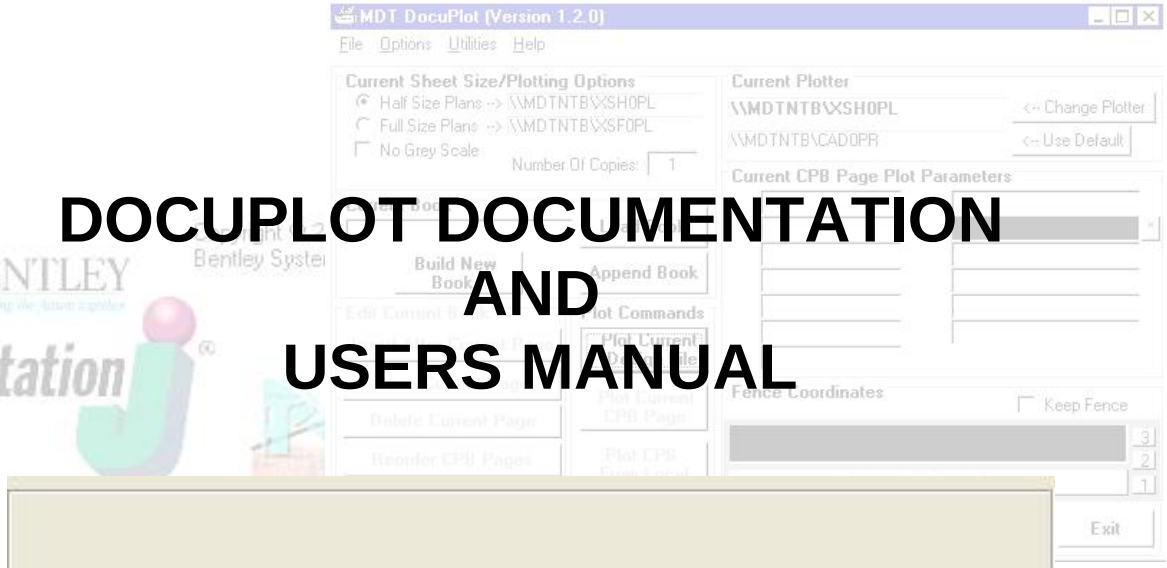
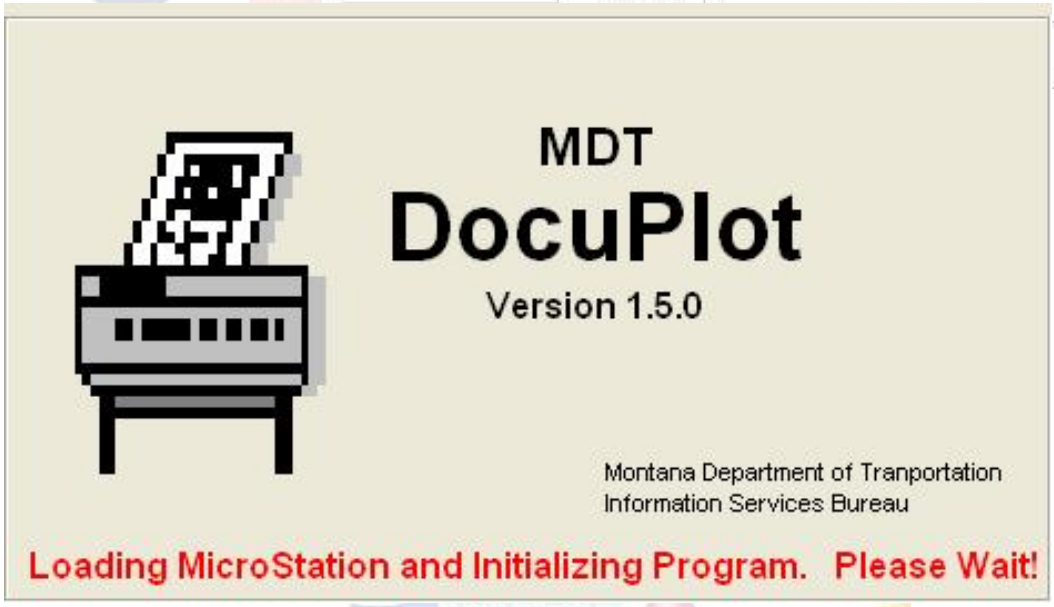


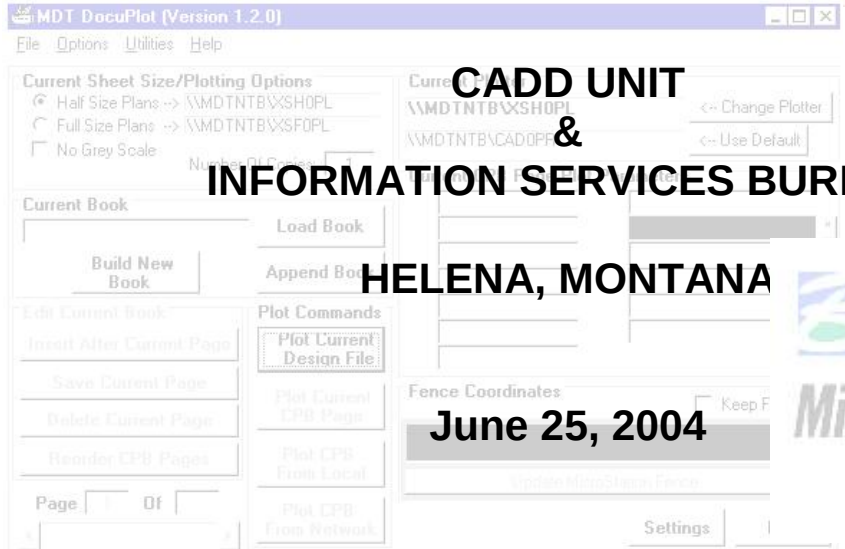
DOCUPLOT DOCUMENTATION AND USERS MANUAL



MONTANA DEPARTMENT OF TRANSPORTATION

CADD UNIT
&
INFORMATION SERVICES BUREAU

HELENA, MONTANA



June 25, 2004

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MDT DOCUPLOT

DocuPlot is a plotting solution meeting the needs of CADD designers, the contract plans section, and the print unit. DocuPlot supports local plotting and plotting from a CADD server for designers. DocuPlot supports the creation of electronic plan books for contract plans. DocuPlot supports full electronic plan set production for the print unit.

1. TO OPEN DOCUPLOT

1.1. MicroStation V8

MicroStation must be running before DocuPlot will operate. MicroStation can be initialized and any file opened, or DocuPlot will open MicroStation and attach the file MDT.MAS. DocuPlot operates in conjunction with MicroStation. Do not minimize MicroStation when using DocuPlot. MicroStation must have window one open for DocuPlot to print a local file.

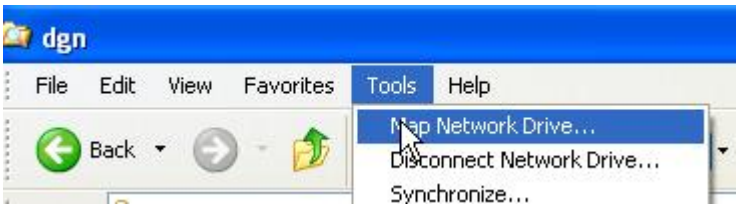
1.2. DocuPlot

Go to the desktop and click DocuPlot shortcut. If MicroStation is not opened when DocuPlot is initialized, then MicroStation will be opened using the DocuPlot configuration for MicroStation V8 startup settings. The file MDT.MAS will be the active design file. ***(See Section 6.8, Modify and Save MicroStation Startup STD Settings, pp.55)***.

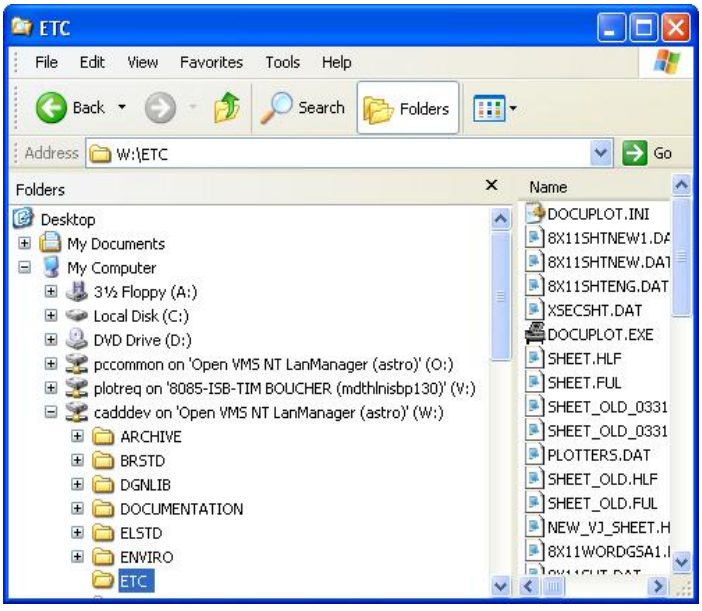
MicroStation can also be used to access DocuPlot. In MicroStation go to MDT>Docuplot.

1.3. W: Drive (CADDSTD or CADDTEST)

DocuPlot will operate only when the w: drive is mapped correctly. DocuPlot originates from the w:\\astro\cadddev\etc.

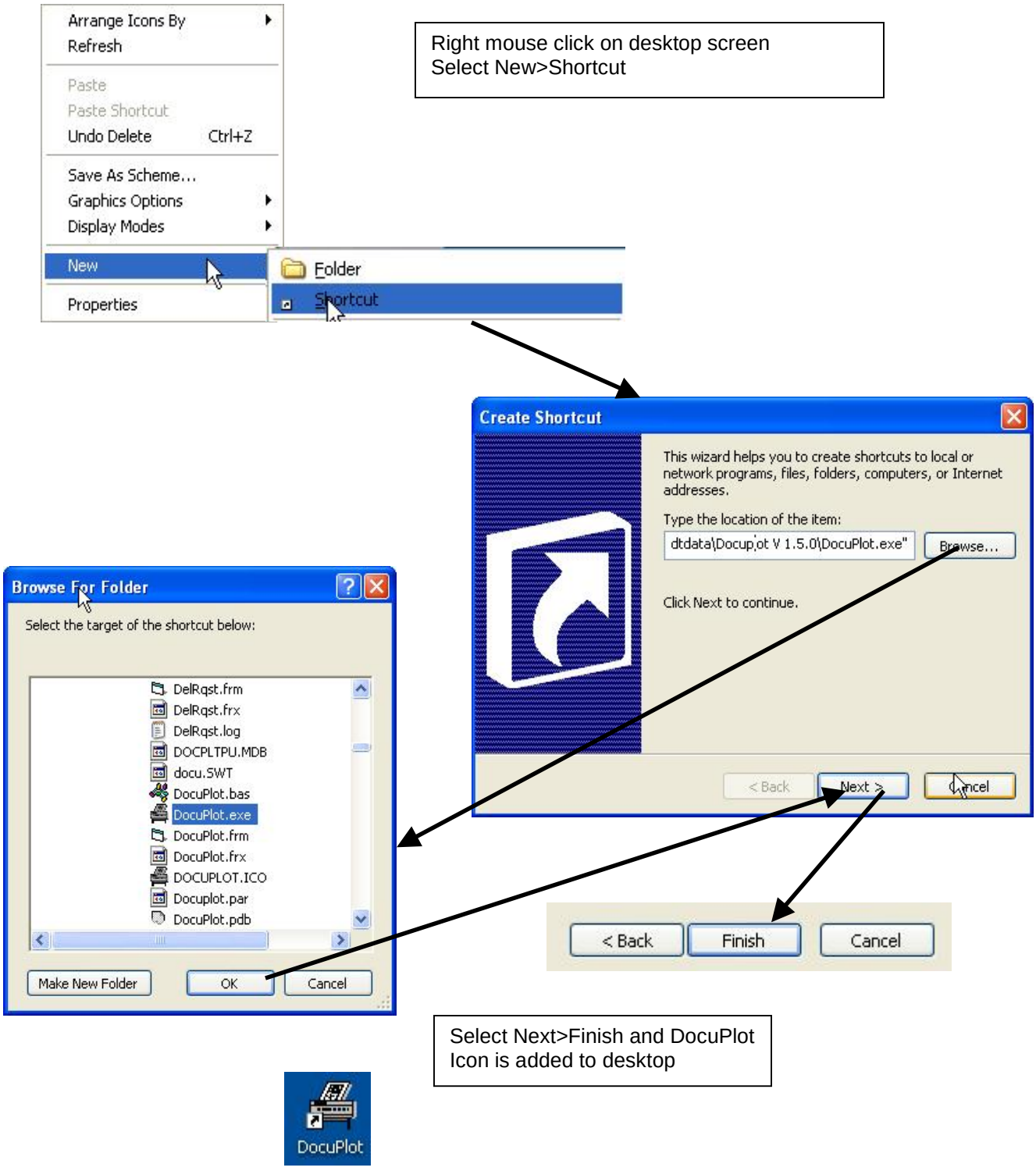


W Drive *must* be attached to cadddev



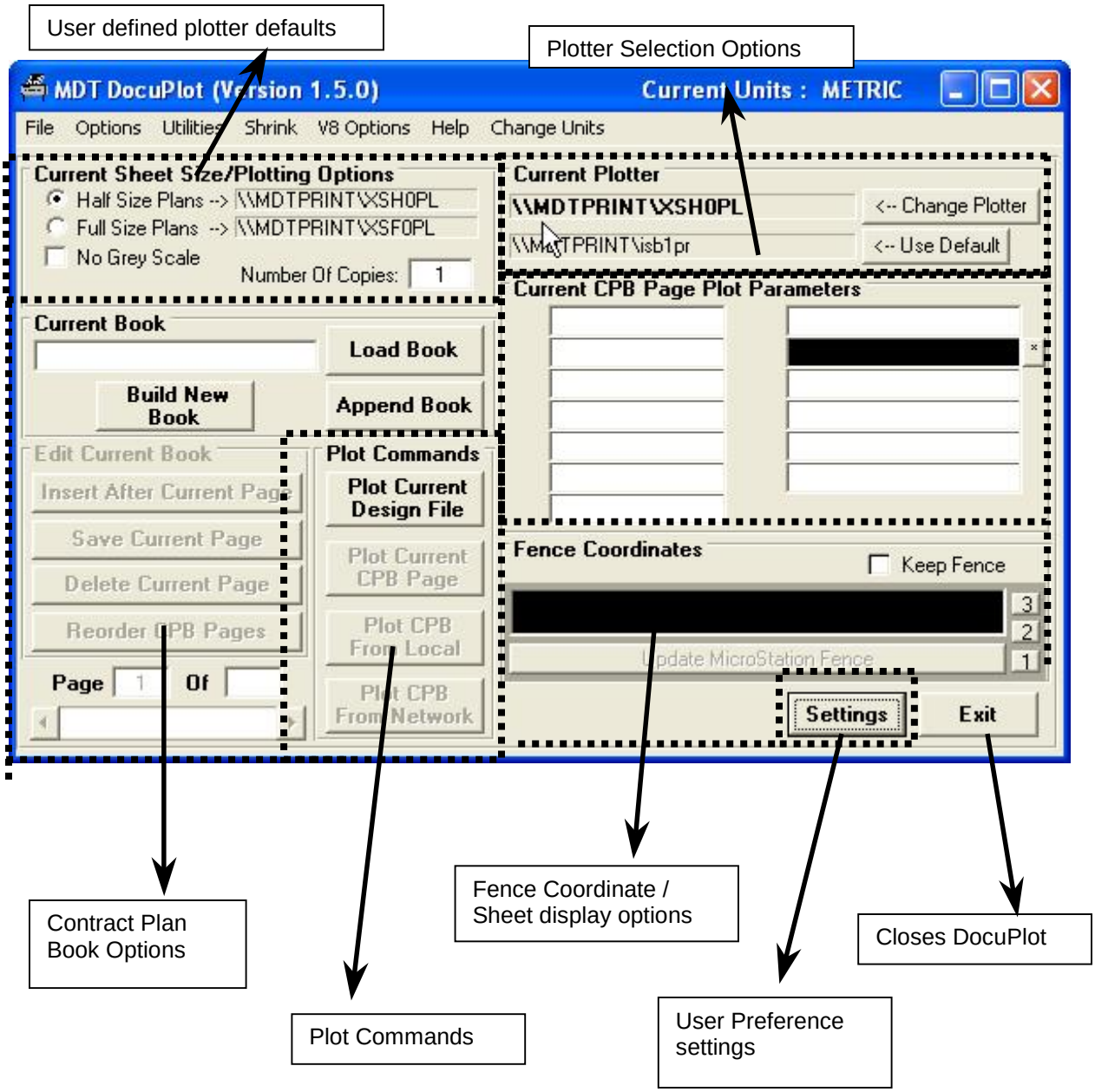
1.4 Adding DocuPlot Icon to Desktop

A DocuPlot icon can be added to the desktop using the standard Windows XP process.



1.5 DocuPlot Screen

The DocuPlot screen has specific sections in the main dialog that relate to its major functions.



2. VIEWING LOCAL FILES

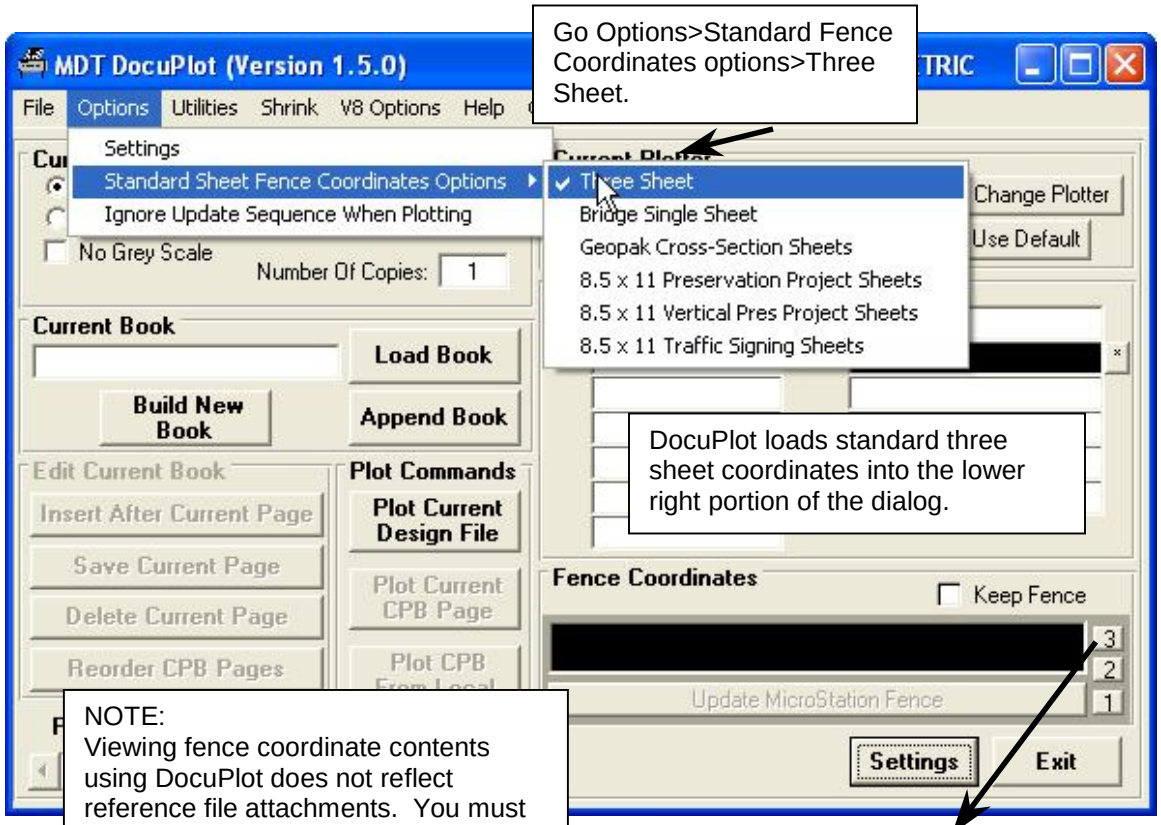
Standard MDT file formats can be navigated using DocuPlot. The navigation tool supports the following file formats; Three sheet, Bridge single sheet, Geopak Cross-Section sheets, 8.5 x 11 preservation project sheets, 8.5 x 11 vertical pres project sheets, 8.5 x 11 Traffic Signing Sheets. It is also possible to change the units from Metric to English and vice-versa. To navigate through a file using DocuPlot, the design file must be active in MicroStation.

2.1. Viewing Standard Three Sheet plans using DocuPlot

Open a MicroStation design file that has a same standard format as the Current Units.

Page through the three sheets plans using the fence coordinates display option. Select the option to set the coordinates to three sheet. This command places a window area on the half size or full size plotting coordinates and displays the contents in a MicroStation station window.

Hint: You may need to use the MicroStation "fit all" or "fit view" command before using DocuPlot to view plan sheet contents.

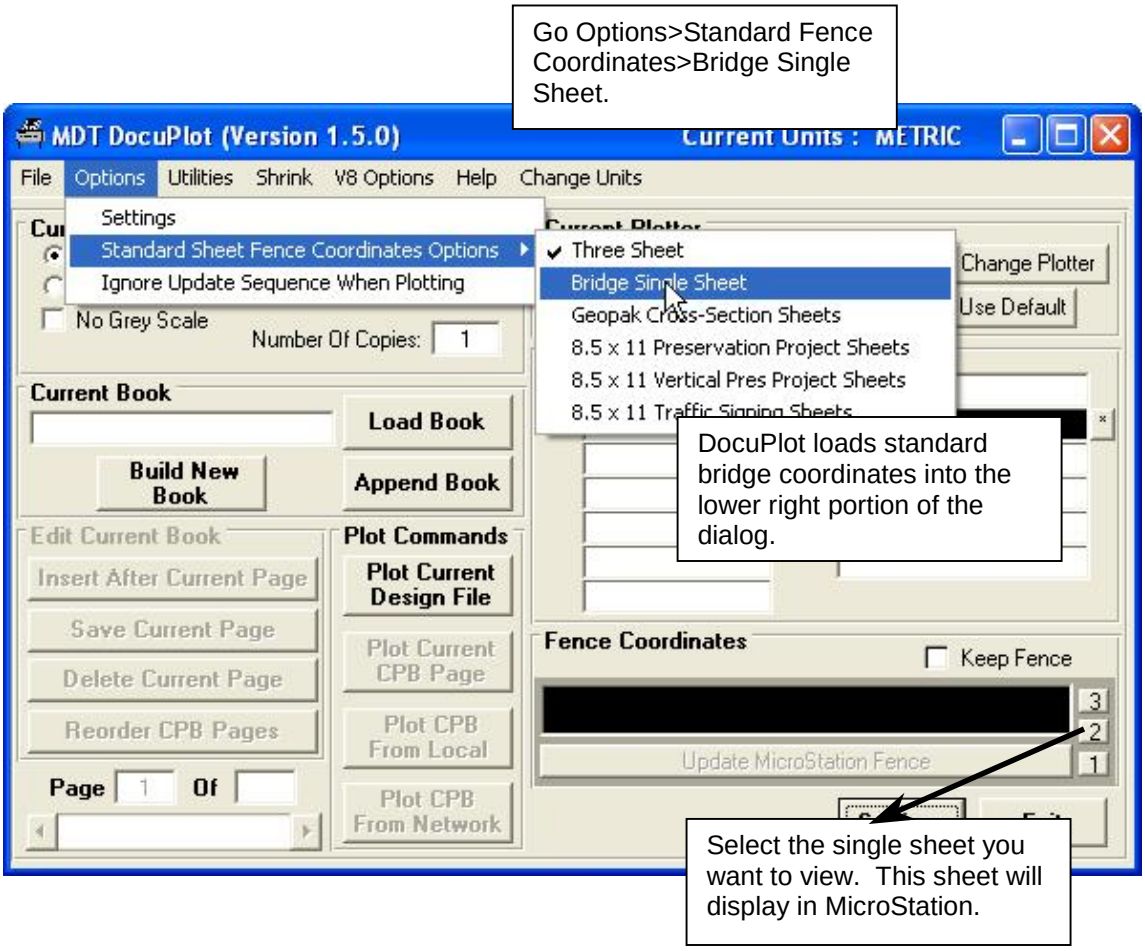


2.2. Viewing Standard Bridge Single Sheets using DocuPlot

Open a MicroStation design file that has a standard single bridge sheet format.

View the contents of the single sheet using the fence coordinates display option. Select the option to set the coordinates to Bridge Single sheet. This command places a window area on the half size or full size plotting coordinates and displays the contents in a MicroStation window.

Hint: You may need to use the MicroStation "fit all" or "fit view" command before using DocuPlot to view plan sheet contents.



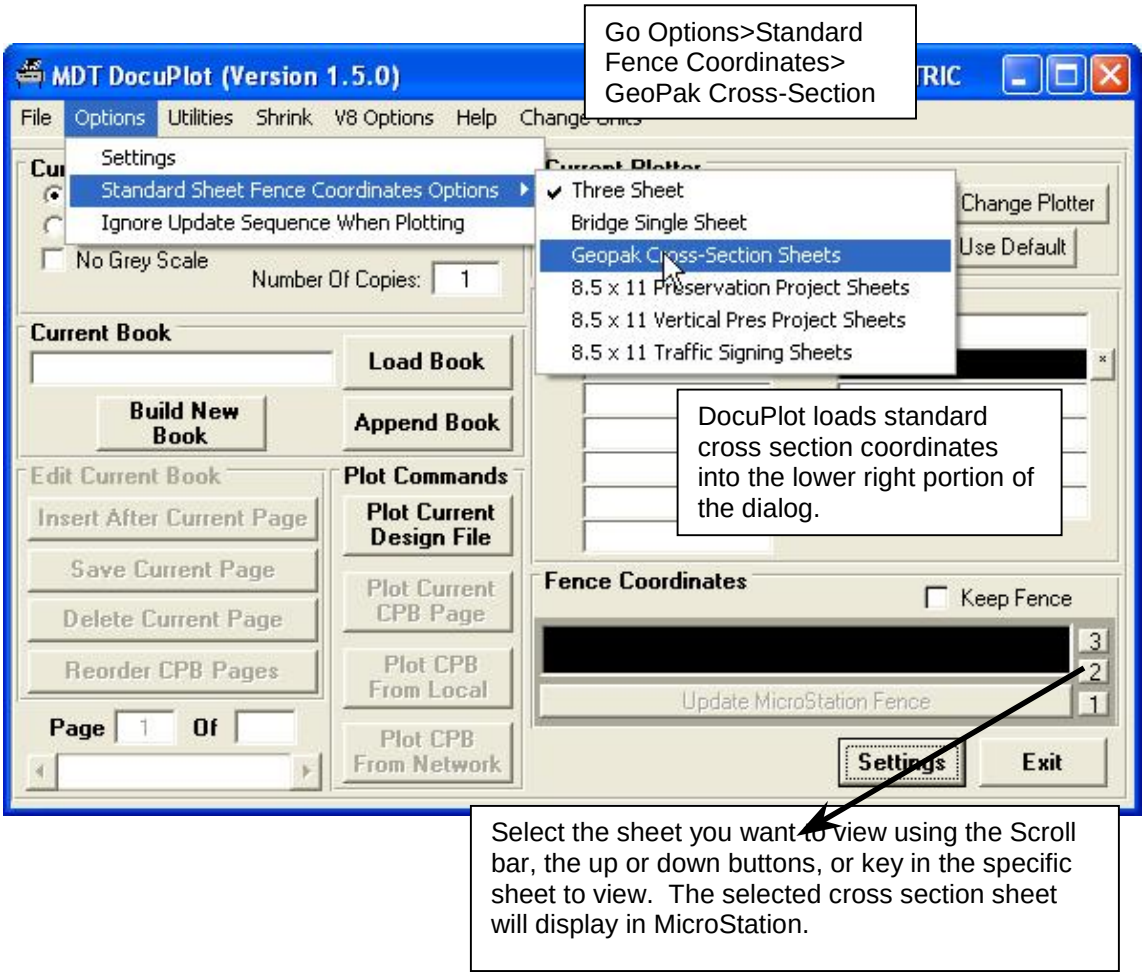
NOTE:
Viewing fence coordinate contents using DocuPlot does not reflect reference file attachments. You must open the MicroStation Reference File dialog to verify reference file attachment.

2.3. Viewing Standard GeoPak XS Sheets using DocuPlot

Open a MicroStation design file that has a standard GeoPak Cross Section sheet format.

View the contents of the metric Cross Section sheets using the fence coordinates display option. Select the option to set the coordinates to GeoPak Cross-Section sheets. This command places a window area on the half size or full size plotting coordinates and displays the contents in a MicroStation window.

Hint: You may need to use the MicroStation "fit all" or "fit view" command before using DocuPlot to view plan sheet contents.



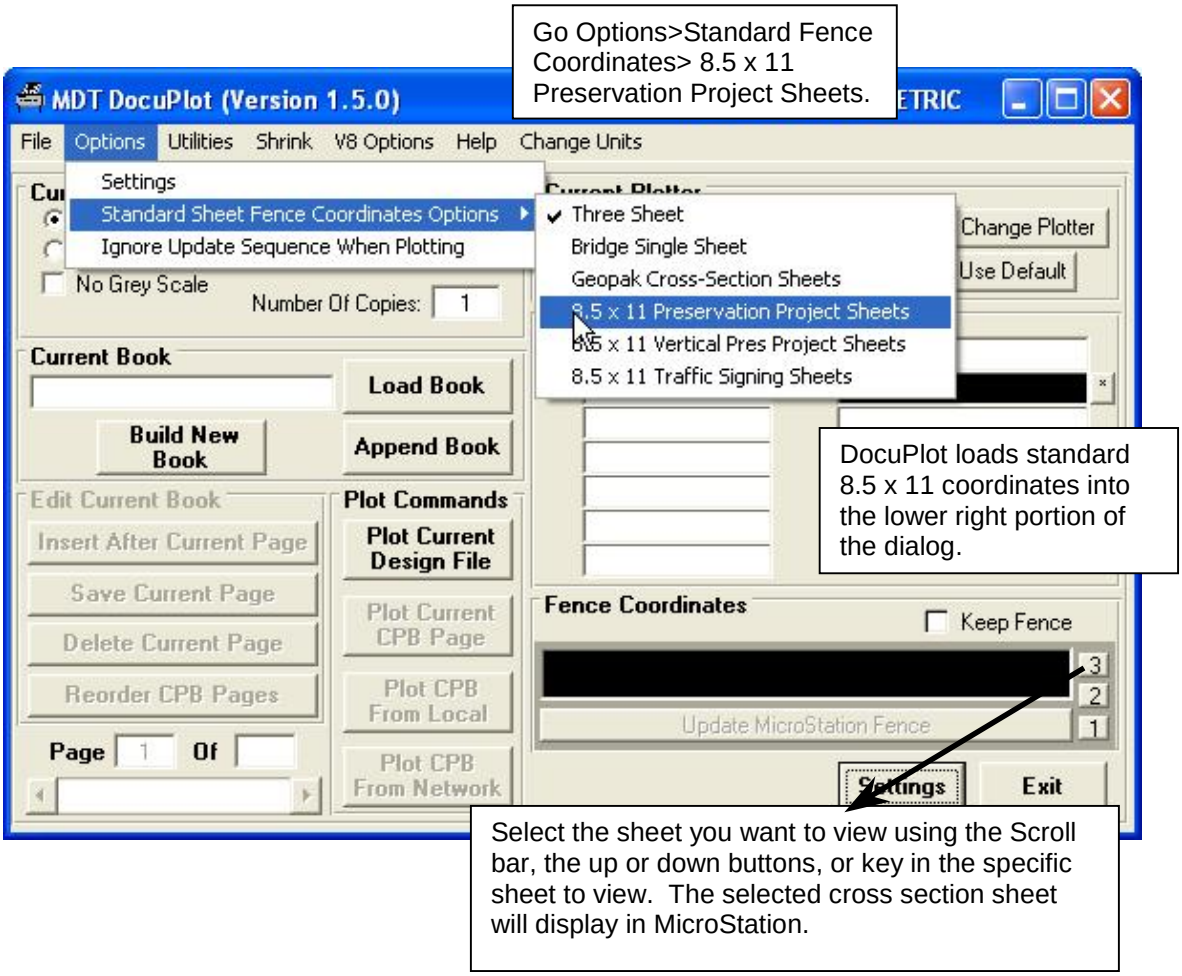
NOTE:
Viewing fence coordinate contents using DocuPlot does not reflect reference file attachments. You must open the MicroStation Reference File dialog to verify reference file attachment.

2.4. Viewing 8.5 x 11 Preservation Project Sheets using DocuPlot

Open a MicroStation design file that has a standard Pavement Preservation sheet format.

View the contents of the pavement preservation sheets using the fence coordinates display option. Select the option to set the coordinates to 8.5 x 11 Preservation Project sheets. This command places a window area on the 8.5 x 11 plotting coordinates and displays the contents in a MicroStation window.

Hint: You may need to use the MicroStation "fit all" or "fit view" command before using DocuPlot to view plan sheet contents.



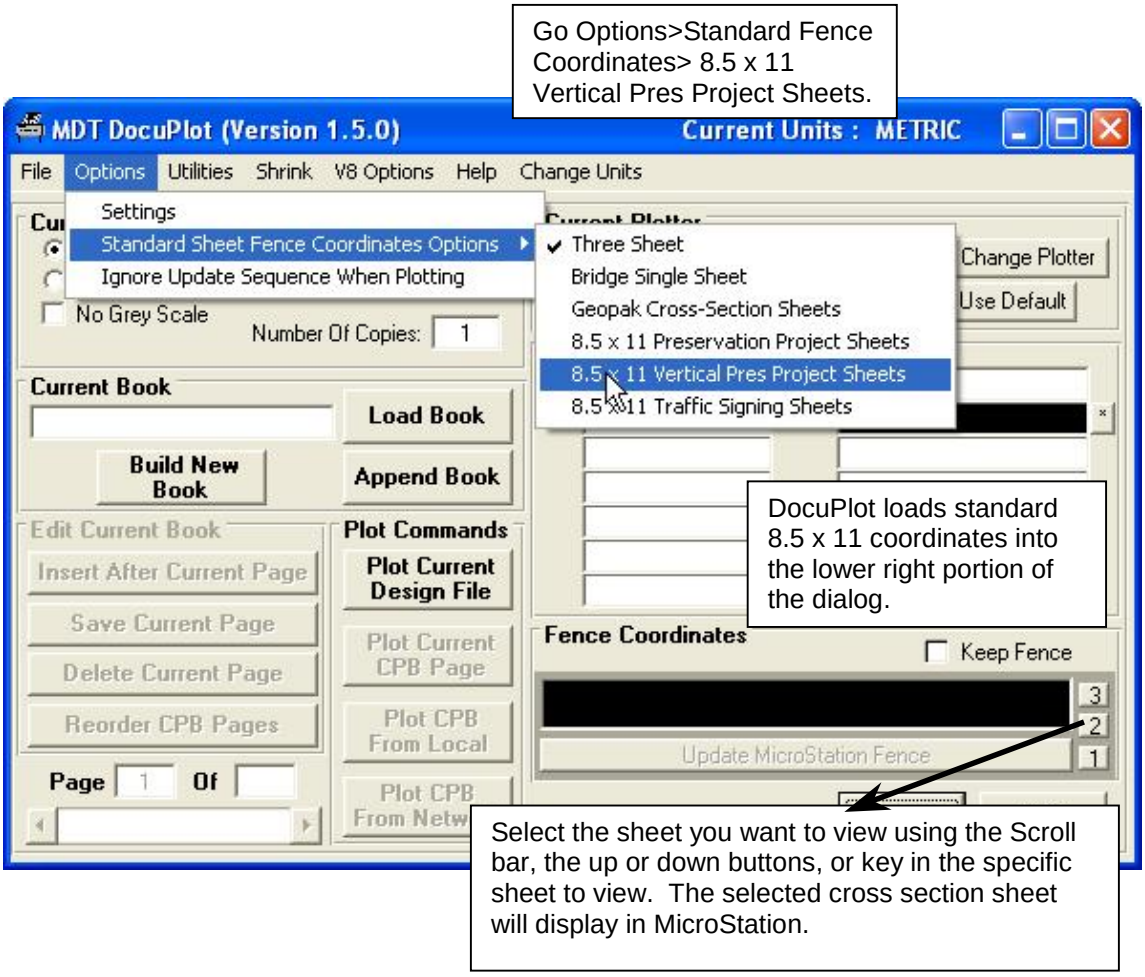
NOTE:
Viewing fence coordinate contents using DocuPlot does not reflect reference file attachments. You must open the MicroStation Reference File dialog to verify reference file attachment.

2.5. Viewing 8.5 x 11 Vertical Preservation Project Sheets using DocuPlot

Open a MicroStation design file that has a standard Vertical Preservation sheet format.

View the contents of the pavement preservation sheets using the fence coordinates display option. Select the option to set the coordinates to 8.5 x 11 Preservation Project sheets. This command places a window area on the 8.5 x 11 plotting coordinates and displays the contents in a MicroStation window.

Hint: You may need to use the MicroStation "fit all" or "fit view" command before using DocuPlot to view plan sheet contents.



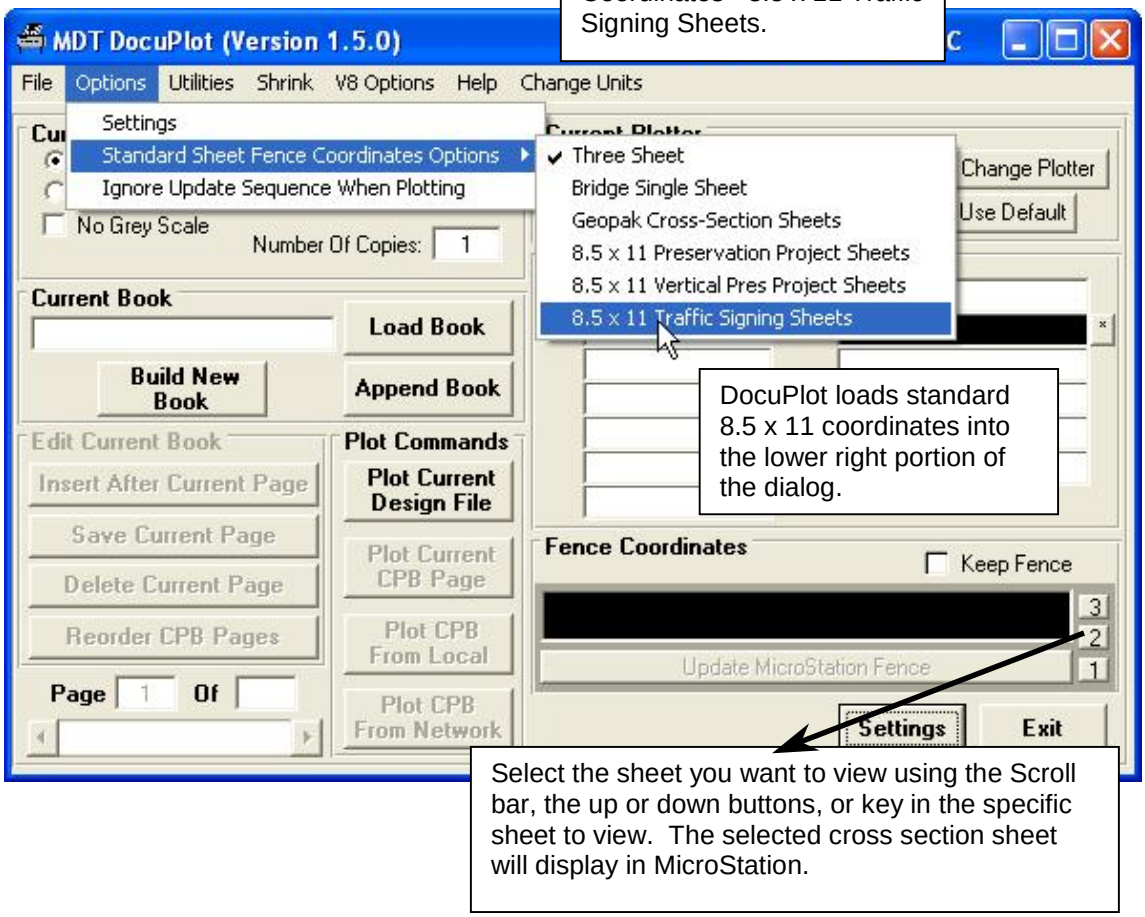
NOTE:
Viewing fence coordinate contents using DocuPlot does not reflect reference file attachments. You must open the MicroStation Reference File dialog to verify reference file attachment.

2.6. Viewing 8.5 x 11 Traffic Signing Sheets using DocuPlot

Open a MicroStation design file that has a standard traffic sign design sheet format.

View the contents of the traffic sign design sheets using the fence coordinates display option. Select the option to set the coordinates to 8.5 x 11 traffic sign design sheets. This command places a window area on the 8.5 x 11 plotting coordinates and displays the contents in a MicroStation window.

Hint: You may need to use the MicroStation "fit all" or "fit view" command before using DocuPlot to view plan sheet contents.



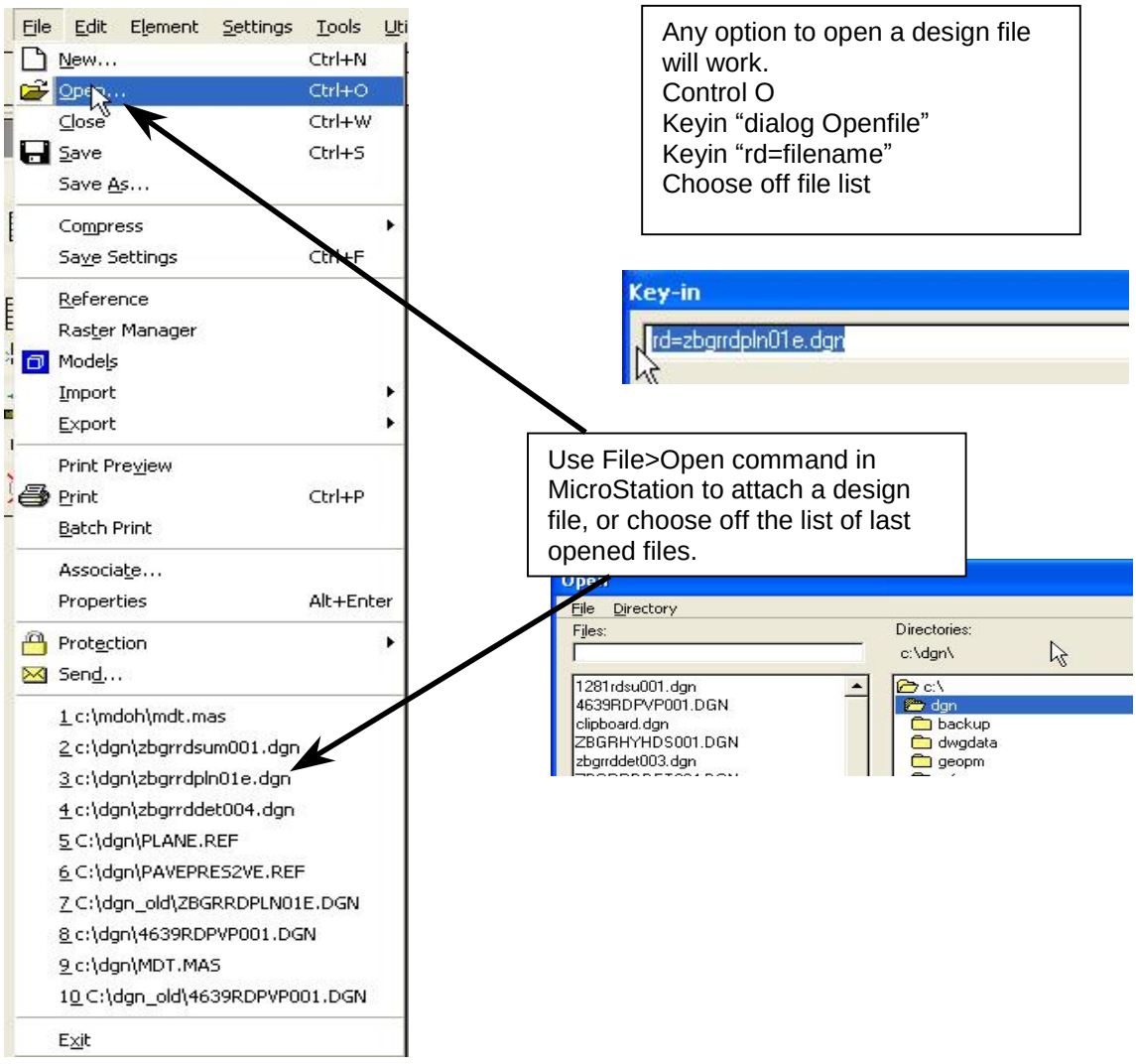
NOTE:
Viewing fence coordinate contents using DocuPlot does not reflect reference file attachments. You must open the MicroStation Reference File dialog to verify reference file attachment.

3. LOCAL PLOTTING

DocuPlot's Local plotting option allows MicroStation users the ability to plot any MDT standard sheet format. This includes Three sheet, Bridge single sheet, Geopak Cross-Section sheets, 8.5 x 11 preservation project sheets, 8.5 x 11 vertical pres project sheets, 8.5 x 11 Traffic Signing Sheets design calculations. The design file must be active in MicroStation.

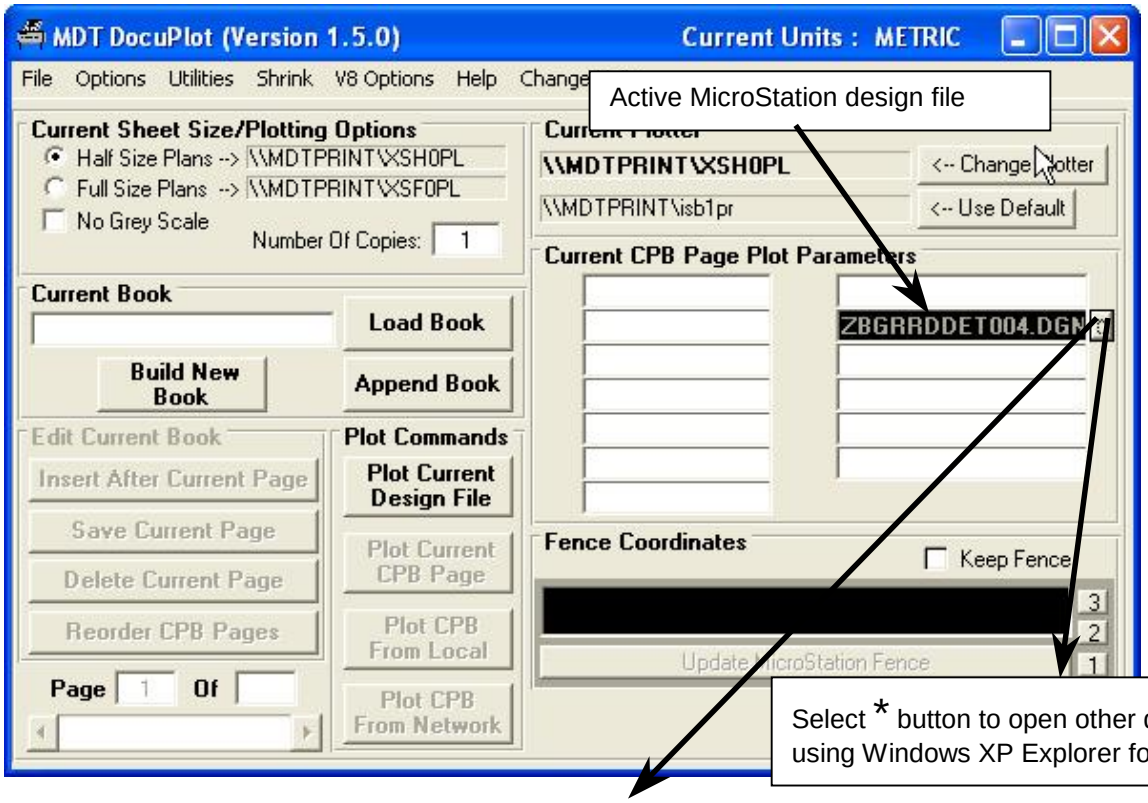
3.1. Open Design file using MicroStation

Use any accepted method to open a MicroStation design file.



3.2. Open Design File using DocuPlot

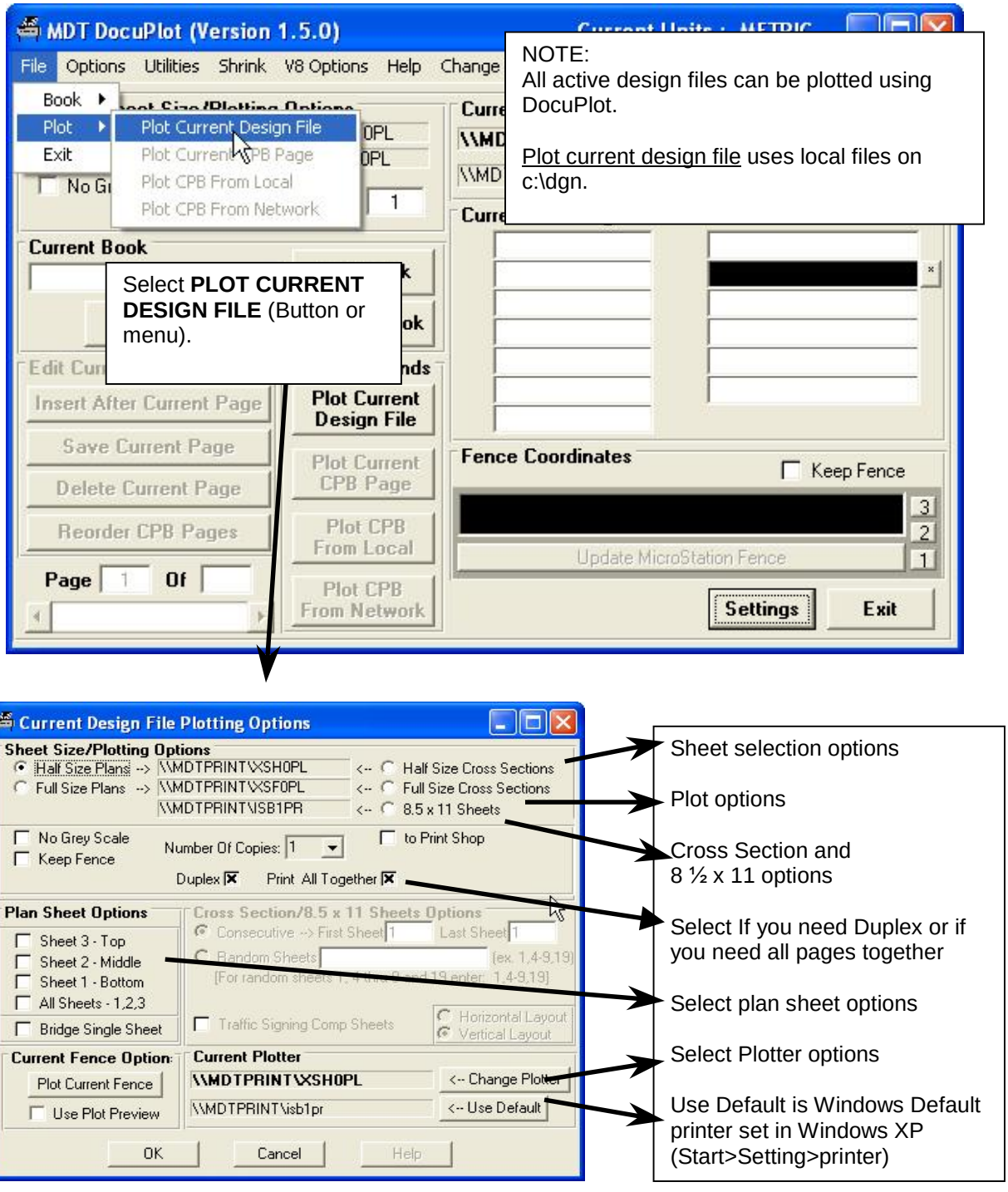
DocuPlot has the option of opening MicroStation design files.



NOTE:
Filter setting determined by DocuPlot user settings. ***(See Section 6.8, Modify and Save MicroStation Startup STD Settings, pp.55).***

3.3. Plot Current Design File Option

Any active MicroStation design file can be plotted using DocuPlot. Plot Current Design File will plot standard three sheet plans, standard cross section sheets, and standard 8 ½ x 11 sheets.



3.4. Select Sheet Style and Size

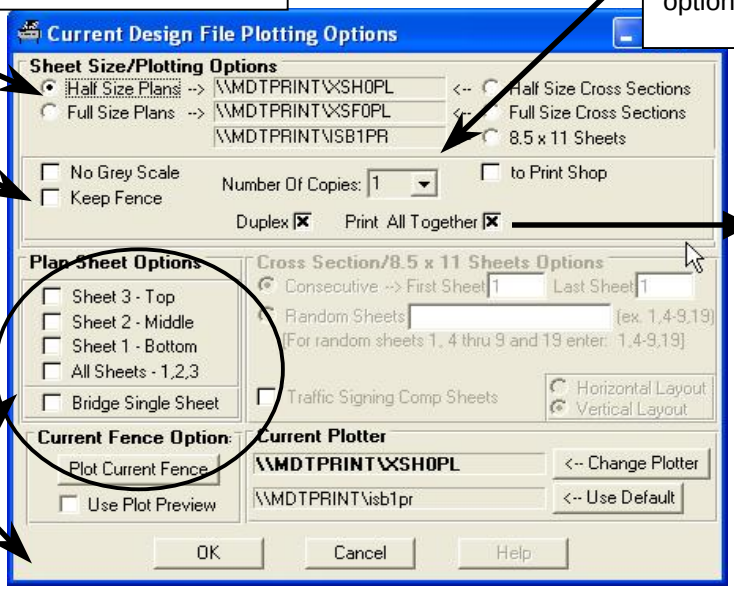
Determine the sheet type for plotting, (Half Size, Full Size or 8 ½ x 11). Select the sheet size, number of copies, and grey scale options.

THREE SHEET PLANS

Select Half Size plan sheets, (default) or Full Size plan sheets.

Determine Grey Scale and number of copy options.

Keep Fence will maintain the last fence placed used for plotting.

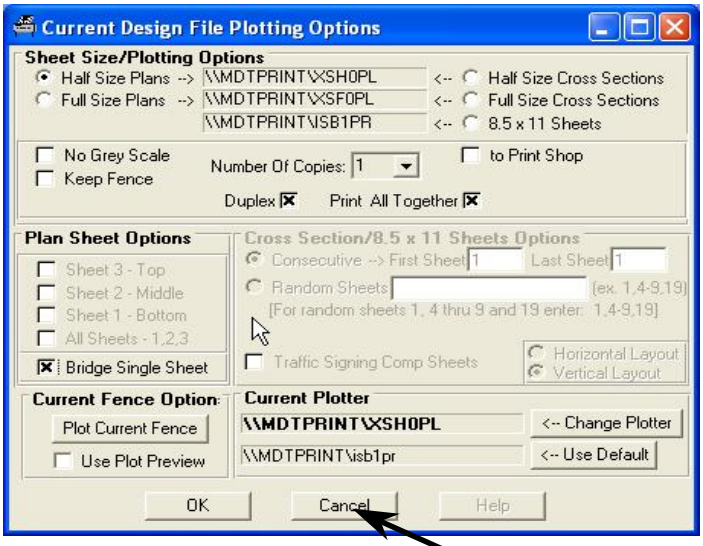


Select if you need Duplex or if you want to print all pages together

Select Plan sheets required. When all sheets is selected the individual sheets will no longer be available for selection

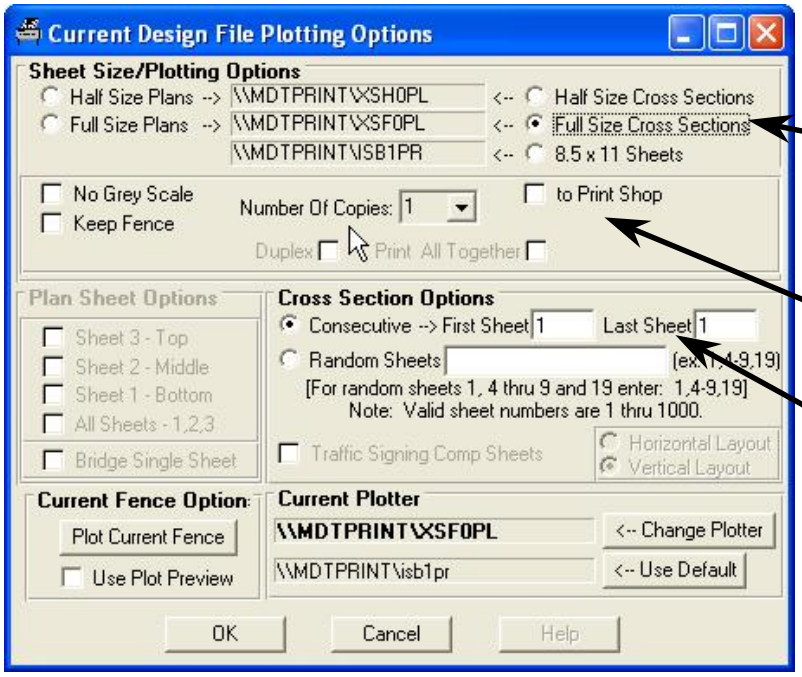
SINGLE SHEET BRIDGE PLANS

Select Bridge Single Sheet. The three-sheet format will no longer be available for selection



Cancel Returns to main DocuPlot dialog.

CROSS SECTION SHEETS

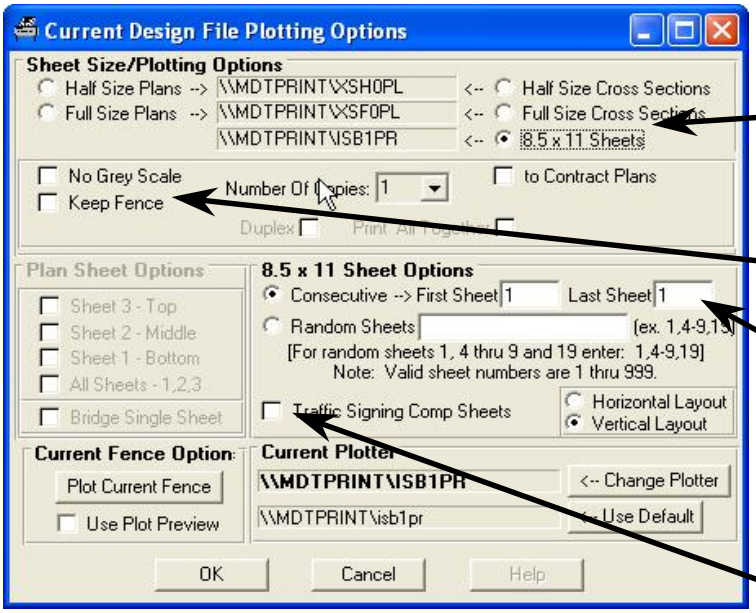


Select Half Size, (default) or Full Size cross-section sheets.

Determine Grey Scale, fence, and copy options.

Select sheets required.

8 ½ x 11 Traffic Sign Calculation Sheets



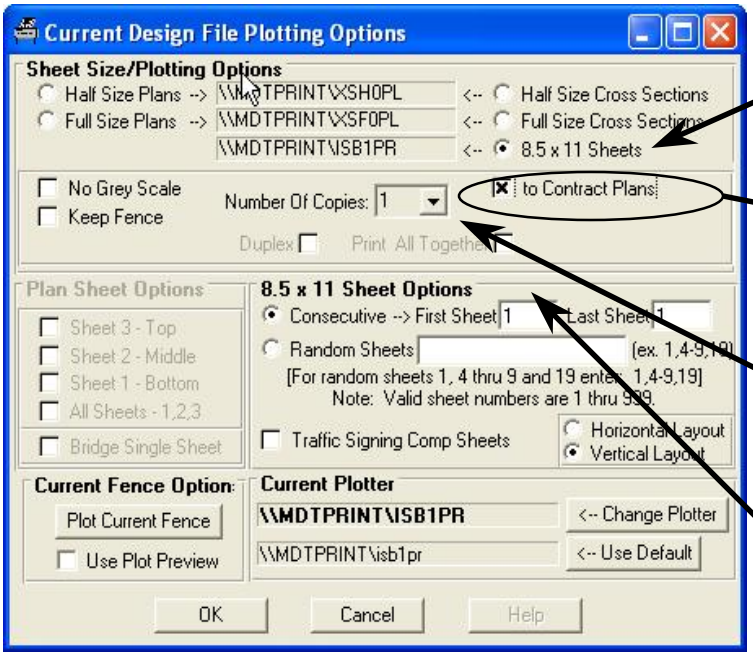
Select 8.5 x 11 sheets.

Determine Grey Scale, fence, and copy options.

Select sheets required

Check if Plotting 8.5 x 11 Sign Design sheets.

8 ½ x 11 Pavement Preservation Sheets



Select 8.5 x 11 sheets.

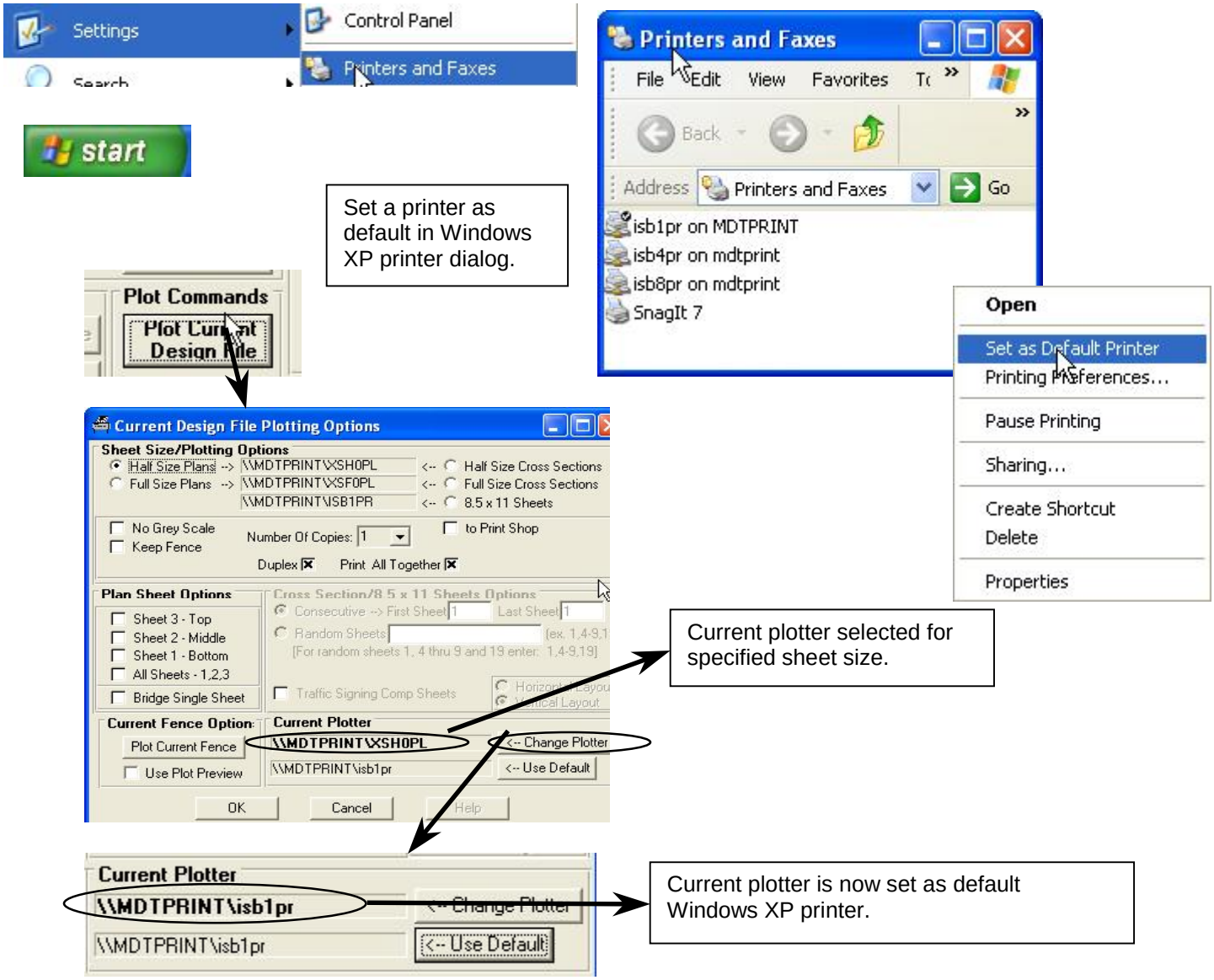
(For creating MS word documents of Pavement Preservation jobs for Contract Plans, ***see section 3.14,3.14 Pavement Preservation Projects for Contract*** Plans ***, pp 29).***

Determine Grey Scale, fence, and copy options.

Select sheets required

3.5. Select Default Windows XP as Current Plotter

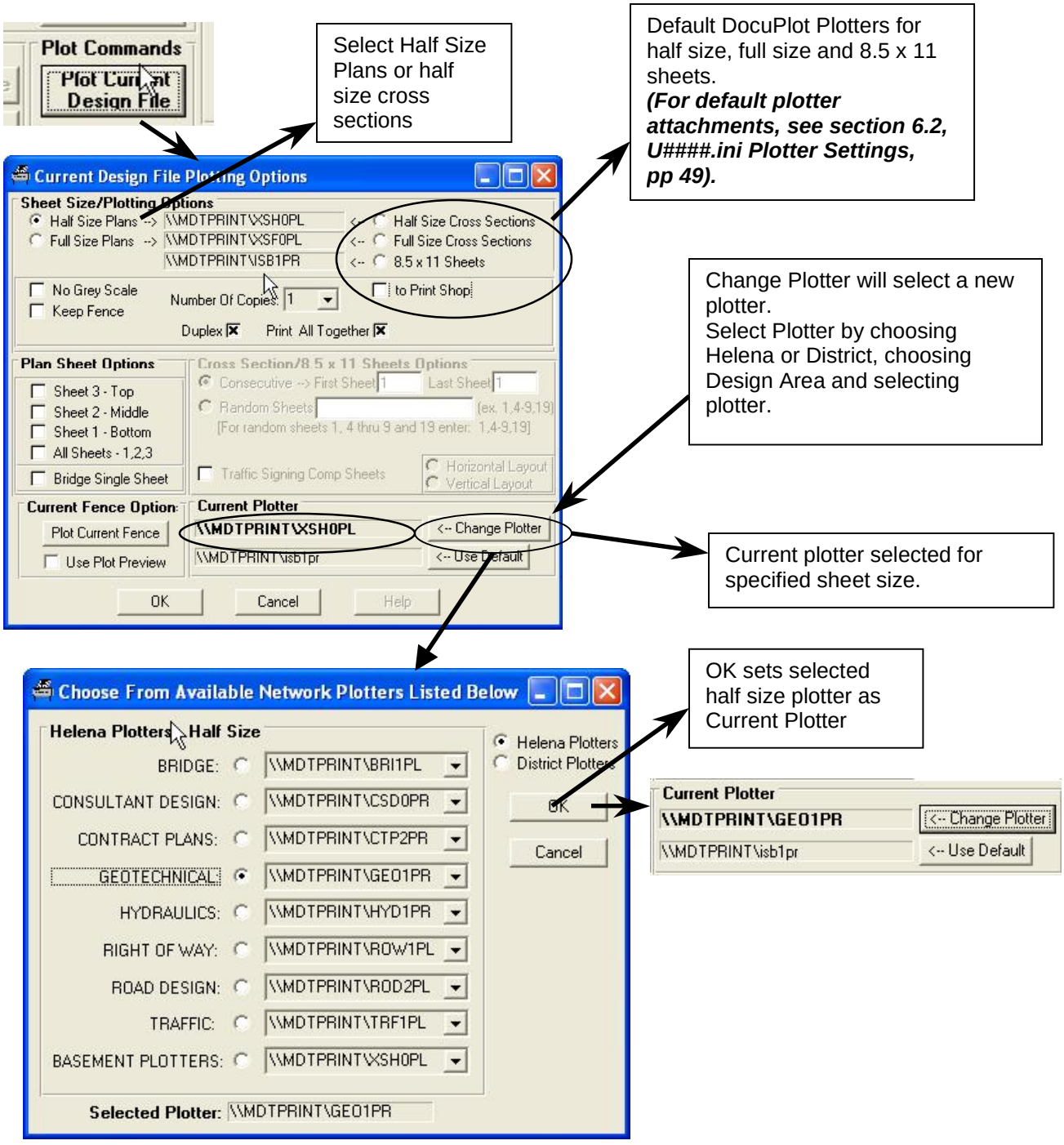
You can set DocuPlot to print directly to your default Windows XP plotter. A plotter must be attached in the printers dialog as default.



3.6. Select Network Half Size Plotter

Half size plotters can be selected for plan sheets or cross sections. Half size plotters are segregated by location (Helena or District), and by work area, (Helena area office or District office).

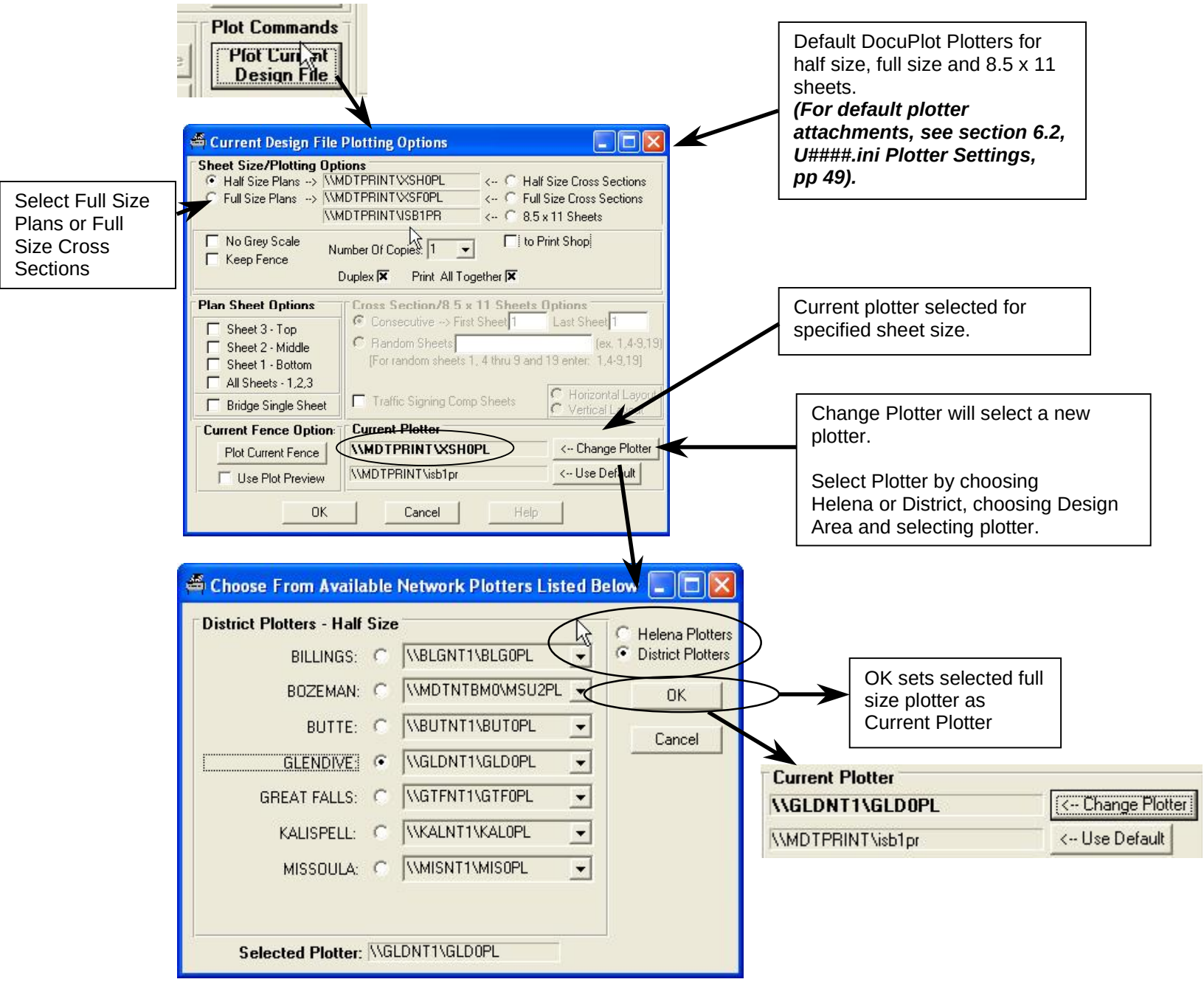
Plotters *do not* need to be added to the Windows XP printer selections. Plotters are accessed at the server level and not attached locally.



3.7. Select Network Full Size Plotter

Full size plotters can be selected for plan sheets or cross sections. Full size plotters are segregated by location (Helena or District), and by work area, (Helena area office or District office).

Plotters *do not* need to be added to the Windows XP printer selections. Plotters are accessed at the server level and not attached locally.



Default DocuPlot Plotters for half size, full size and 8.5 x 11 sheets.
(For default plotter attachments, see section 6.2, U####.ini Plotter Settings, pp 49).

Select Full Size Plans or Full Size Cross Sections

Current plotter selected for specified sheet size.

Change Plotter will select a new plotter.

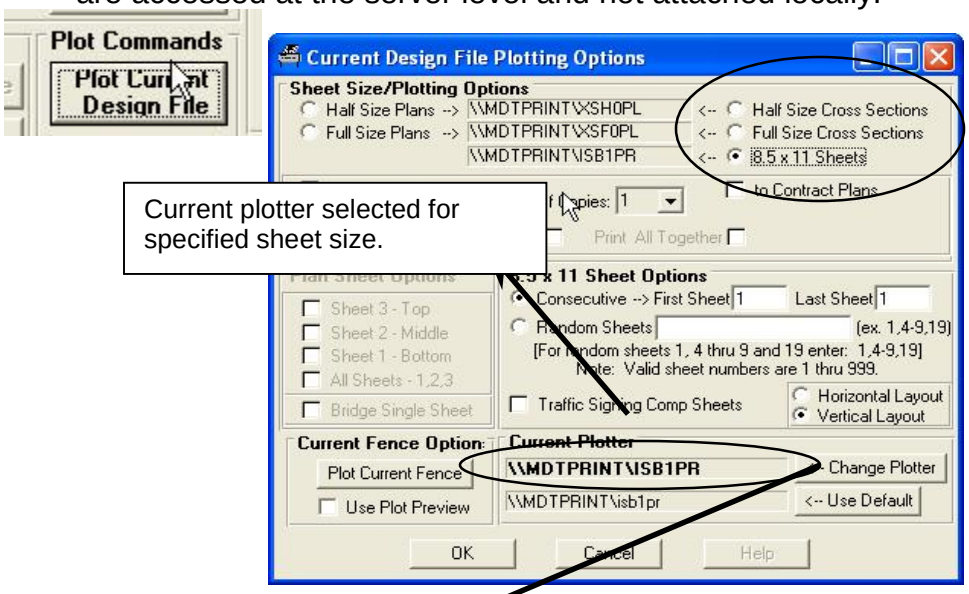
Select Plotter by choosing Helena or District, choosing Design Area and selecting plotter.

OK sets selected full size plotter as Current Plotter

3.8. Select Network 8.5 x 11 Plotter

8.5 x 11 plotters can be selected for appropriate sheets. 8.5 x 11 plotters are segregated by location (Helena or District), and by work area, (Helena area office or District office).

Plotters *do not* need to be added to the Windows XP printer selections. Plotters are accessed at the server level and not attached locally.

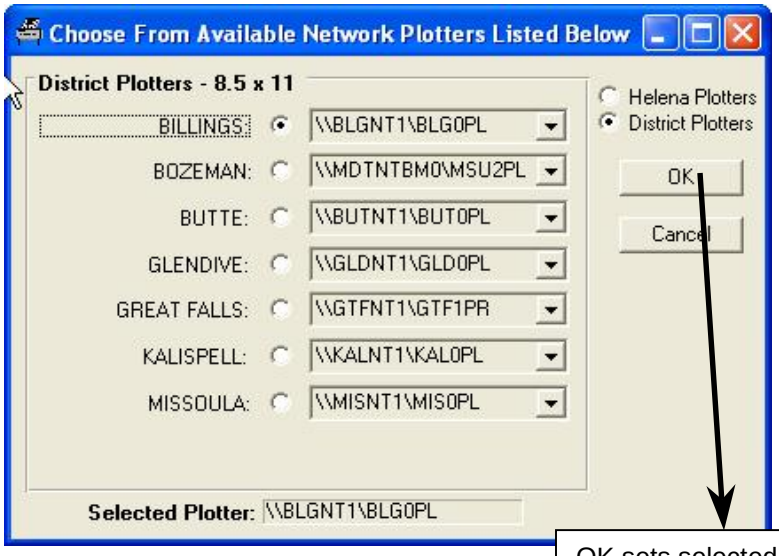


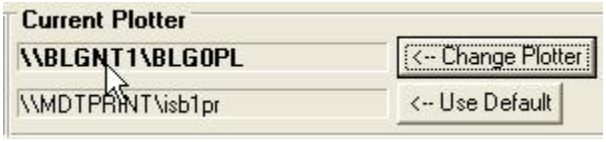
Current plotter selected for specified sheet size.

Default DocuPlot Plotters for half size, full size and 8.5 x 11 sheets.
(For default plotter attachments, see section 6.2, U####.ini Plotter Settings, pp 49).

Change Plotter will select a new plotter.

Select Plotter by choosing Helena or District, choosing Design Area and selecting plotter.



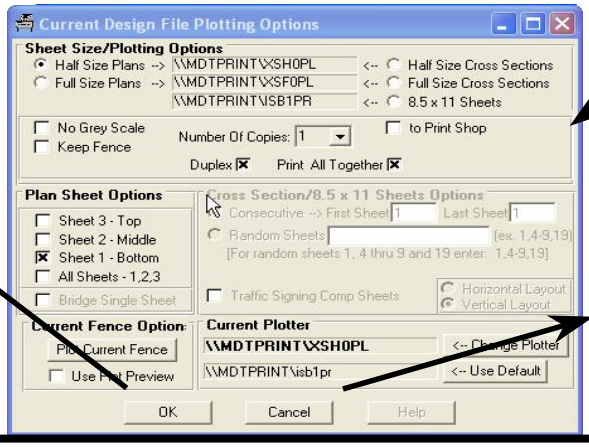


OK sets selected 8.5 x 11 plotter as Current Plotter

3.9. Submitting Plots Using DocuPlot

Once you selected the sheet size requirements, (size, grey scale, copies) and selected a plotter click OK to submit the plots to the printer queue. DocuPlot activates MicroStation's fence and plot command, submitting the requested plots.

3 sheet plans, single bridge sheets, and 8 ½ x 11 sheet requests

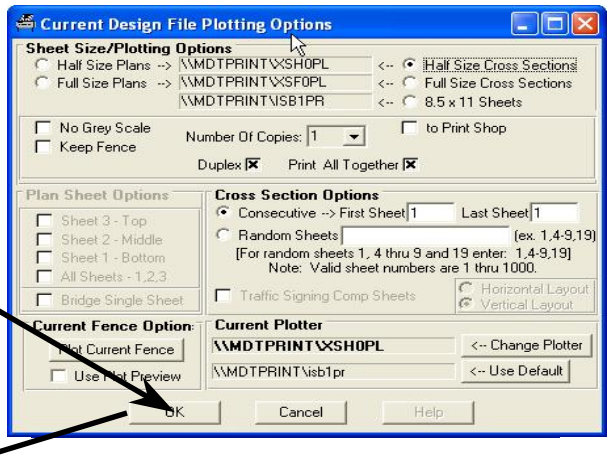


Select OK to print, and return to main DocuPlot dialog.

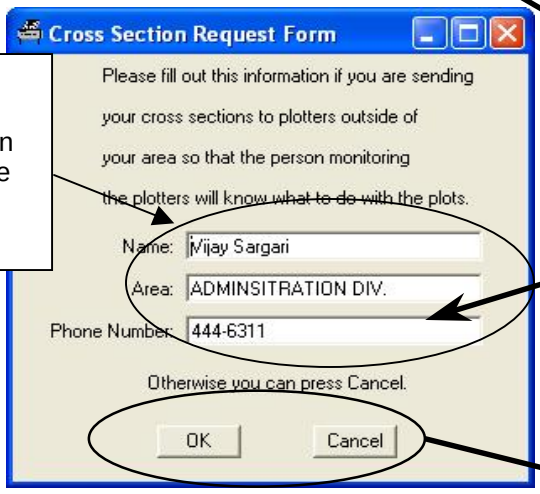
Select Cancel to stop local print option, and return to main DocuPlot dialog.

Half and Full Size Cross section print requests

Select OK, opens the Cross Section Request form



Fill in the required information if using the printers listed



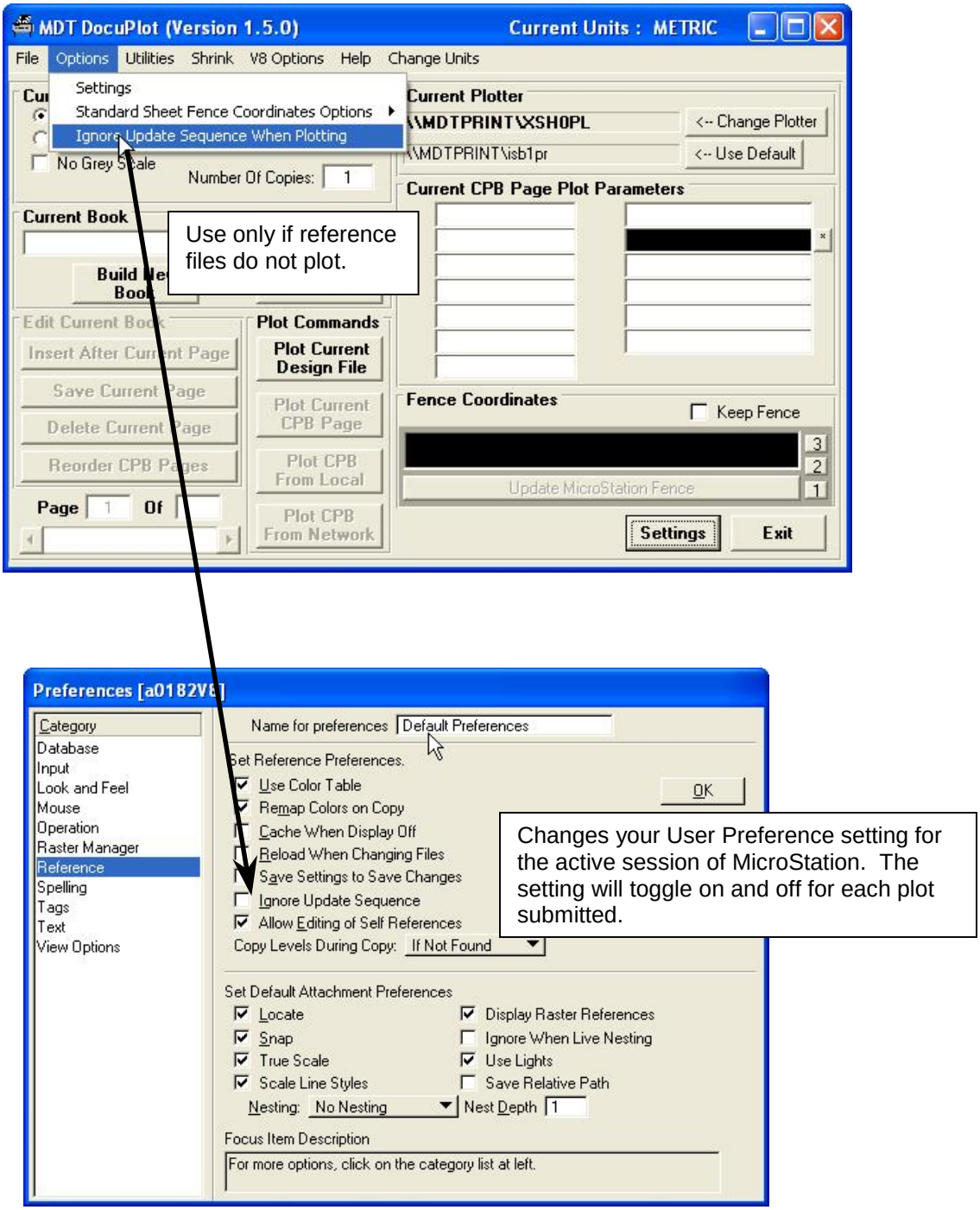
Both OK and CANCEL submit the cross section plot request.

OK – Places a cover sheet with name, area and phone number information in the submit request.

CANCEL – Submits request without cover sheet.

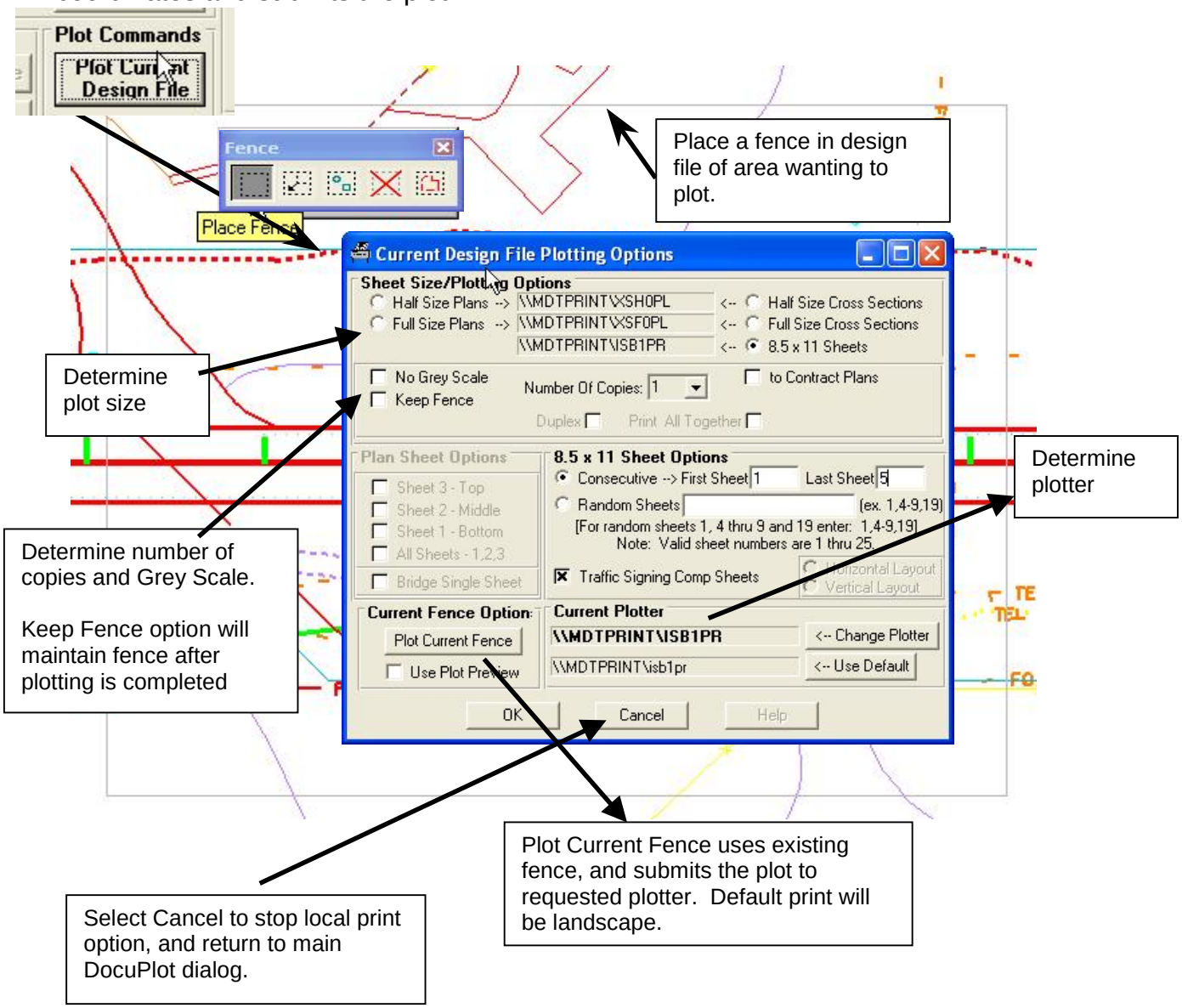
3.10. Reference Files that DO NOT Plot

Occasionally the reference files attached to a design file do not plot. Check first to see if the reference files are named correctly and reside in the c:\dgn\ref subdirectory. If the files simply do not plot, yet show on the MicroStation screen, go to DocuPlot's Utility > Ignore Update Sequence when Plotting. This utility changes a setting in the active session of MicroStation for each plot. After each plot the setting reverts to its default setting.



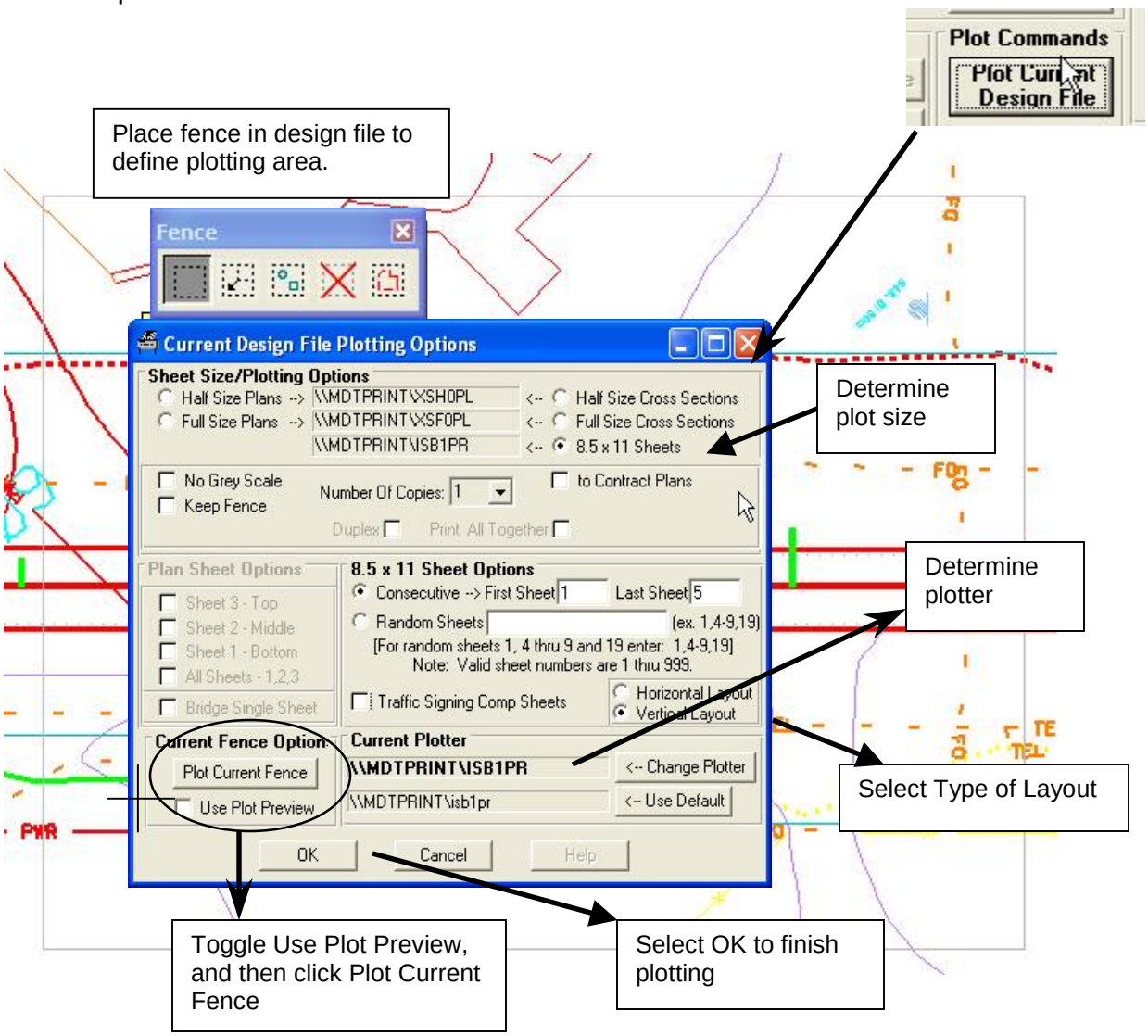
3.11. Plot Current Fence with DocuPlot

After placing a fence in an active MicroStation design file the fence contents can be plotted using the PLOT CURRENT FENCE option. Users can determine Grey Scale and number of copies. The Keep Fence option will keep the fence in place after the plot is submitted. The user can specify the plotter. This command activates MicroStation's fence and plot command, using the existing fence coordinates and submits the plot.



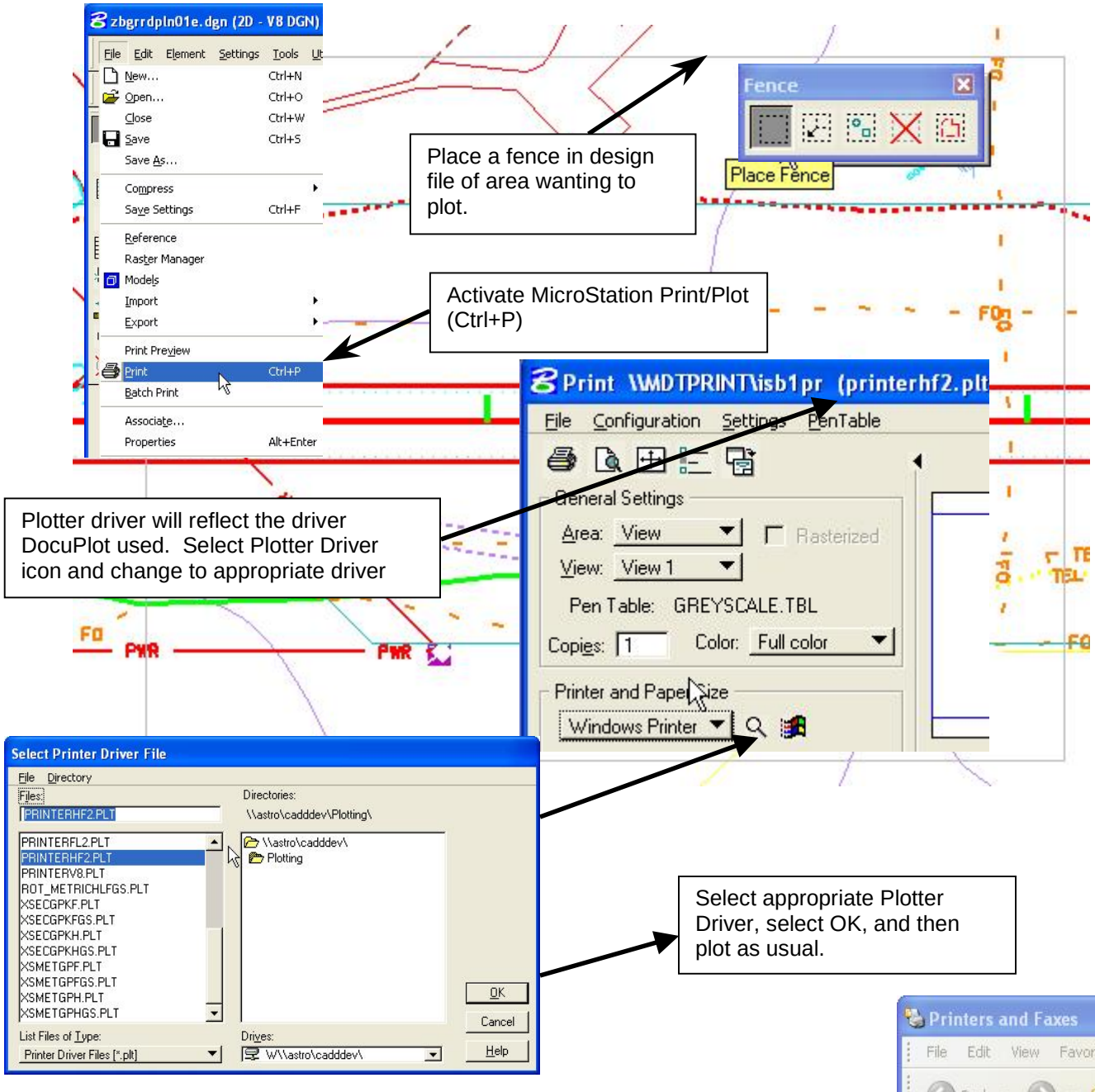
3.12. Preview and Plot Current Fence with DocuPlot

After placing a fence in an active MicroStation design file the fence can be plotted using the PLOT CURRENT FENCE option. Users can preview and rotate the image using MicroStation's Plot Preview dialog. Set the plot requirements in DocuPlot, switch to MicroStation and set the rotation, return to DocuPlot and submit the plot.

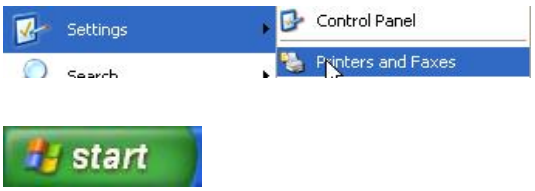


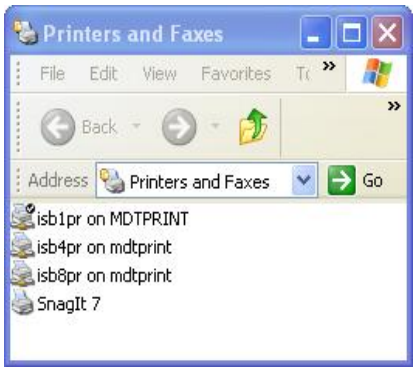
3.13. Plot Current Fence with MicroStation

If DocuPlot was used to submit plots, then you decide to plot using MicroStation's plotting command the plotter driver may need to be reset.



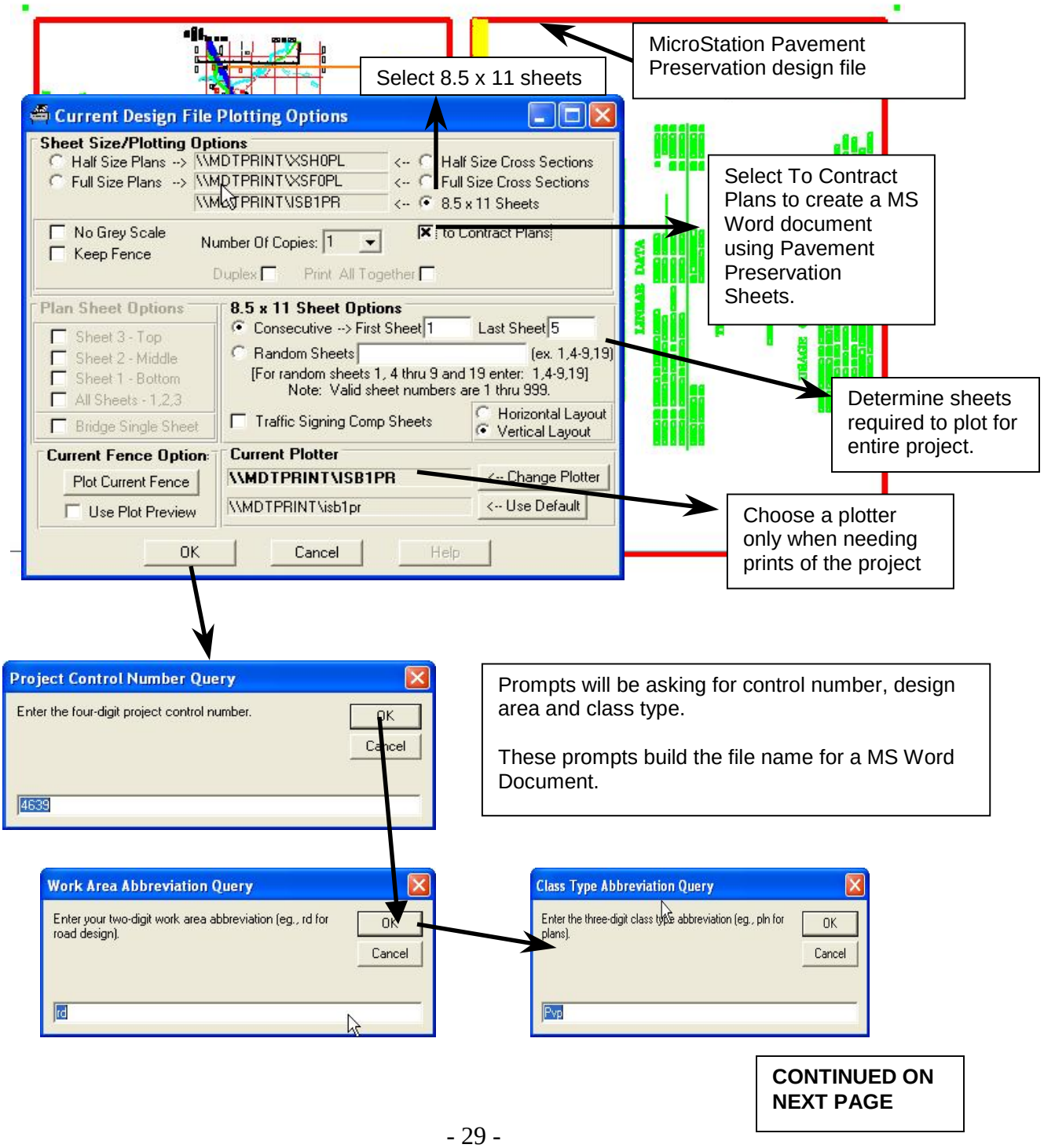
NOTE: To plot using MicroStation print/plot the plotter must be attached in the Windows XP printer dialog. (Start>Settings>Printers)





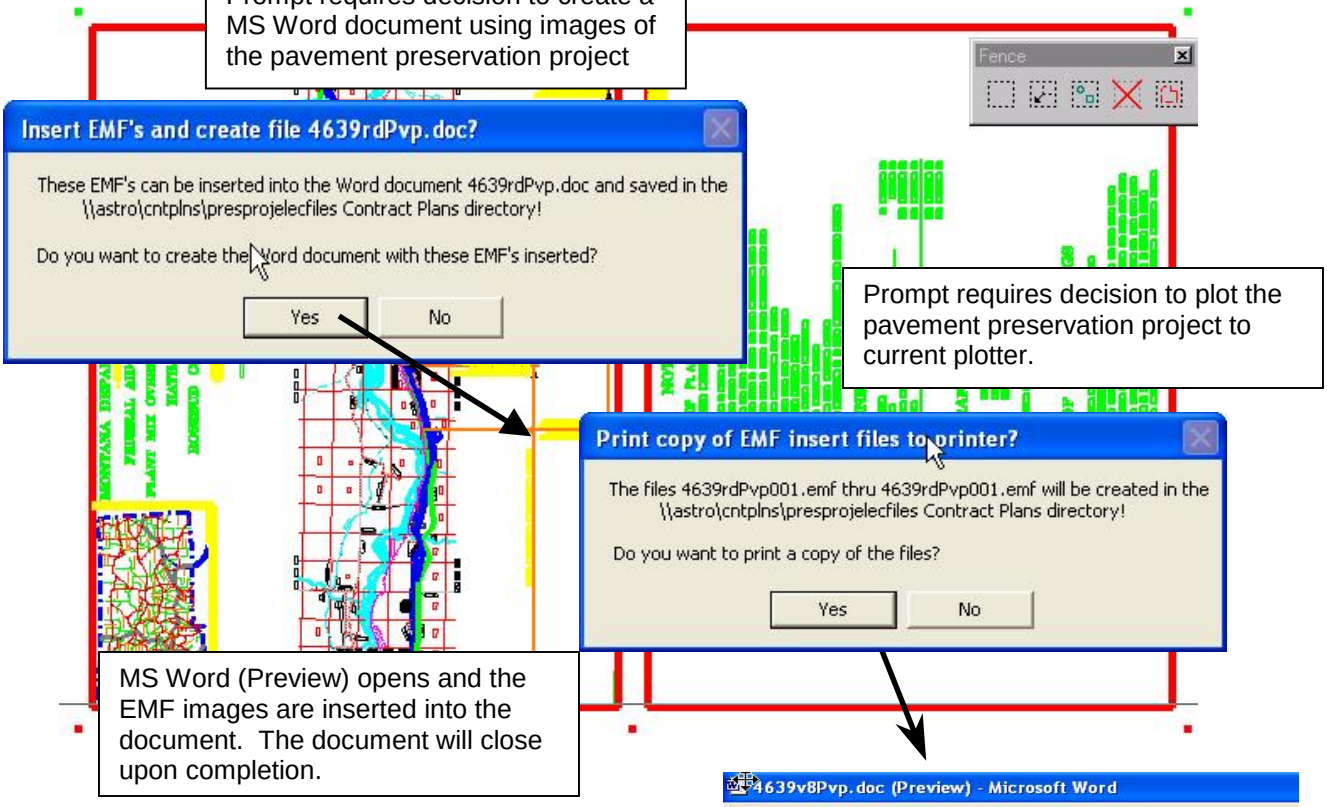
3.14 Pavement Preservation Projects for Contract Plans

Send pavement preservation projects to Contract Plans in a MS Word document containing all the design sheets. This document is created using the 8.5 x 11 sheet size and using the To Contract Plans option. Open a Pavement preservation file in MicroStation, select plot current file, select sheet size and sheets required. Toggle the To Contract Plan option and follow the prompts. A MS Word document is created using plot images from MicroStation and an Outlook message will be sent to Contract Plans.



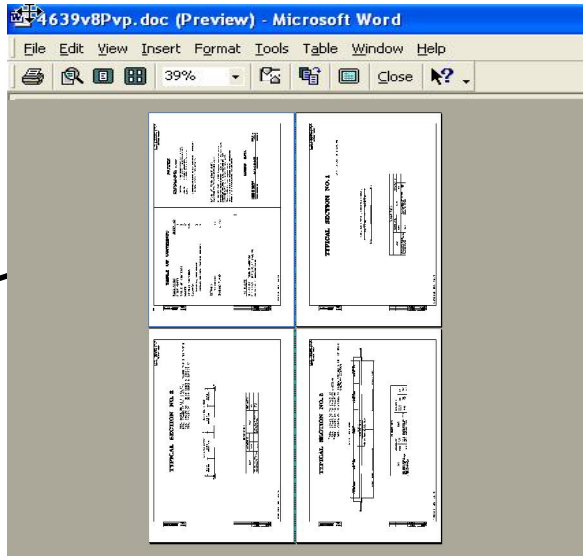
CONTINUED ON NEXT PAGE

Prompt requires decision to create a MS Word document using images of the pavement preservation project

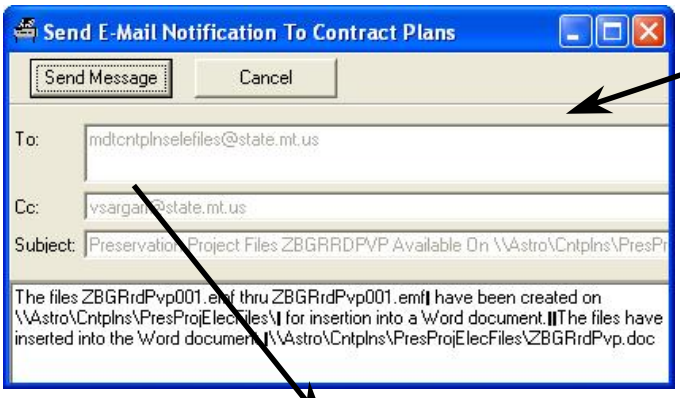


Prompt requires decision to plot the pavement preservation project to current plotter.

MS Word (Preview) opens and the EMF images are inserted into the document. The document will close upon completion.



An Outlook message will be sent to Contract Plans informing them of the project. You receive a cc of the message.



Both *SEND MESSAGE* and *CANCEL* submit the pavement preservation job request.

Send Message **sends the mail message and the pavement preservation job.**

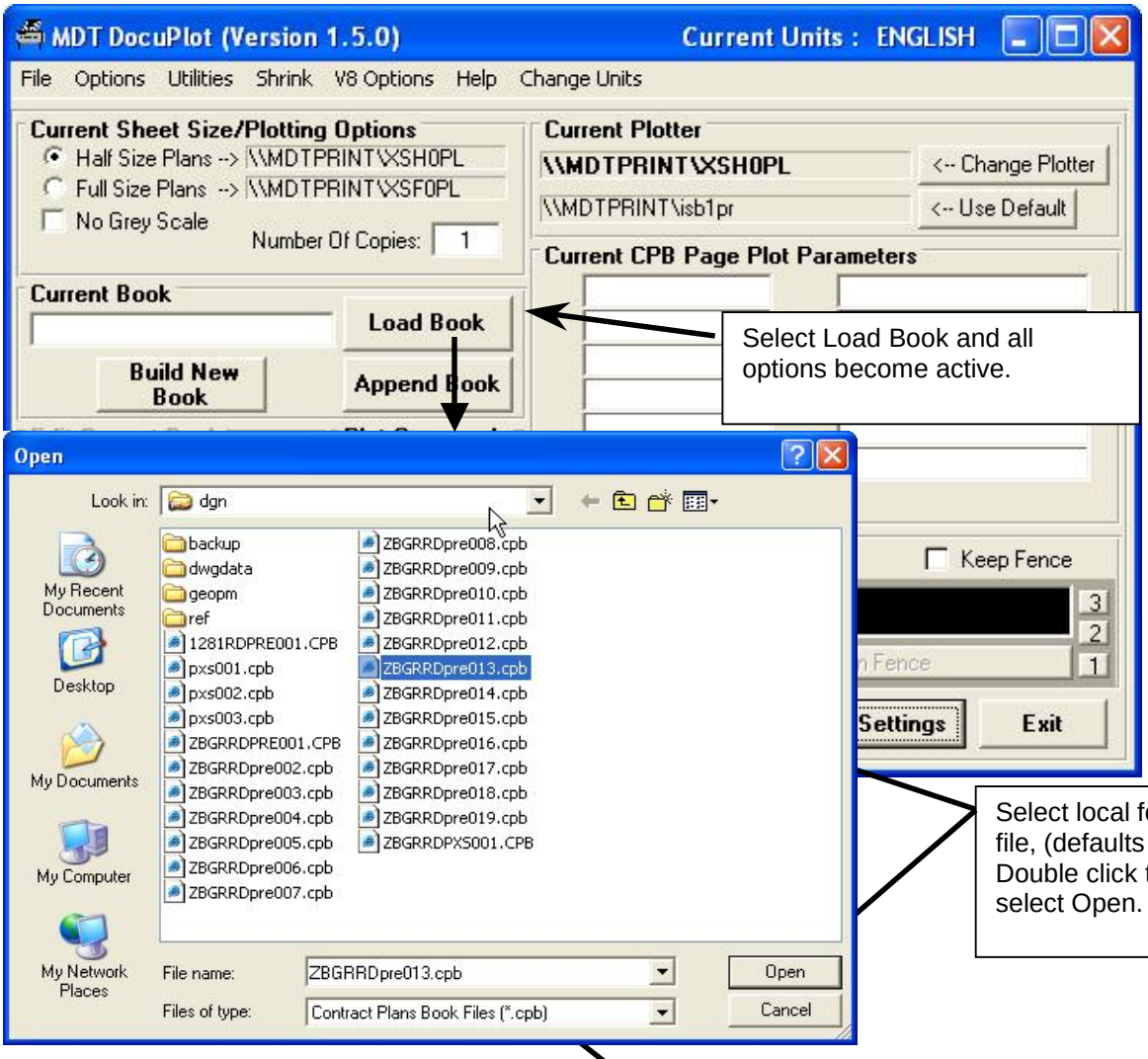
Cancel **sends only the pavement preservation job.**

4. LOAD EXISTING CONTRACT PLANS BOOK

A Contract Plans Book is an electronic MicroStation plan sheet record containing sequential page information. Each CPB page is a record of the CADD server, the MicroStation design file, and specific fence coordinates for the plan sheet.

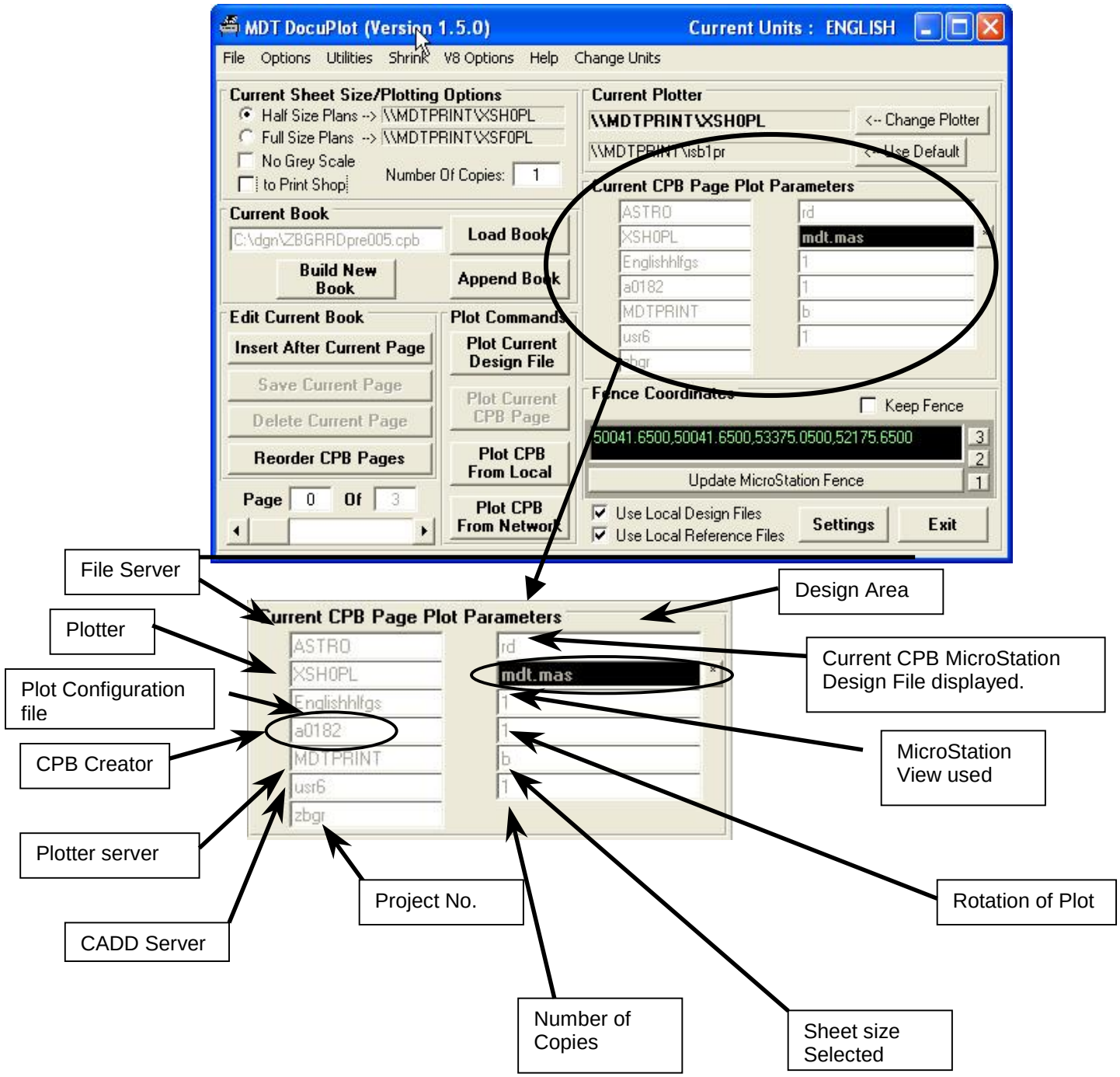
4.1. Load Existing Contract Plans Book (CPB)

A CPB is normally stored on a CADD server, in the appropriate Project \ Design area. Copy the CPB from the CADD server to the local c:\dgn directory using DMS.



4.2. Loaded Contract Plans Book Parameters

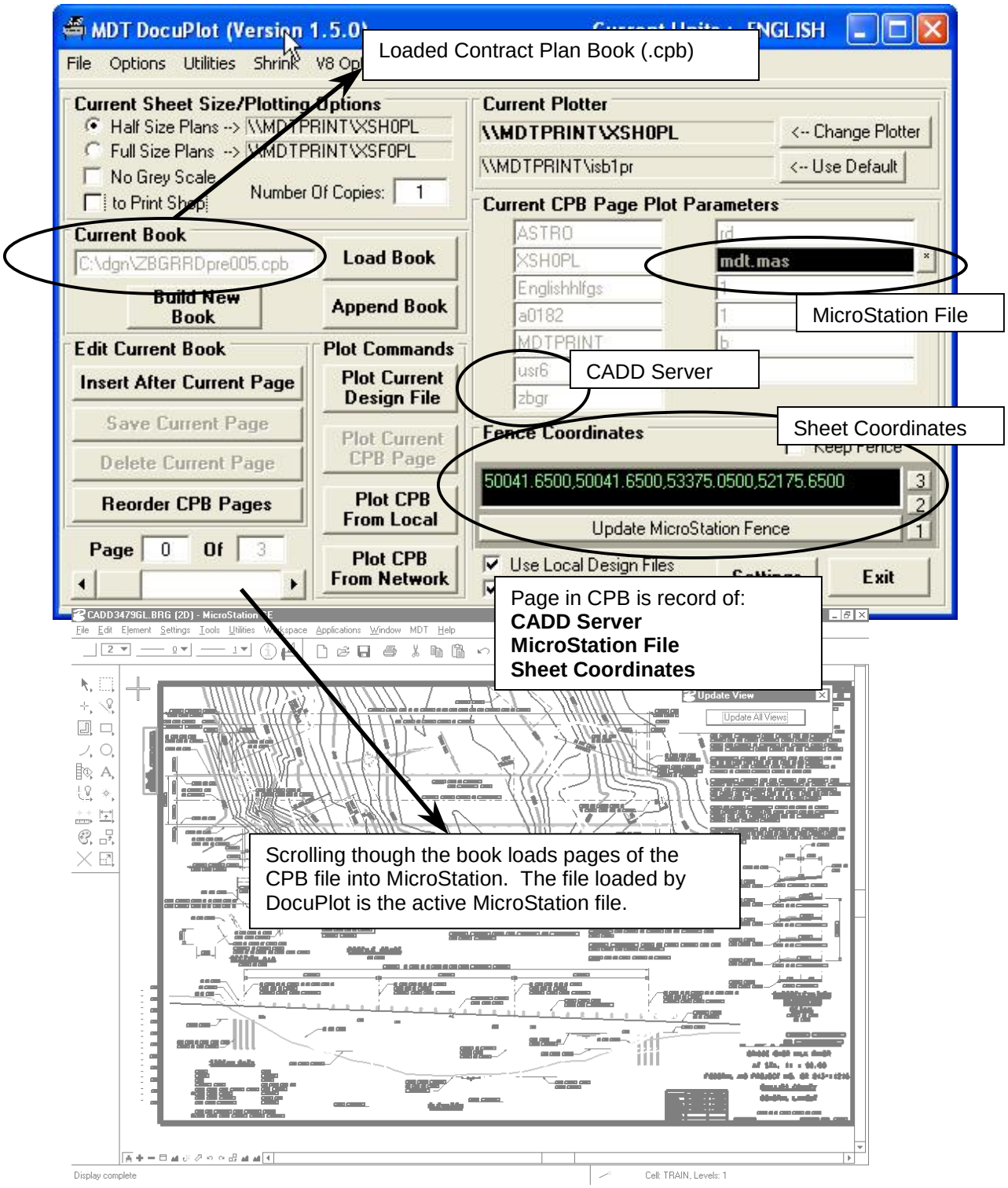
Each CPB had individual parameters that are stored in the electronic book.



NOTE:
All items grayed out cannot be changed. This portion of the DocuPlot Screen is for user information. Changes made in other DocuPlot dialogs will appear in this screen.

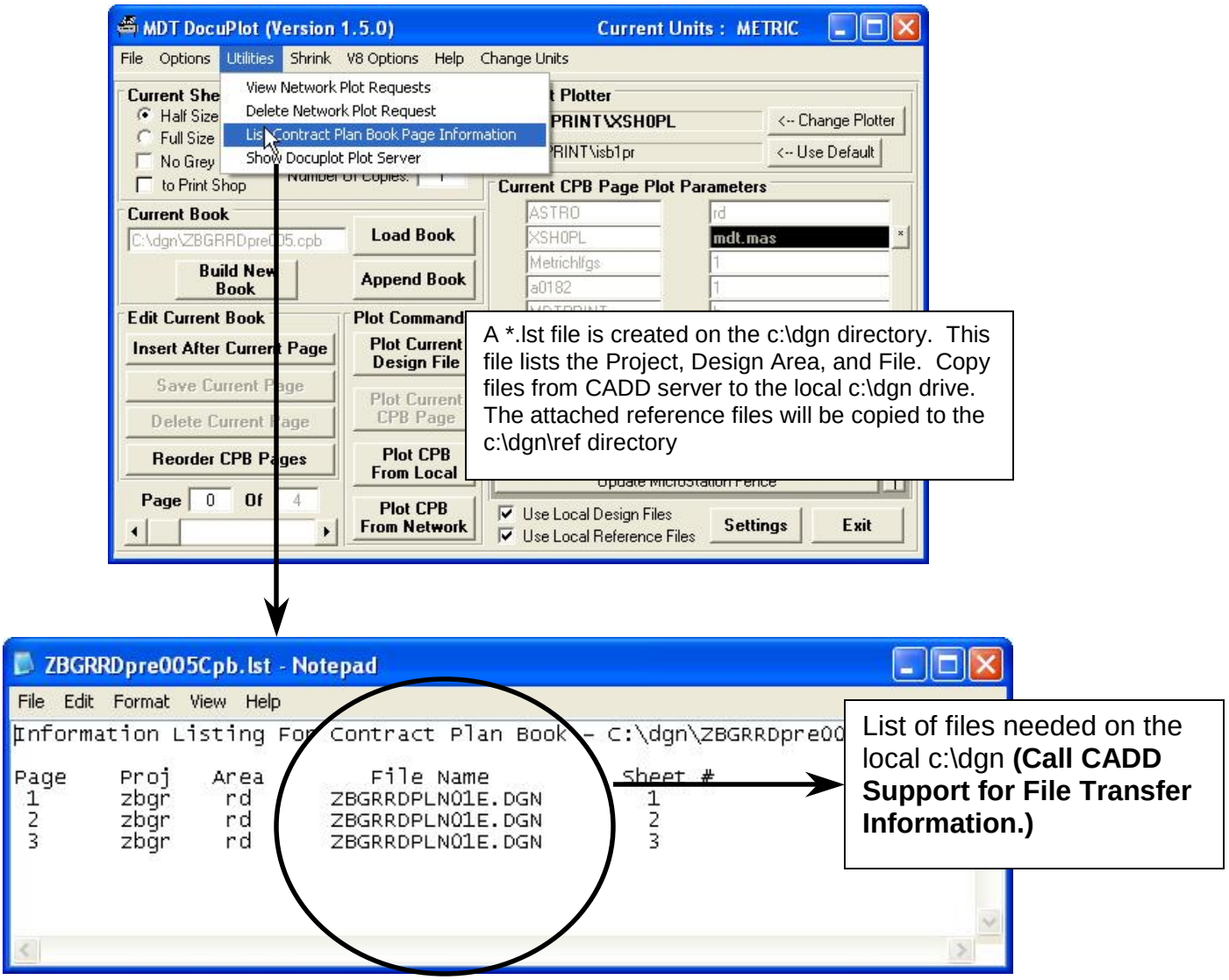
4.3. Loaded Existing Cpb File

A CPB is an electronic database that is loaded into DocuPlot. A CPB remembers only three pieces of information; (1) CADD server, (2) MicroStation file and (3) sheet coordinates.



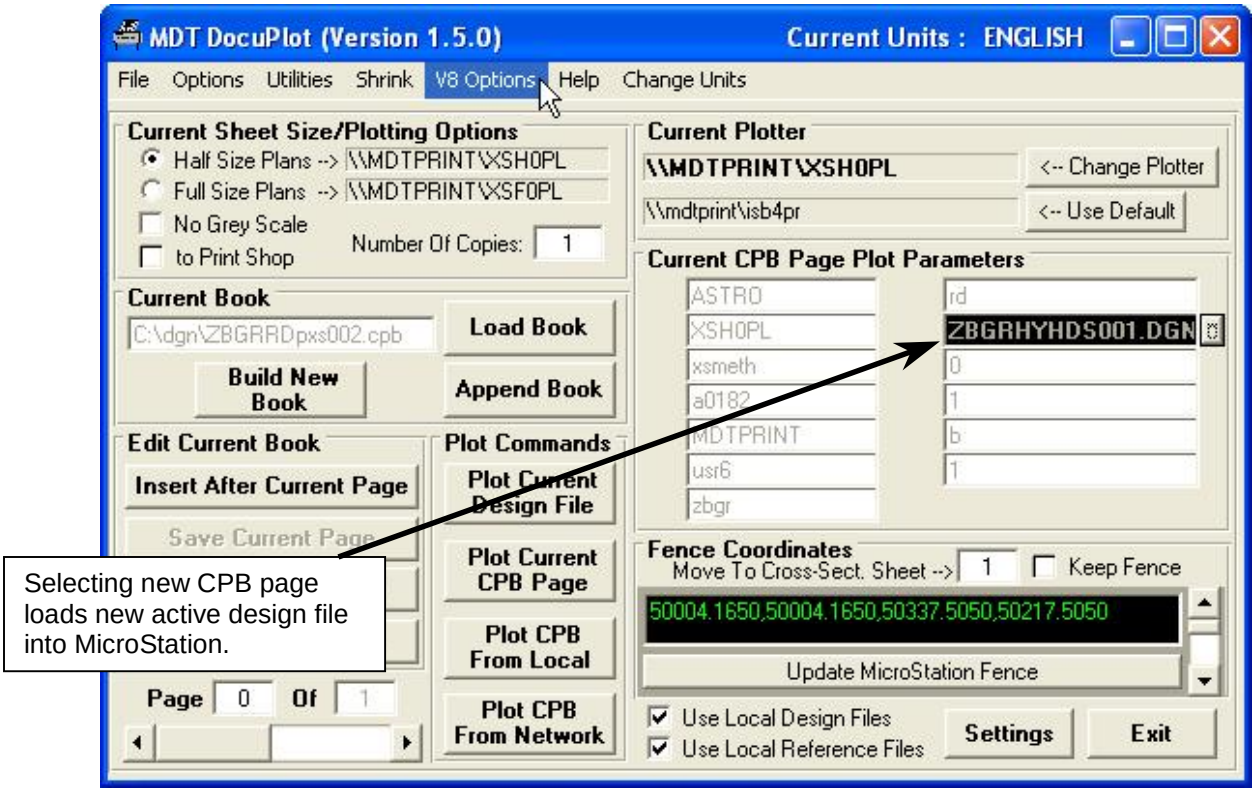
4.4. CPB and MicroStation Design Files

The CPB is only a record of the CADD server, file name and the coordinates of specific sheets. The MicroStation Design files must be in the local C:/dgn directory and the attached reference files must be in the c:\dgn\ref subdirectory. If the files are not local they must be copied from the CADD server. To determine the files needed on the local drive check DocuPlot's List Contract Plan Book Page Information utility.



4.5. Paging through an Existing CPB File

Similar to a traditional paper book, the user may flip through pages in an electronic Contract Plan Book. In order to page though all pages the files and reference files must exist on the local PC.



Selecting new CPB page loads new active design file into MicroStation.

Select new page by sliding scroll bar.

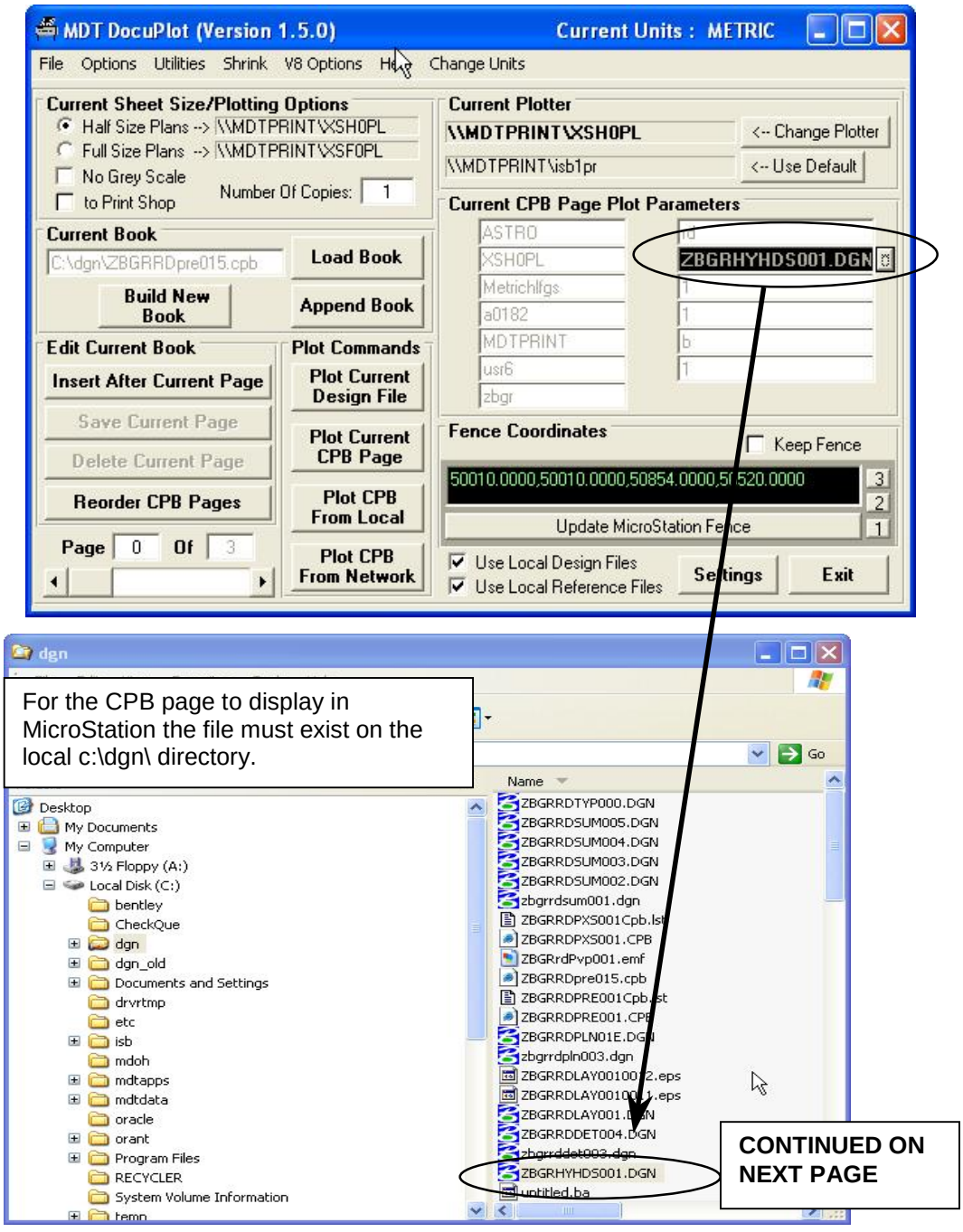
Select new page by key in.

NOTE:
Each time a new page is selected, the design file is loaded into MicroStation. The file and any reference files must exist in the appropriate local PC directory.

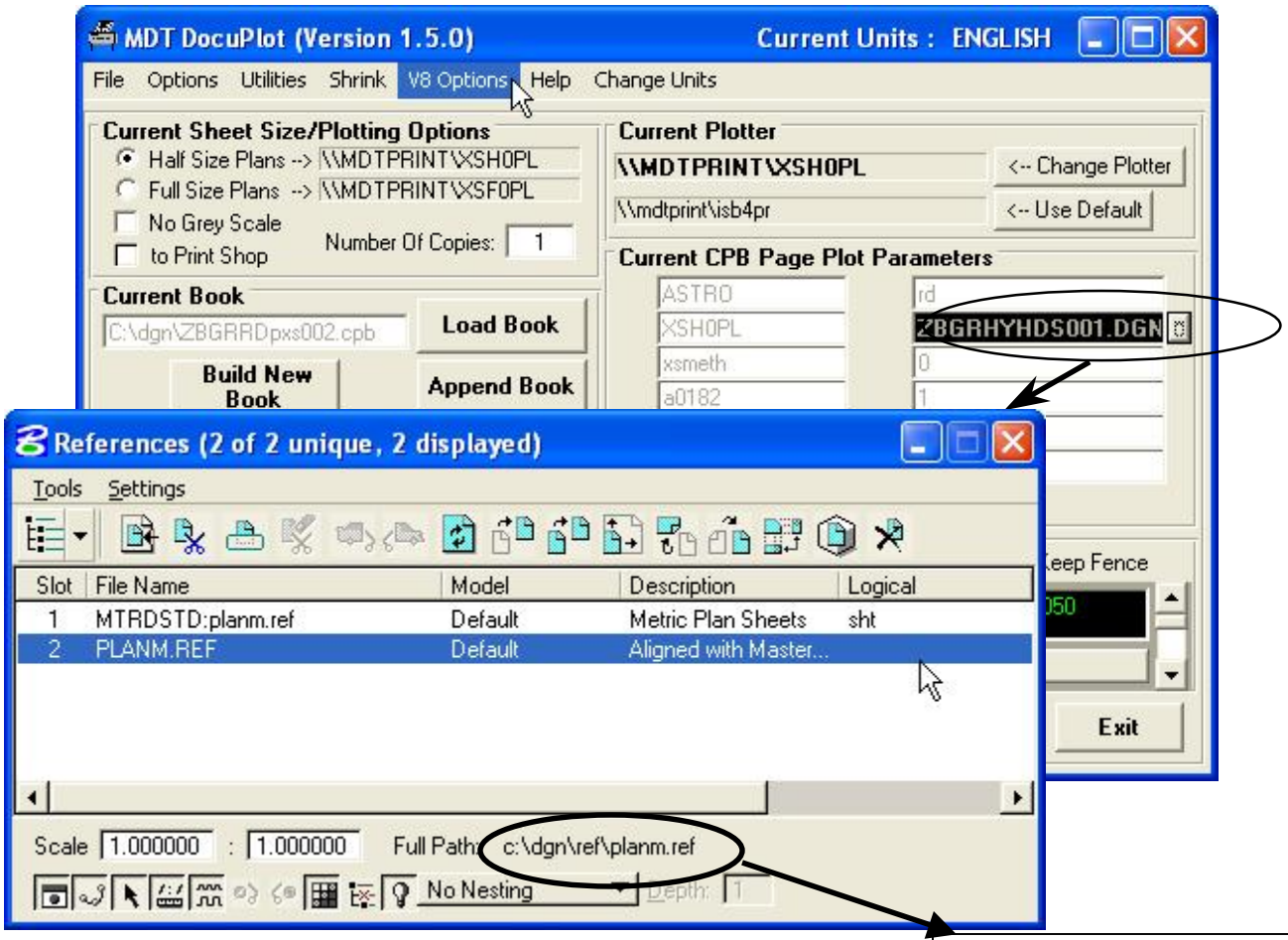
4.6. Location of CPB Design and Reference Files

When DocuPlot opens a new CPB page, MicroStation loads the active design file and attached reference files. The active file must be in the local c:\dgn\ directory. The reference files must be in the local c:\dgn\ref directory.

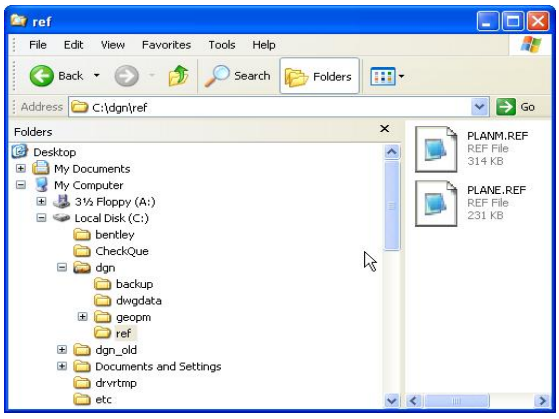
MICROSTATION DESIGN FILES



MICROSTATION REFERENCE FILES



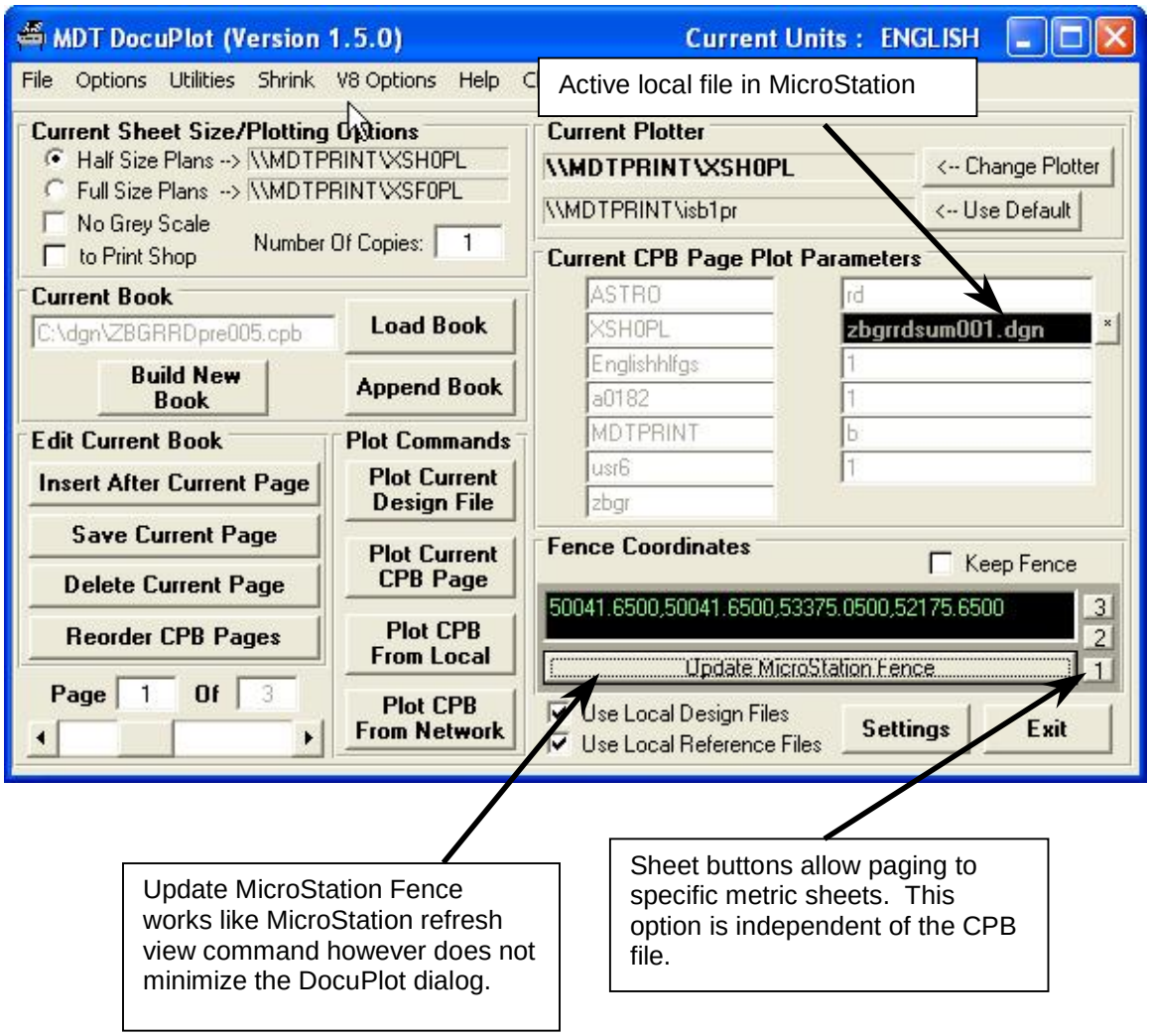
The Reference File window can be opened by going to MicroStation and clicking on File>Reference.



For the CPB page to display the reference files in MicroStation, the files must exist on the local c:\dgn\ref directory.

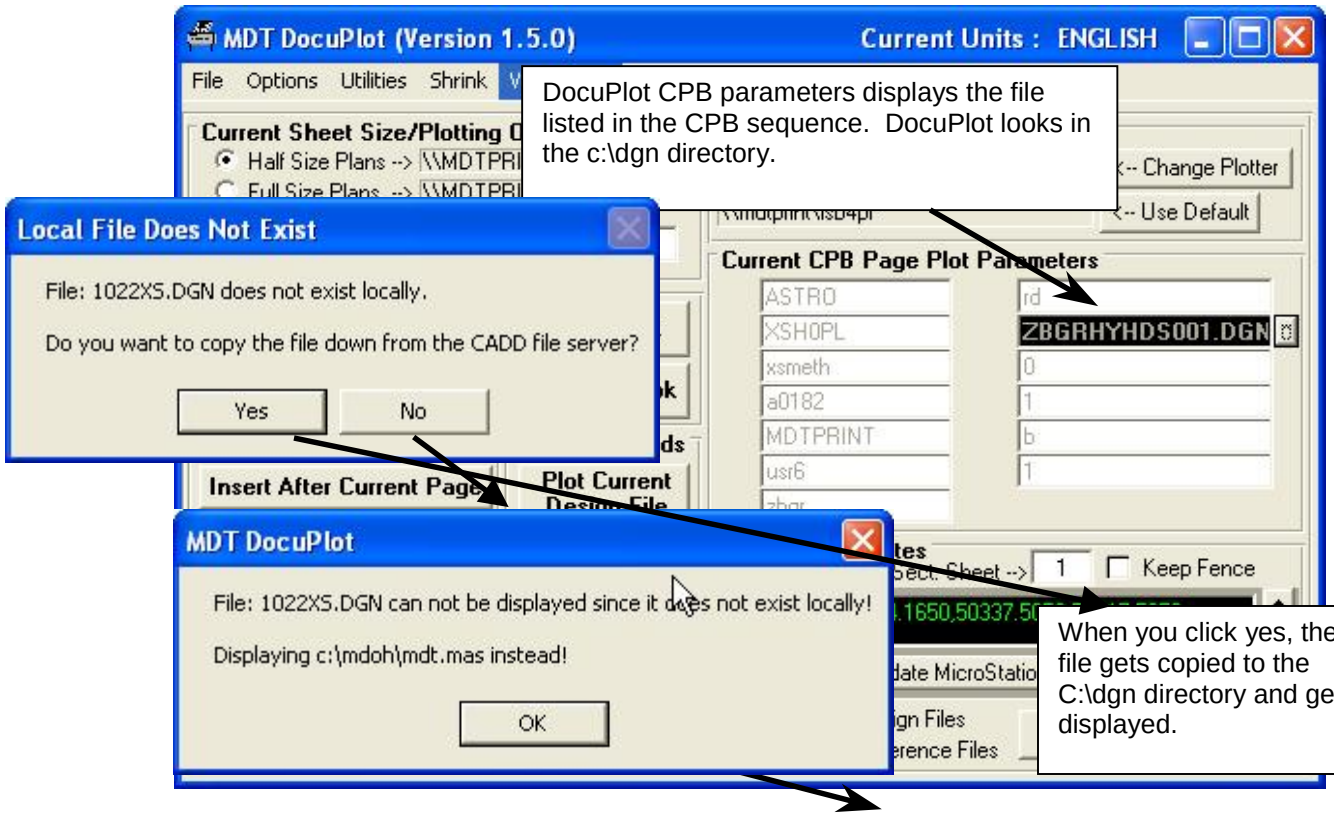
4.7. Paging through an Active Design file in a CPB

You may view standard metric sheets in an active MicroStation design file while in CPB.



4.8. Design File Not Found

When DocuPlot cannot find a file in the local c:\dgn directory, DocuPlot will display MDT.MAS. Fixing this situation requires placing the file in the local c:\dgn directory.



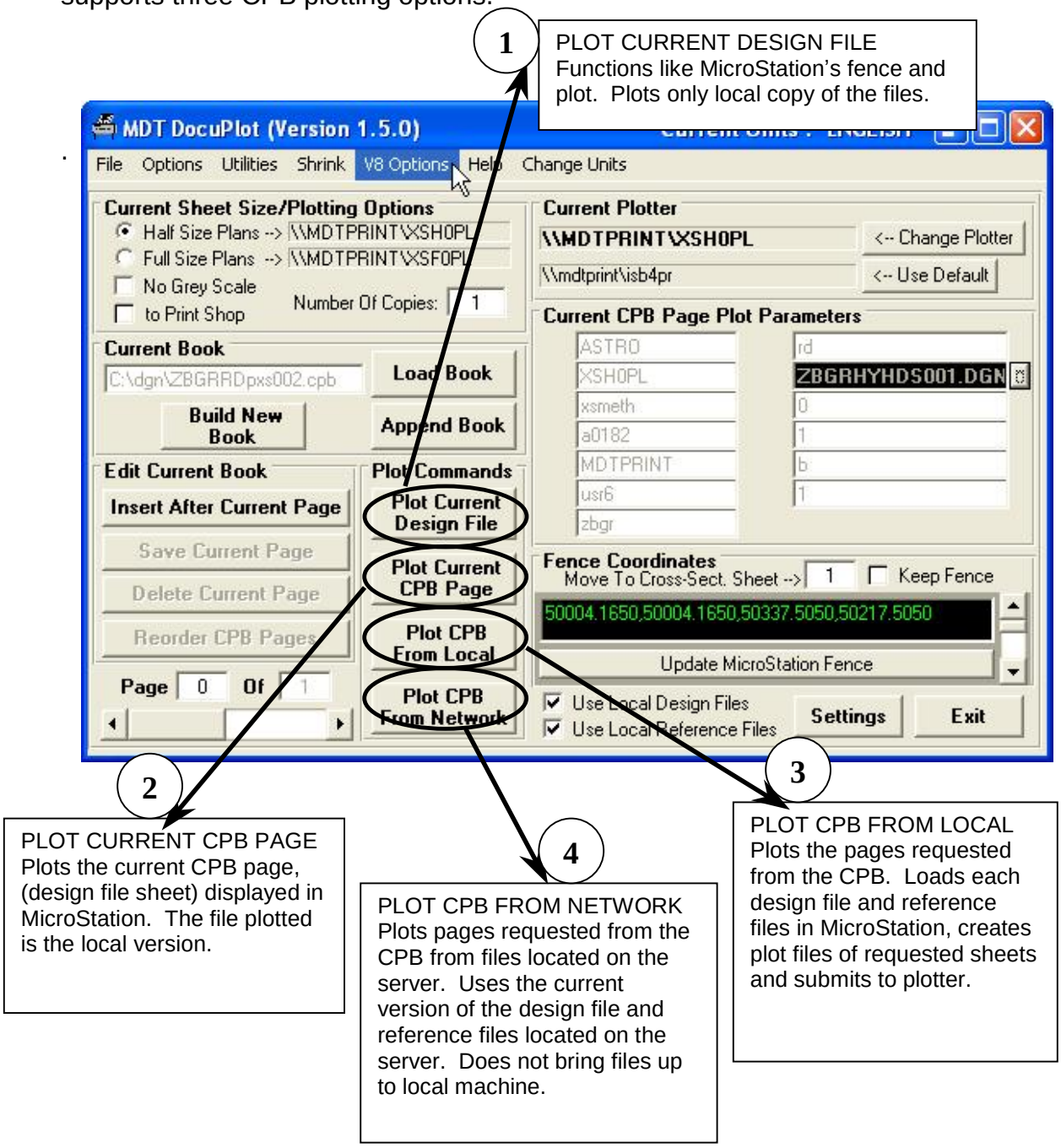
If a design file cannot be found local, Docuplot asks if you want to copy it to the C:\dgn directory. MDT.MAS will be displayed in MicroStation if you say no.

5. PLOTTING EXISTING CPB

A contract plan book has versatility in how it is plotted. A book may be loaded into DocuPlot at the local level and plotted by page, by series of pages, or in it's entirety using local files or server files. DocuPlot will also launch plots entirely from the server, never using MicroStation files at the local level.

5.1. Four Plotting Options

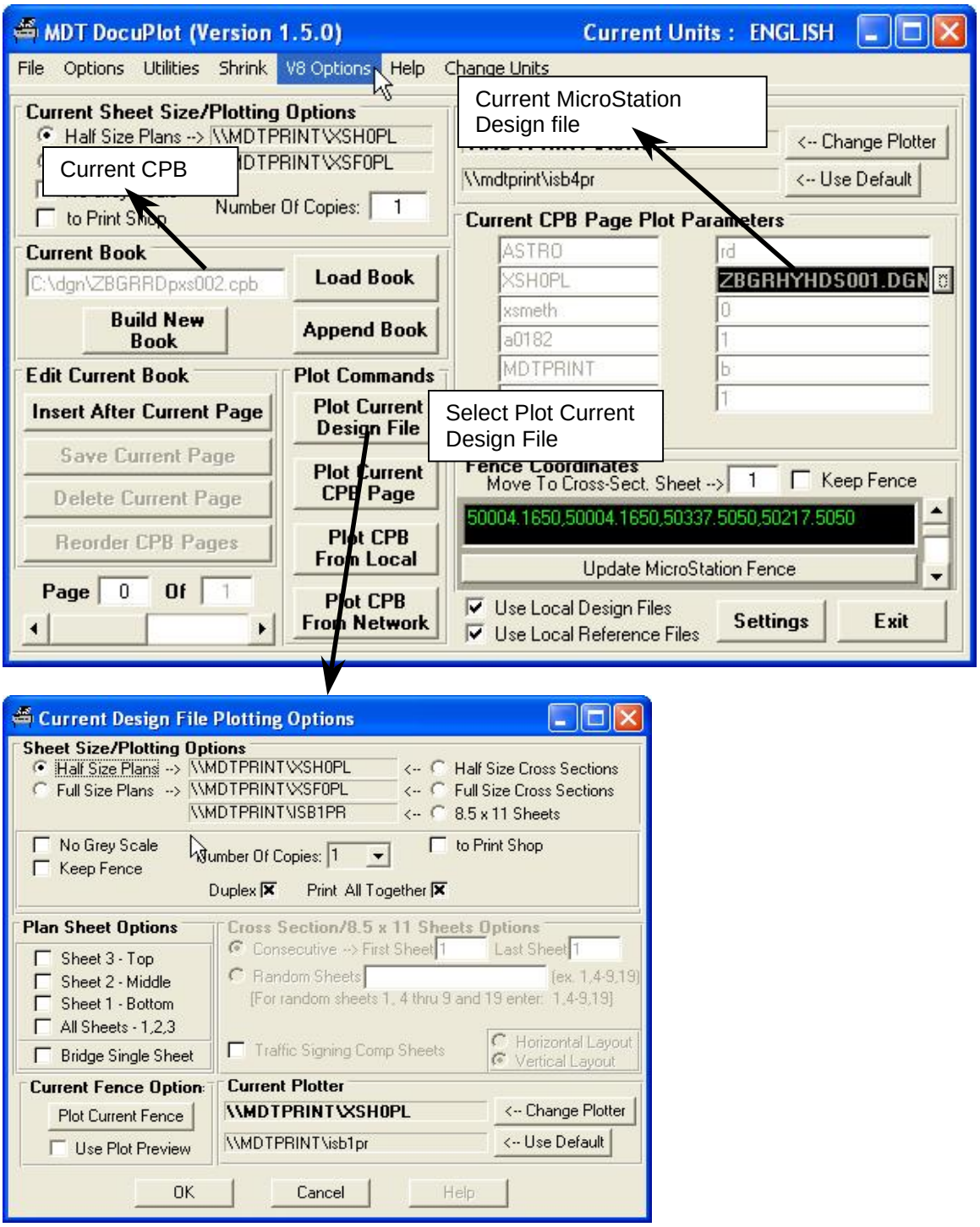
DocuPlot can plot standard sheets from any local MicroStation design file, and supports three CPB plotting options.



5.2. Plot Current Design File

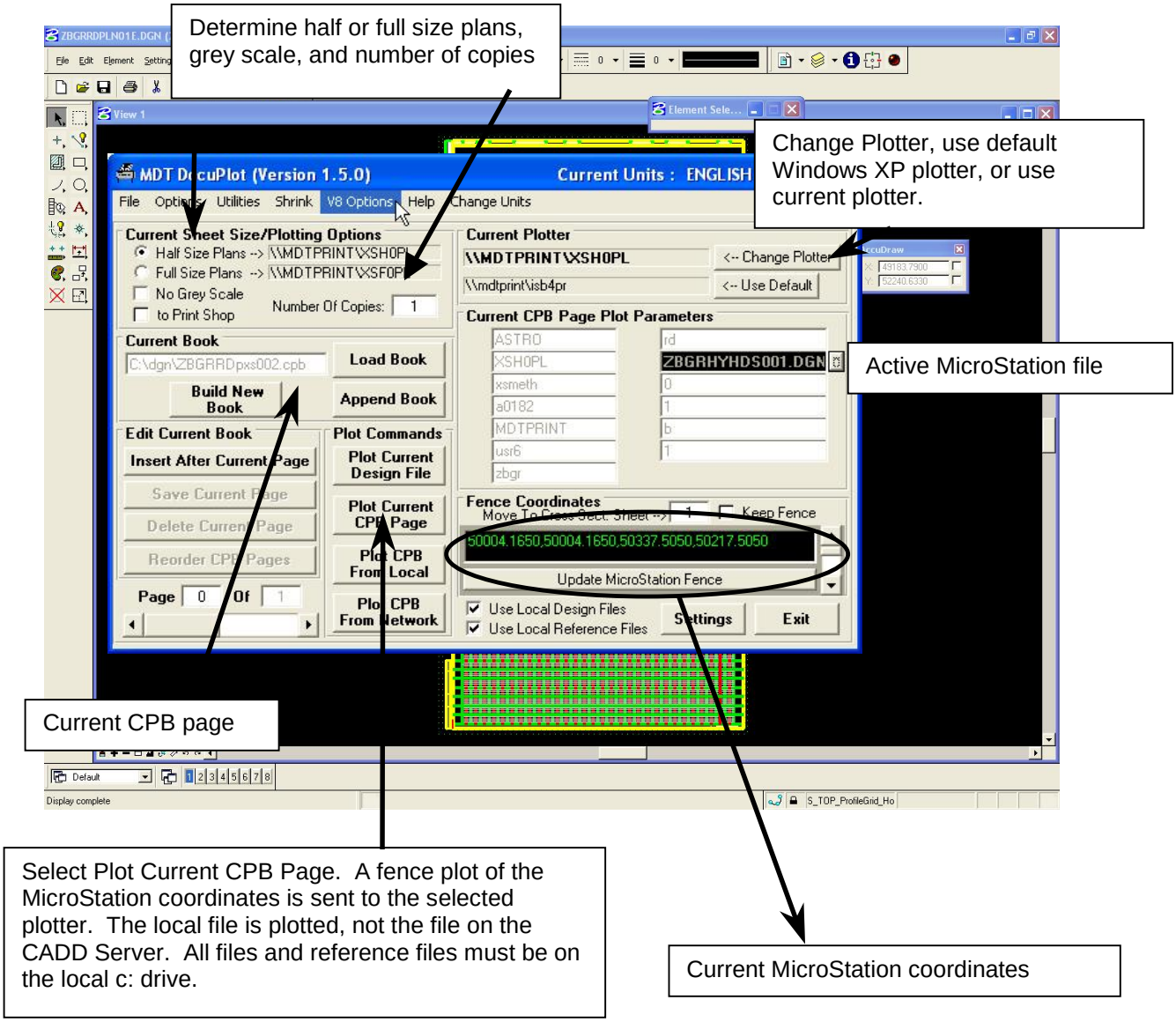
DocuPlot's Local plotting option allows MicroStation users the ability to plot any MDT standard sheet format. This includes metric three-sheet files, single metric bridge files, metric GeoPak cross section files, 8.5 x 11 pavement preservation files, and 8.5 x 11 traffic sign design calculations. The design file must be active in MicroStation in order for the local plotting option to work.

(See section 3,LOCAL PLOTTING, pp14 - 29)



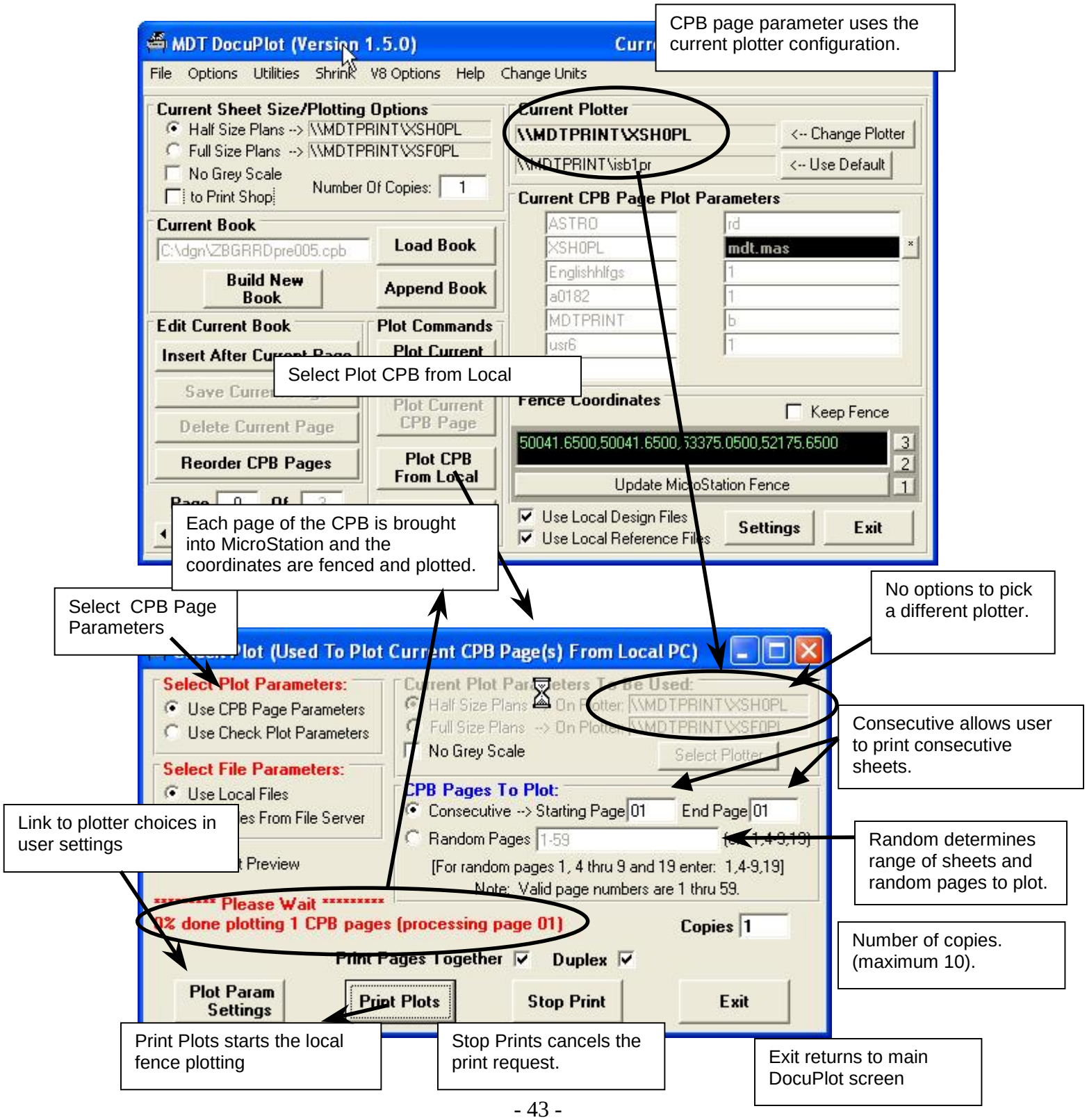
5.3. Plot Current CPB Page

DocuPlot will plot the current CPB page displayed in MicroStation. Default local and network plotter settings are determined in the plot parameter dialog and are independent of the CPB.



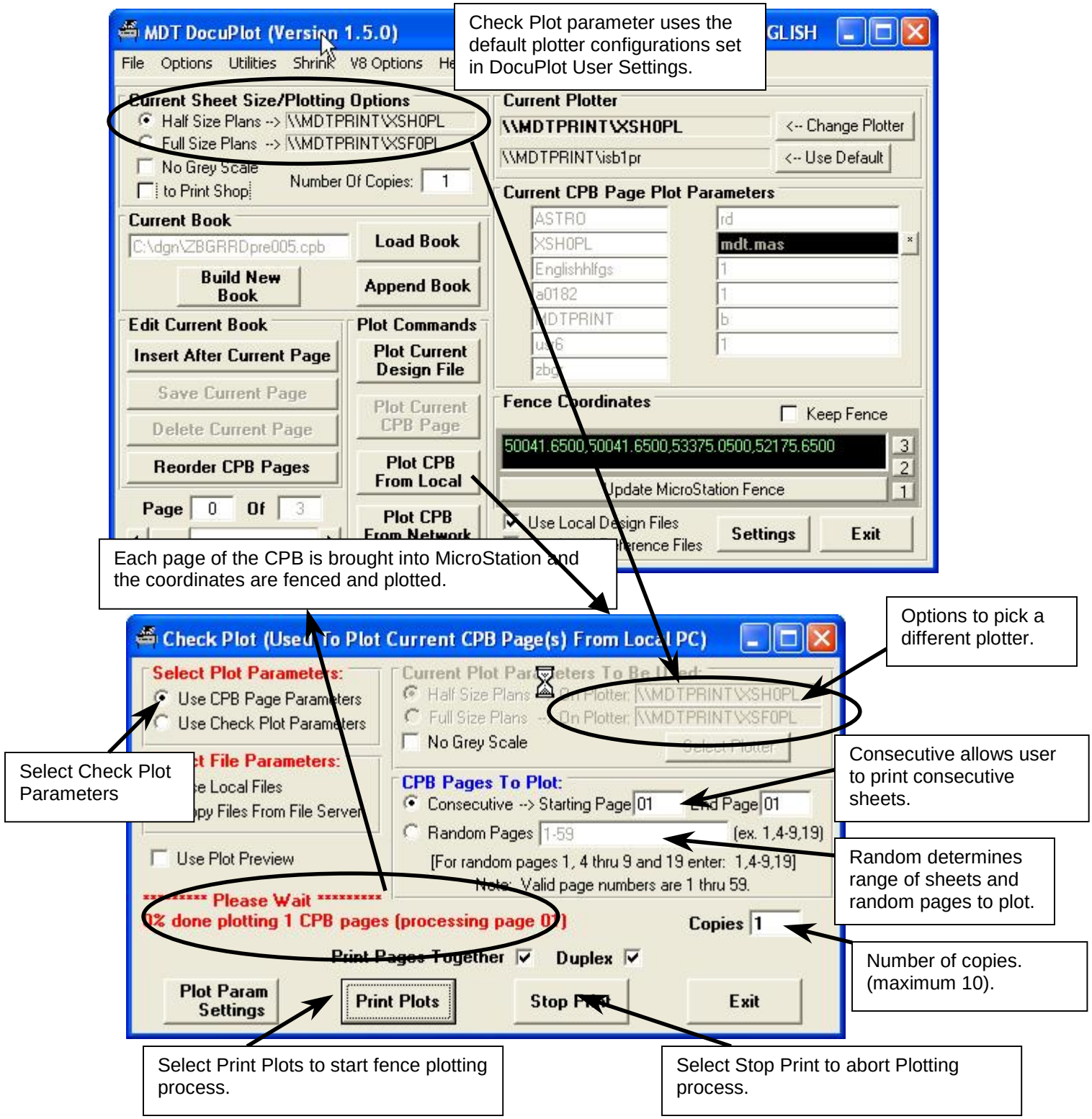
5.4. Plot CPB from Local (CPB Parameters)

DocuPlot will plot specified pages of the local CPB. DocuPlot allows for selecting CPB page parameters or check plot parameters. DocuPlot brings each local design file, and specific sheets associated with the CPB into MicroStation. MicroStation fences and plots the contents, and submits the file to the plotter.



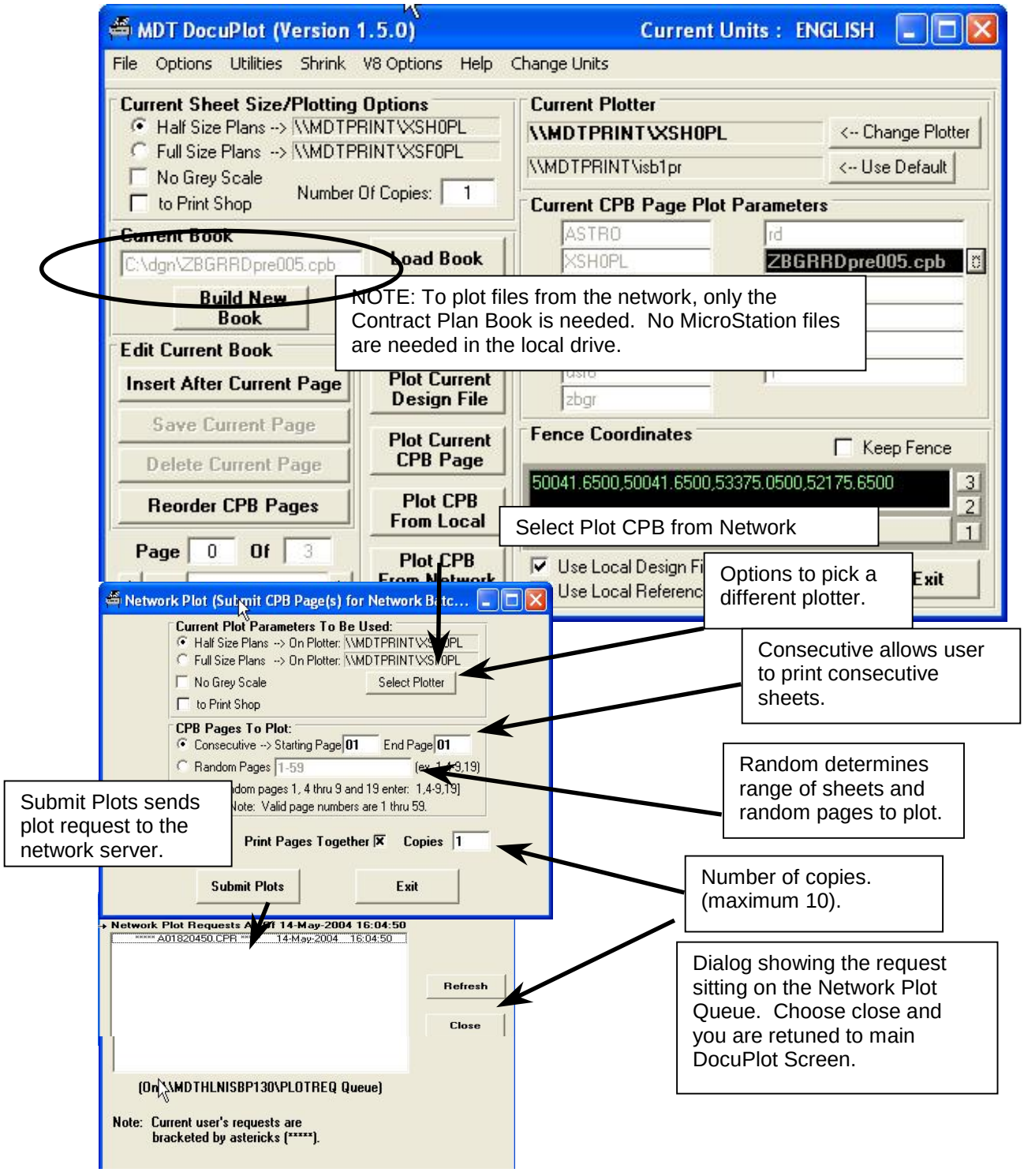
5.5 Plot CPB from Local (Check Plot Parameters)

DocuPlot will allow the user to select any plotter at the check plot dialog or permanently change the plotter default settings.



5.6. Plot CPB From Network

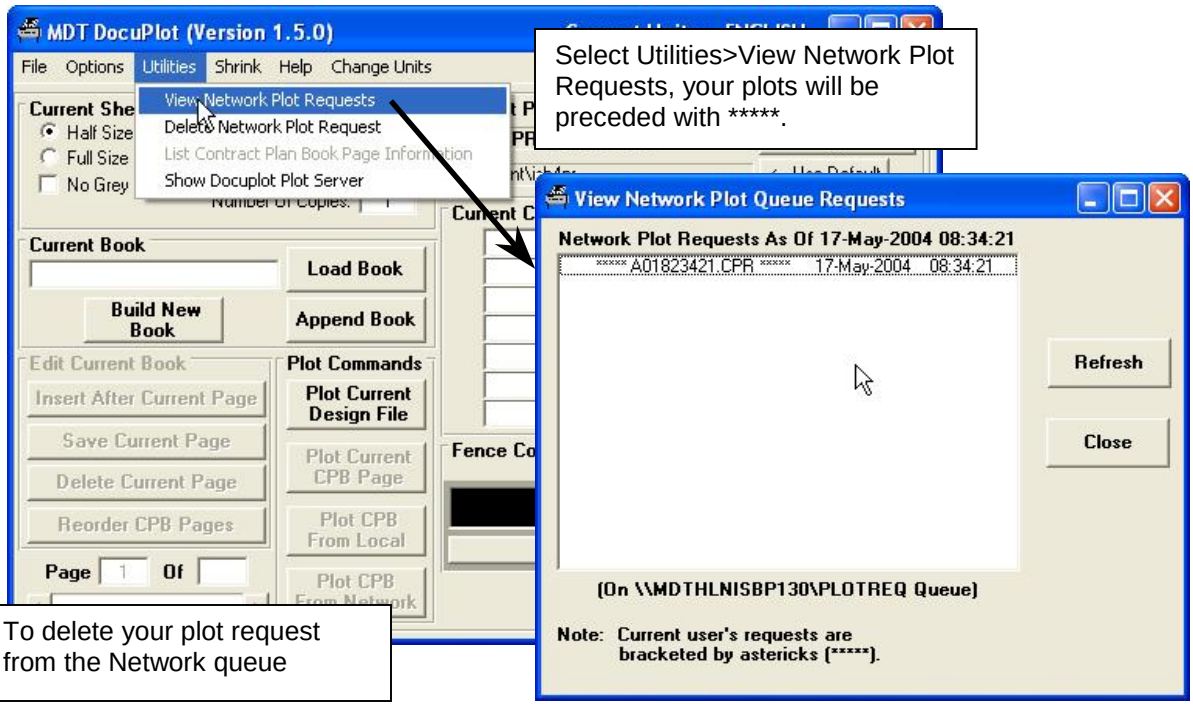
DocuPlot will plot specified pages of the server files in the CPB. DocuPlot allows for choosing plot size, Grey Scale, plotter, specific sheets and number of copies. DocuPlot plots from the server and submits the file to the plotter. *The files are never brought into the local version of MicroStation.*



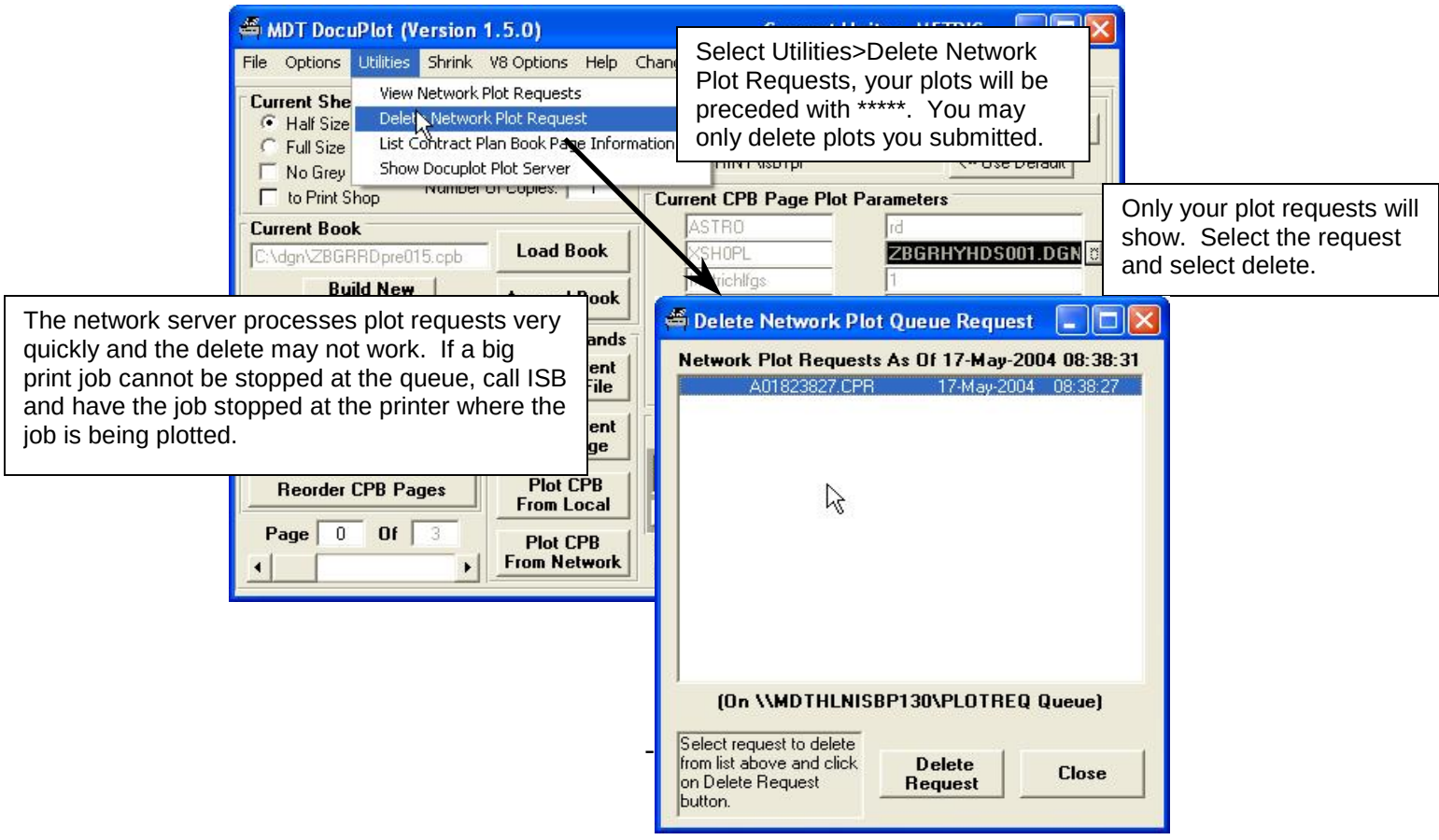
5.7. Viewing and Deleting Network Plot Requests

You can view the plotting queue and see all network plot requests. Plot requests that you sent can be deleted.

To View the Network queue



To delete your plot request from the Network queue

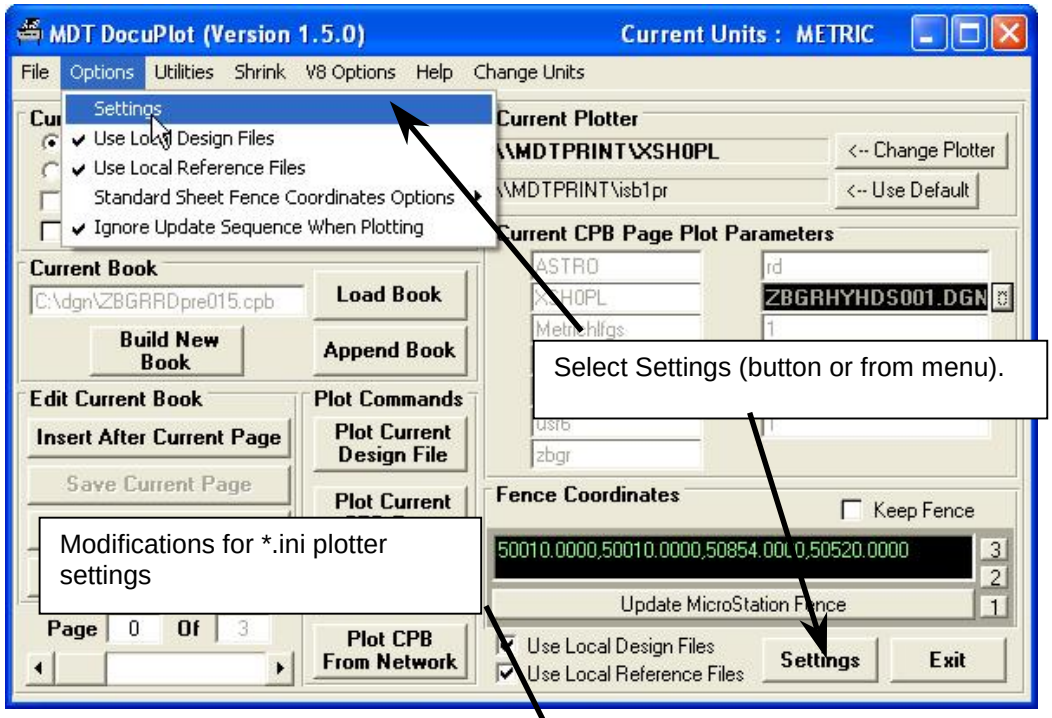


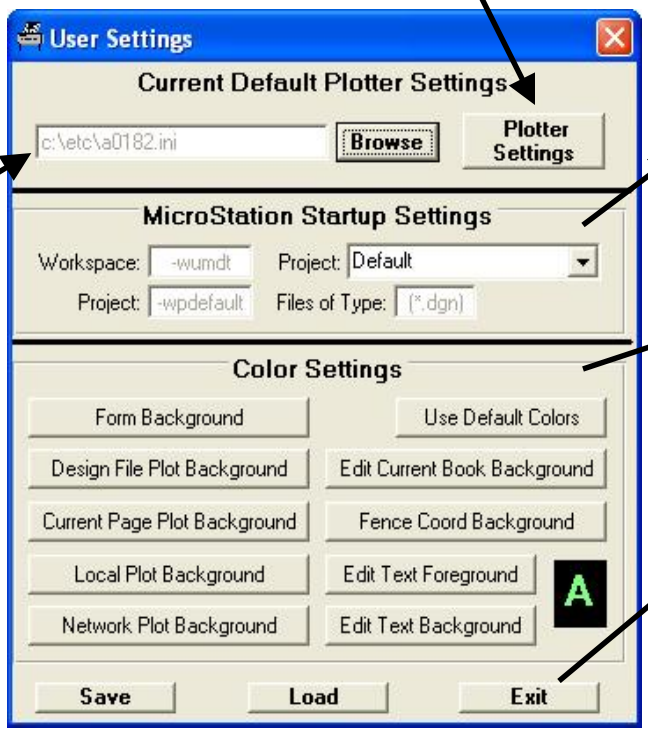
The network server processes plot requests very quickly and the delete may not work. If a big print job cannot be stopped at the queue, call ISB and have the job stopped at the printer where the job is being plotted.

6. DOCUPLOT USER SETTINGS

6.1. U####. ini and U####.std Settings Files

DocuPlot can be customized to each user through a *.ini file and a *.std file. These files are stored in the c:\etc directory. A *.ini file is a setting file that records specific plotter settings for the individual user. The *.std file is used to record specific dialog appearance settings for the individual user.





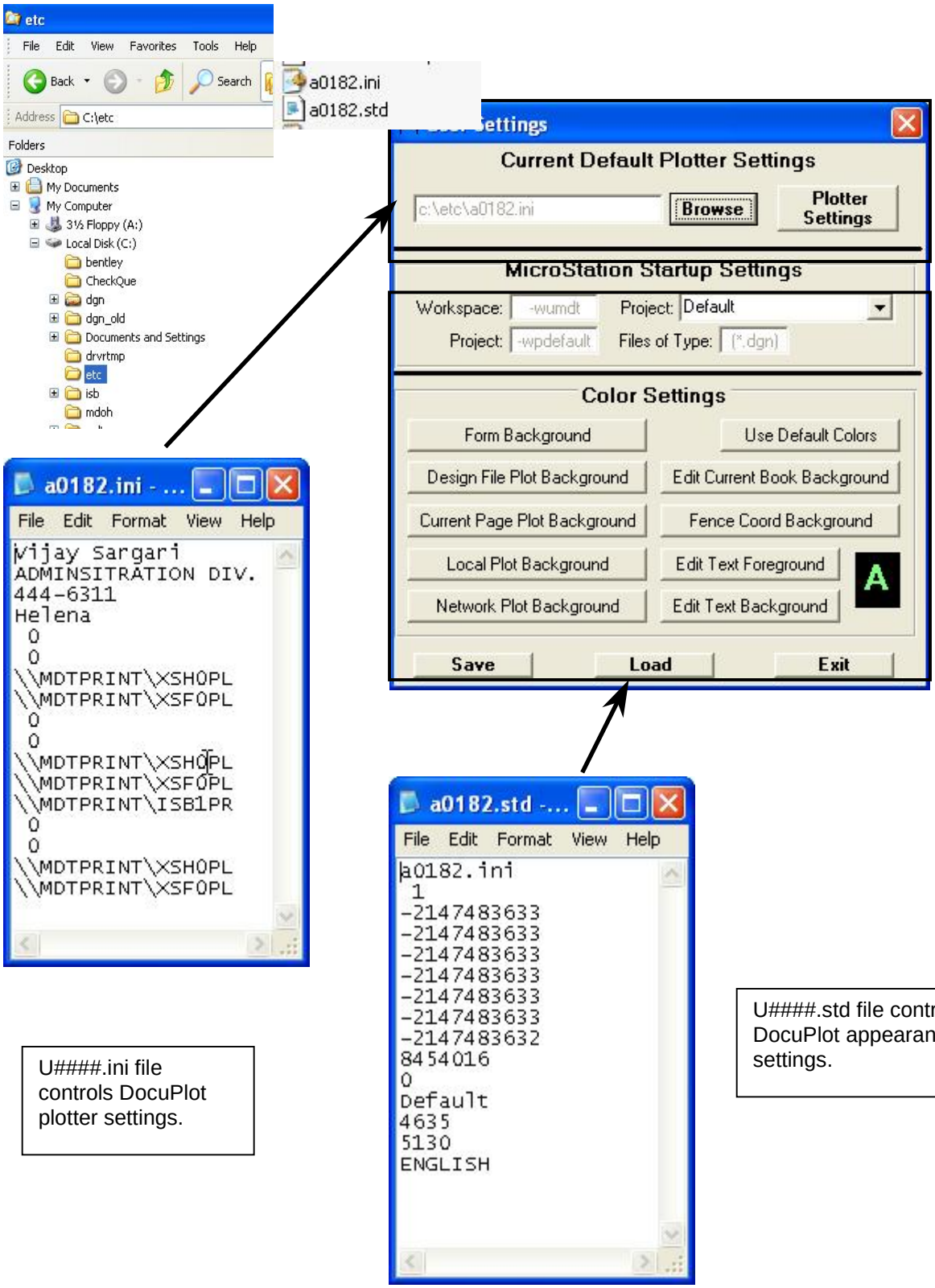
*.INI file is by default the last saved *.ini file loaded into DocuPlot.

Modifications for *.std MicroStation startup settings

Modifications for *.std DocuPlot appearance settings

Exit returns to main DocuPlot screen

CONTINUED ON NEXT PAGE

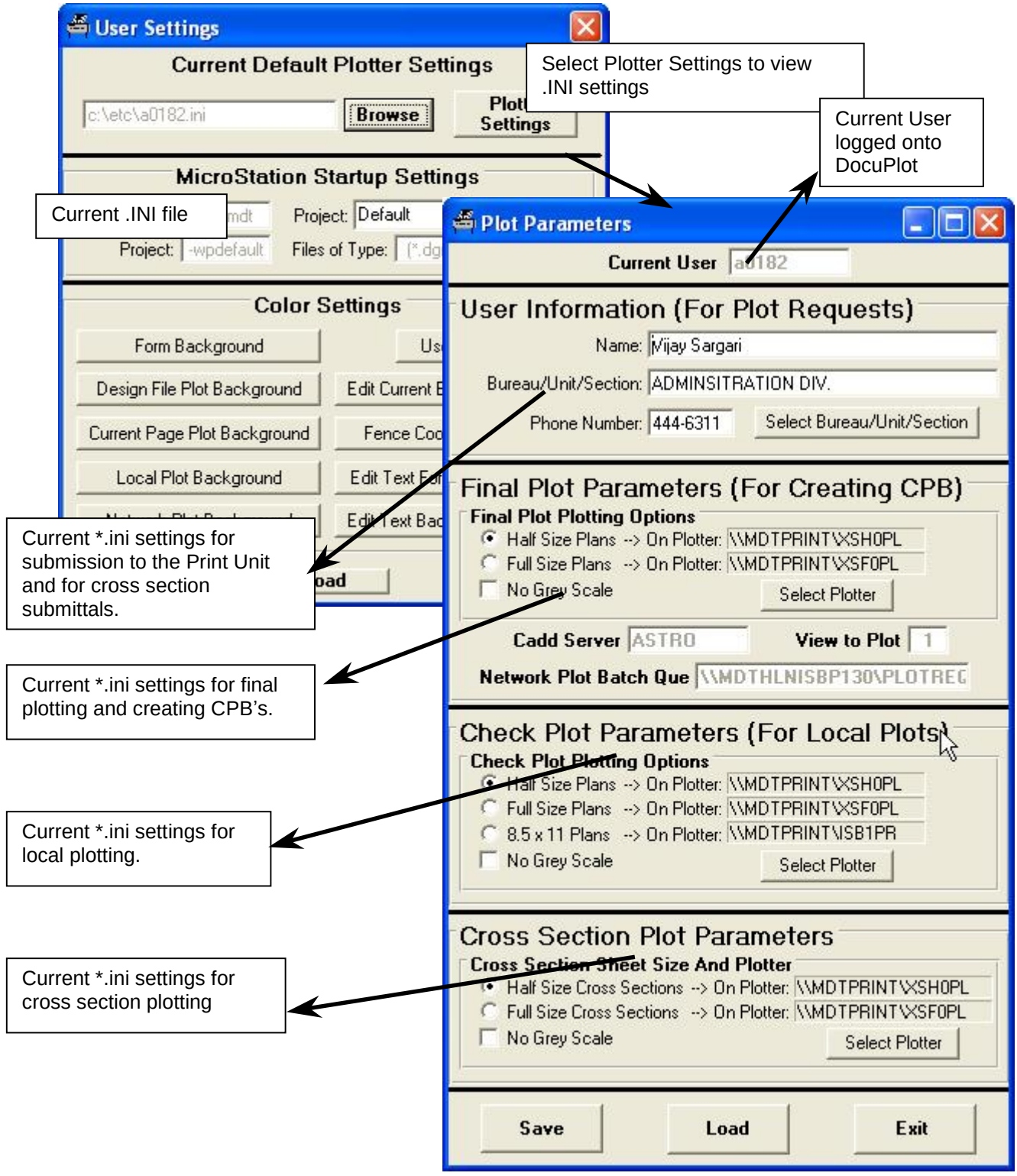


U####.ini file controls DocuPlot plotter settings.

U####.std file controls DocuPlot appearance settings.

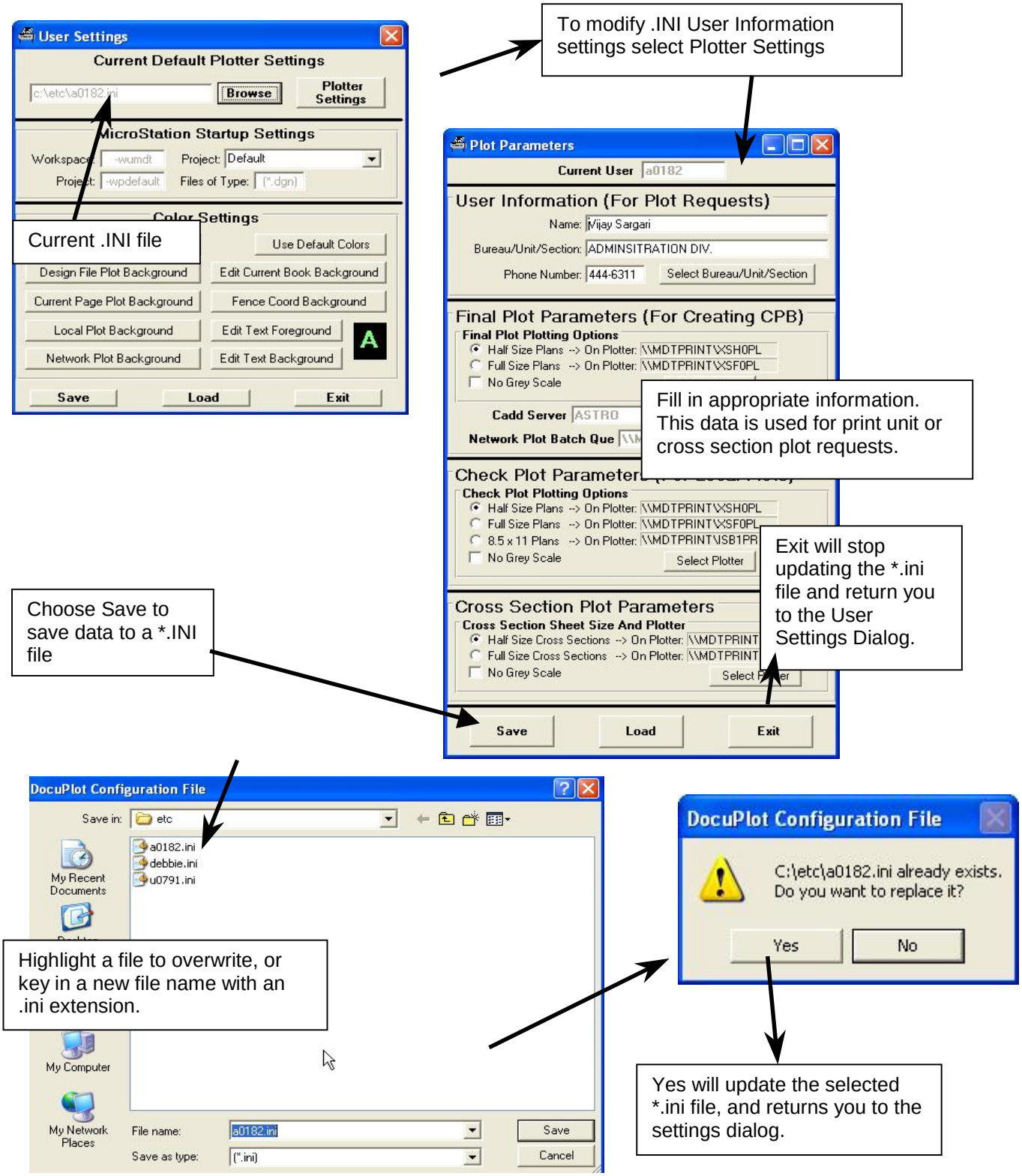
6.2. U####.ini Plotter Settings

DocuPlot has *four plotter settings* determined in an .INI file. The User Information, the Final Plot Parameters, the Check Plot Parameters, and the Cross Section Parameters are all modified within an .ini file.



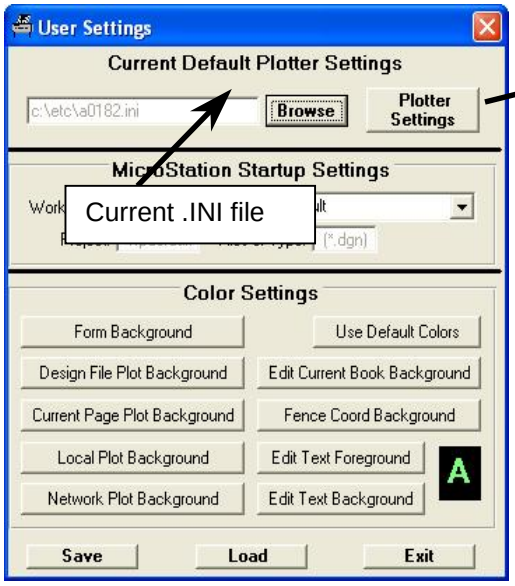
6.3. Modify and Save User Information .INI Settings

User information settings are for submission of plot requests to the Print Unit and for cross section submittals. User information is set in the plot parameters portion of the .ini file.



6.4. Modify and Save Final Plot Parameters .INI Settings

Default plotter settings for CPB page parameters and network plot requests are set in the final plot parameter settings portion of the .ini file.

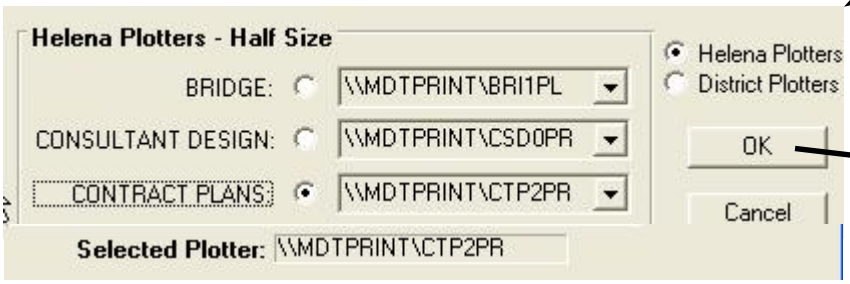


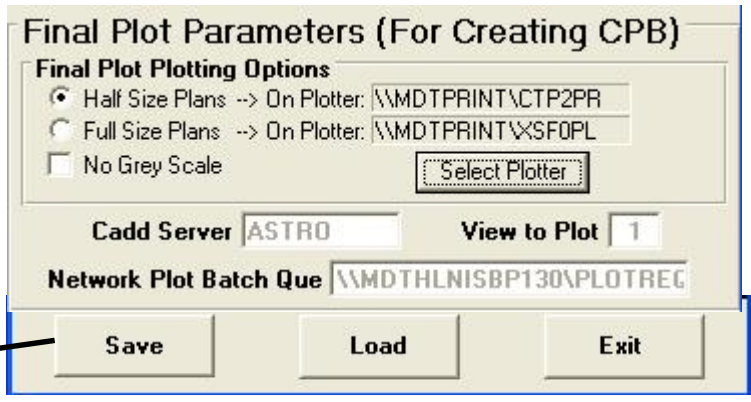
Current .INI file

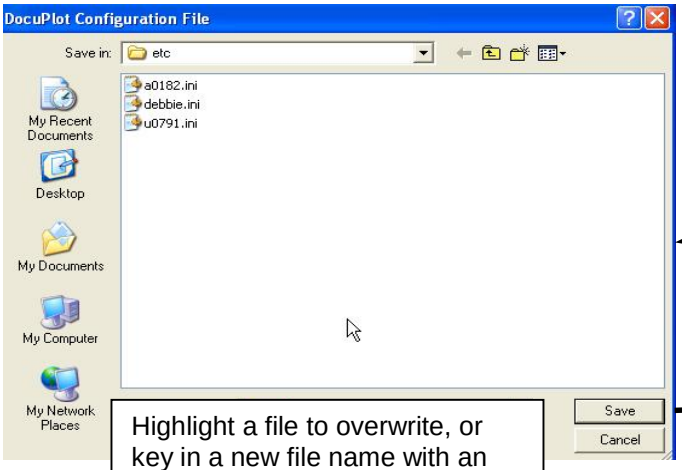
To modify .INI final plot settings select Plotter Settings

Choose the plot size to modify.

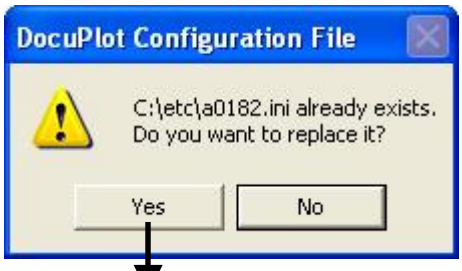
Select Plotter to modify settings for final plot parameters. Select the half-size and full-size plotters you want to set as default selections.







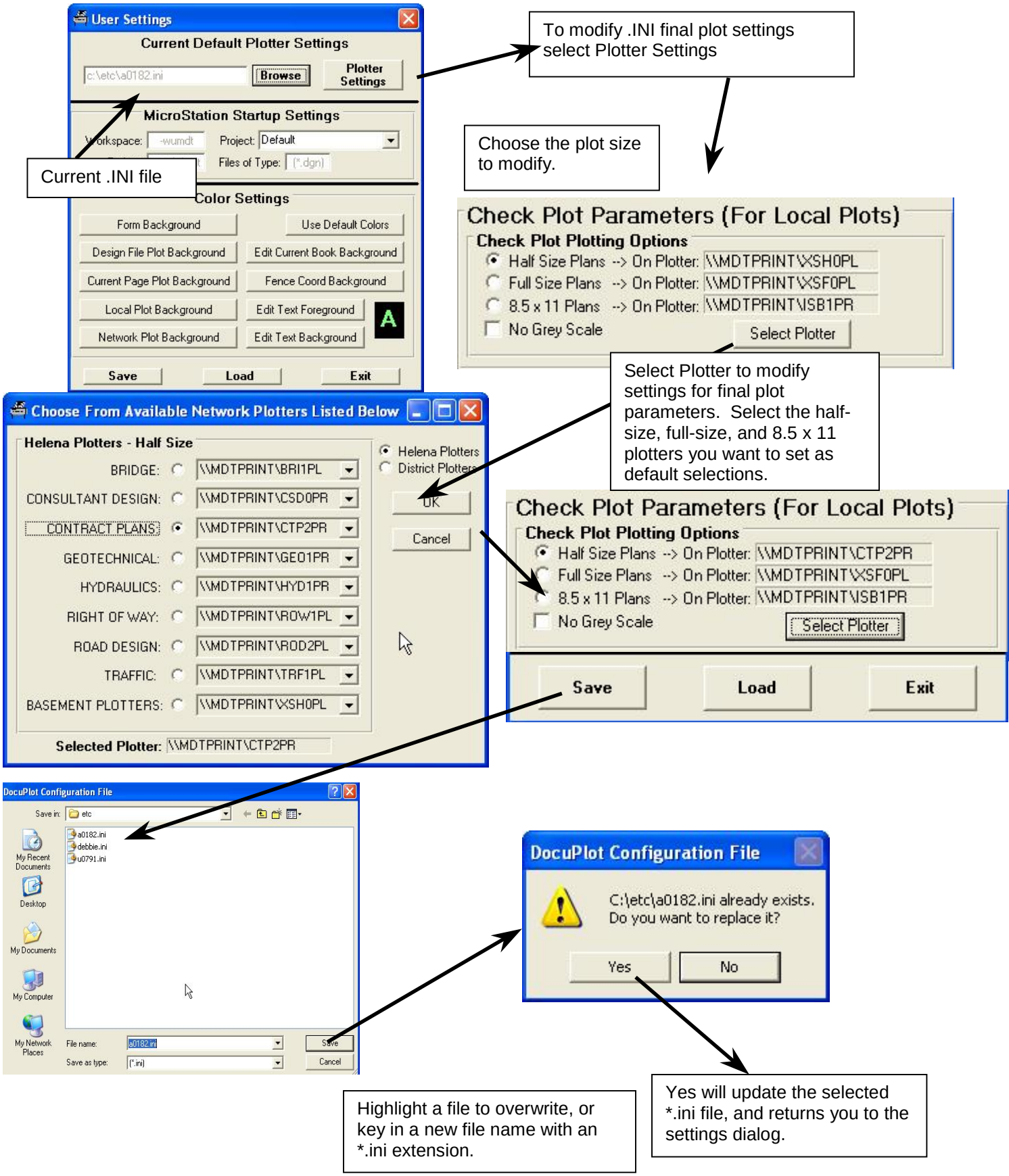
Highlight a file to overwrite, or key in a new file name with an .ini extension.



Yes will update the selected ini file, and returns you to the settings dialog.

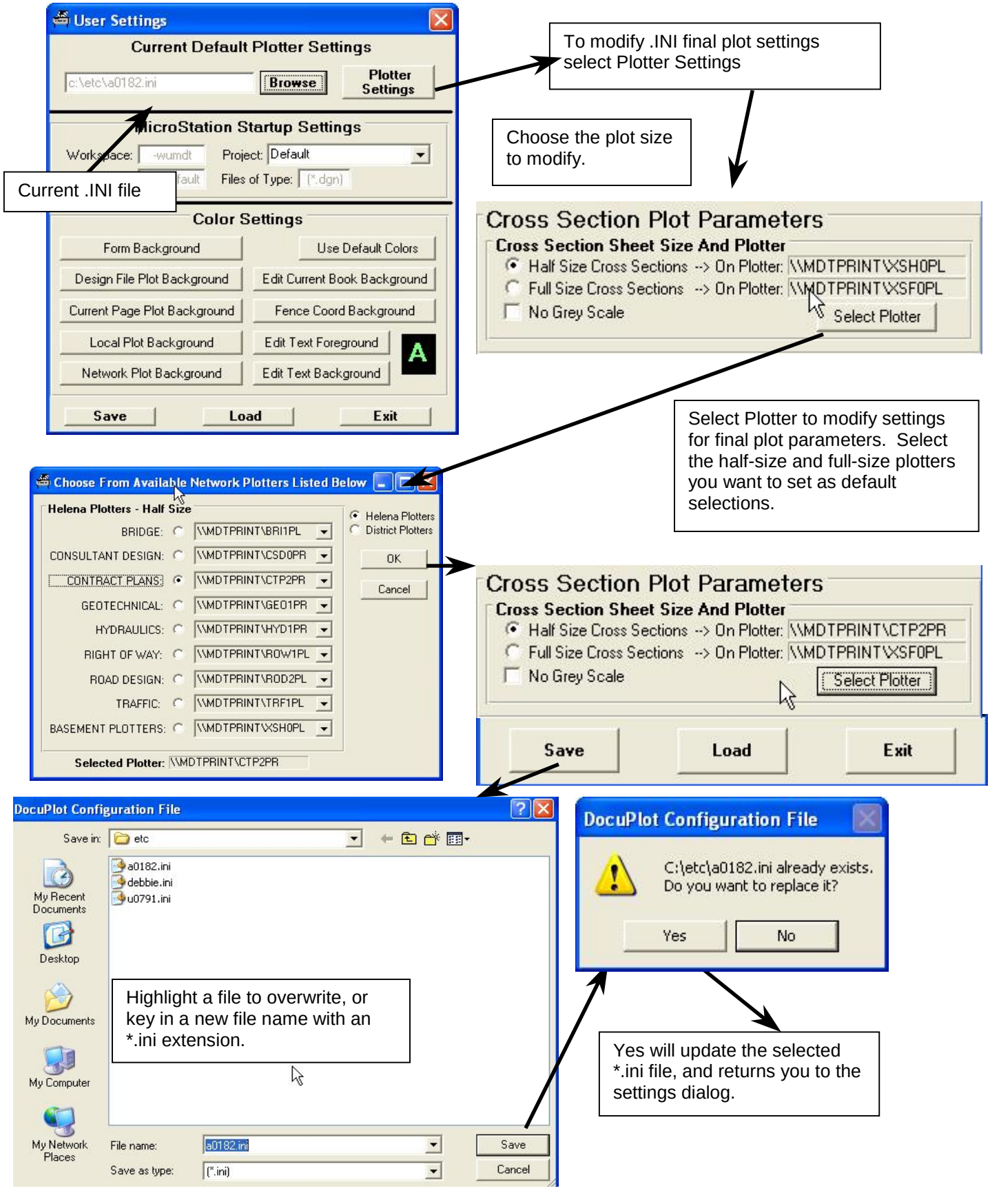
6.5. Modify and Save Check Plot Parameters .INI Settings

Default plotter settings for plotting current design file and check plot parameters are set in the check plot parameter settings portion of the .ini file.



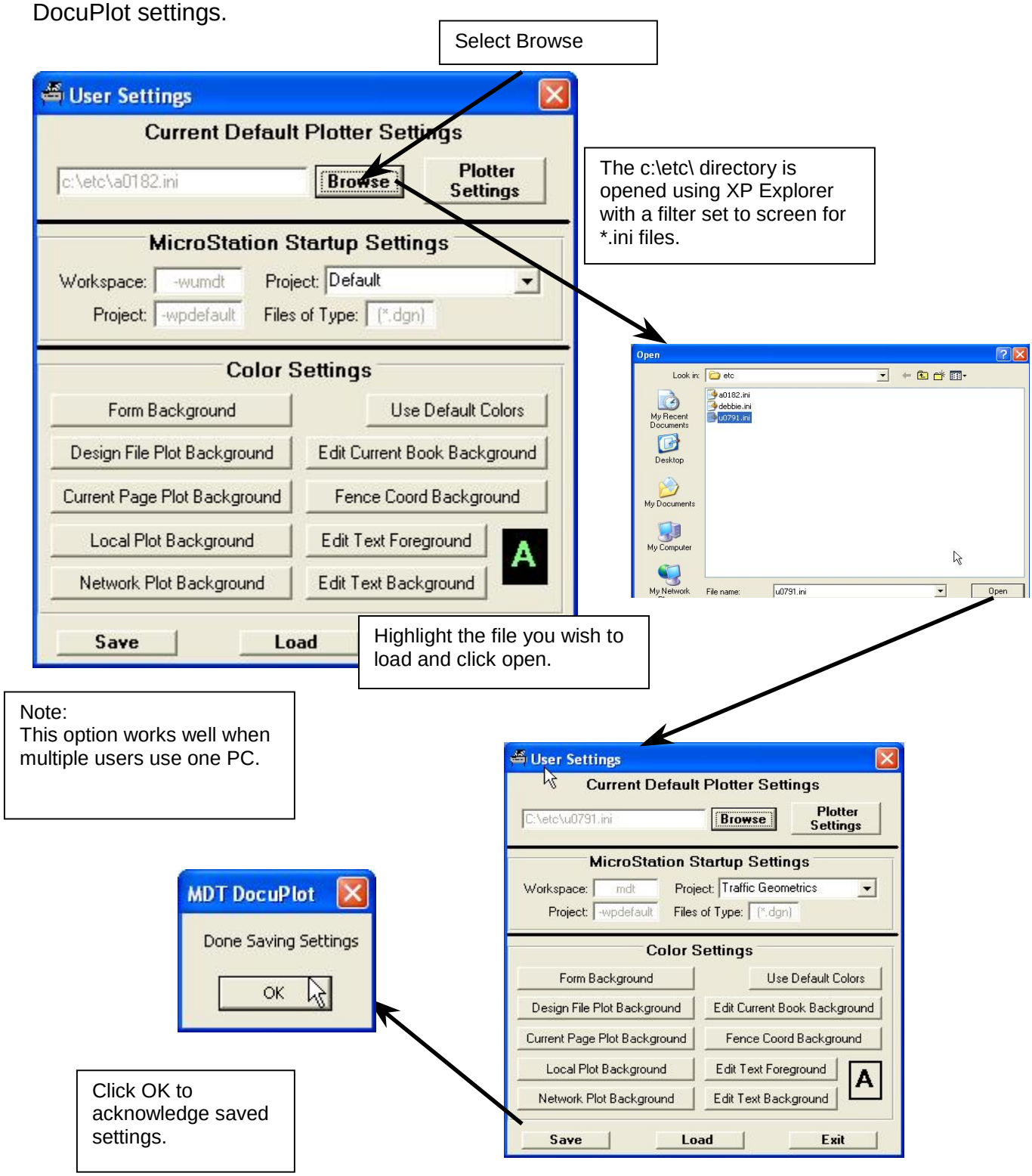
6.6. Modify and Save Cross Section Plot Parameters .INI Settings

Default plotter settings for plotting cross sections are set in the cross section parameter settings portion of the .ini file.



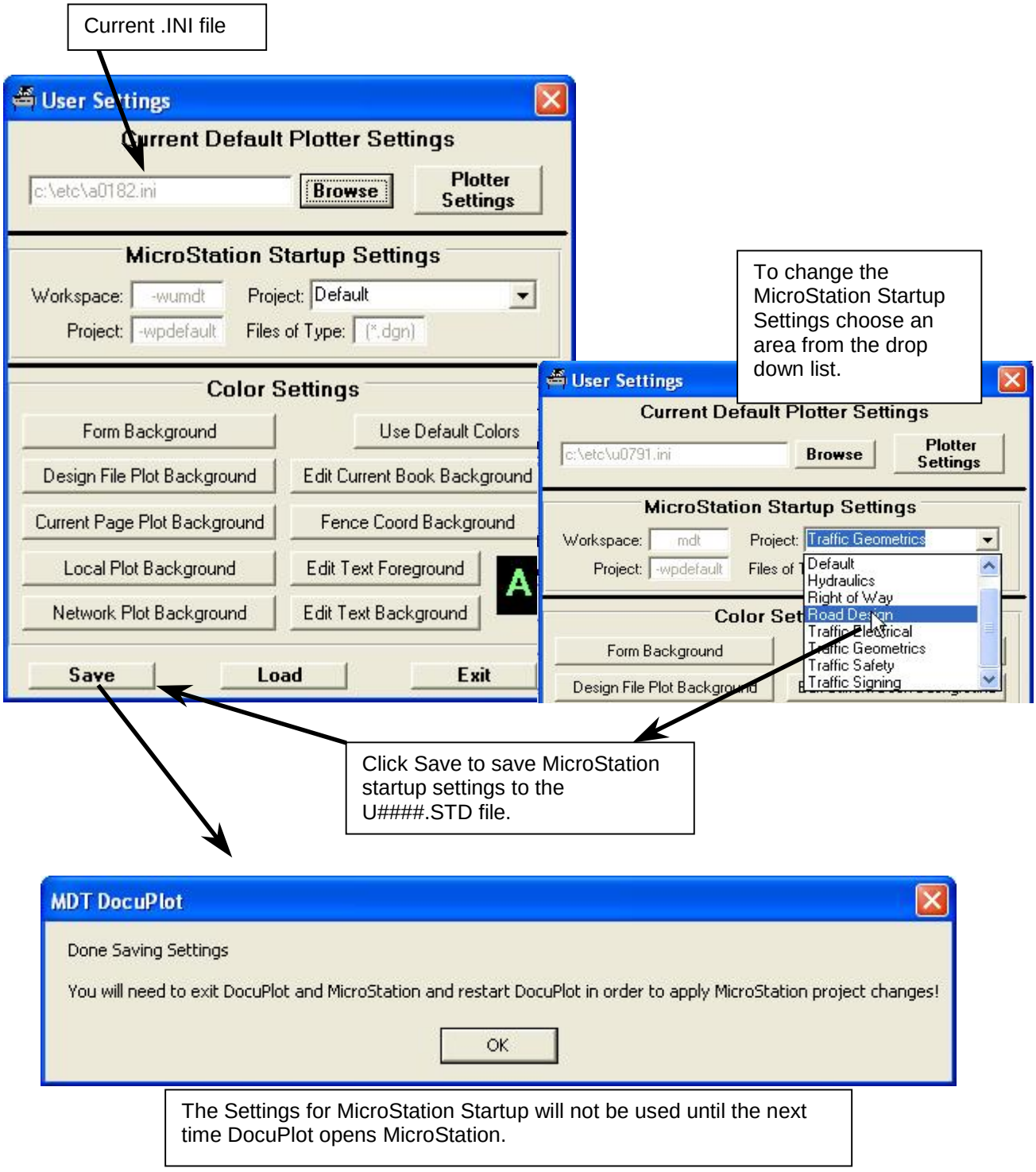
6.7. Selecting and saving an .INI File

A *.INI file may be brought in to DocuPlot and saved as the default settings for the plotter selections. Multiple users can share a PC and have their own DocuPlot settings.



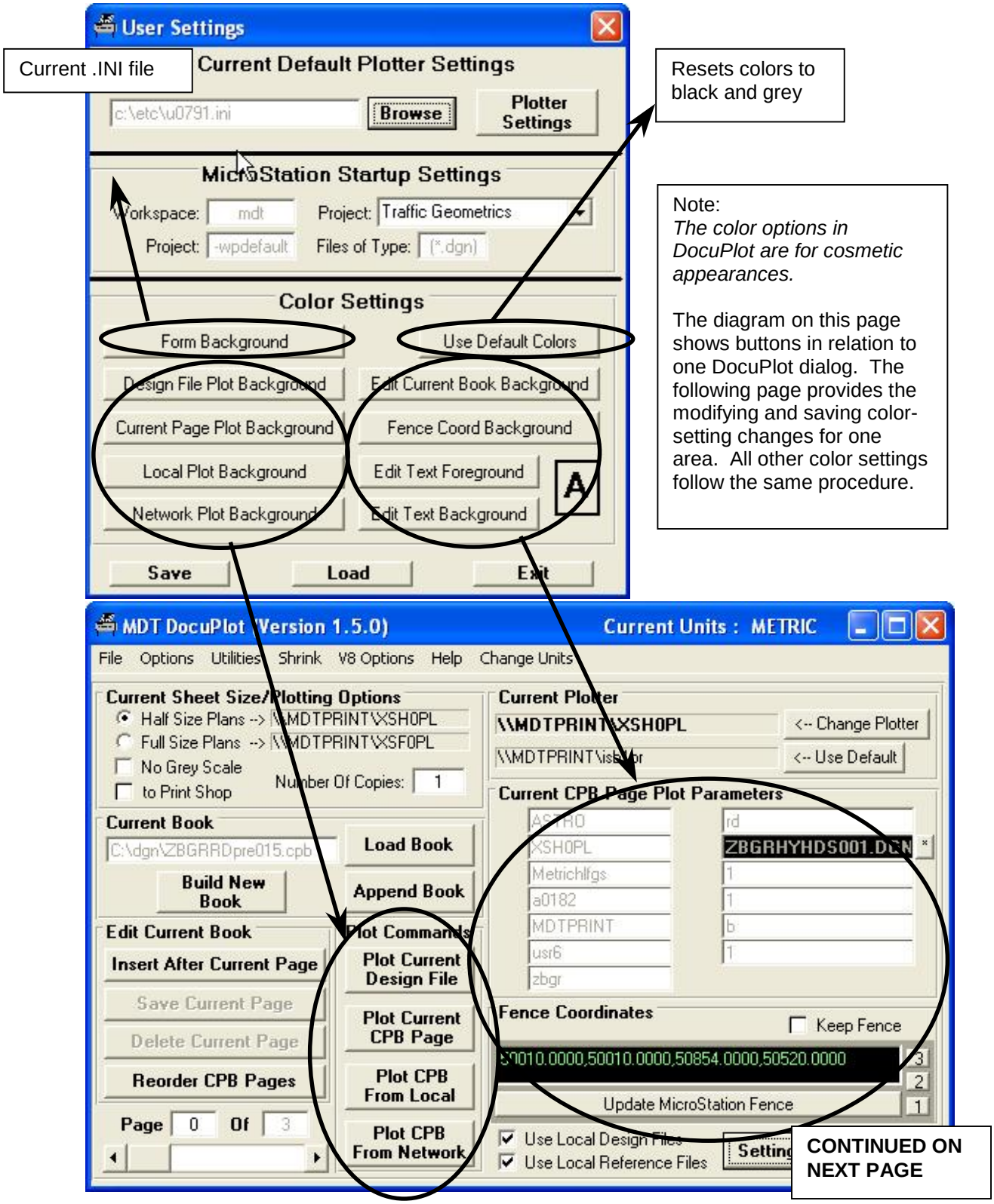
6.8. Modify and Save MicroStation Startup STD Settings

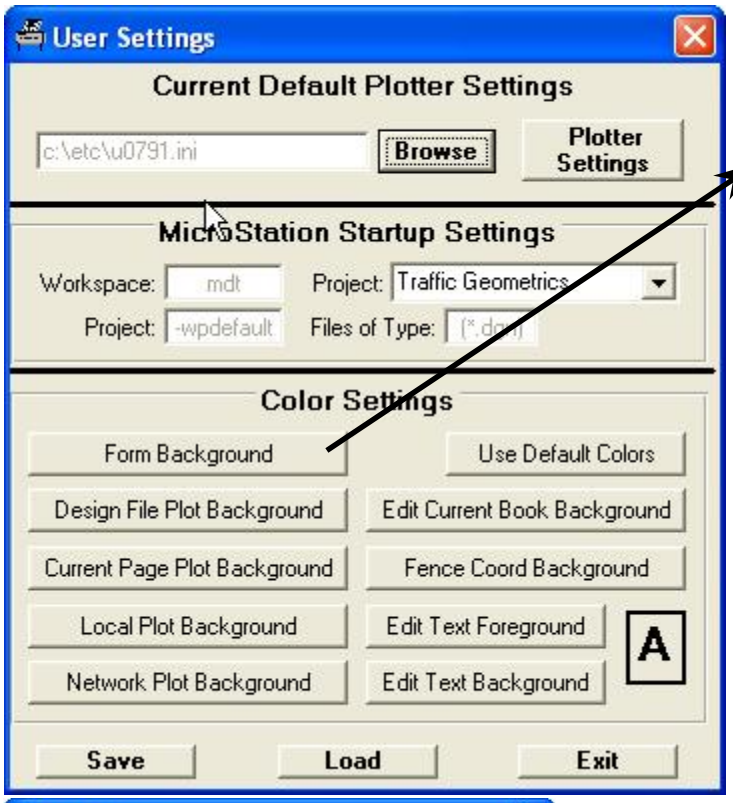
DocuPlot will open MicroStation using the startup settings set in the DocuPlot User settings.



6.9. Modify and Saving Color .STD Settings

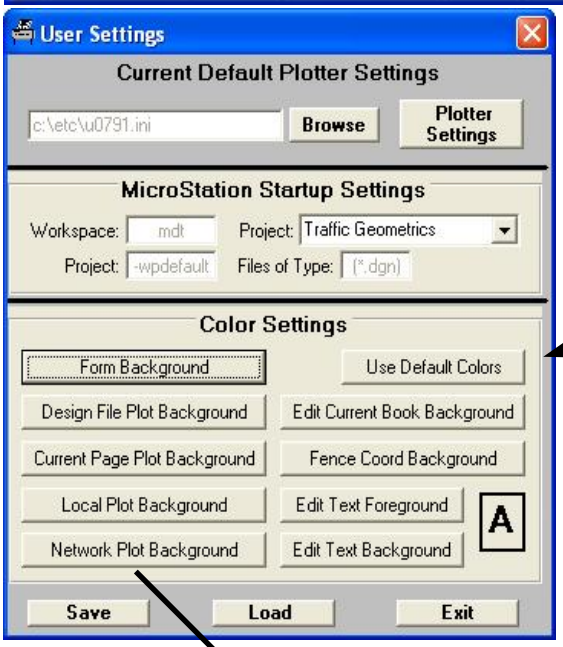
DocuPlot can be customized for cosmetic appearance. The default appearance is gray and black. These colors are modified using the User Settings dialog.





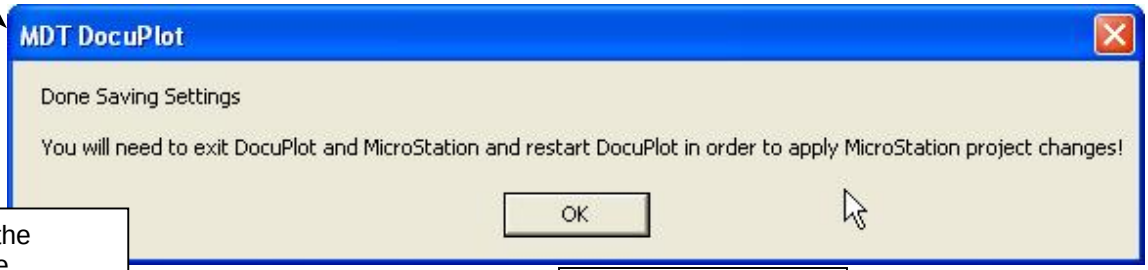
Select portion of DocuPlot dialog to apply a new Color Setting to.

Select Color and select OK



Note:

All color settings for portions of the DocuPlot screen follow the same format shown on this page.

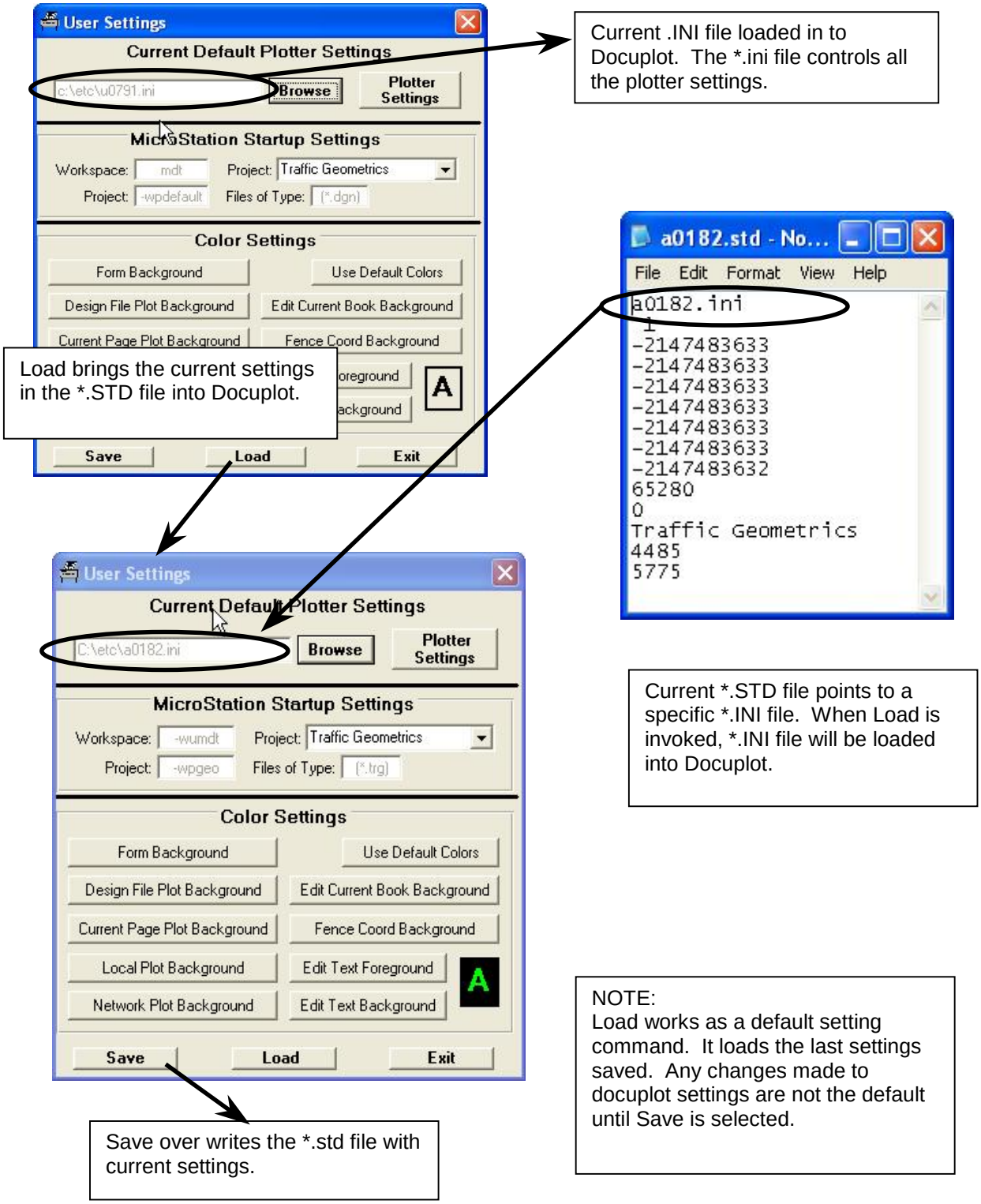


Select Save to update the attached u#####.std file.

OK to acknowledge saved settings.

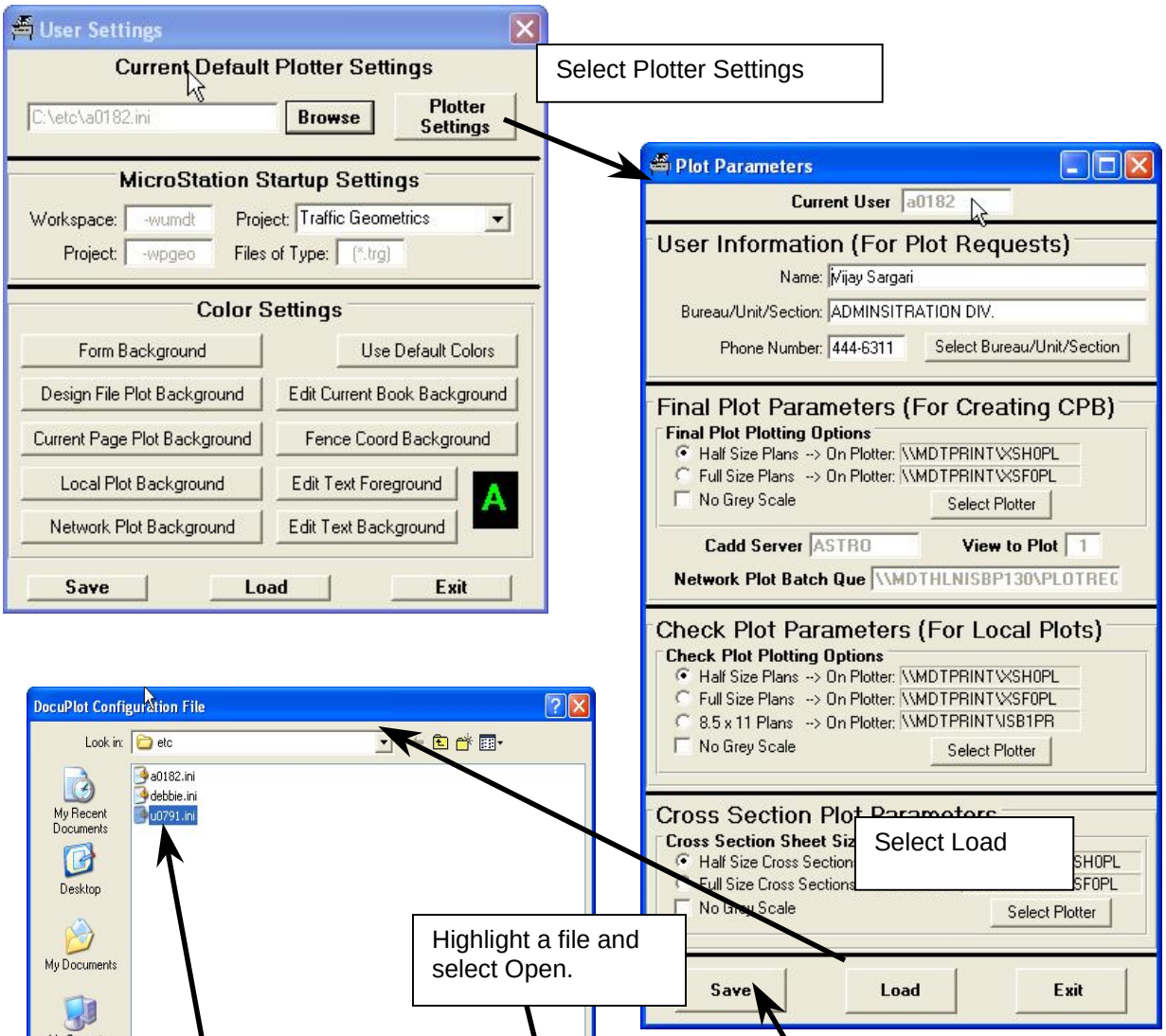
6.10. Load .STD Settings File into DocuPlot

The *.INI settings and *.STD files are separate entities. They are linked together in the *.STD file using the SAVE command. The User Settings LOAD command activates the settings within the current *.std file.



6.11. Load .INI Settings File into DocuPlot

The Plot Parameters LOAD command activates the settings within a selected *.ini file. The Plot Parameters SAVE command writes to the *.ini file.



NOTE:
To save loaded *.ini settings as a u####.ini file for DocuPlot plotter settings, return to the User Settings Dialog and select Save.

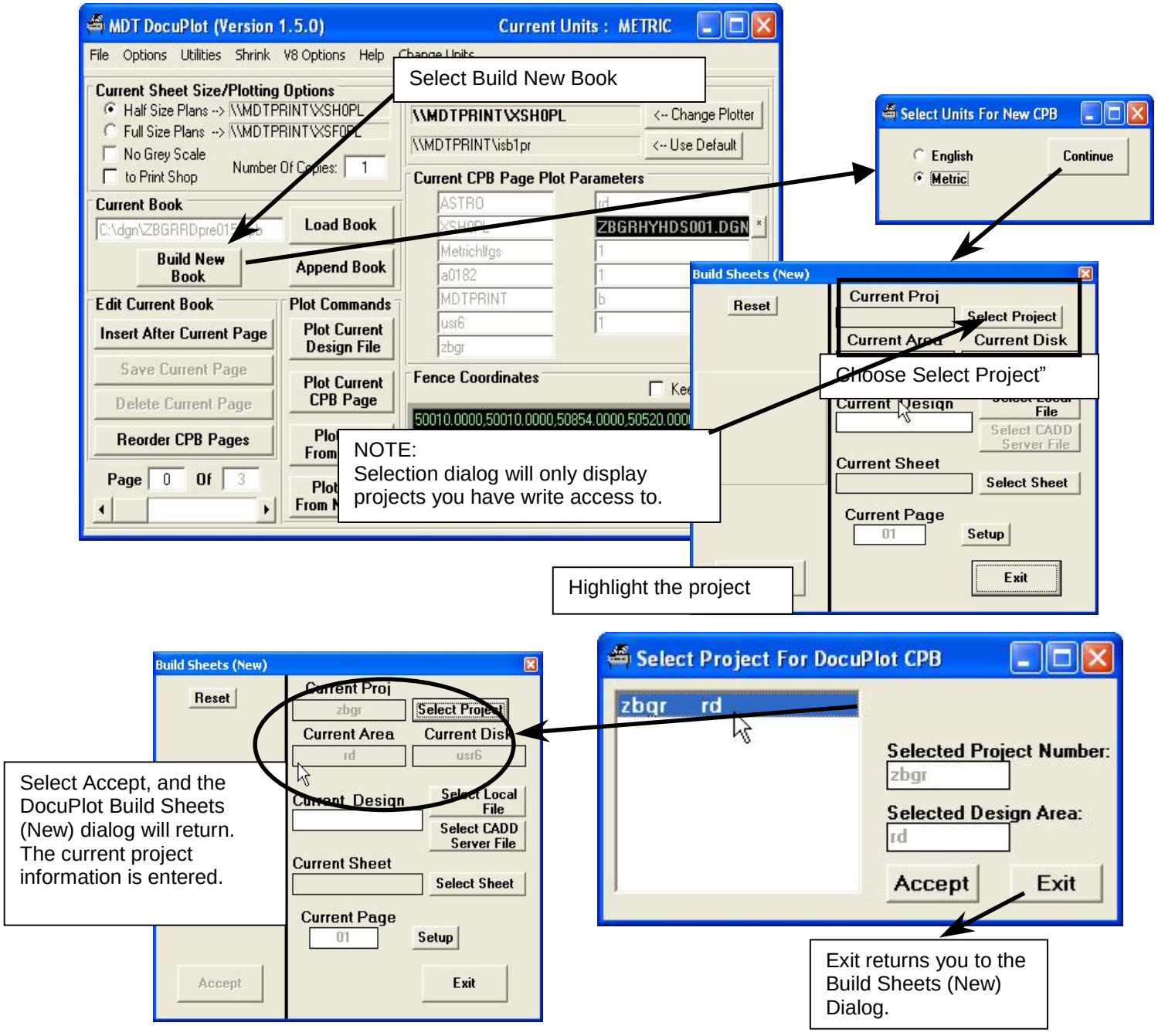
By not selecting save, the loaded .ini file is used for temporary plotter settings.

7. BUILD NEW CPB BOOK

DocuPlot builds electronic CPB's, (Contract Plans Books). A CPB is an electronic script file that contains a page for, CADD Server data, design file name, and sheet coordinates. A CPB is a sequential order of MicroStation design files for the contract plan package.

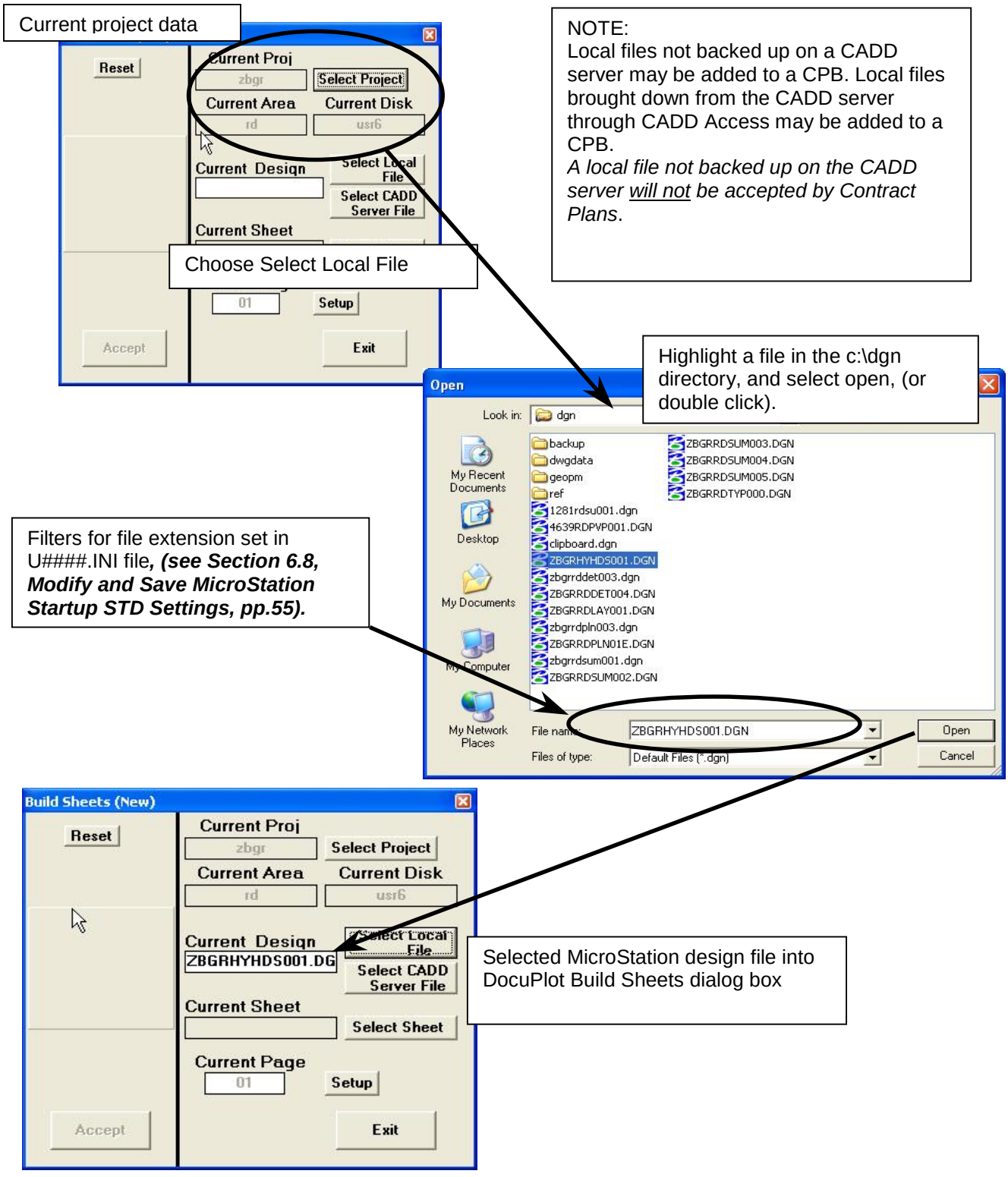
7.1. Determine Project #### and Area for CPB

A CPB can only be built using projects and areas that a user has *write access* to.



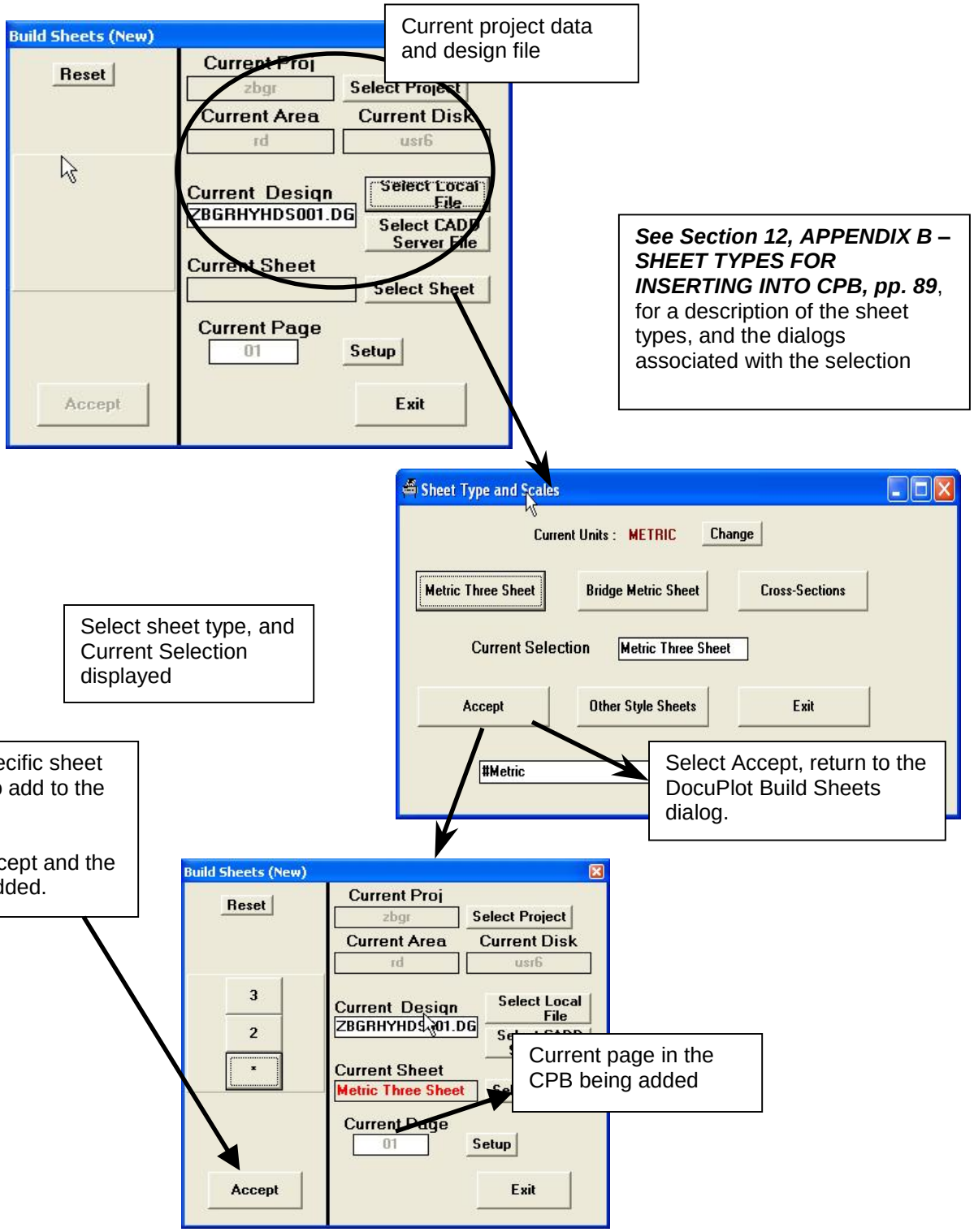
7.2. Build Plan Sheet CPB - Insert Local File After Current Page

A design file, (CPB page), can be added after the current page. Every book starts with page 0 and is labeled MDT.MAS. To add a page select a local design file and sheet number to add into the CPB.



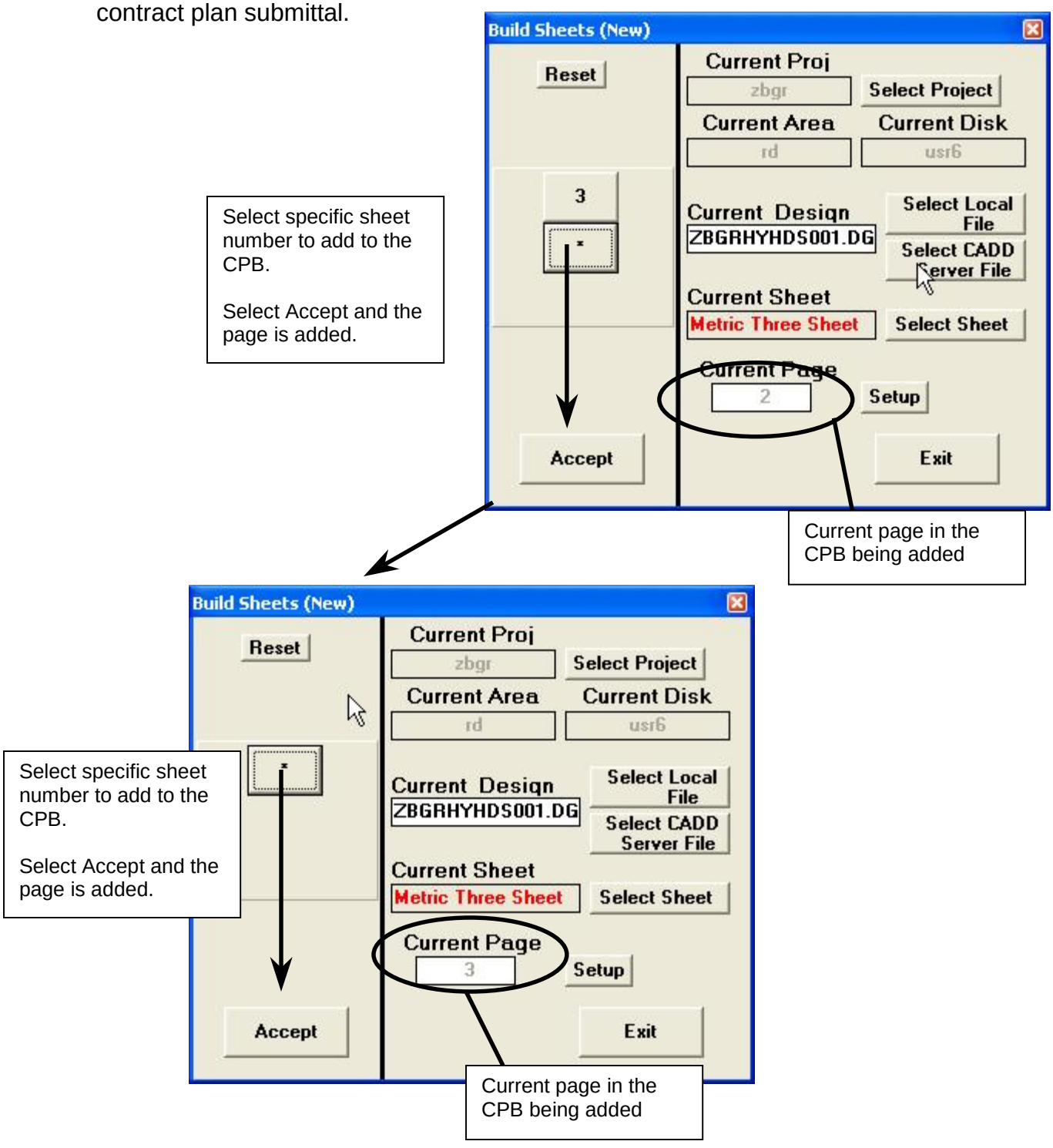
7.3. Build Plan Sheet CPB - Insert Sheet from Local File

To add a specific sheet in a design file into the CPB, click the select sheet option. Every book starts with page 0 and is labeled MDT.MAS. When creating the contract plans add the required sheets in sequential order.



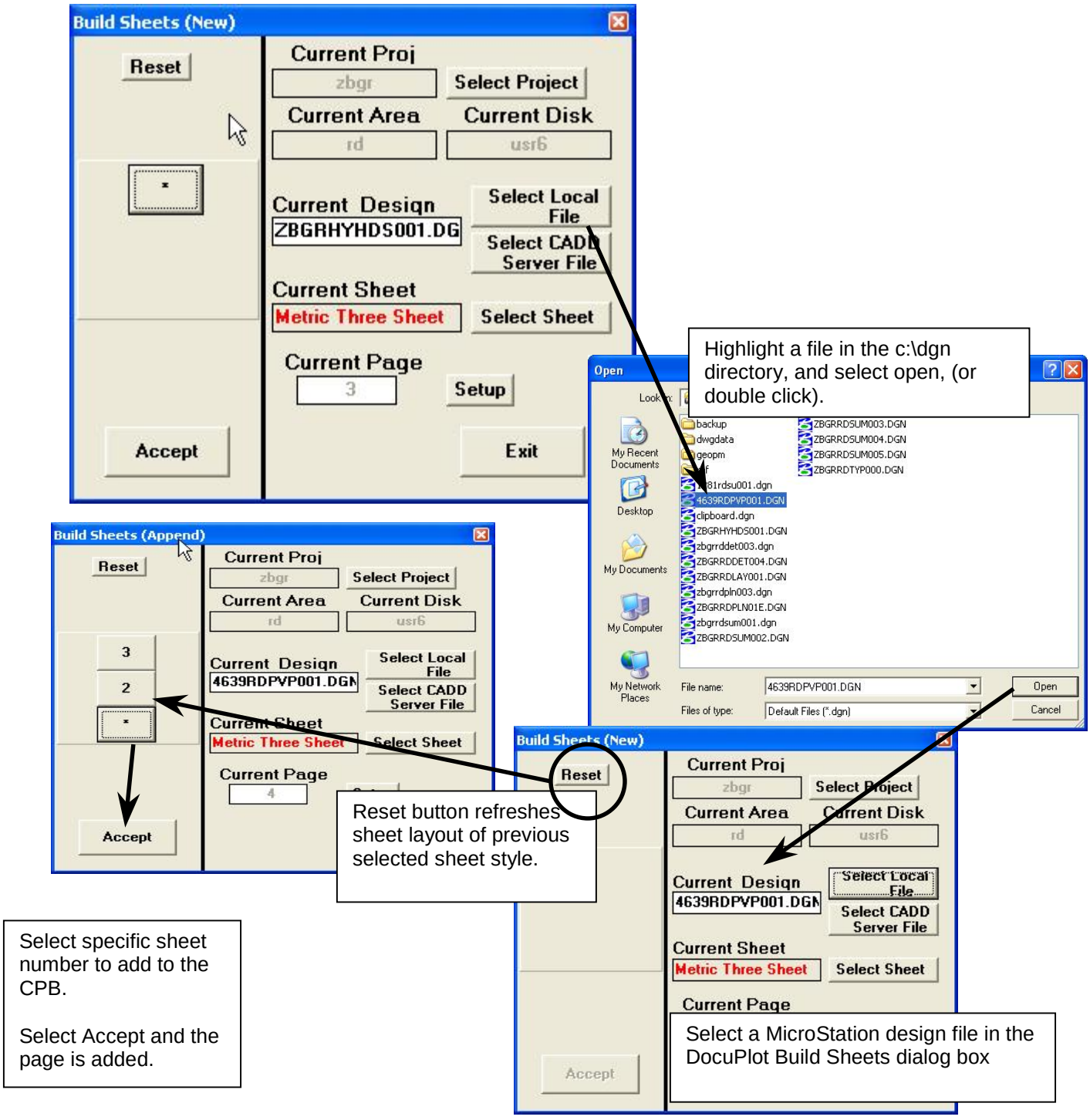
7.4. Build Plan Sheet CPB - Insert Additional Sheets from Local File

To add additional sheets from the current design file into the CPB, click an unchecked sheet. Continue to add sheets in sequential order required in the contract plan submittal.



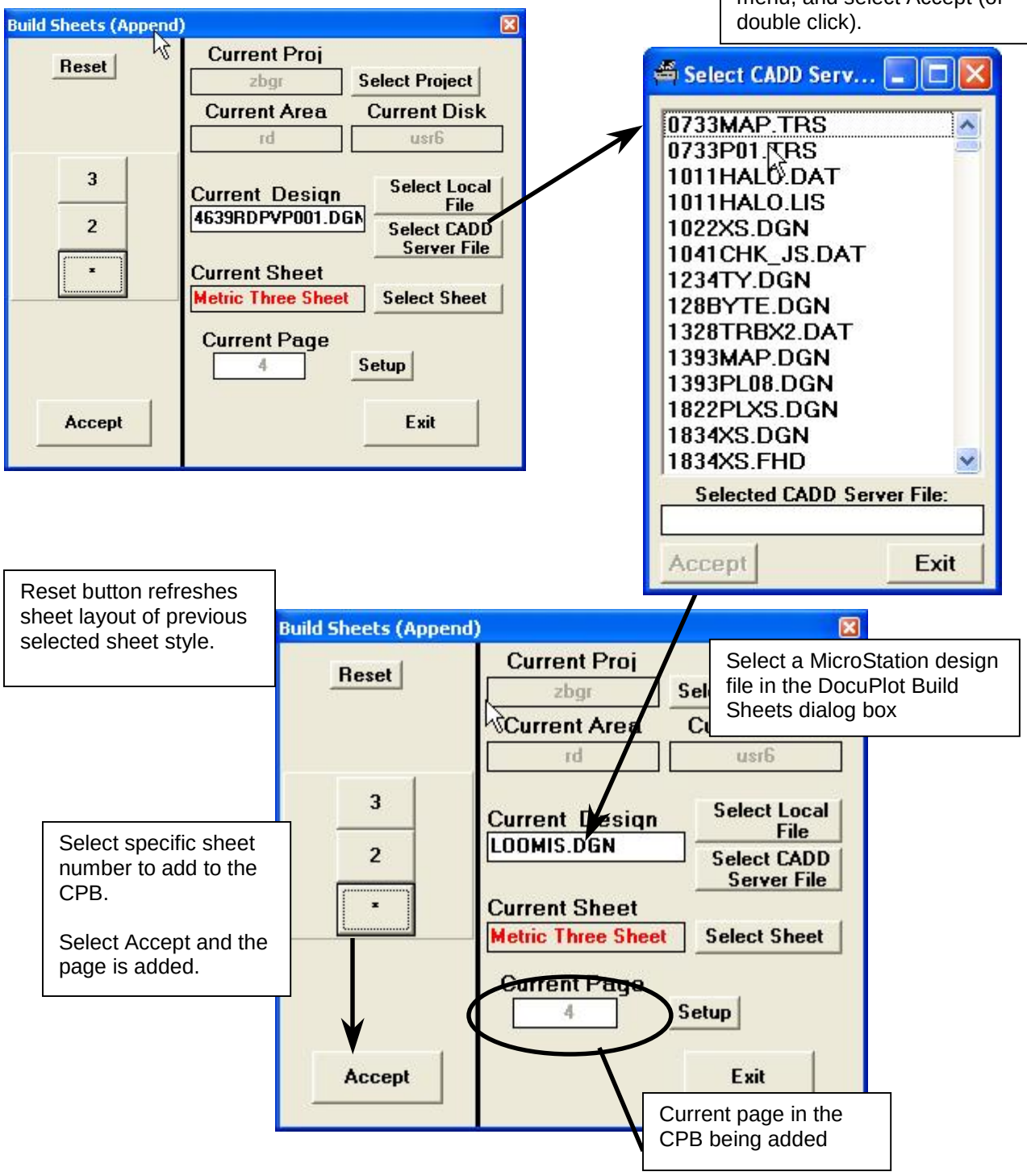
7.5. Build Plan Sheet CPB - Insert Additional Sheets New Local File

To add additional sheets from a new local design file into the CPB, click on Select Local File. The reset button will refresh the last sheet style selected. Continue adding sheets to the contract plans in sequential order.



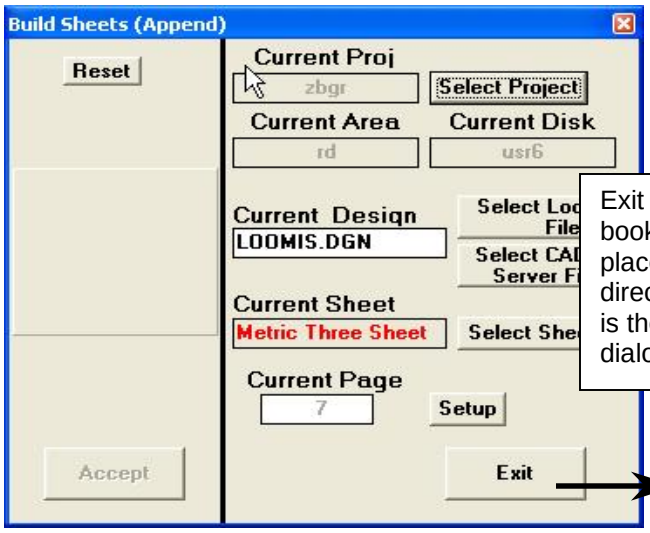
7.6. Build Plan Sheet CPB – Insert sheets from CADD Server Files

A CADD server design file, (CPB page), can be added after the current page. To add a network file, Select CADD Server file and sheet number to add into the CPB.

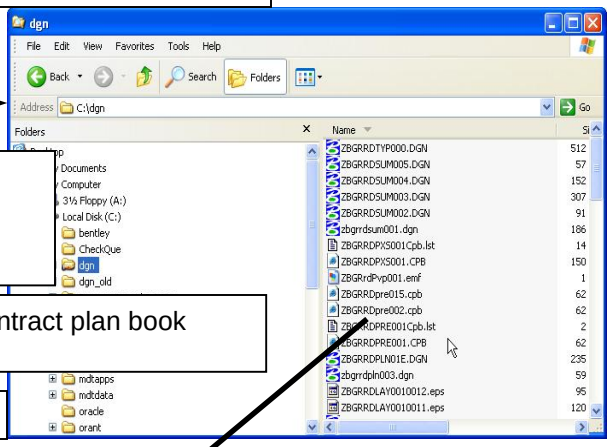


7.7. Build Plan Sheet CPB – Finish CPB and Load into DocuPlot

After building the contract plans book in the sequential order required, choose exit to return to the main DocuPlot dialog. Load the new book into DocuPlot using Load Book.



Exit stops building the book, names the CPB and places it in the c:\dgn directory. The next screen is the main DocuPlot dialog.



Default CPB Naming convention

ZBGR RD PRE 002 . CPB

Project control number

Design area abbreviation

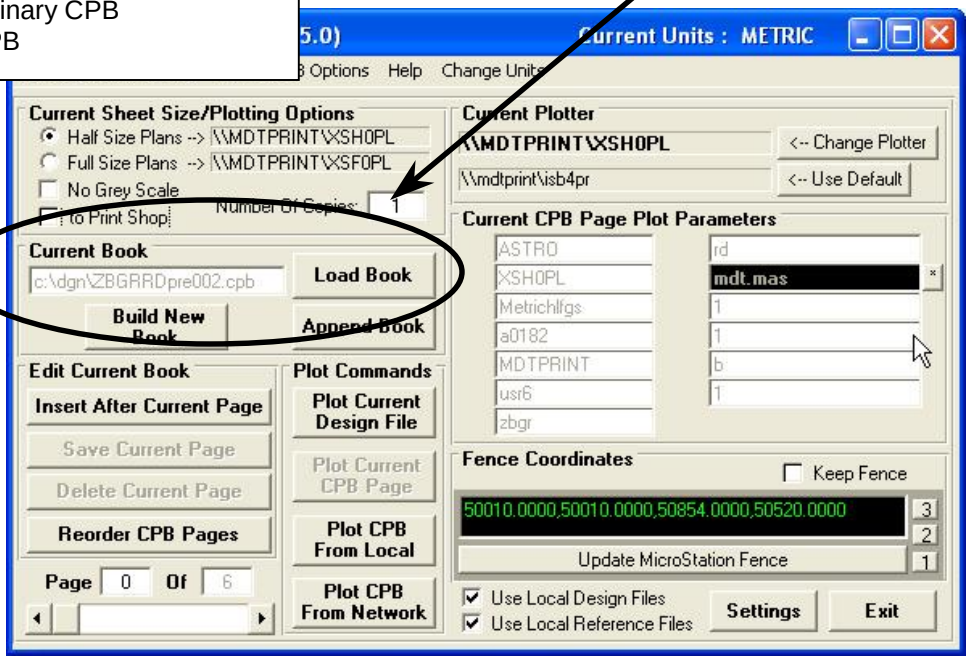
pre = preliminary CPB
fnl= final CPB

002 = series number

CPB = contract plan book

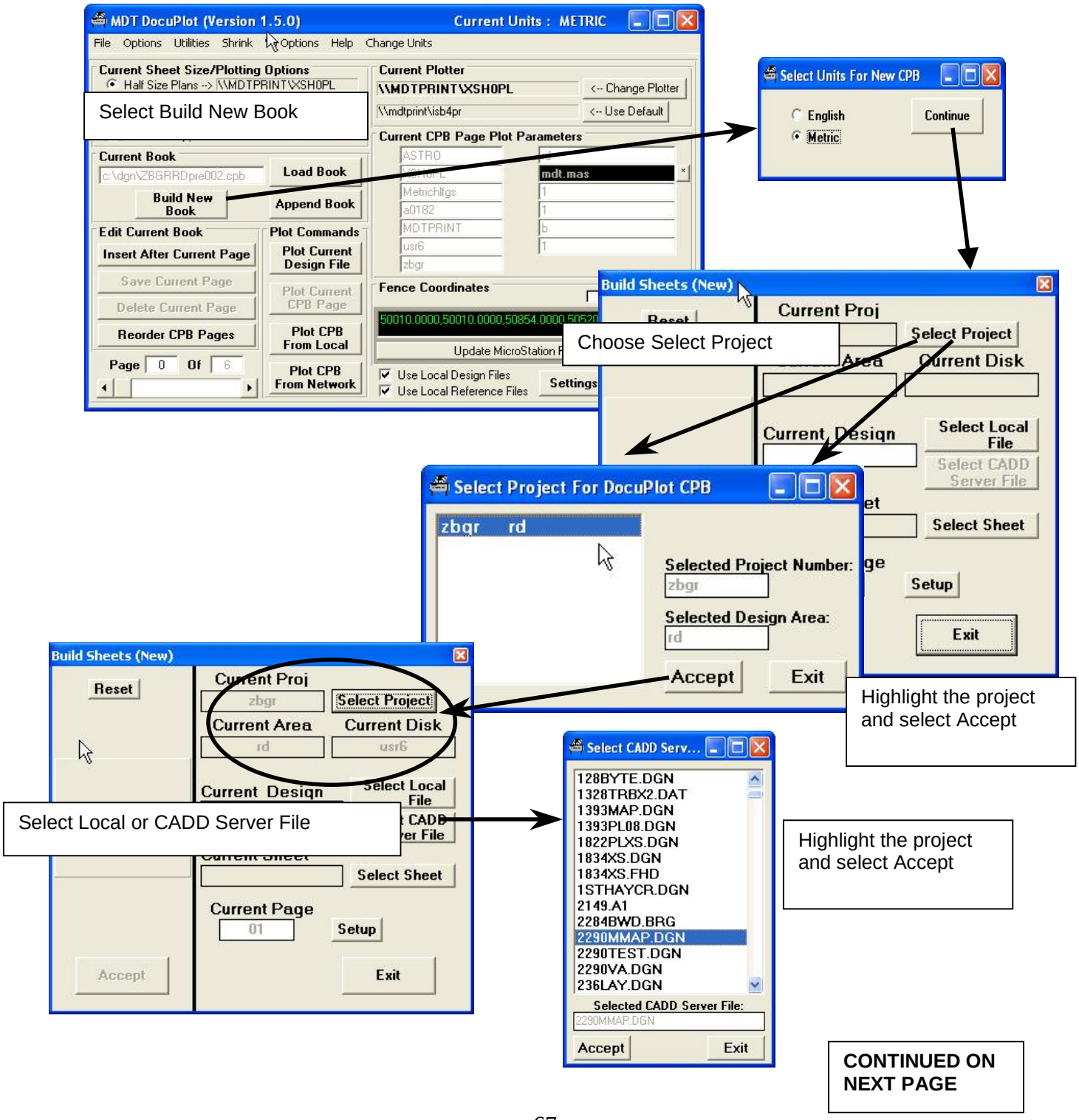
The CPB will automatically load into DocuPlot when there was no current book loaded prior to building the CPB.

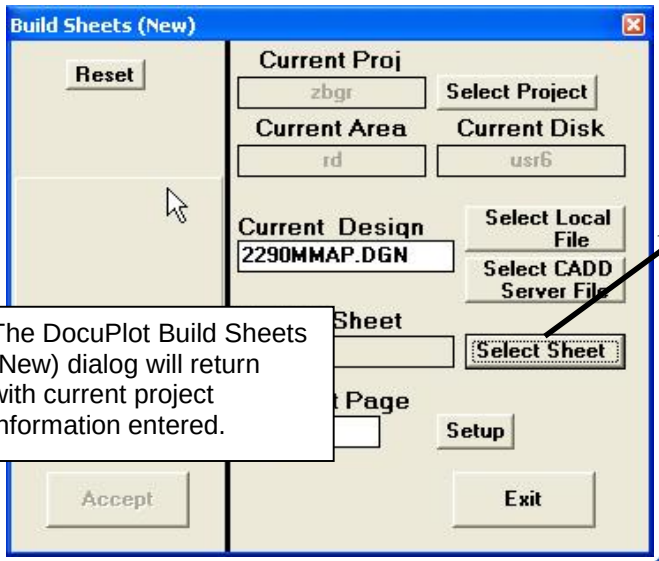
However, if there was a current book loaded while the new CPB was being built, you will need to load the newly created book.



7.8. Build Cross Section CPB

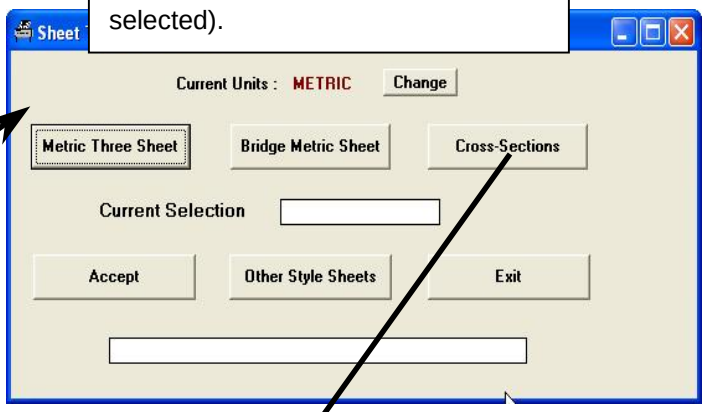
Cross Section sheets are placed in a CPB separate from other plan sheets. Cross sections cannot be inserted into an existing CPB. If a cross section CPB needs to be revised it is easier to rebuild the file. A cross section CPB and plan sheet CPB can be merged after the two files are built separately.



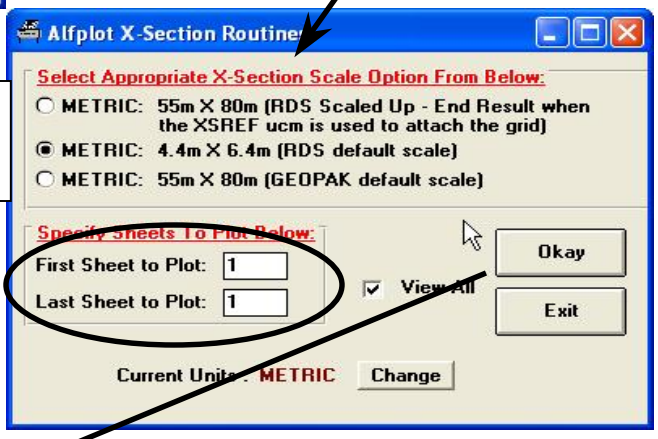


The DocuPlot Build Sheets (New) dialog will return with current project information entered.

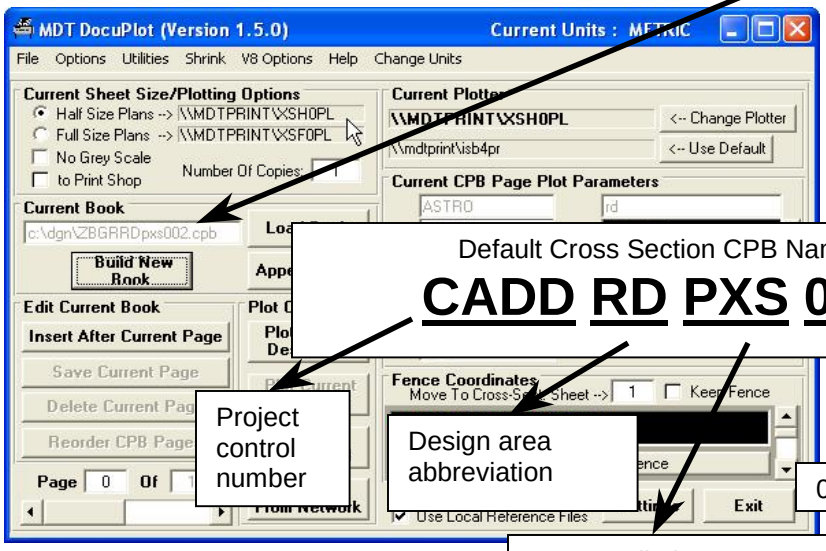
Select Cross Sections (option only available when a cross section file is selected).



Select the type of cross sections, and the method the cross sections were created.



Specify the cross section sheets required (1 – 500).



Okay creates the CPB book, returns main DocuPlot dialog with cross section CPB loaded.

Default Cross Section CPB Naming convention

CADD RD PXS 002 . CPB

CPB = contract plan book

Project control number

Design area abbreviation

002 = series number

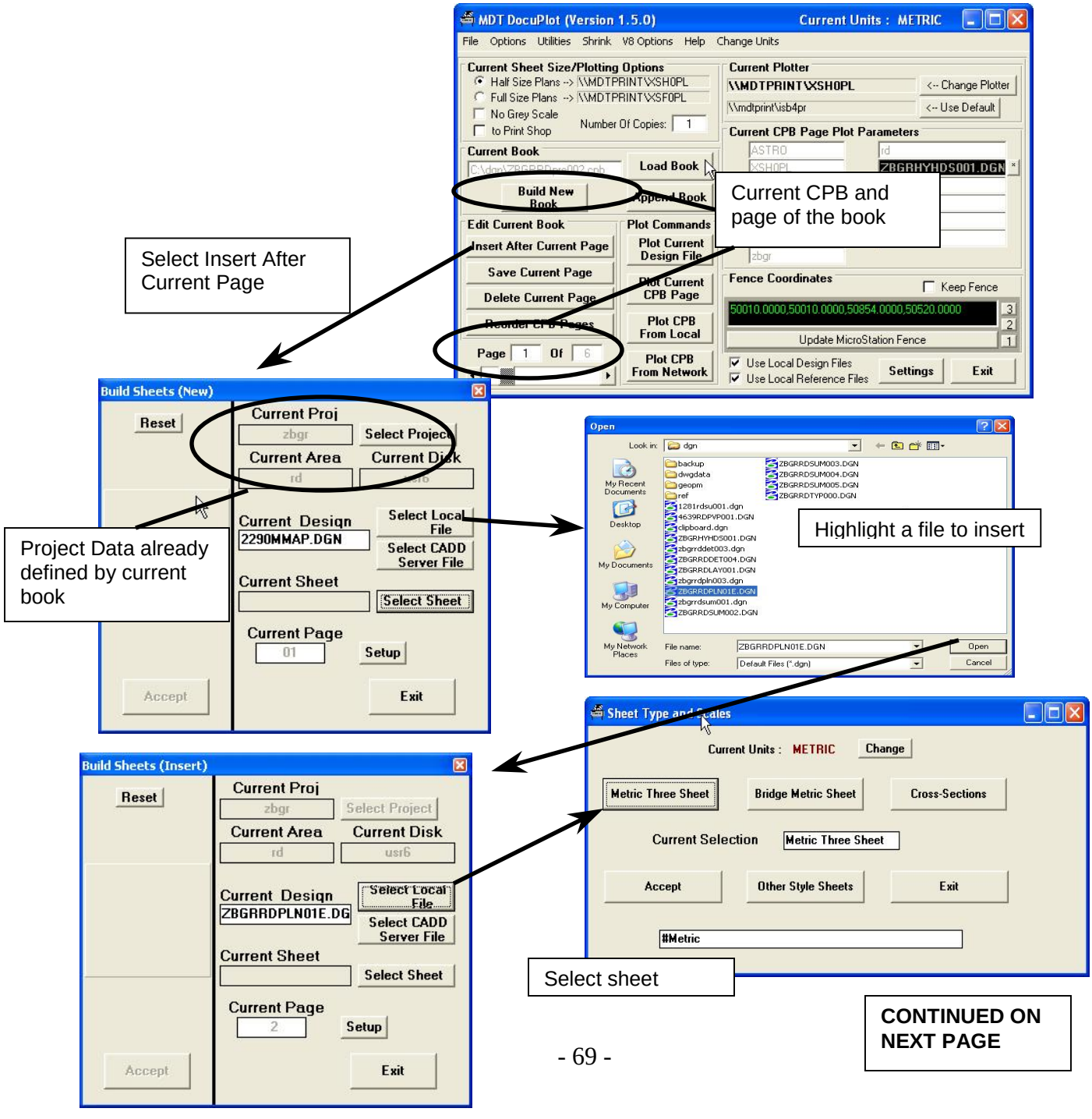
pxs = preliminary cross sections
fxs = final cross sections

8. EDITING AN EXISTING CPB

An existing CPB, (Contract Plans Book) can be edited. Pages can be added, pages can be replaced, pages can be deleted, and the pages can be reordered.

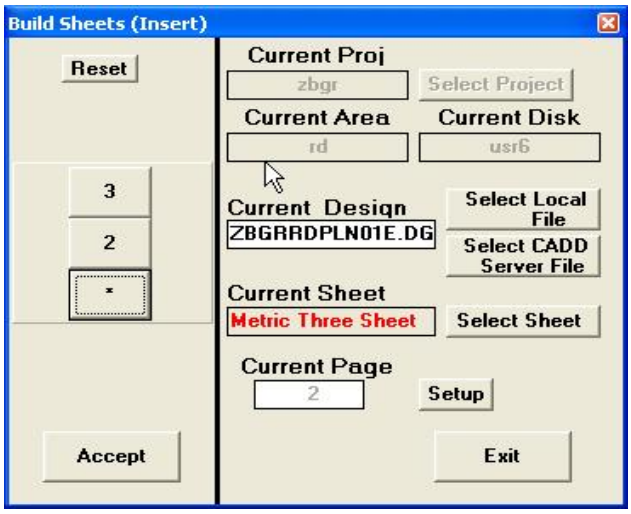
8.1. Edit CPB - Insert Page(s) after Current Page

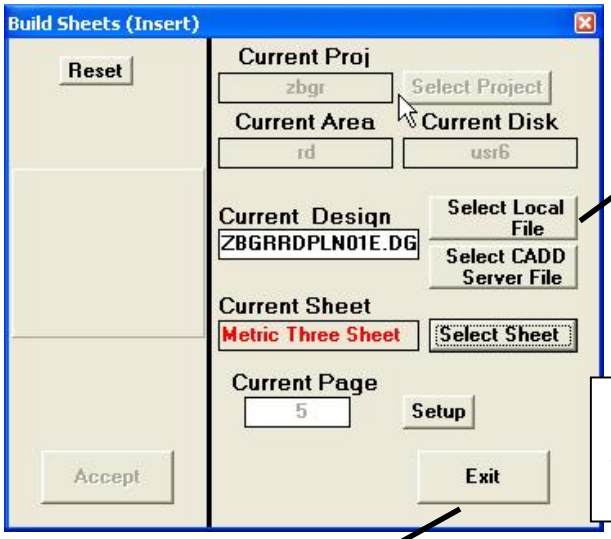
You can insert design file sheets into an existing CPB. Pages can be inserted after another page using, Insert After Current Page. However, new pages that need to be added to the front of the CPB must be inserted at the back of the CPB. The CPB must then be reordered, placing the last sheet at the front.



Select specific sheet number to add to the CPB.

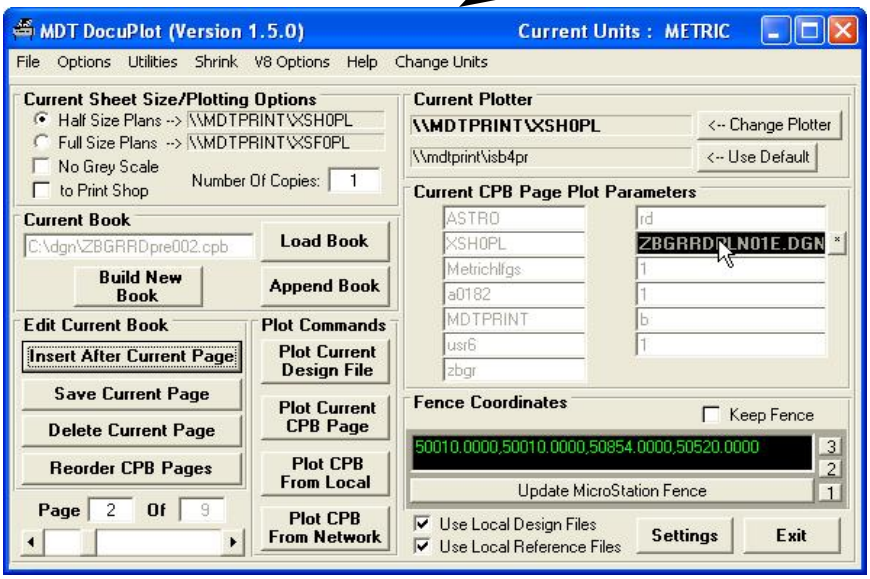
Select Accept and the page is inserted into the book.





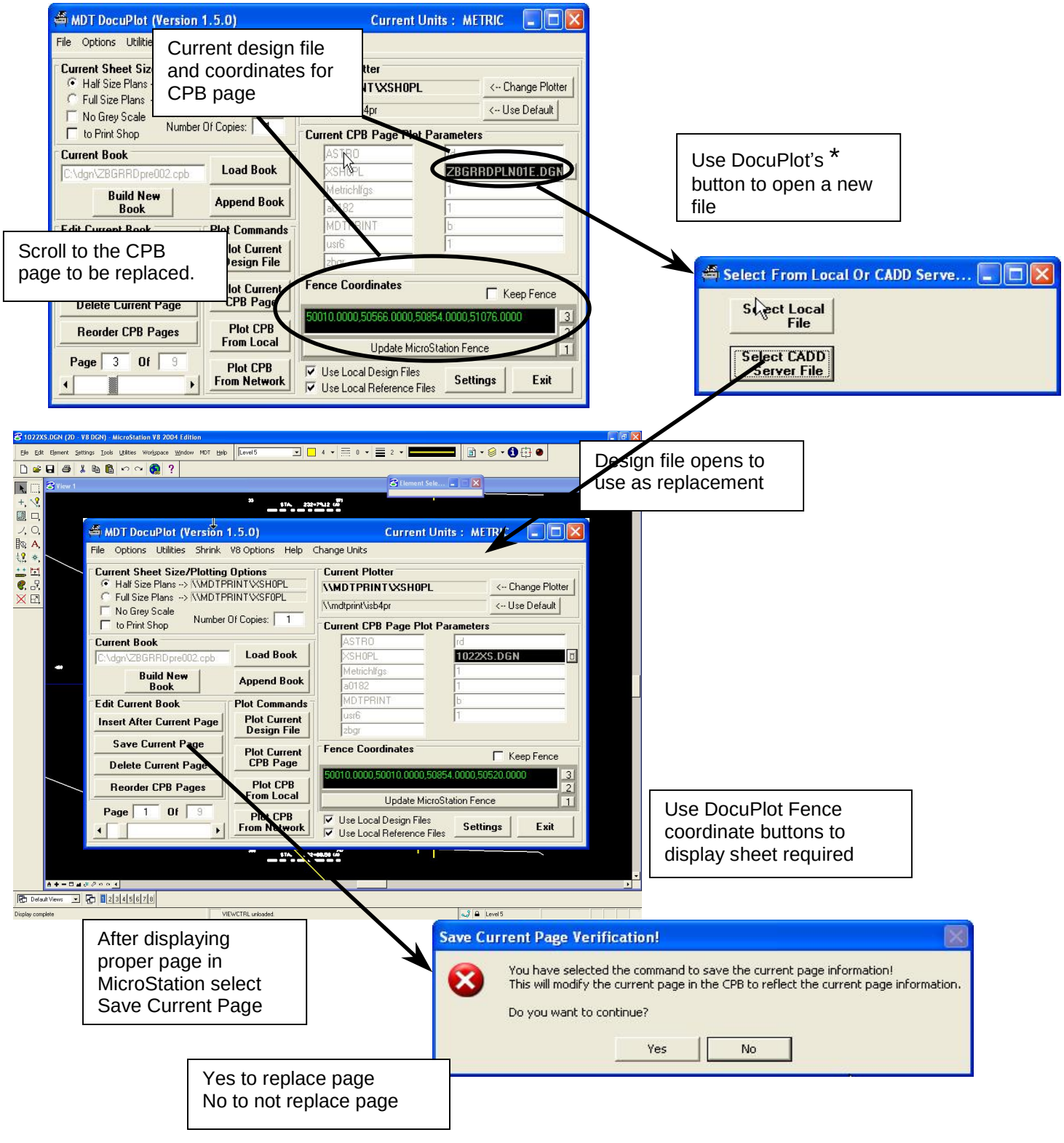
Continue adding new files and sheets to the CPB as necessary.

Select Exit to return to Main DocuPlot dialog with revised CPB loaded.



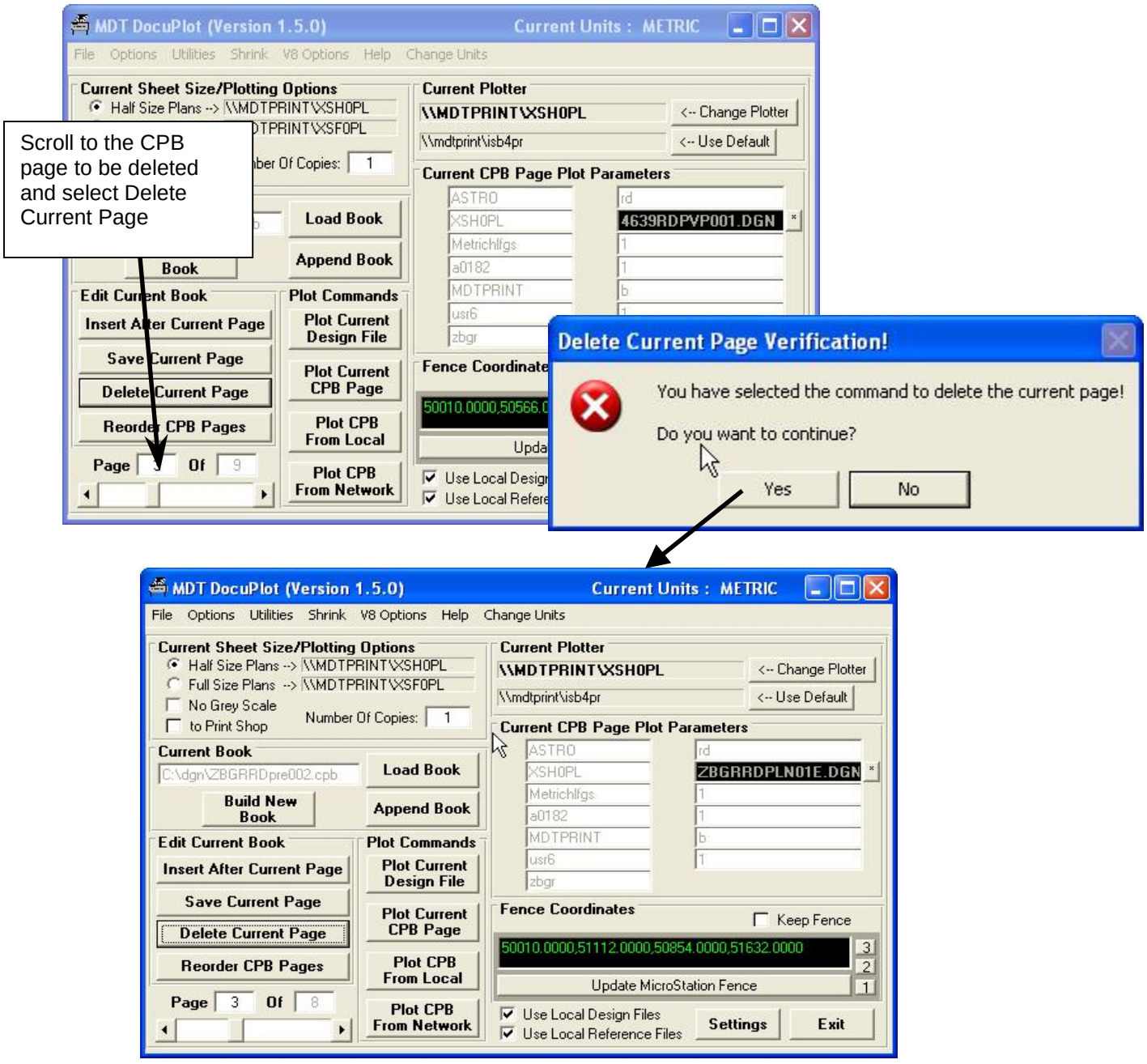
8.2. Edit CPB - Save Current Page

Saving a current page replaces the current CPB page with the active design file displayed in MicroStation.



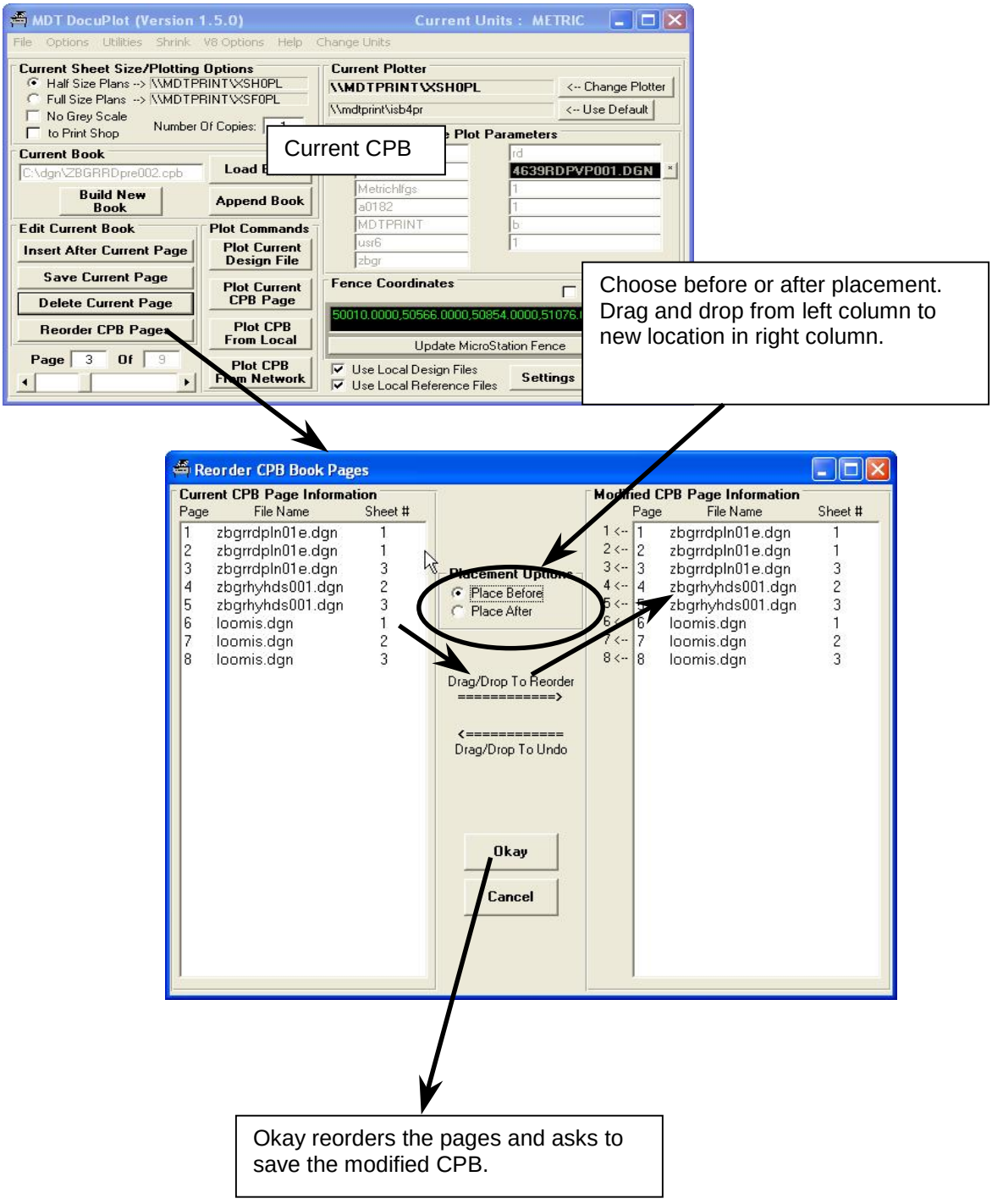
8.3. Edit CPB – Delete Current Page

DocuPlot will delete a sheet, within a loaded CPB, one page at a time.

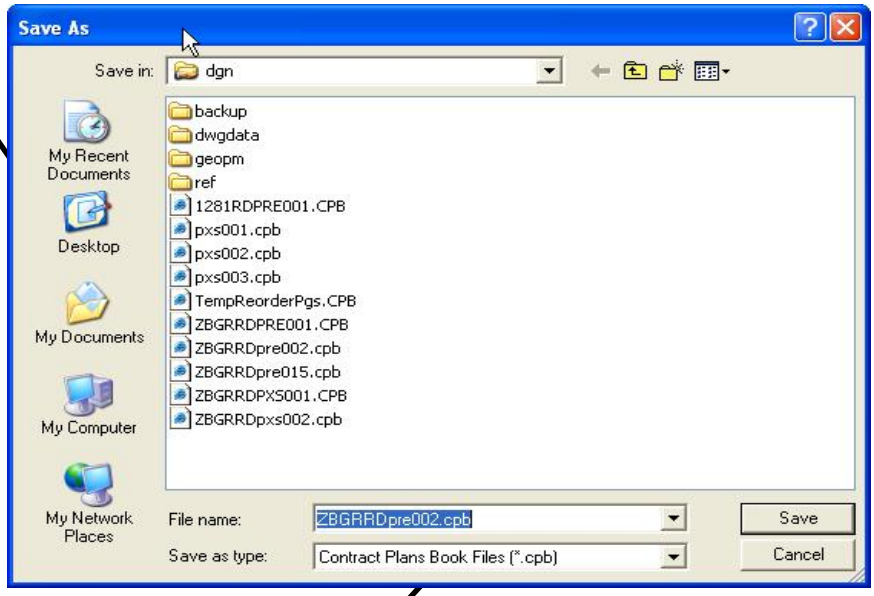


8.4 Edit CPB – Reorder CPB Pages

DocuPlot will allow the user to reorder the sequence of pages within a CPB.



Save as screen asks for a name to save the book. By default the original name is highlighted.



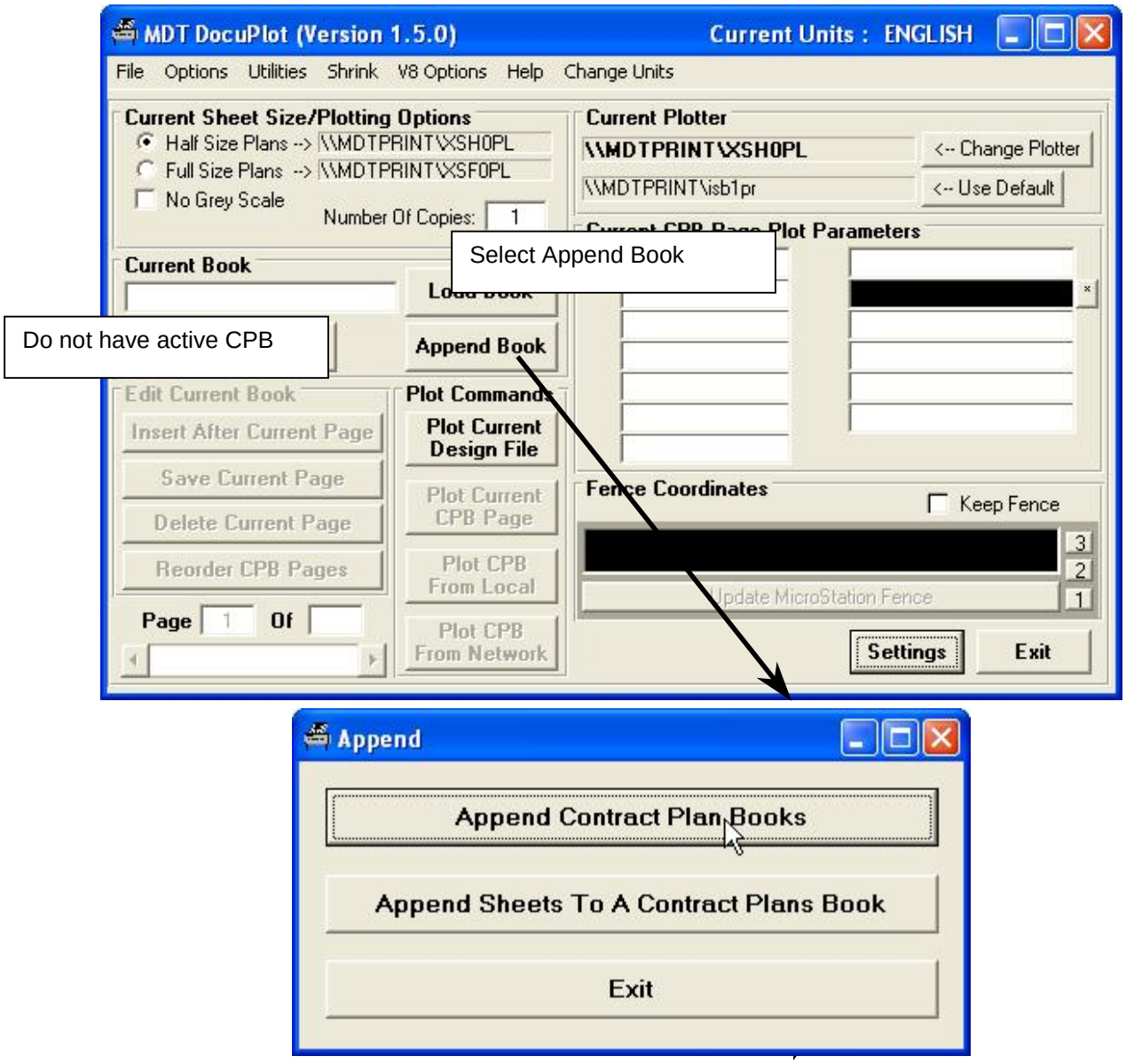
Saving the book with the original name brings up a prompt to replace existing file. Click yes.

9. APPEND CPB BOOKS

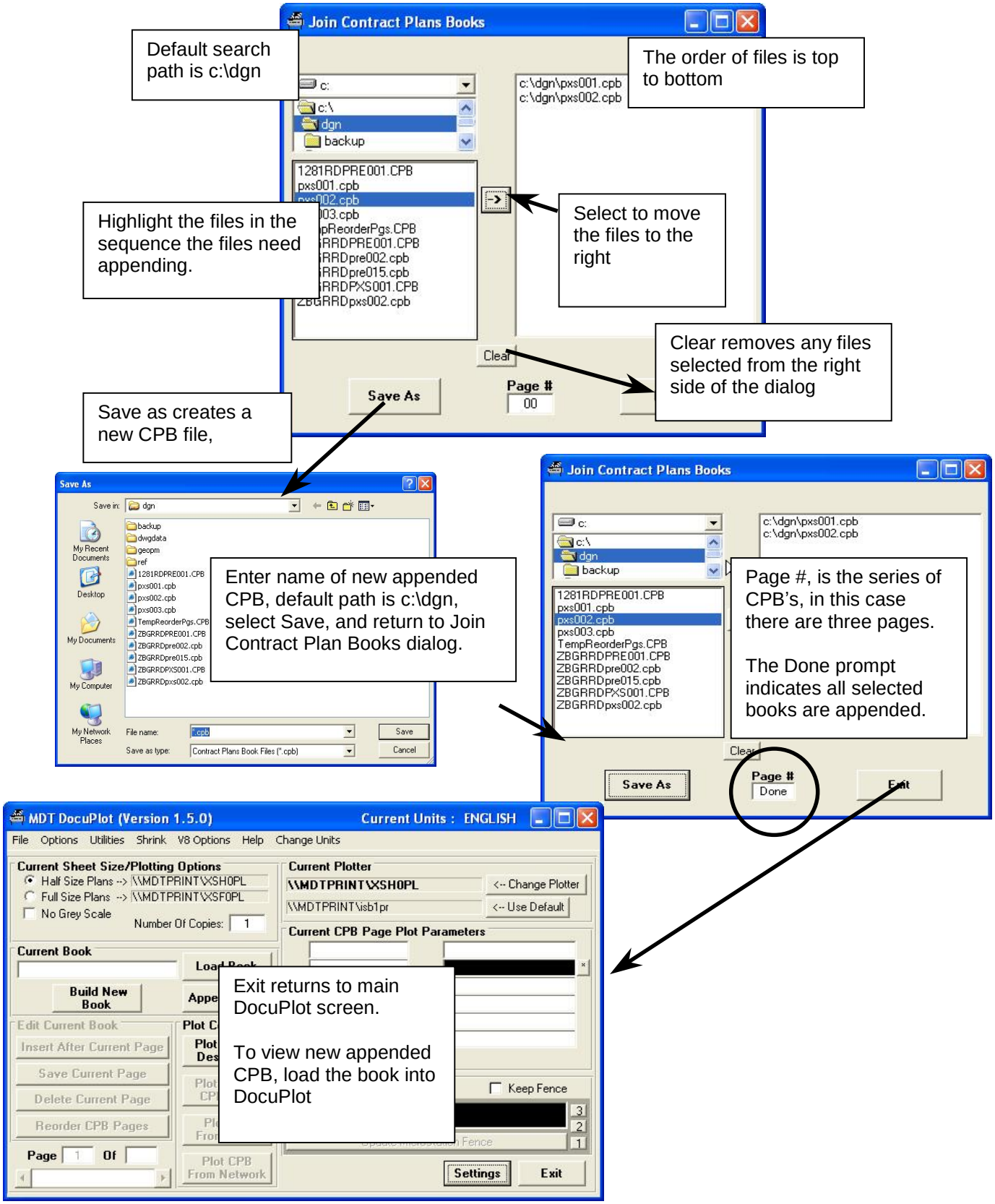
Once separate Contract Plan Books are created, the individual books may need sheets appended or the individual books may be appended together. The concept is to have one book, made up of little books, for a design project. Appending books for final bid package will be done by contract plans.

9.1. Append Contract Plan Books

DocuPlot will append individual CPB's into one large book. The books should be appended in the order that final plotting needs to occur.

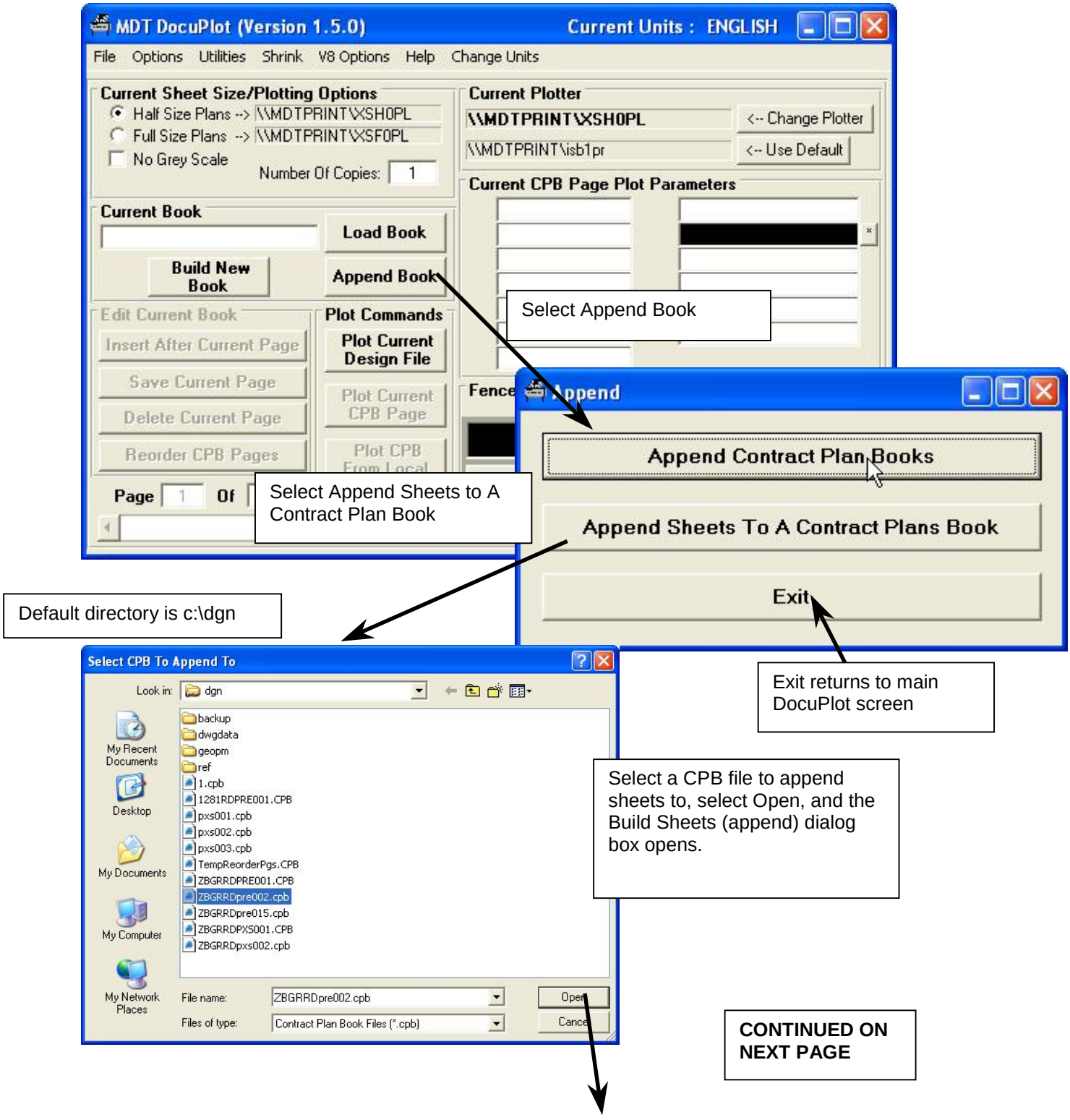


CONTINUED ON NEXT PAGE

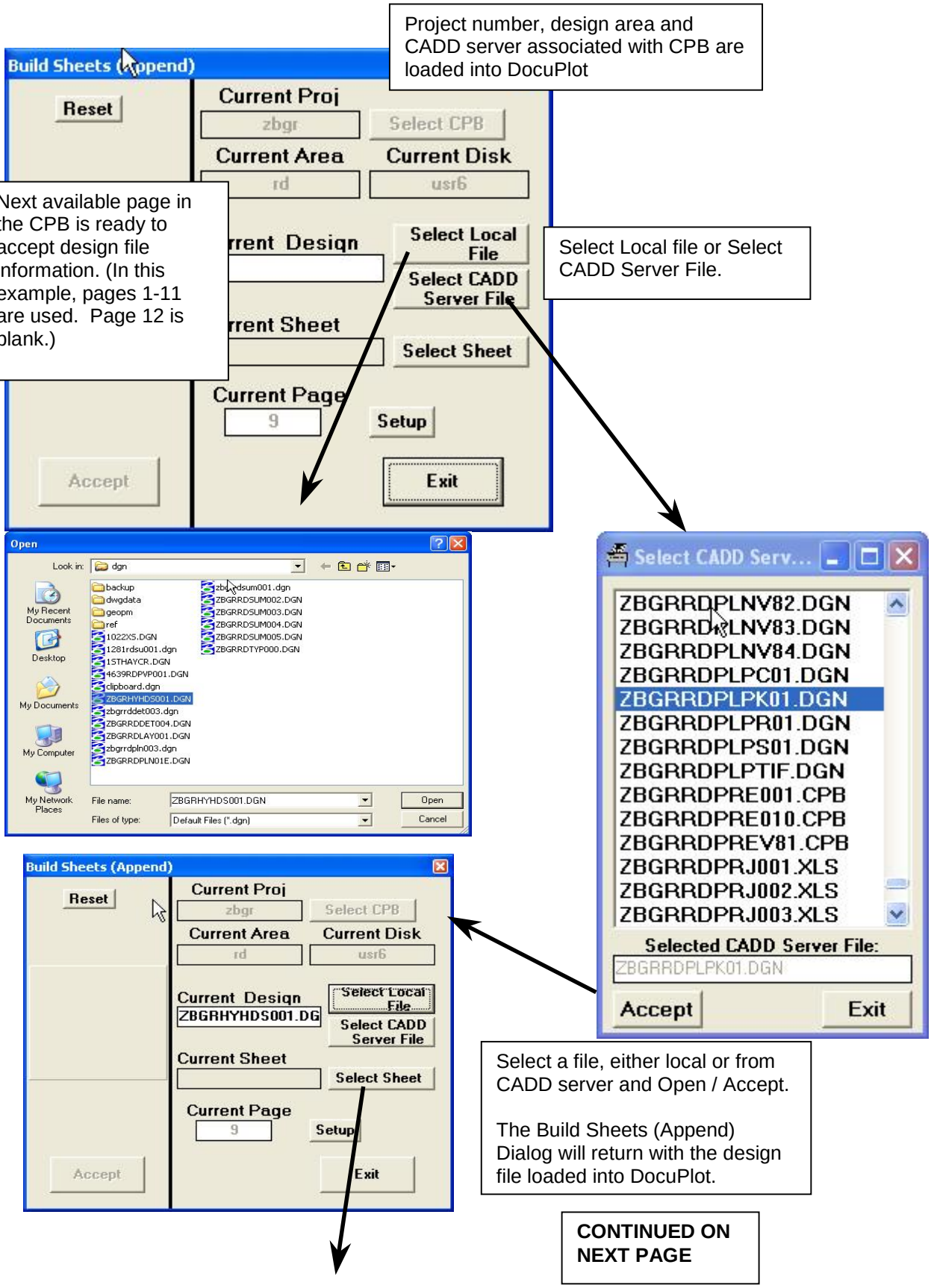

Join Contract Plans Books
Default search path is c:\dgn
The order of files is top to bottom
c:\dgn\pxs001.cpb
c:\dgn\pxs002.cpb
Highlight the files in the sequence the files need appending.
Select to move the files to the right
Clear removes any files selected from the right side of the dialog
Clear
Save As
Page #
00
Save as creates a new CPB file,
Save As
Enter name of new appended CPB, default path is c:\dgn, select Save, and return to Join Contract Plan Books dialog.
Page #, is the series of CPB's, in this case there are three pages.
The Done prompt indicates all selected books are appended.
Done
MDT DocuPlot (Version 1.5.0)
Current Units : ENGLISH
Exit returns to main DocuPlot screen.
To view new appended CPB, load the book into DocuPlot

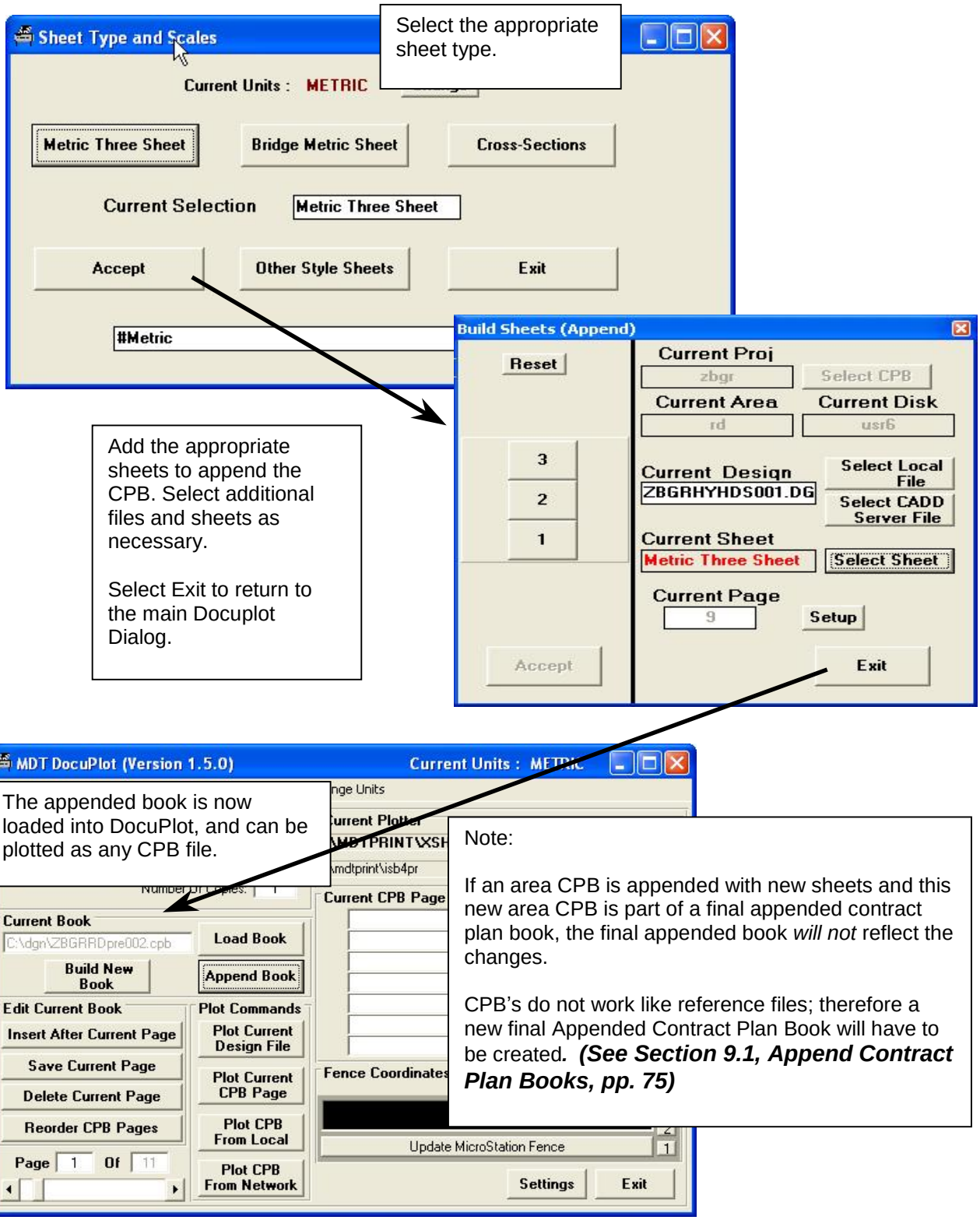
9.2. Append Sheets to a Contract Plans Book

DocuPlot will allow the user to append sheets to an existing CPB. These sheets are added to the end of the CPB. This option meets the Contract Plans addendum process.



CONTINUED ON NEXT PAGE


Project number, design area and CADD server associated with CPB are loaded into DocuPlot
Build Sheets (Append)
Reset
Current Proj
zbgr
Select CPB
Current Area
Current Disk
rd
usr6
Next available page in the CPB is ready to accept design file information. (In this example, pages 1-11 are used. Page 12 is blank.)
Select Local File
Select CADD Server File
Select Local file or Select CADD Server File.
Select Sheet
Current Page
9
Setup
Accept
Exit
Open
Look in: dgn
Select CADD Serv...
ZBGRRDPLNV82.DGN
ZBGRRDPLNV83.DGN
ZBGRRDPLNV84.DGN
ZBGRRDPLPC01.DGN
ZBGRRDPLPK01.DGN
ZBGRRDPLPR01.DGN
ZBGRRDPLPS01.DGN
ZBGRRDPLPTIF.DGN
ZBGRRDPRE001.CPB
ZBGRRDPRE010.CPB
ZBGRRDPREV81.CPB
ZBGRRDPRJ001.XLS
ZBGRRDPRJ002.XLS
ZBGRRDPRJ003.XLS
Selected CADD Server File:
ZBGRRDPLPK01.DGN
Accept
Exit
Build Sheets (Append)
Current Design
ZBGRHYHDS001.DG
Select a file, either local or from CADD server and Open / Accept.
The Build Sheets (Append) Dialog will return with the design file loaded into DocuPlot.
CONTINUED ON NEXT PAGE

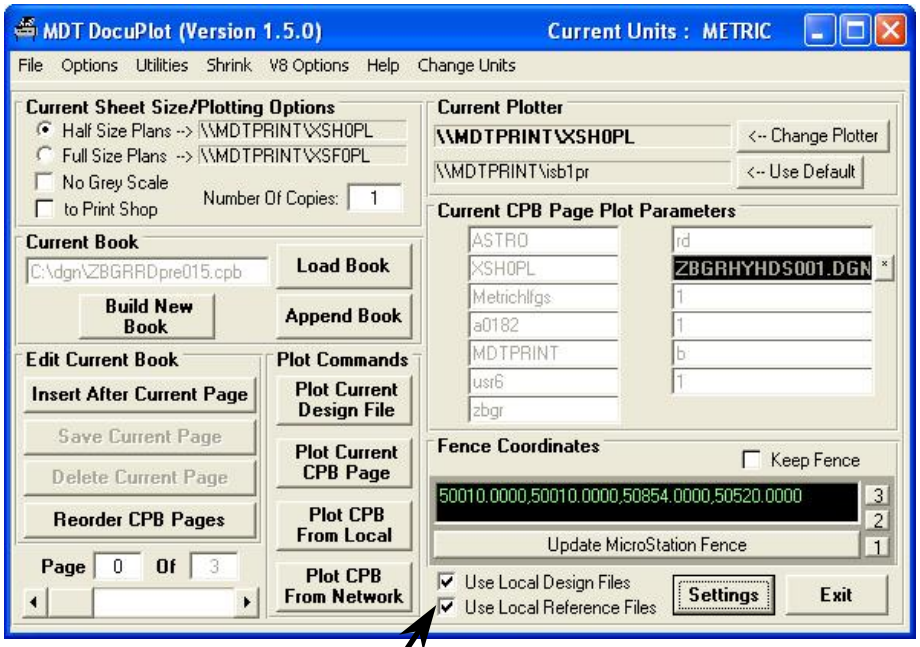

Sheet Type and Scales
Current Units : METRIC
Metric Three Sheet
Bridge Metric Sheet
Cross-Sections
Current Selection
Metric Three Sheet
Accept
Other Style Sheets
Exit
#Metric
Select the appropriate sheet type.
Add the appropriate sheets to append the CPB. Select additional files and sheets as necessary.
Select Exit to return to the main Docuplot Dialog.
Build Sheets (Append)
Reset
3
2
1
Accept
Current Proj
zbgr
Select CPB
Current Area
rd
Current Disk
usr6
Current Design
ZBGRHYHDS001.DG
Select Local File
Select CADD Server File
Current Sheet
Metric Three Sheet
Select Sheet
Current Page
9
Setup
Exit
MDT DocuPlot (Version 1.5.0)
Current Units : METRIC
The appended book is now loaded into DocuPlot, and can be plotted as any CPB file.
Current Book
C:\dgn\ZBGRRDpre002.cpb
Load Book
Build New Book
Append Book
Edit Current Book
Insert After Current Page
Save Current Page
Delete Current Page
Reorder CPB Pages
Page 1 Of 11
Plot Commands
Plot Current Design File
Plot Current CPB Page
Plot CPB From Local
Plot CPB From Network
Current CPB Page
Fence Coordinates
Update MicroStation Fence
Settings
Exit
Note:
If an area CPB is appended with new sheets and this new area CPB is part of a final appended contract plan book, the final appended book will not reflect the changes.
CPB's do not work like reference files; therefore a new final Appended Contract Plan Book will have to be created. (See Section 9.1, Append Contract Plan Books, pp. 75)

10. DOCUPLOT USERS WITH PRIVILEGES

Select users on each crew will be granted privileges to send plot requests directly to the print unit. DocuPlot privileged users have a very powerful tool that allows the user to automatically bring design files in a CPB down from the server. Having privileges allows the user to view reference files attached to a design file from the CADD server.

10.1. Privileged User's DocuPlot Screen

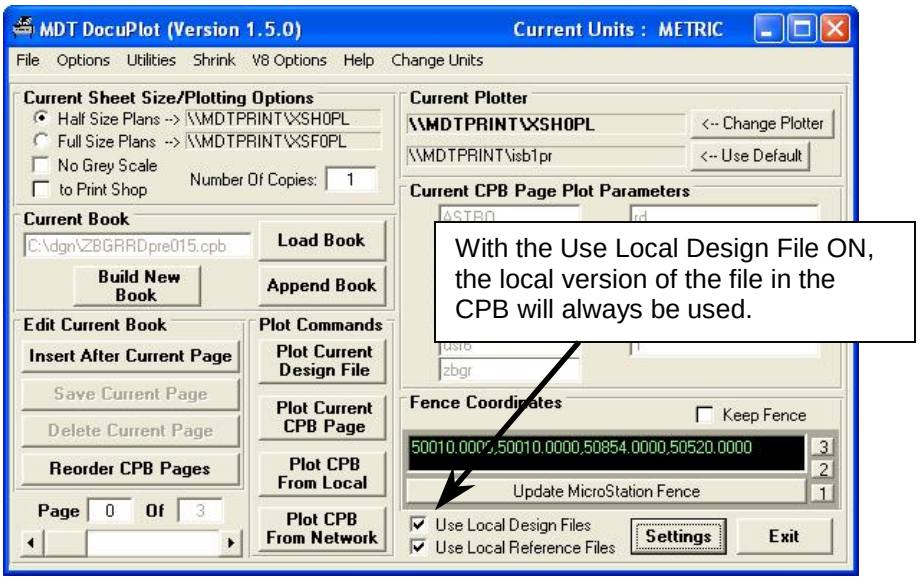
The DocuPlot screen will only appear different once a CPB is loaded into DocuPlot.

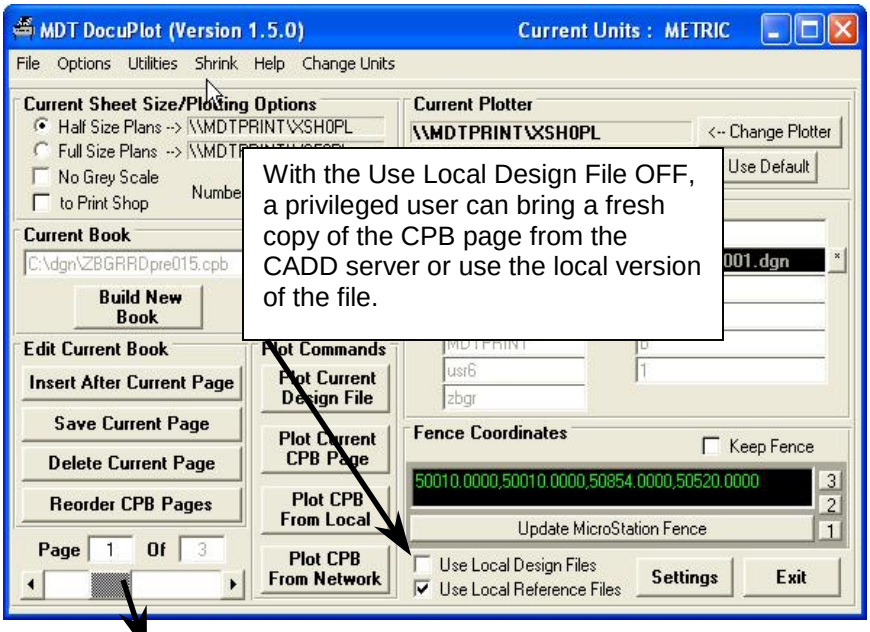


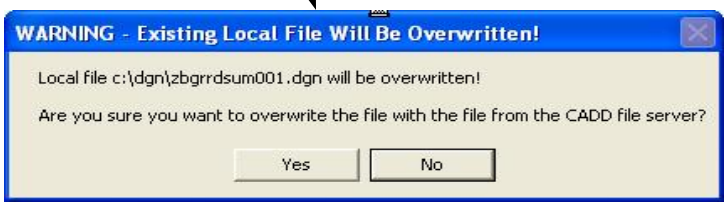
After a CPB is loaded into DocuPlot the privileged user will have two extra options on the main menu. Toggles for Use Local Files and Use Local Reference Files are on a privileged users screen.

10.2. Use Local Design Files Toggle

A privileged user can use the existing local files or they can bring down a fresh copy off of the CADD server when paging through the CPB. Anytime a fresh copy of a file is transferred to the local machine it will overwrite the existing file.



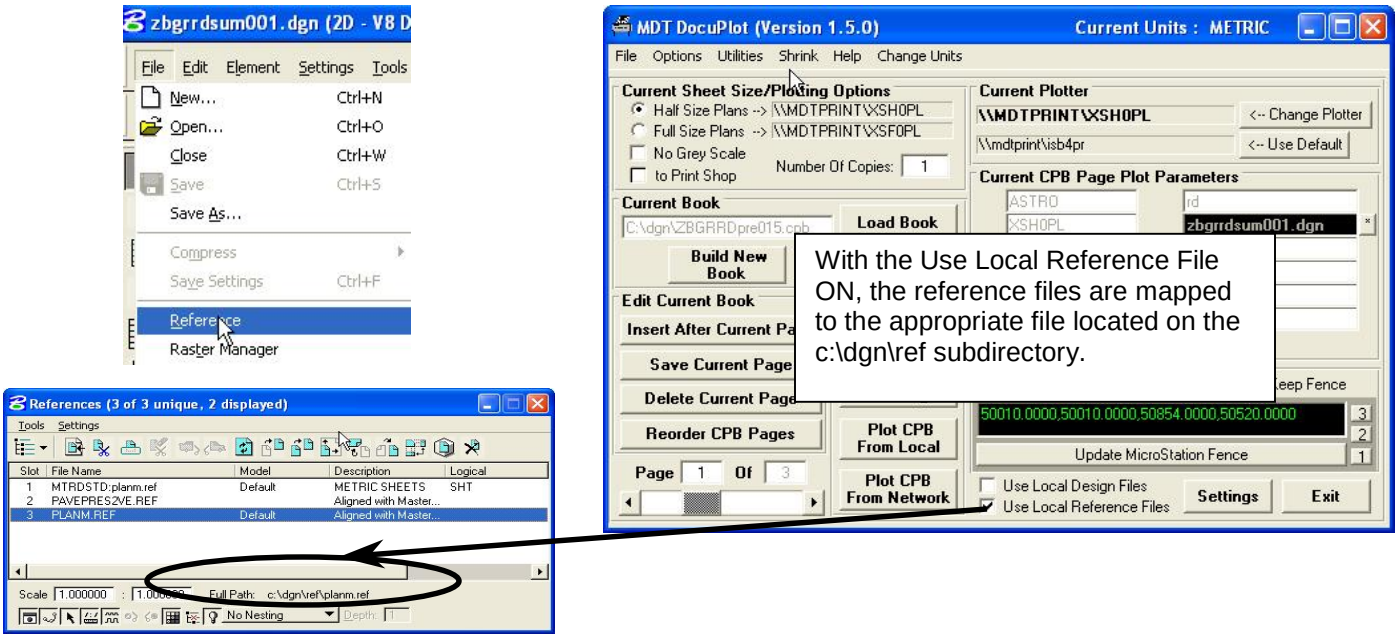


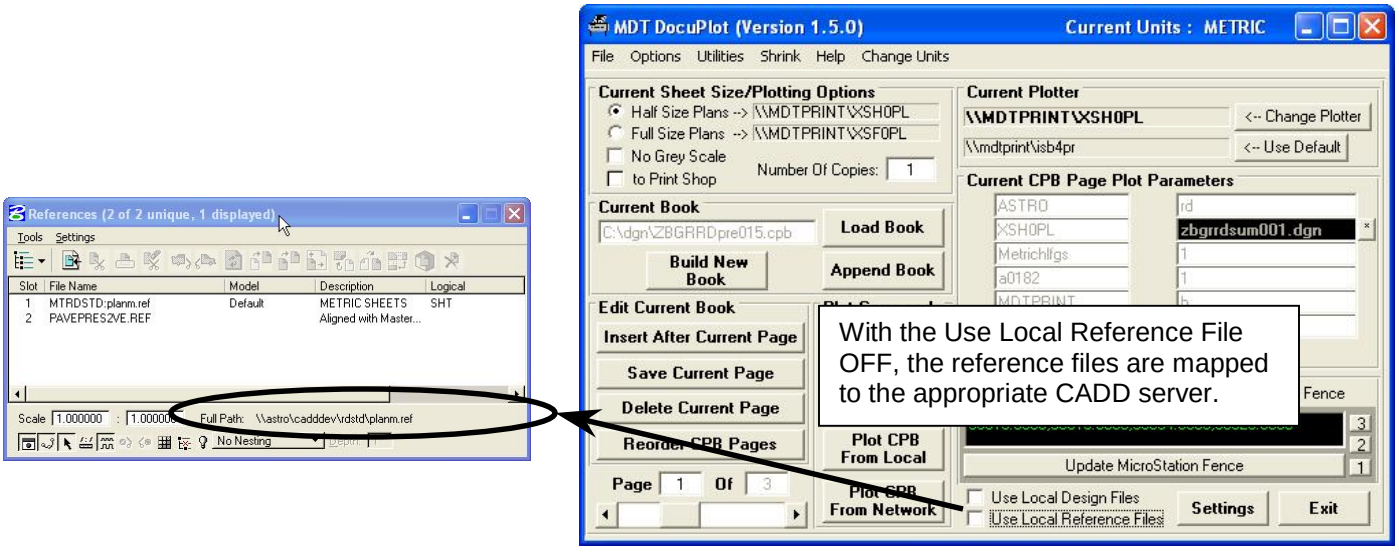


Yes will overwrite the local file. If changes have been made to the local file, these changes will be lost.

10.3. Use Local Reference Files Toggle

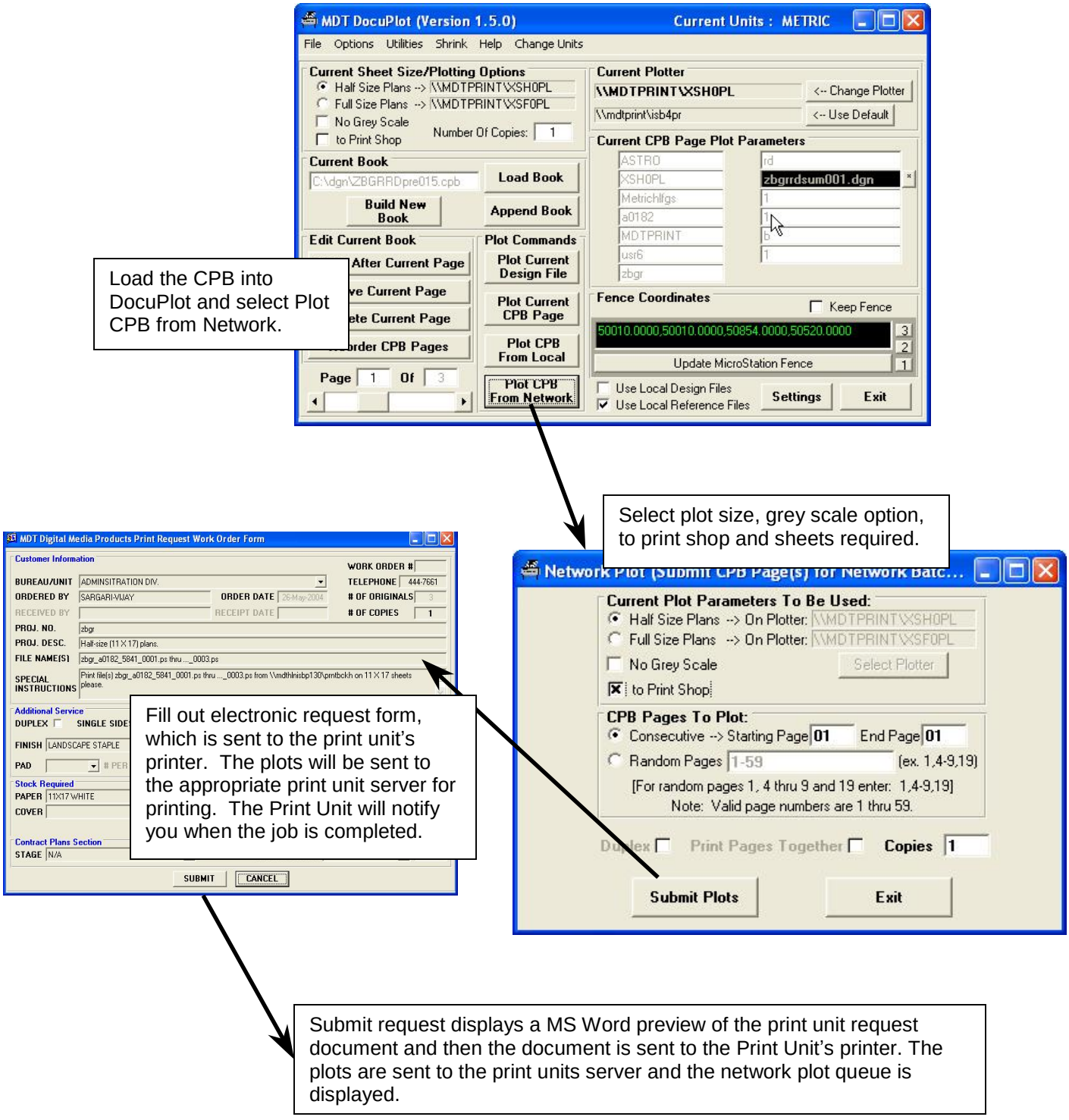
When viewing a CPB, a privileged user can view the attached reference files of a local design file locally or off the CADD Server.





10.4. Plotting Directly to the Print Unit

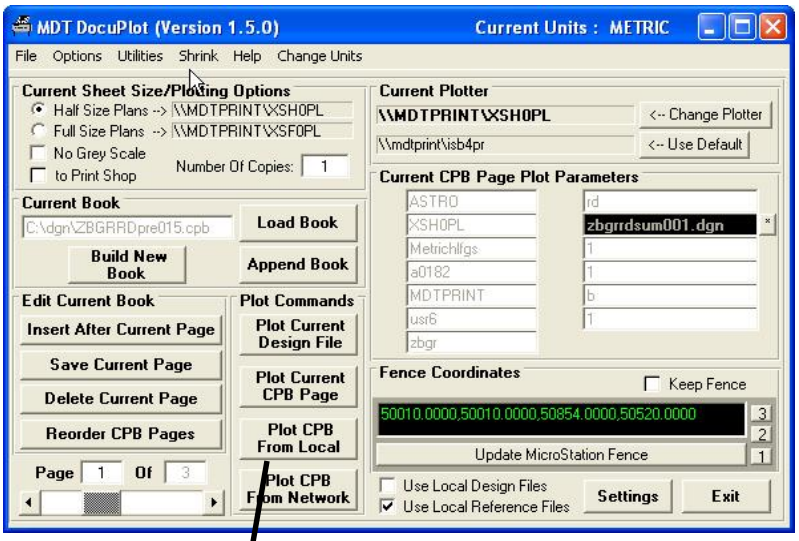
Privileged users have all the same print options with the addition of printing directly to the print unit. Plotting to the print unit is only available in the Plot CPB from Network option and in plotting cross section files.



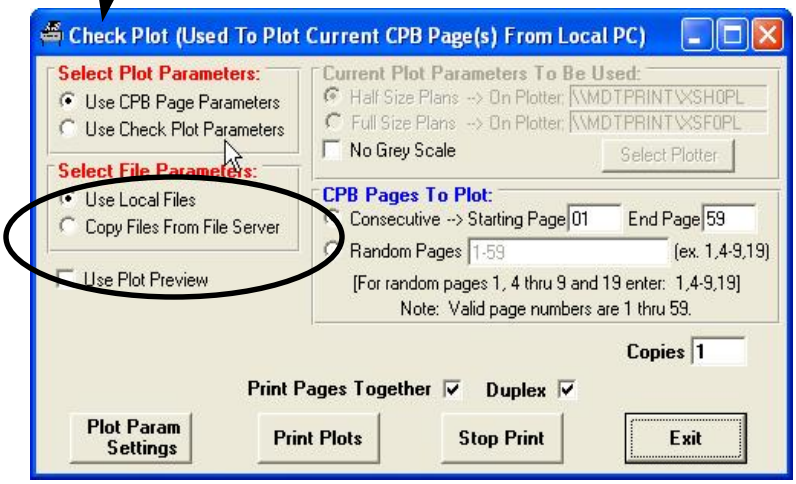
10.5. Options when Plotting CPB from Local

When plotting local files in a CPB a privileged user can use only local files or bring fresh copies of all files down from the CADD server.

Load the CPB and select Plot CPB from Local

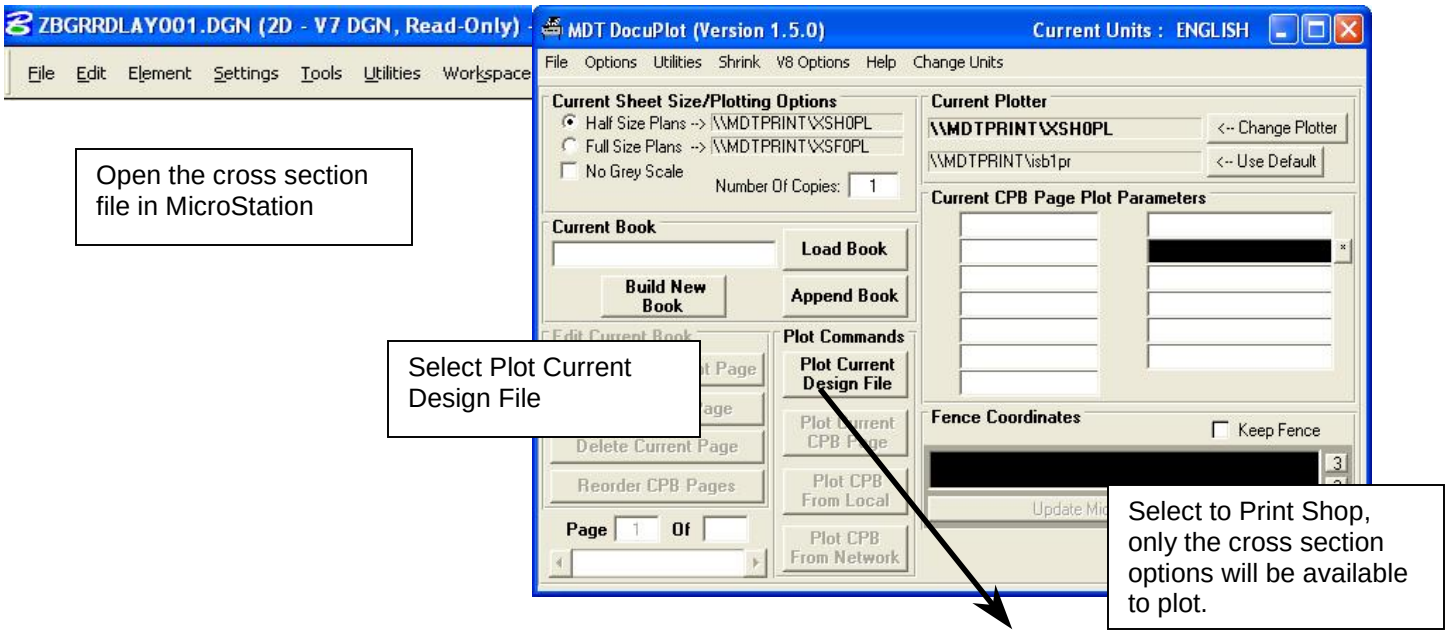


Select file parameter of using only local files, or copy files from the file server. Copying the files will result in the local files being overwritten.

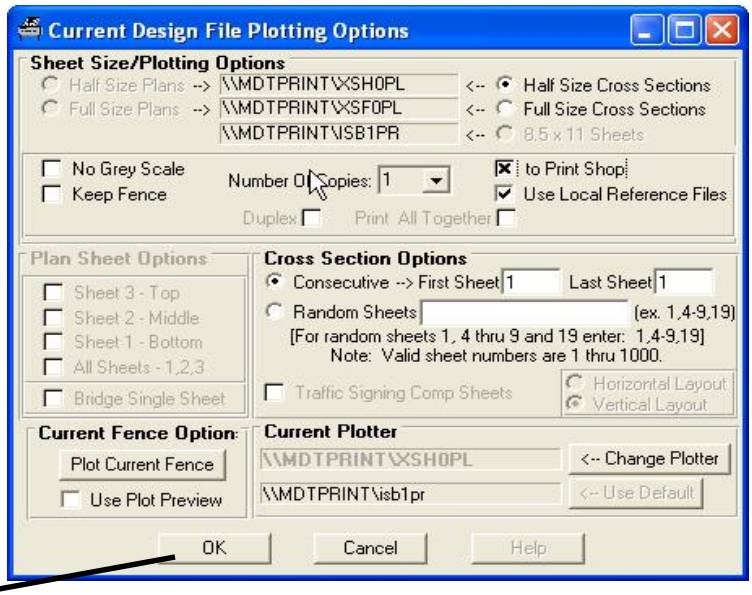


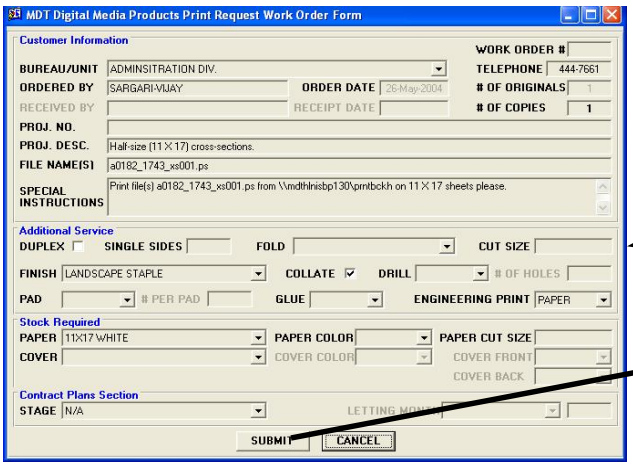
10.6. Plotting Cross Sections to the Print Unit

Users with privileges can send cross section plots directly to the print unit. Cross sections can be plotted as a CPB or as a single local file.



Fill out electronic request form, which is sent to the print unit's printer. The plots will be sent to the appropriate print unit server for printing. The Print Unit will notify you when the job is completed.



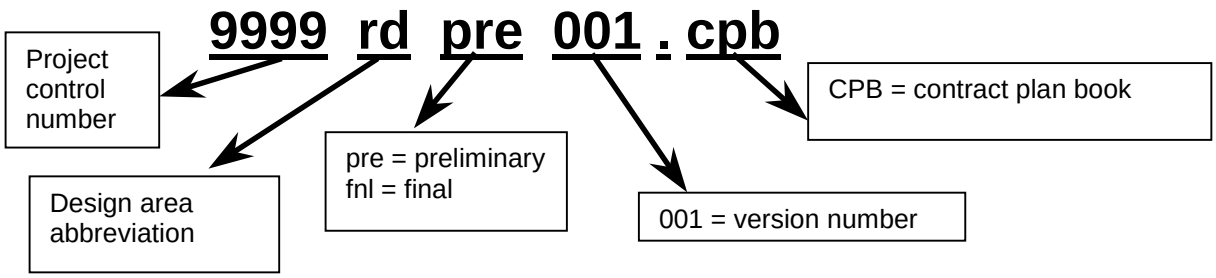


Submit request displays a MS Word preview of the print unit request document and then the document is sent to the Print Unit's printer. The plots are sent to the print units server and the network plot queue is displayed.

11. APPENDIX A – CPB FILE NAMING STRUCTURE

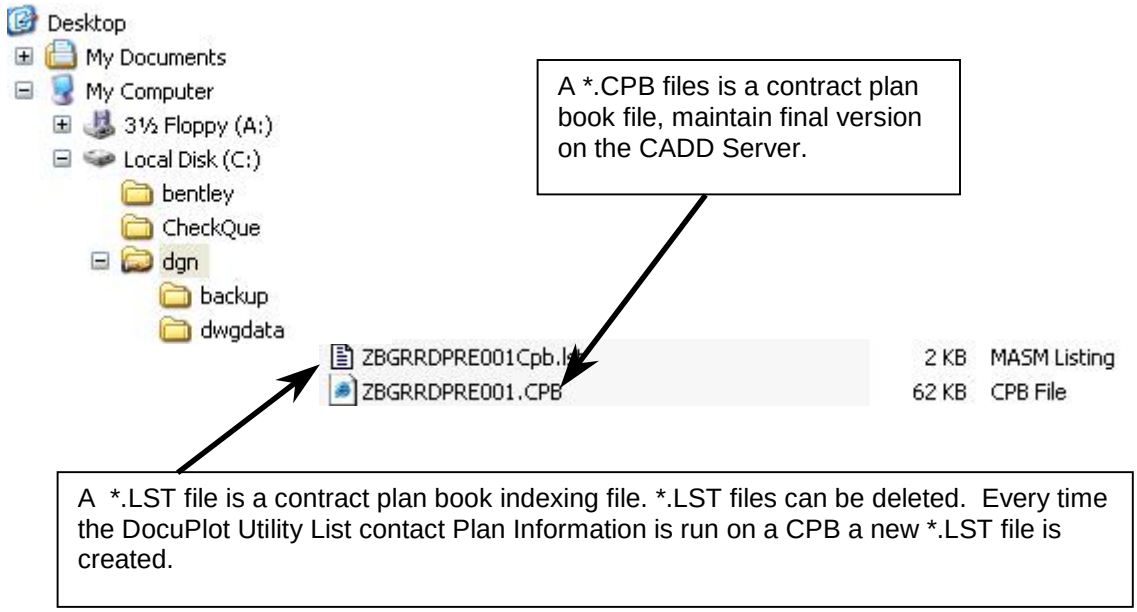
11.1. DocuPlot CPB Files and LST Files

A DocuPlot CPB follows default-naming structure when the book is created. The name uses a Control Number: Design Area: Version ###. CPB format. CPB's can be renamed in NT Explorer. This structure follows the DMS (Document Management System) file naming structure. Contact plan books are stored on the CADD server. ***For cross section CPB naming see section 7.8, Build Cross Section CPB, pp. 67.***



Contract plan books are created local and saved to the appropriate CADD server. DocuPlot by default looks in the c:\dgn subdirectory when loading CPB's. If an additional CPB is created using the same project information, DocuPlot will automatically name the file with new version number.

The DocuPlot Utility, List contact Plan Information, creates a *.LST file. This file has the same CPB name with an .lst extension. This is a database-indexing file. This file can be deleted.

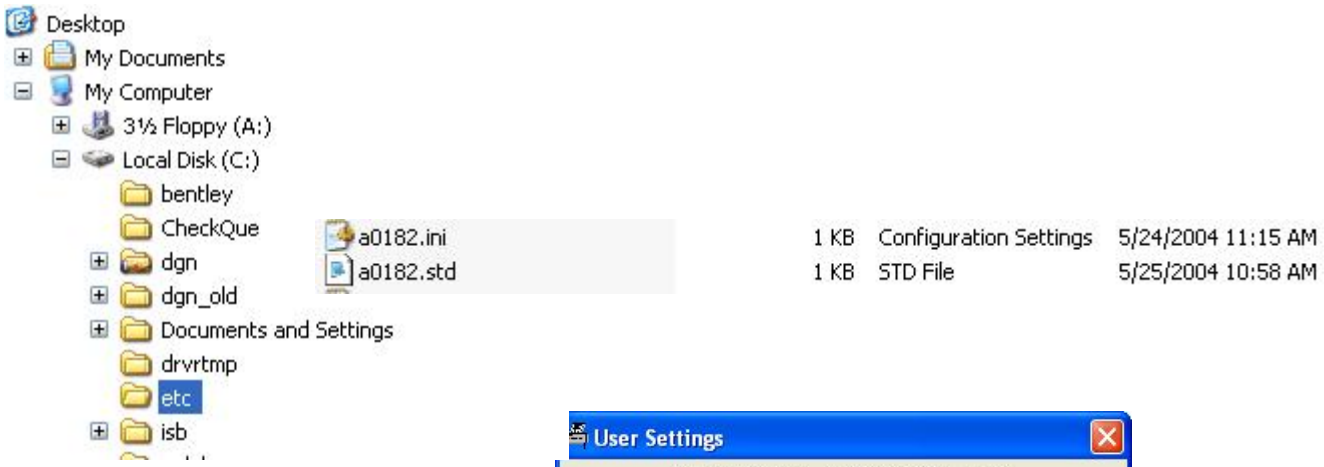


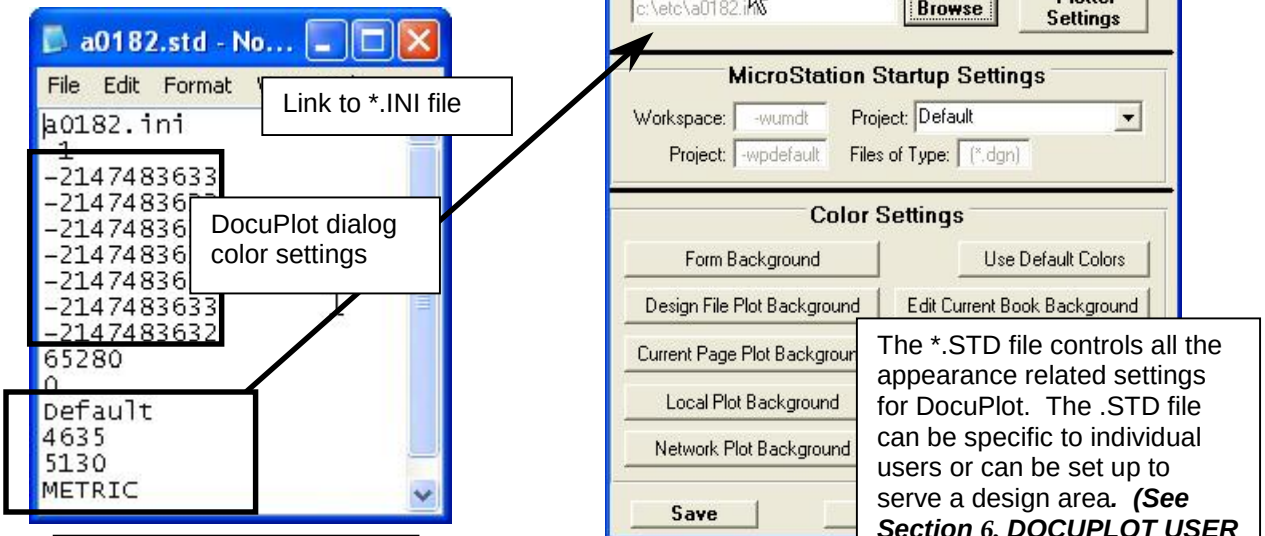
11.2. DocuPlot .INI Files and .STD Files

DocuPlot organizes its settings into two separate files. A *.INI file controls the default plotting settings for individual users.

A *.STD file controls the appearance of the DocuPlot dialogs, and is the link between the two files.

Both the .INI and .STD files are kept on the c:\etc subdirectory. It is prudent to back your individual files on your U drive.





Main DocuPlot dialog screen coordinates on XP Windows's desktop.

The *.STD file controls all the appearance related settings for DocuPlot. The .STD file can be specific to individual users or can be set up to serve a design area. ***(See Section 6, DOCUPLOT USER SETTINGS, pp. 47-59)***

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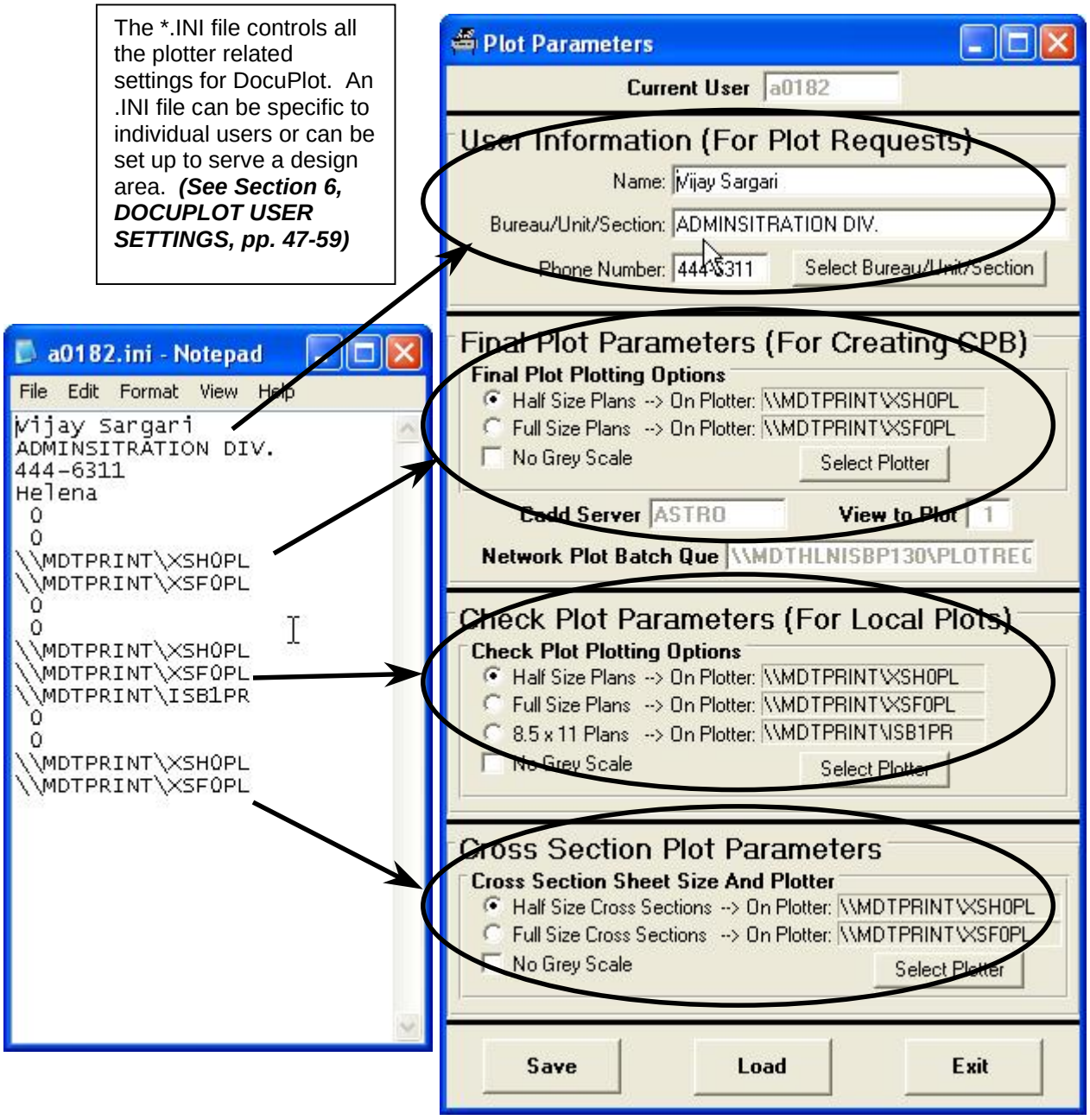
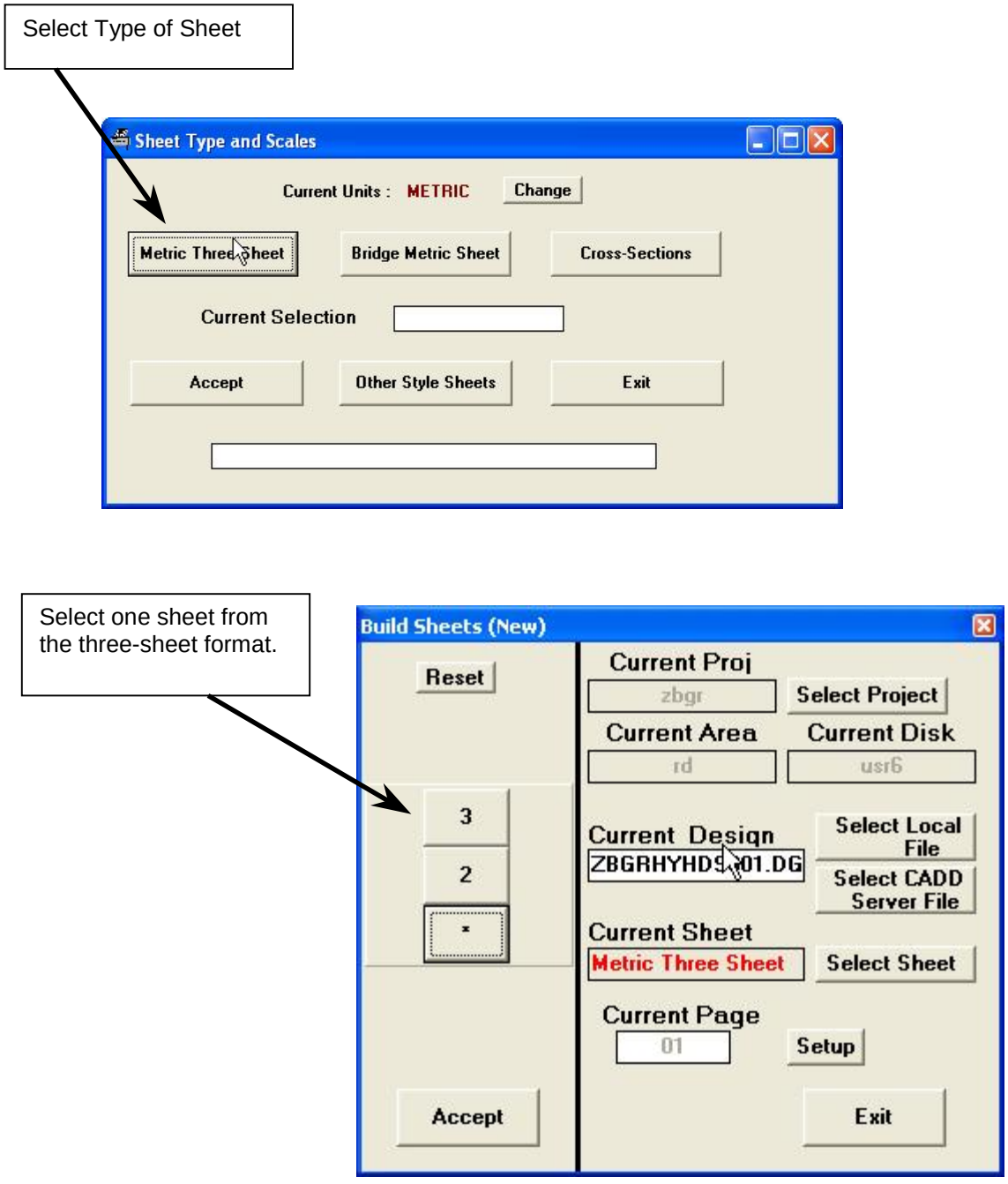
The *.INI file controls all the plotter related settings for DocuPlot. An .INI file can be specific to individual users or can be set up to serve a design area. ***(See Section 6, DOCUPLOT USER SETTINGS, pp. 47-59)***



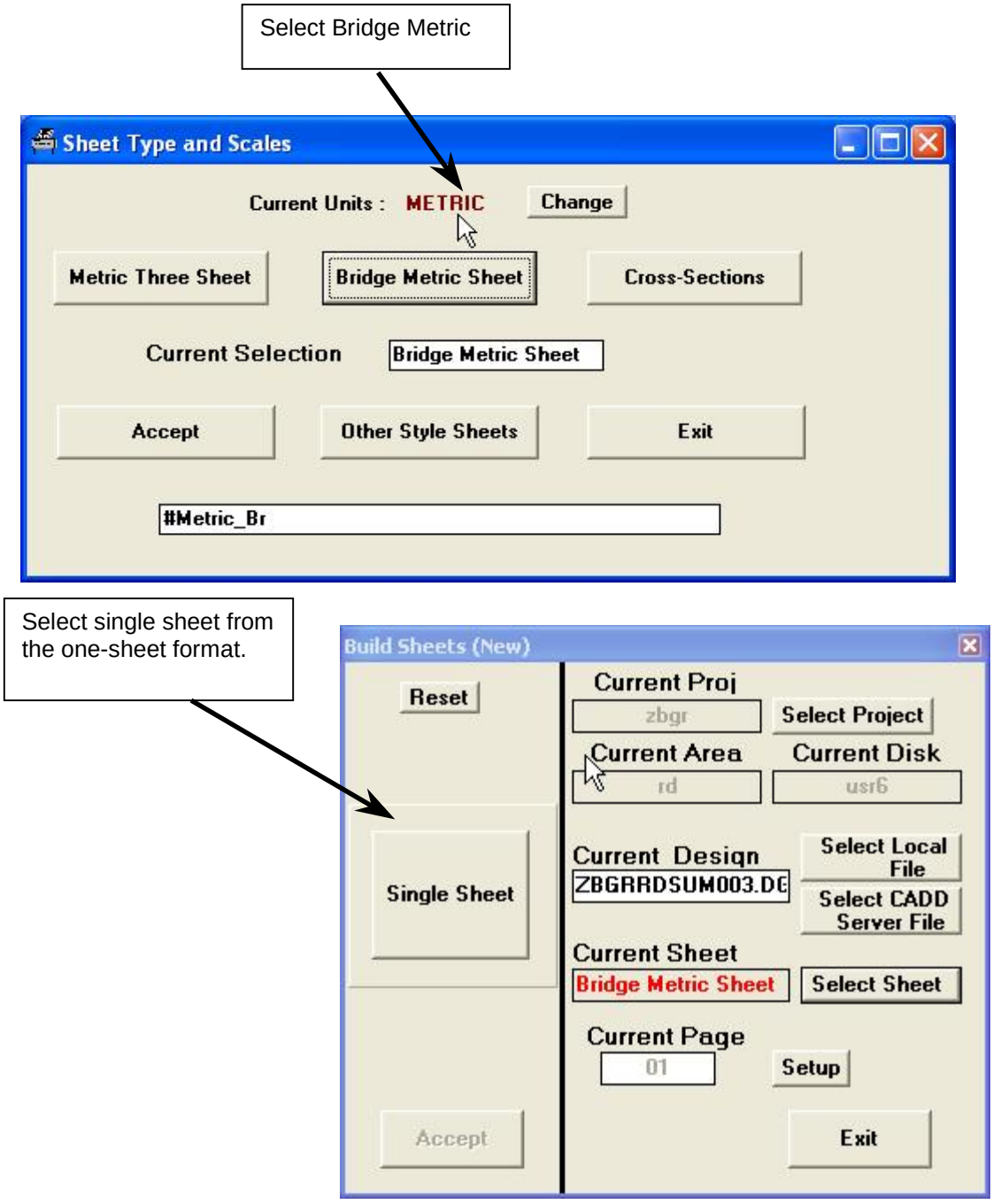
12. APPENDIX B – SHEET TYPES FOR INSERTING INTO CPB

DocuPlot supports a variety of sheet types that can be placed into a CPB. DocuPlot supports current standards for each design area as well as legacy formats.

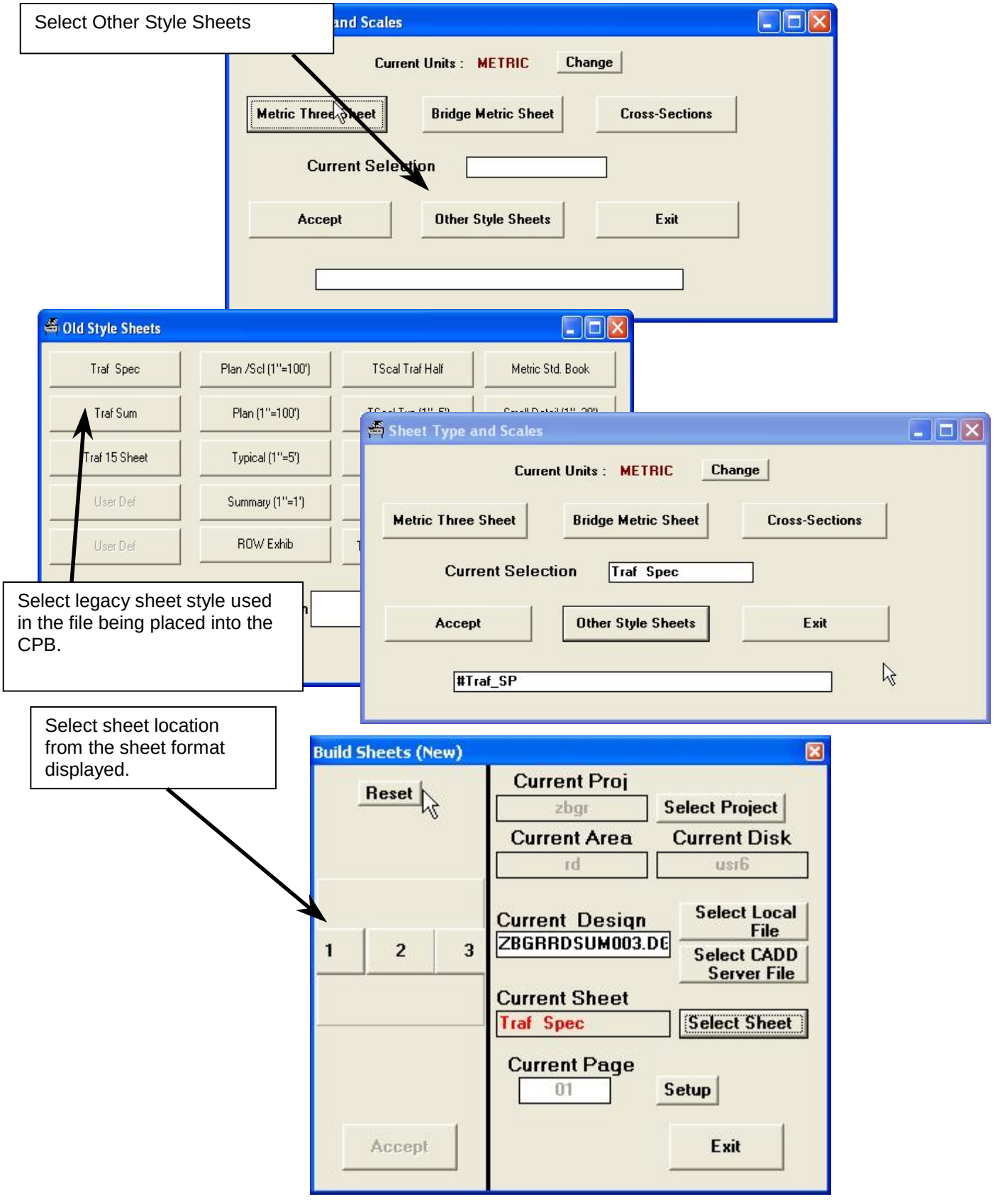
12.1. Standard Three Plan Sheets



12.2. Standard Bridge Plan Sheets



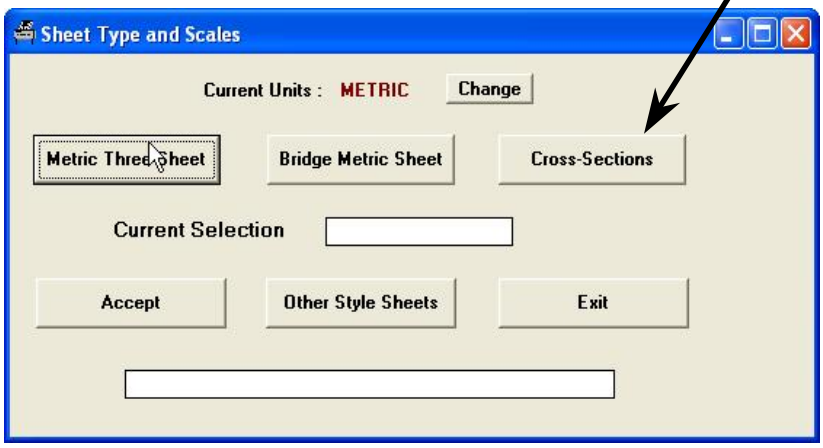
12.3. Legacy Plan Sheets



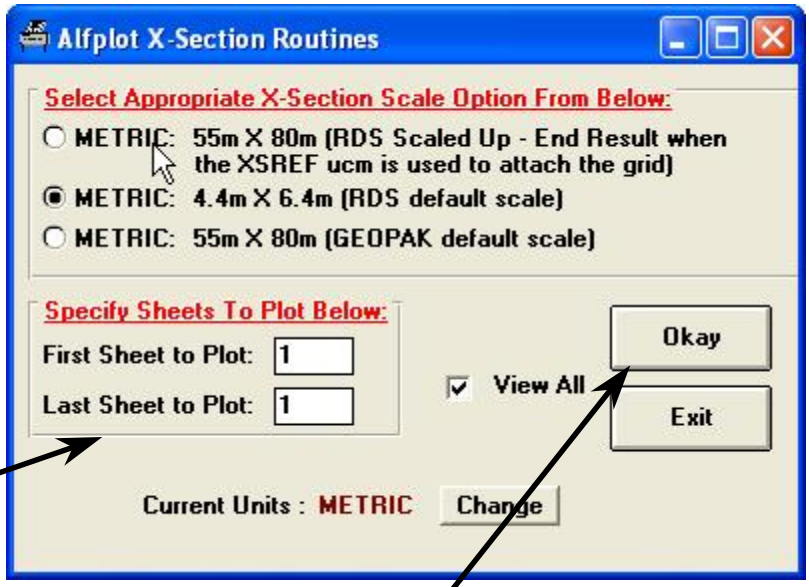
12.4. Cross Section Sheets

Cross Section sheets are placed in a CPB separate from other plan sheets. It is easier to rebuild a cross section CPB, rather than trying to insert pages.

Select Cross Sections, option only available when a cross section file is selected.



Select the type of cross sections scale, and the method the cross sections were created.



Specify the sheets to plot (1 – 500).

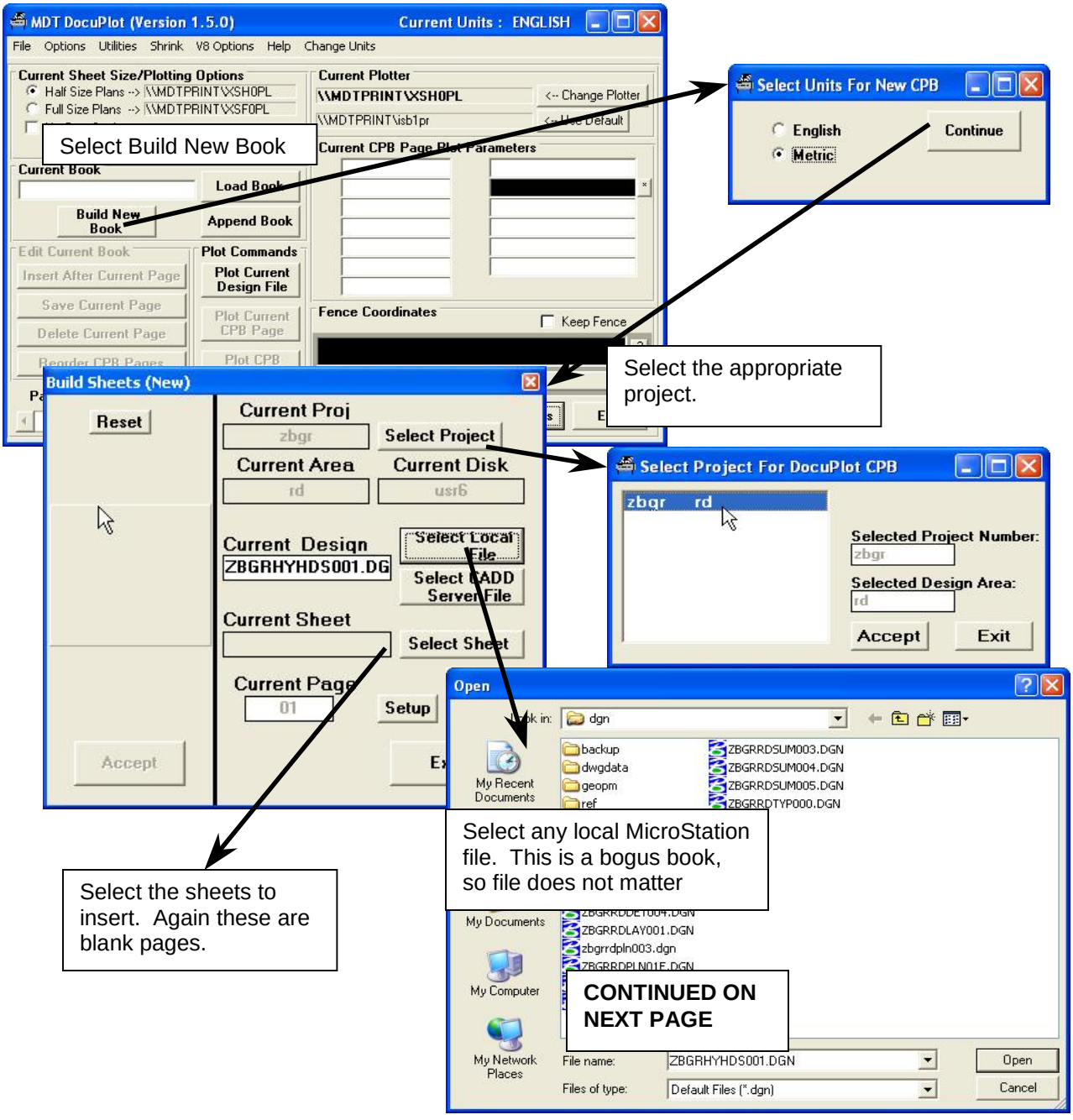
Okay creates the CPB book and returns you to main DocuPlot dialog.

13. APPENDIX C – CPB'S FROM NON STANDARD SHEETS

Contract Plan Books can be built from any style of sheet. All that is in a CPB is the CADD Server information, the file, and the coordinates. Non-standard sheets in DocuPlot will require the coordinates to be entered manually.

13.1. Create a Bogus CPB

Create a CPB that is approximately the same size and length of the bogus plots. Simply create a book of blank pages. The next step will be to replace each page with the correct file and correct coordinates.



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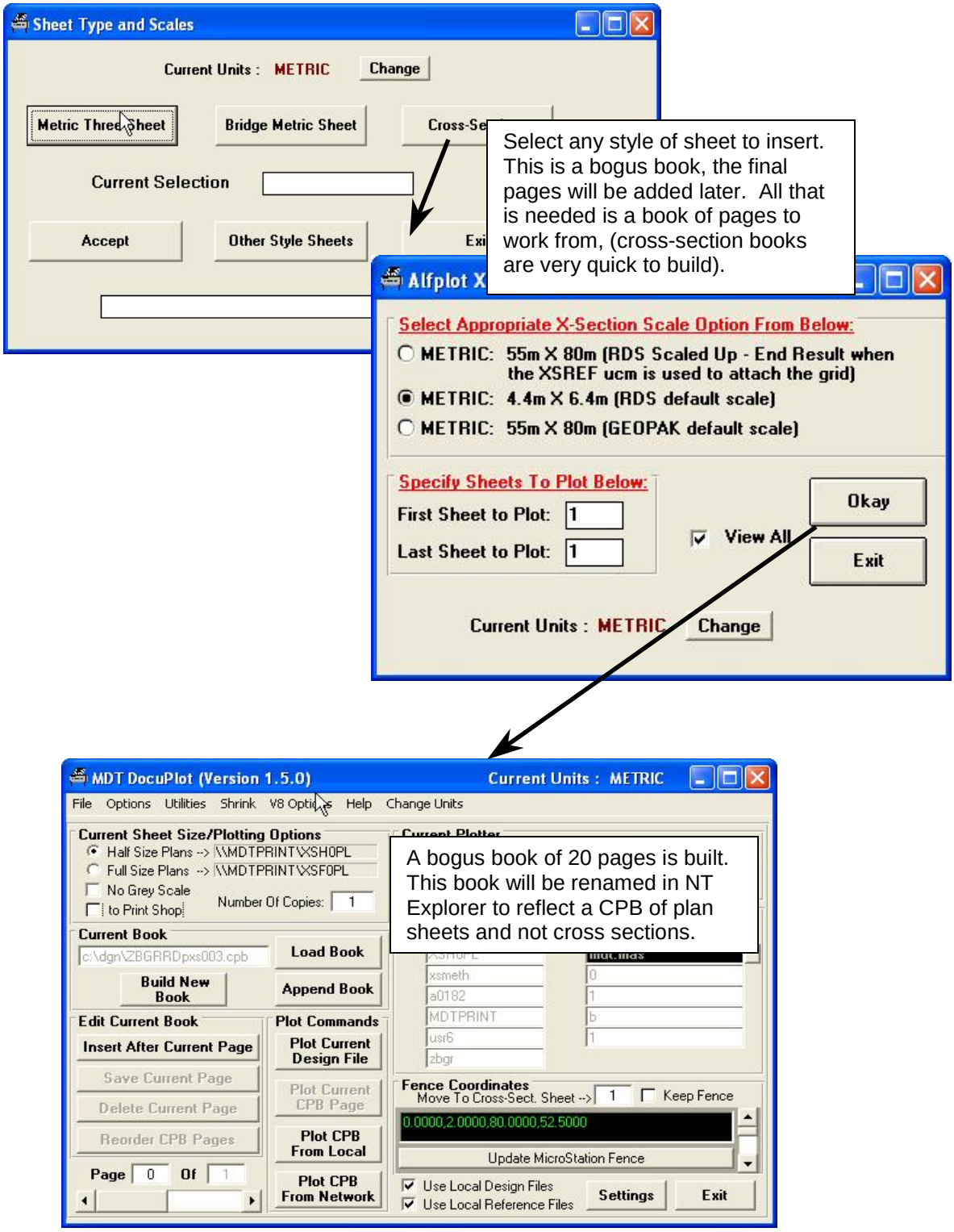
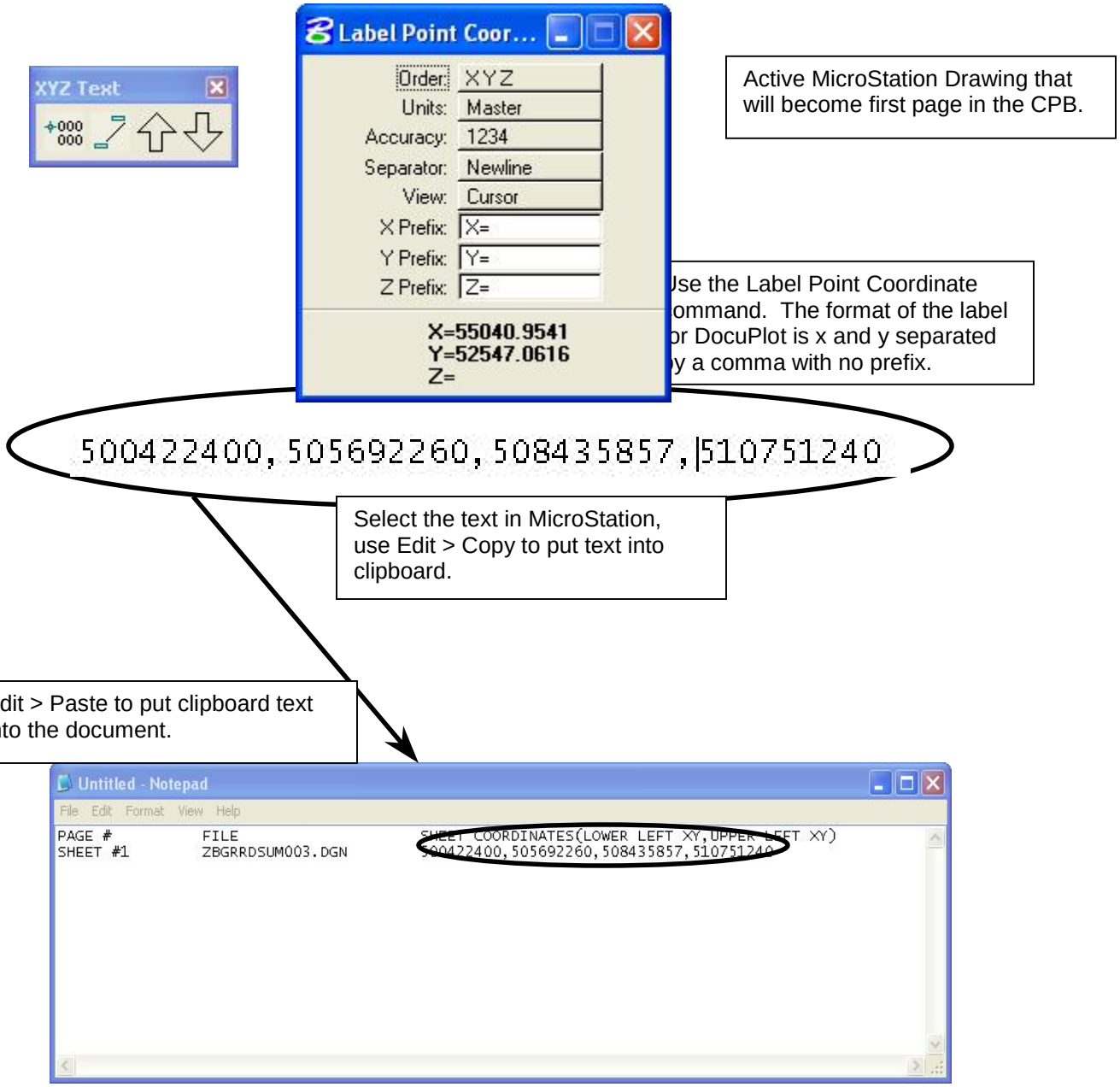

Sheet Type and Scales
Current Units : METRIC
Change
Metric Three Sheet
Bridge Metric Sheet
Current Selection
Accept
Other Style Sheets
Select any style of sheet to insert. This is a bogus book, the final pages will be added later. All that is needed is a book of pages to work from, (cross-section books are very quick to build).
Alfplot X
Select Appropriate X-Section Scale Option From Below:
METRIC: 55m X 80m (RDS Scaled Up - End Result when the XSREF ucm is used to attach the grid)
METRIC: 4.4m X 6.4m (RDS default scale)
METRIC: 55m X 80m (GEOPAK default scale)
Specify Sheets To Plot Below:
First Sheet to Plot: 1
Last Sheet to Plot: 1
View All
Okay
Exit
Current Units : METRIC
Change
MDT DocuPlot (Version 1.5.0)
Current Units : METRIC
File Options Utilities Shrink V8 Options Help Change Units
Current Sheet Size/Plotting Options
Half Size Plans --> \\MDTPRINT\XSH0PL
Full Size Plans --> \\MDTPRINT\XSF0PL
No Grey Scale
to Print Shop
Number Of Copies: 1
Current Book
c:\dgn\ZBGRRDpxs003.cpb
Load Book
Build New Book
Append Book
Edit Current Book
Insert After Current Page
Save Current Page
Delete Current Page
Reorder CPB Pages
Page 0 Of 1
Plot Commands
Plot Current Design File
Plot Current CPB Page
Plot CPB From Local
Plot CPB From Network
A bogus book of 20 pages is built. This book will be renamed in NT Explorer to reflect a CPB of plan sheets and not cross sections.
xsmeth
a0182
MDTPRINT
usr6
zbgr
Fence Coordinates
Move To Cross-Sect. Sheet --> 1
Keep Fence
0.0000,2.0000,80.0000,52.5000
Update MicroStation Fence
Use Local Design Files
Use Local Reference Files
Settings
Exit

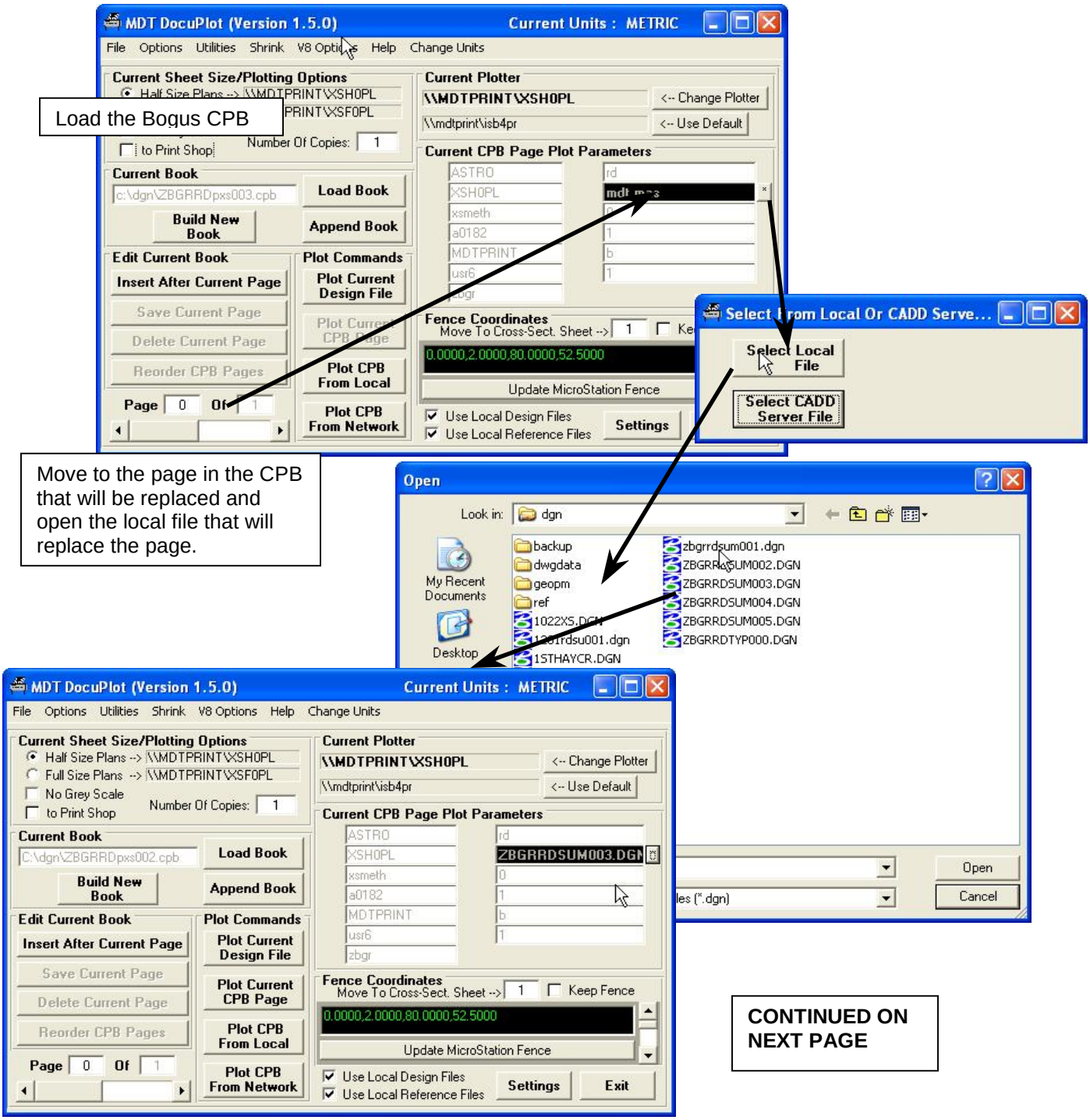
13.2. Determine Coordinates for Non-Standard Sheets

Each sheet to be used as a new page in the CPB has coordinates that must be recorded. These coordinates will be used during the editing CPB process. It may be helpful to create a Notepad, Excel, or Word document. The cut and paste method works best as it eliminates manual entering of numbers, and eliminates some error.



13.3. Save Design File with Non-Standard Coordinates

Each page in the bogus CPB will need to be replaced with the file name and coordinates of the non standard sheets. ***See section 8, Edit CPB - Save Current* Page, *pp. 71***, for the editing method used in saving files displayed in MicroStation.



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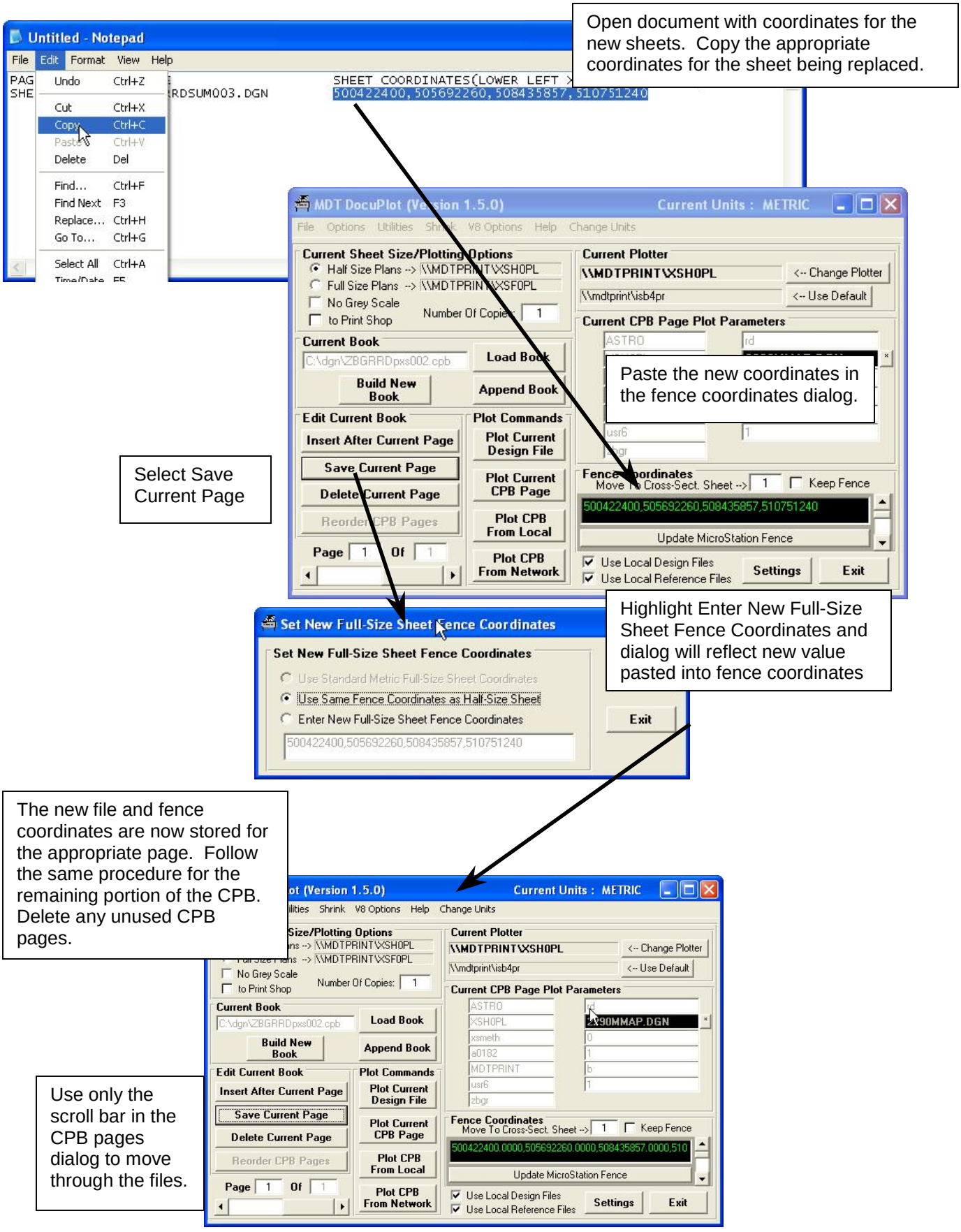
Open document with coordinates for the new sheets. Copy the appropriate coordinates for the sheet being replaced.
Untitled - Notepad
File Edit Format View Help
Undo Ctrl+Z
Cut Ctrl+X
Copy Ctrl+C
Paste Ctrl+V
Delete Del
Find... Ctrl+F
Find Next F3
Replace... Ctrl+H
Go To... Ctrl+G
Select All Ctrl+A
SHEET COORDINATES(LOWER LEFT
500422400,505692260,508435857,510751240
MDT DocuPlot (Version 1.5.0)
Current Units : METRIC
Paste the new coordinates in the fence coordinates dialog.
Select Save Current Page
Highlight Enter New Full-Size Sheet Fence Coordinates and dialog will reflect new value pasted into fence coordinates
Set New Full-Size Sheet Fence Coordinates
Use Standard Metric Full-Size Sheet Coordinates
Use Same Fence Coordinates as Half-Size Sheet
Enter New Full-Size Sheet Fence Coordinates
The new file and fence coordinates are now stored for the appropriate page. Follow the same procedure for the remaining portion of the CPB. Delete any unused CPB pages.
Use only the scroll bar in the CPB pages dialog to move through the files.