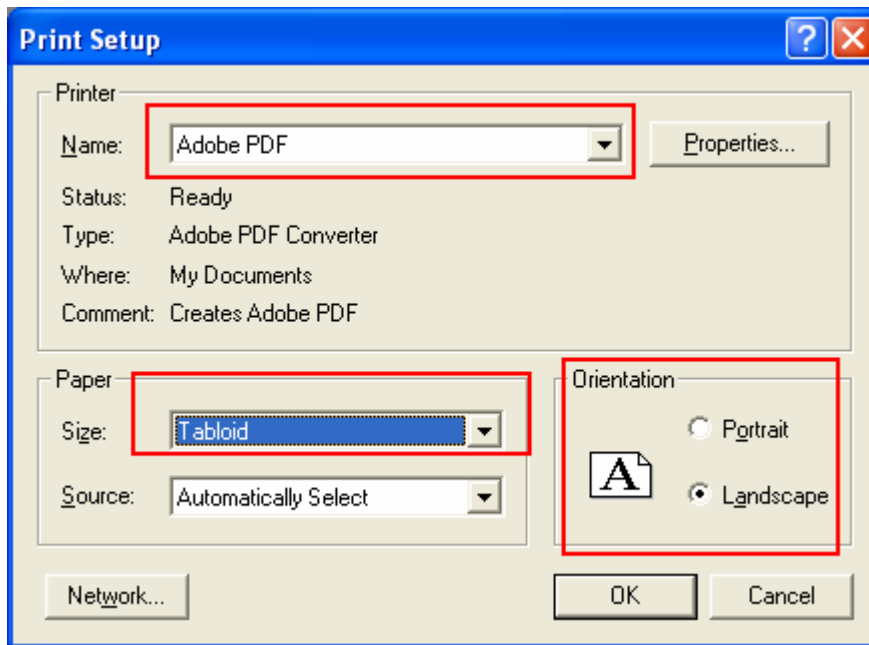


Figure 22-2: MicroStation J - Print Setup

9. Change paper size to Tabloid and Select Orientation to Landscape. Select OK.
10. Select File > Plot
11. Navigate to location you want to store the PDF file and enter the name of the file. PDF files should be named as the example shown: A sheets - A001.pdf
12. Select Save and follow screen prompts.
13. The saved PDF file will open for you in Adobe.

**NOTES:**

- PDF files for Survey Control sheets created in MicroStation J should be created using the procedures above.
- PDF files should be spot checked. For projects that have specific pentables for normal printing should also attach the project specific pentables when creating PDF files.



## Workflow 2: Creating PDF Files Using Print in MicroStation V8.

1. *Open a file using MicroStation V8, fence the sheet to be plotted.*
2. *Select the Print dialog using the MicroStation pulldown menus. File > Print. Be sure the in the General Settings, Area is set for Fence.*

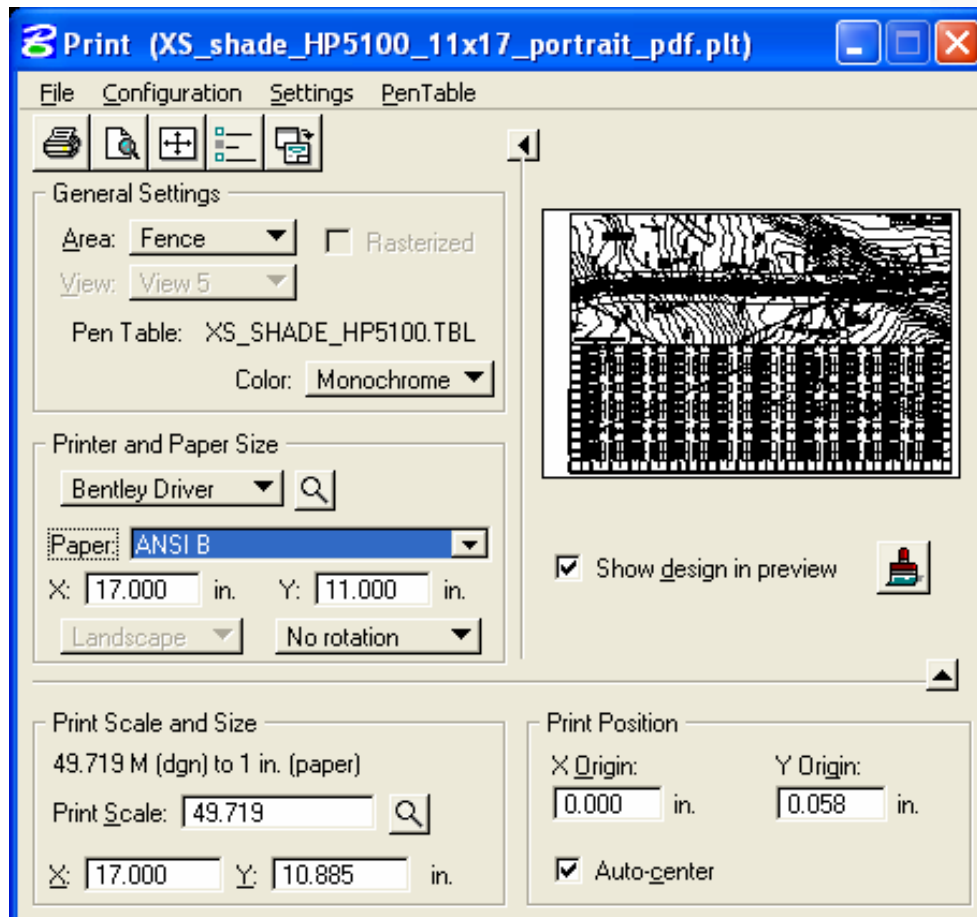


Figure 22-3: MicroStation V8 - Print

3. *In the Printer and Paper Size block, pulldown and Select Bentley Driver.*
4. *Select the magnifying glass icon just to the right of the Bentley Driver and Select the PDF Plot Driver File.*
5. *Consultants should choose the applicable PDF Plot Driver files setup for their printers.*



6. *For CFLHD employees it will be in N:\Standards\Plotting\PrintPlot\plotdrv\pdf directory. For example choose XS\_Shade\_HP5100\_11x17\_landscape\_pdf.plt for cross section sheets. Select the appropriate .plt for plan & profile sheets, no shade plans and cross section sheets (portrait and landscape).*
7. *When you Select PDF plot driver, the standard pentable is attached. If there is a project specific pentable used for normal plotting, attach the pentable, Select PenTable>Attach. For CFLHD employees it will be in N:\Standards\Plotting\PrintPlot\Pen\_tables directory.*
8. *Select Paper Size using pulldown to ANSI B.*
9. *Select File > Print.*
10. *Navigate to location you want to store the PDF file and enter the name of the file. PDF files should be named as the example shown: A sheets - A001.pdf*
11. *Select Save and follow screen prompts.*

**NOTE:**

- *PDF files should be spot checked. For projects that have specific pentables for normal printing should also attach the project specific pentables when creating PDF files.*

Creating PDF files for cross sections using the MicroStation print method would be very time consuming. Since the cross sections are usually plotted in one file, you can use the Batch Print method. To do this, you need to make sure the following four rules are followed.

- Rectangular MicroStation shape elements ("plotting shapes") must be placed around each sheet outlining the areas within the dgn file to be plotted. There should be no cross section sheets in a separate drawing that needs to be inserted within the sheets of your cross section drawing.
- Plotting shapes within each design file must be drawn into the file in exactly the order the PDF files are to be created. For example, if the design file contains sheets number 5 through 8, then the first plotting shape drawn into the file must be around sheet 5, the second plotting shape drawn into the file must be around sheet 6, etc.
- Duplicate or extra plotting shapes are not allowed.



## Workflow 3: Creating PDF Files Using Batch Print

1. *Open a file using MicroStation V8.*
2. *Make sure the design files to be translated are set up exactly as outlined in the four rules above. If your design file contains GEOPAK cross-sections created with the standard cross-section layout files then your design files are set up correctly.*
3. *If you're batch printing standard cross-section layout files, make sure to delete all the unused sheets cells from the design file. Batch print will print each and every cross-section sheet cell in the design file regardless of whether or not there are actual cross-sections drawn in the sheet.*
4. *Select the Batch Print dialog from the MicroStation pulldown menus (File > Batch Print). The dialog will initially appear as shown below with the Printer, Plot Area, Layout, and Display specifications set to default.*

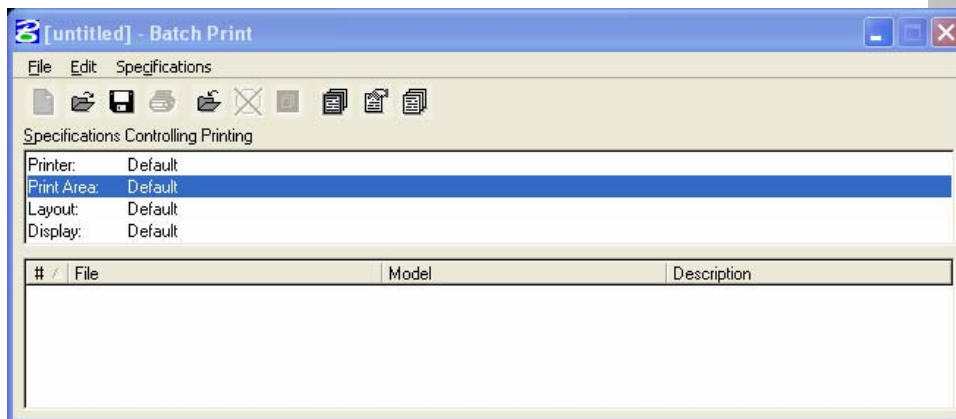


Figure 22-4: Batch Print

5. *For first time PDF plots PDF plotting format should be setup by each user. To setup the PDF plotting format Select Specifications > Manage. Select New and enter a name for the new PDF format, i.e., "PDF landscape shade" for shaded plan and profile sheets. Select OK.*

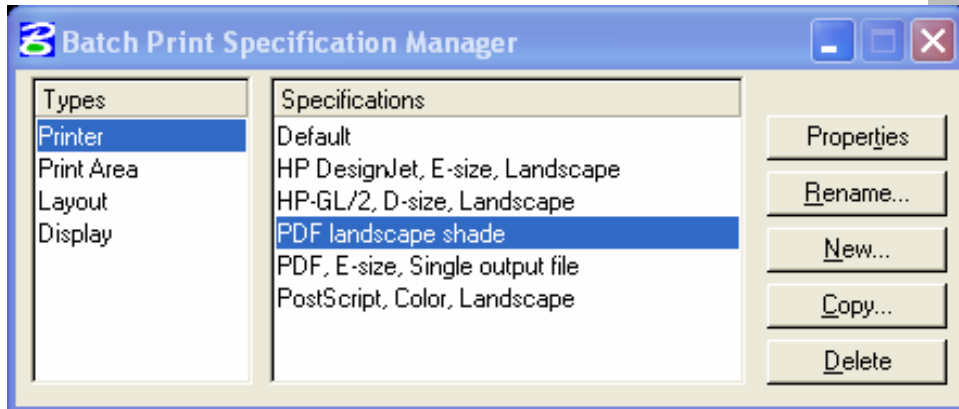


Figure 22-5: Batch Print Specification Manager

6. In the PDF landscape shade properties dialog box, Select the Driver.
7. Consultants should choose the applicable PDF Plot Driver files setup for their printers.
8. For CFLHD employees it will be in *N:\Standards\Plotting\PrintPlot\plotdrv\pdf* directory. For example choose *P&P\_Shade\_HP5100\_11x17\_landscape\_pdf.plt* for plan and profile sheets. Select the appropriate .plt for plan & profile sheets, no shade plans and cross section sheets. Select OK.
9. In the new PDF landscape shade properties dialog box:
  - a. Change Paper Size to ANSI B.
  - b. Orientation should be set to Landscape.
  - c. For Output and Post Processing, Select Name and modify the following:
    - I. In the Format: pulldown, Select Custom.
    - II. In the Extension: type in pdf.
    - III. In the String: type in A%p.%e.
    - IV. Select OK.

Where A is the sheet prefix. %p is a 3-digit plot counter starting 000. The counter is not reset between design files in a job set. %e is the contents of the extension field.

- d. Unselect the "Print document set to single file".

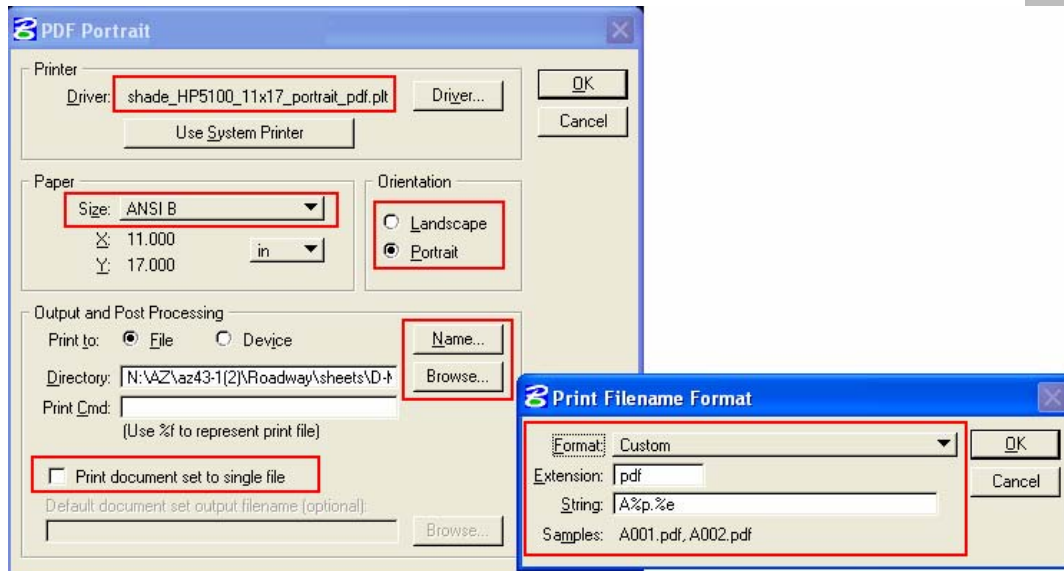


Figure 22-6: PDF Properties

10. Select *Browse*. Navigate to location you want to store the PDF file and enter the name of the file. PDF files should be named as the example shown: A sheets - A001.pdf.
11. Select *OK* to close the “PDF Portrait” window.
12. The remaining 3 items in the Batch Print Dialog: *Print Area*, *Layout*, and *Display* may need to be revised but should be the same as batch hard copy printing. Update other inputs as needed.
13. To add design files to plot, Select *Edit >Add Files*. Navigate to the file(s) to be plotted and Select *Add*. When File selection is complete, Select *Done*.

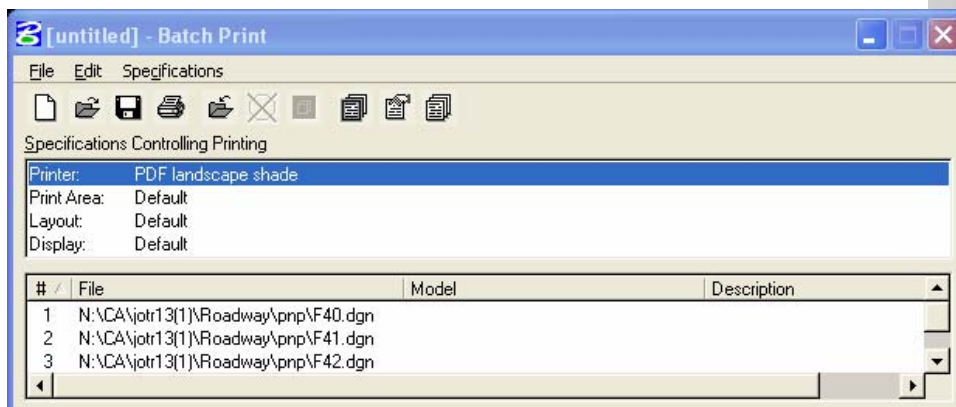


Figure 22-7: Batch Print

14. Select *File >Print*. Select *OK*.





15. *Steps 5 – 11 should be repeated for first time PDF plot setup for No Shade Plots, Cross Section Landscape and Portrait Plots.*
16. *Once the PDF plotting format have been initially setup, use of Batch Print is an easy process.*
  - a. *Highlight the Printer in the Batch Print Dialog, Select Specifications > Select. Navigate to a PDF plotting format that has been created. Select OK.*
  - b. *The remaining 3 items in the Batch Print dialog: Print Area, Layout, and Display may need to be revised but should be the same as batch hard copy printing. Update other inputs as needed.*
  - c. *To add design files to plot, Select Edit >Add Files. Navigate to the file(s) to be plotted and Select Add. When File selection is complete, Select Done.*
  - d. *Select File >Print. Select OK.*

**NOTE:**

- *PDF files should be spot checked. For projects that have specific pentables for normal batch printing should also attach the project specific pentables when creating PDF files. Refer to Chapter 10 of the MicroStation V8 Standards Manual for Batch printing.*



## Workflow 4: Creating PDF Files Using Excel Spreadsheets

Plan sheets created using excel spreadsheets needs to converted to PDF files. The Acquisitions Team in Program Administration will use these files for their inclusion in the Electronic Bid Solicitation. The following Workflows will describe the methods that can be used to produce PDF files from Excel spreadsheets.

1. *Select File/Print.*
2. *In the Print Dialog use the pulldown under Name, Select > Adobe PDF.*

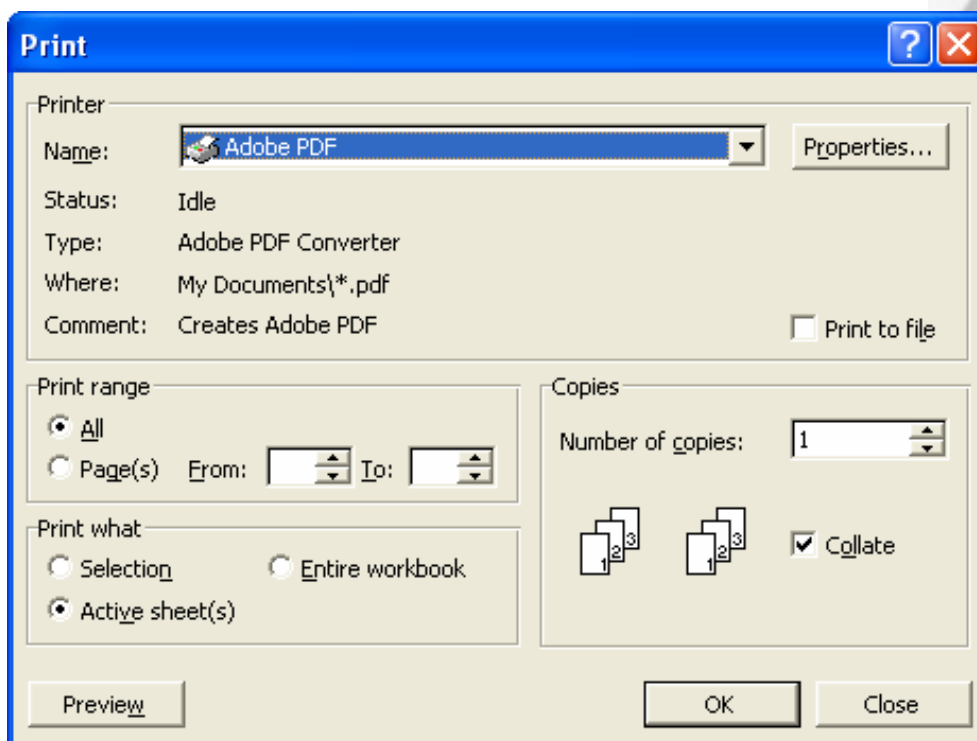


Figure 22-8: Excel Print

3. *Select Properties. In the Adobe PDF Setting window, Adobe PDF Page Size should be set to 11x17.*
4. *Open the Layout window and Select Landscape. Open the Paper/Quality window and Select Black & White.*

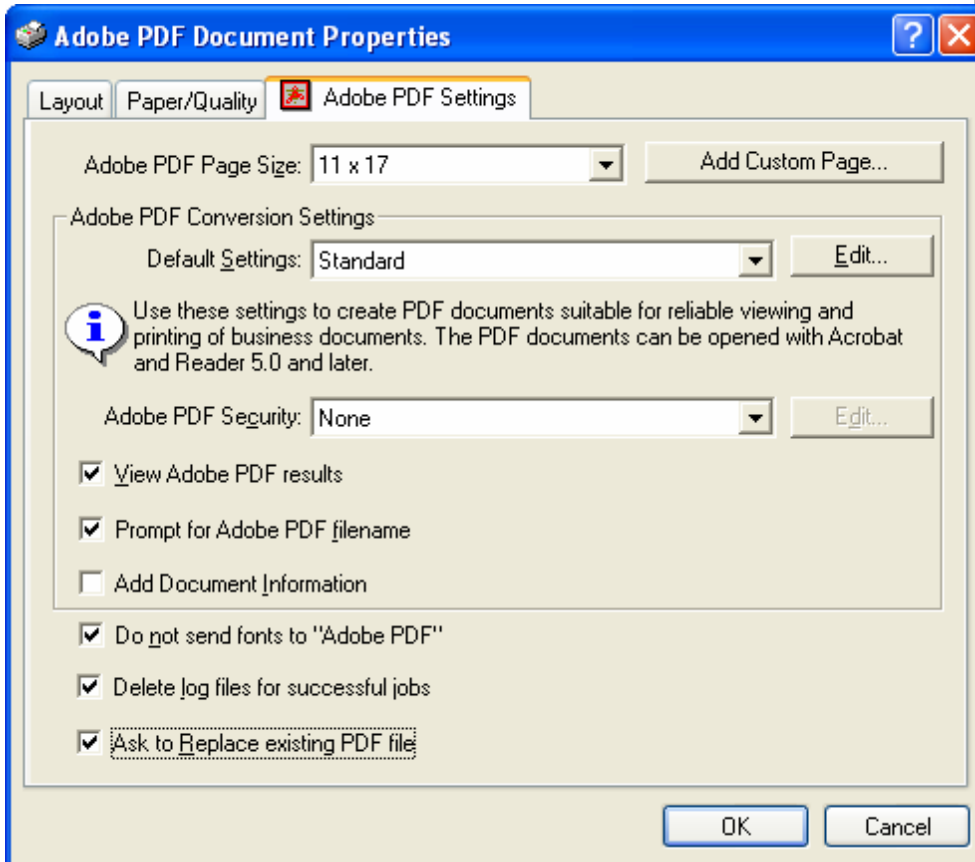


Figure 22-9: Adobe PDF Document Properties

5. Select *OK*.
6. In the *Print Dialog*, Select *OK*.
7. In the *"Save PDF File As"* dialog, navigate to location you want to store the PDF file and enter the name of the file. PDF files should be named as the example shown: *Bsheets - B001.pdf*. If you have more than one printable spreadsheet in the file, use a generic name, ie. *B001-all.pdf*. Follow Steps 9-14 to rename multiple sheets.
8. Select *Save*. Adobe will open in the saved file.

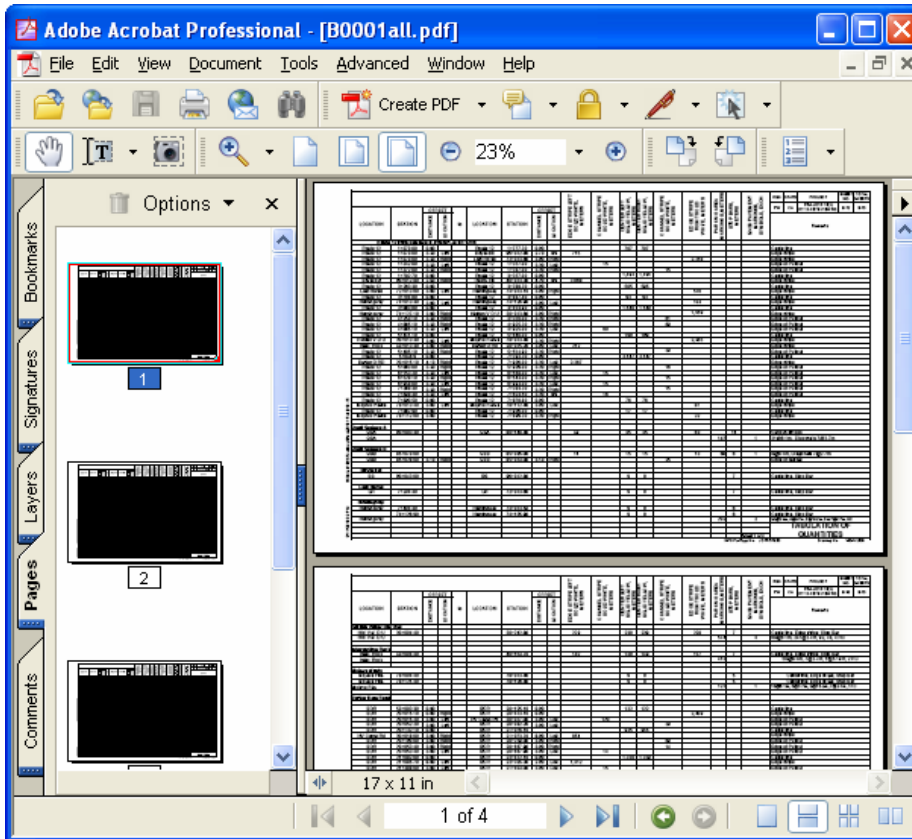


Figure 22-10 Adobe PDF Document –i.e. B0001all.pdf

9. Select the Pages tab on the left edge of the window. If you have more than one printable page per worksheet tab. Each page will have to be saved to a new name.
10. With Adobe opened, and the Pages tab expanded, Right Click on the Page to be saved.
11. Select Extract Pages. Verify the “from “ and “to” page numbers. Do not check the “Delete Pages After Extracting” box.
12. Select OK.
13. Select File > Save As. Navigate to the location you want to store the PDF file and enter the name of file. Select Save.
14. Re-open the B001-all.pdf file and save the remaining pages to their corresponding sheet numbers. Delete the B001-all.pdf when complete.