



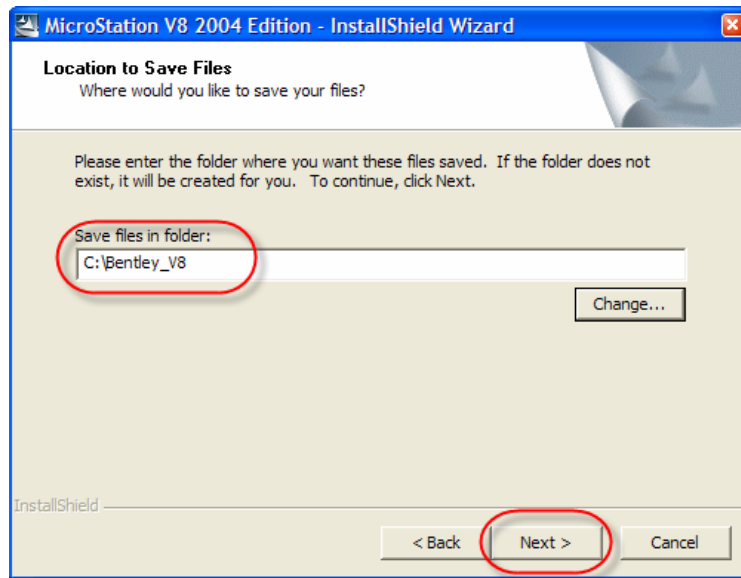
"Step by Step" Instructions How to
Configure your Design Environment for
Consultant Engineering Activities and for
Home Use

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Step 1 Local Program Installs

Note: All XM products require Select Server XM for licensing. The following list is based on the current MicroStation 2004 standards at ConnDOT. The Optional XM List is for resources which are under development.



1.1 Bentley Program List and Recommended Install Locations

- MicroStation XM Prerequisite Pack v08.09.00.20 (default)
- ProjectWise Plot Organizer XM v08.09.02.26 (default)
- MicroStation 2004 v08.05.02.35 C:\Bentley_V8
- InRoads 2004 v08.05.00.00 C:\Bentley_V8
- InRoads 2004 SP4 v08.05.04.00 C:\Bentley_V8

1.2 Optional XM List

- MicroStation XM Prerequisite Pack v08.09.03.54 (default)
- MicroStation XM v08.09.03.66 C:\Bentley_XM
- InRoads XM v08.09.00.51 C:\Bentley_XM

Step 2 Project and Workspace Installation

2.1 Downloading and Extracting the ConnDOT DDE

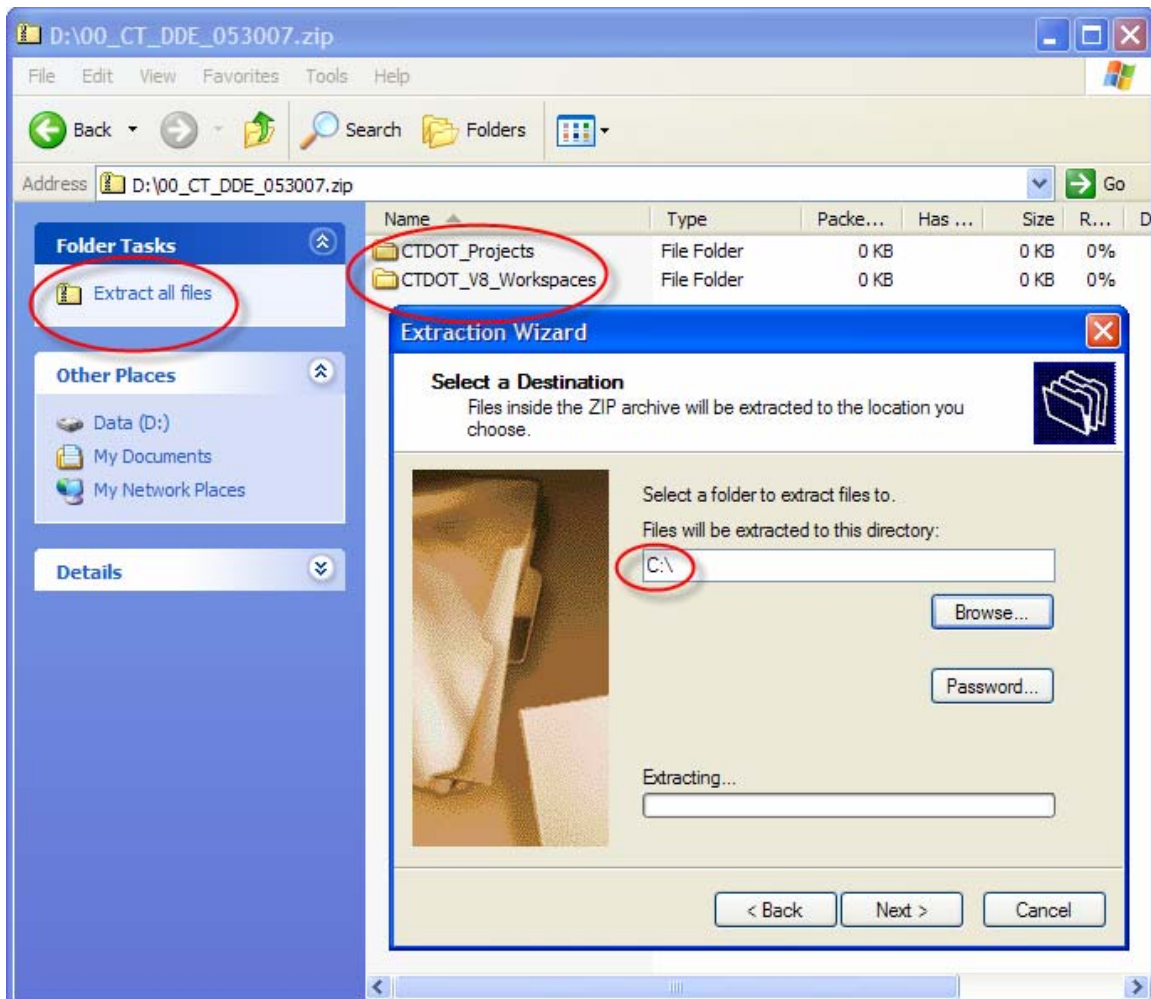
The Digital Design Environment is a zipped file that contains two main folders - CTDOT_V8_Workspaces and CTDOT_Projects. It is available through the Connecticut Department of Transportation Web page and can be extracted with standard Windows software.

2.1.1 Download the latest DDE file from www.ct.gov/dot/digitaldesign

This is the central repository for the DDE zip file and related DDE information.

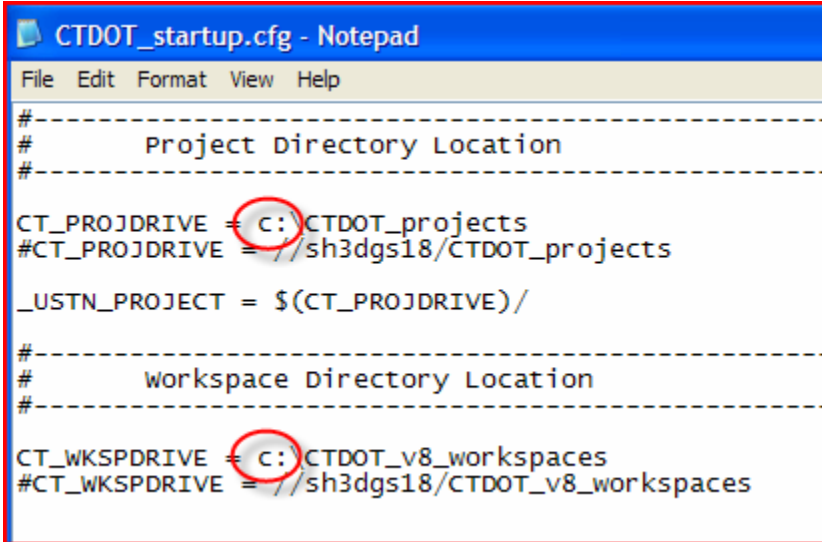
2.1.2 Extract the Folders

Copy the DDE onto your server (or pc) by extracting the zipped Project and Workspace folders through the Windows Compressed Folders Extraction Wizard:



2.2 Directing MicroStation to the DDE Folders

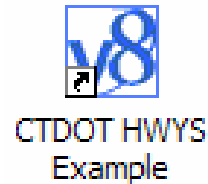
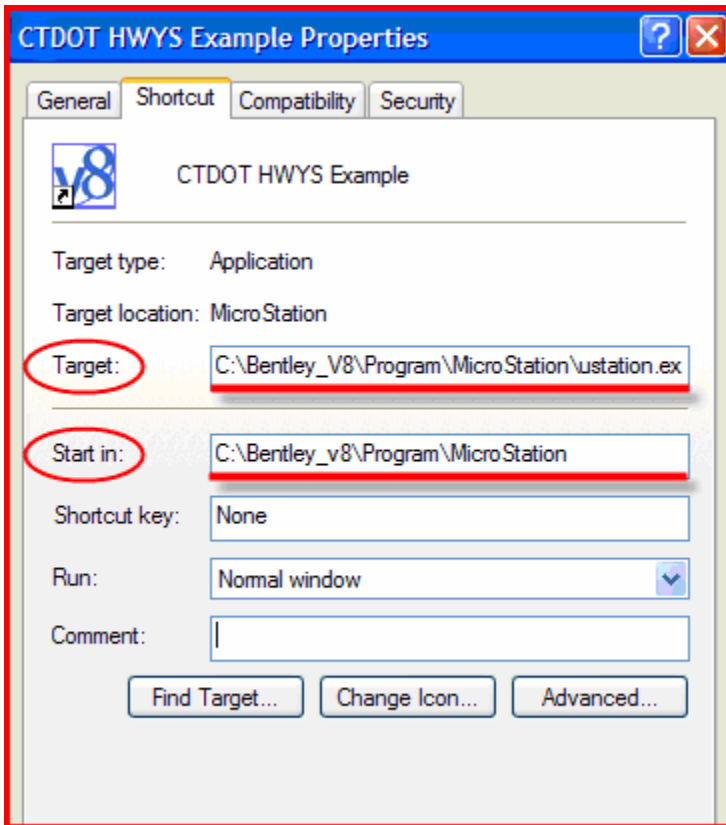
Open Startup.cfg from the main CTDOT_V8_Workspaces folder with a text editor and edit the location of both the newly extracted Project and Workspace folders. Change the drive letter or Universal Naming Convention (UNC) to the appropriate path as shown below. Pay careful attention to spelling and save any changes. Note that MicroStation will not process any line commented out by a pound (#) sign.



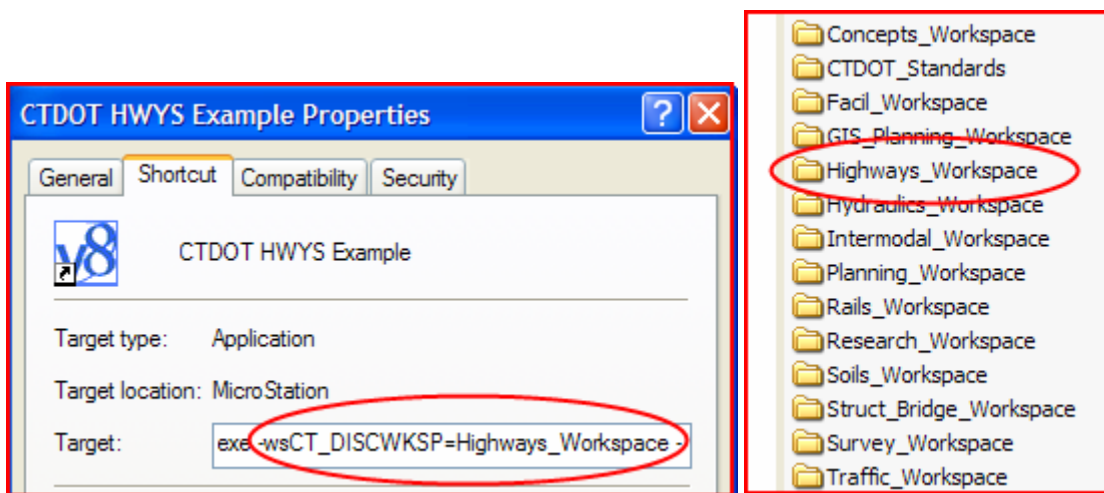
```
CTDOT_startup.cfg - Notepad
File Edit Format View Help
#-----
#       Project Directory Location
#-----
CT_PROJDRIVE = C:CTDOT_projects
#CT_PROJDRIVE = //sh3dgs18/CTDOT_projects
_USTN_PROJECT = $(CT_PROJDRIVE)/
#-----
#       workspace Directory Location
#-----
CT_WKSPDRIVE = C:CTDOT_v8_workspaces
#CT_WKSPDRIVE = //sh3dgs18/CTDOT_v8_workspaces
```

2.3 MicroStation Desktop Modifications

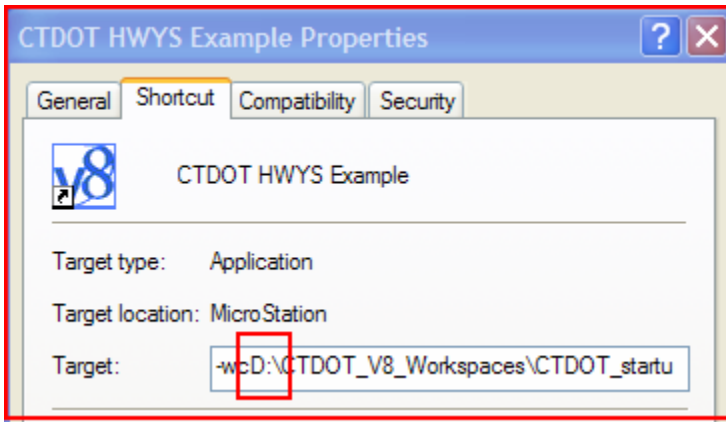
Copy a desktop shortcut to your pc to edit. Example shortcuts are included in the main CTDOT_V8_Workspaces folder such as the following one for Highway Design. Shortcuts contain a program path, a command line Discipline variable, and a start up configuration file. Right click on the copied shortcut to bring up its properties.



Check the location of the MicroStation program (ustation.exe) and version (2004 or XM). Change them if necessary. MicroStation 2004 was chosen for this example, so the path is under Bentley_V8 rather than Bentley_XM. Next, edit the custom Discipline variable that follows in the Target line to match any available Workspaces listed under the main CTDOT_V8_Workspaces folder. Two examples are: "CT_DISCWSP=Highways_Workspace" and "CT_DISCWSP=Survey_Workspace".



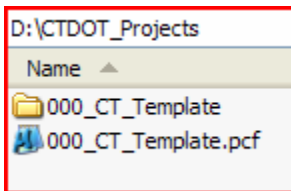
Change the final part of the Target line to reflect the drive letter or UNC where the main CTDOT_V8_Workspaces folder was extracted to.



Double check your spelling and rename the desktop shortcut if necessary.

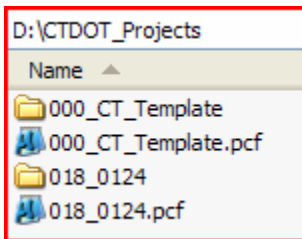
2.4 Creating a New Project

Browse to the extracted CTDOT_Projects folder. There is a supplied project template folder and an accompanying project configuration file (*.pcf) with the same name.



2.4.1 Copy the supplied Project Template

Copy and paste both the template folder and configuration file to create a new project. Rename them both using a valid State or Federal Project Number such as 018_0124.



2.4.2 Edit the Project Configuration File

Open the newly created Project Configuration file (e.g. 018_0124.pcf) with a text editor. Change the value of the "CT_PROJECT_NUMBER" variable from "000_CT_Template" to the new project number (e.g. 018_0124). Save changes.

```
000_CT_Template.pcf - Notepad
File Edit Format View Help
#-----
#
# 000_CT_Template CTDOT Project Configuration File
#-----
#
_USTN_PROJECTDESCR = Project Configuration
#-----
#
# NOTE: The Project Administrator MUST CHANGE the "CT_PROJECT_NUMBER"
# value so it matches the newly created project folder.
#-----
CT_PRJ_VER = 2007
CT_PROJECT_NUMBER = 000_CT_Template
#-----
```

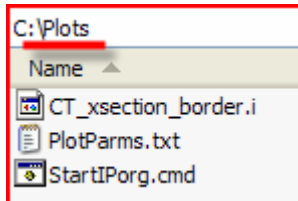
Change to new Project Number (e.g. 018_0124)



Step 3 Printing and Plotting Setup

3.1 C:\Plots Folder

Create a folder named "Plots" on the C:\ Drive for all users to access. Temporary plotting files are written to this folder such as session information for ProjectWise Plot Organizer (PlotParms.txt), plot parameters (*.i), and metafiles (*.m).

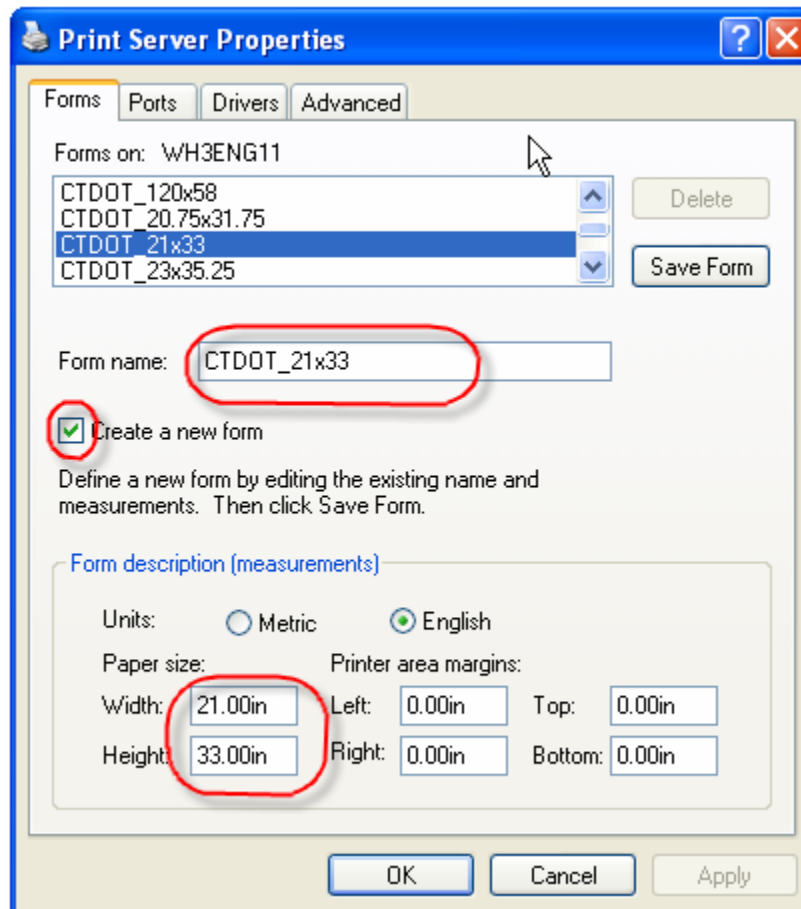


3.2 Virtual Printer Setup

A Virtual Printer named "PDF_OUTPUT" must be created on every client or once on a networked server for all users to access. First, a custom paper size of 21 x 33 must be created. This is done through each client's print server or through a networked server for the Virtual Printer to use.

3.2.1 Create Custom Form

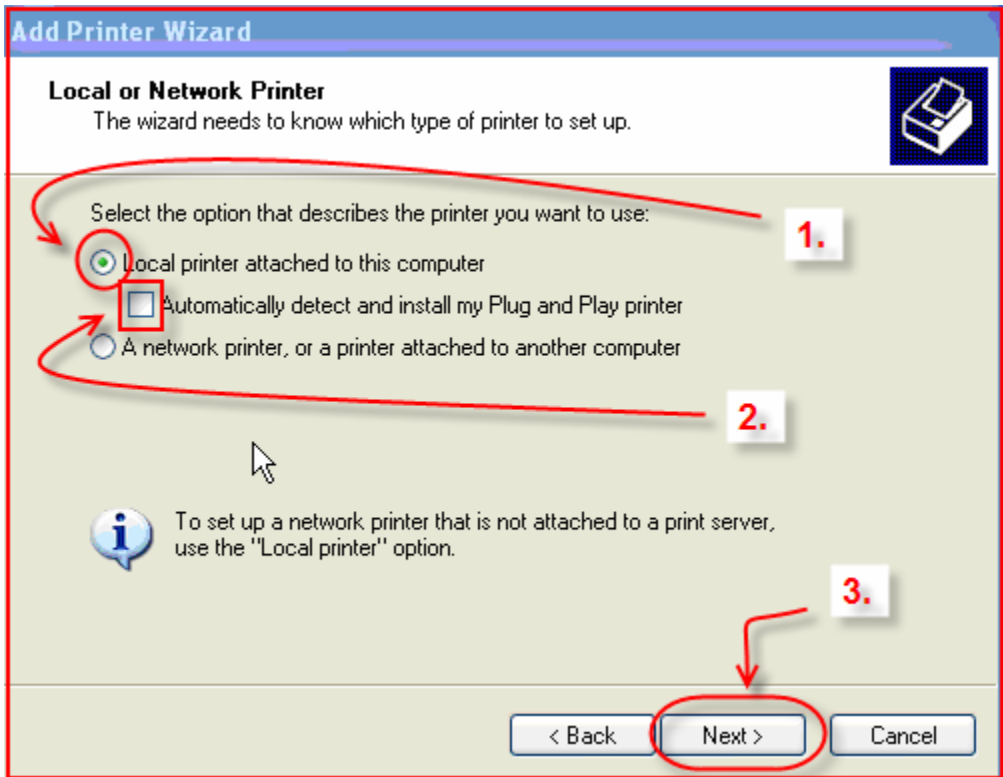
Using the Windows "Printers and Faxes" interface, select "File>Server Properties". Create a new form named "CTDOT_21x33" and fill in the paper size width and height. Note that this form will be used to print a true 11x17 half scale.



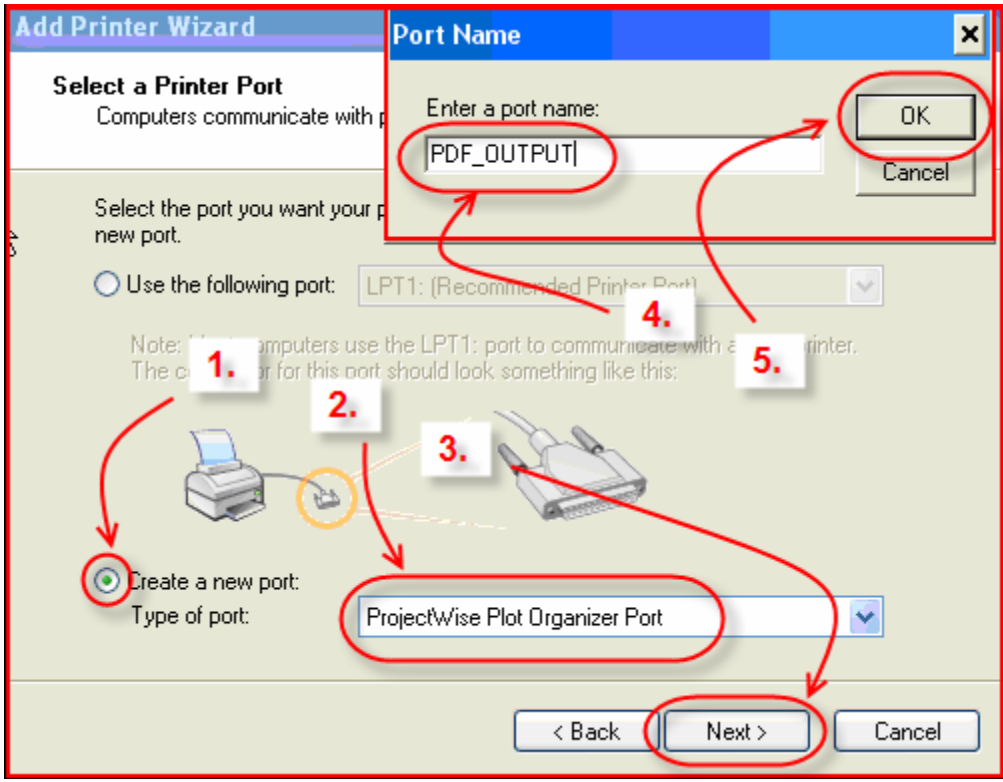
Revised 8/2002

3.2.2 Add Printer

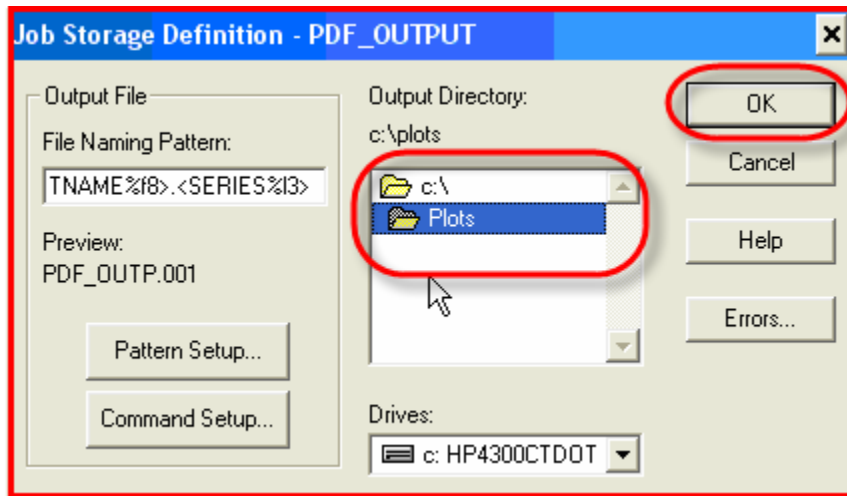
Select "Add a printer" using the Windows "Printers and Faxes" interface. Toggle the Local printer radio button to on, uncheck Automatic detection, and click the <Next> button.



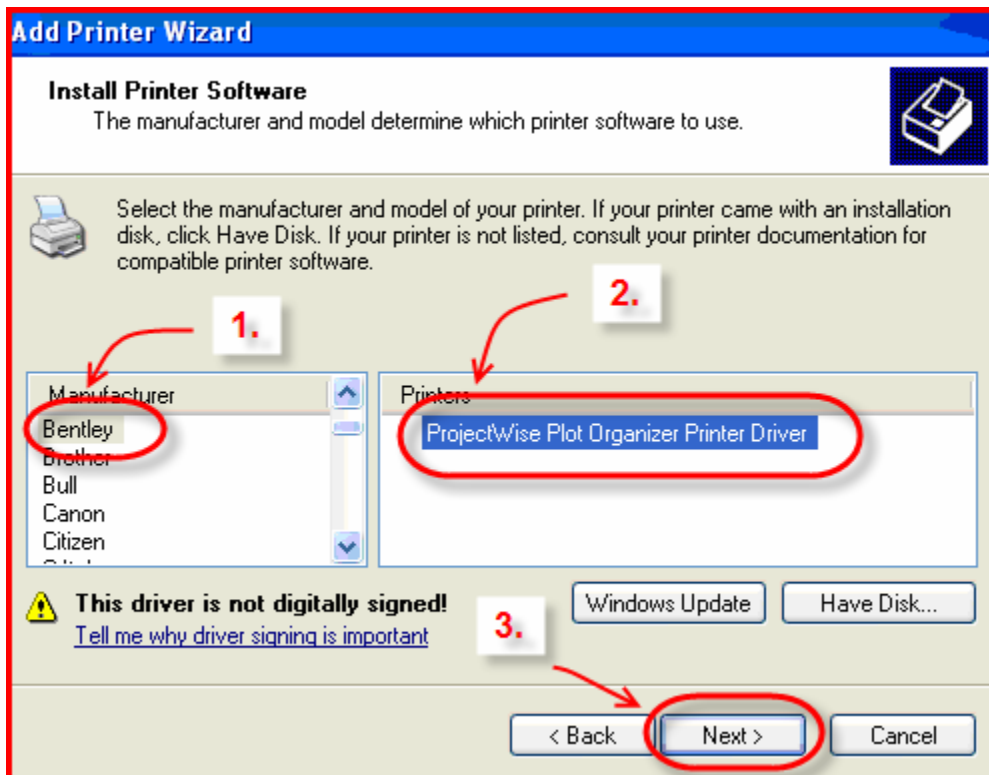
In the next "Add Printer Wizard" screen, toggle on "Create a new port", Select the "ProjectWise Plot Organizer Port" from the "Type of port" drop down list, and click <Next>. Note that ProjectWise Plot Organizer must be installed first for this port to be available. When the "Port Name" dialog box pops up, type in "PDF_OUTPUT" and click <OK>.



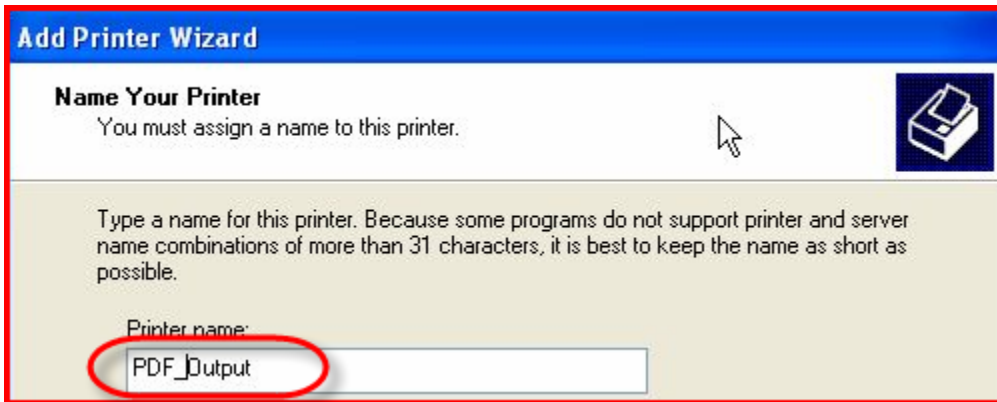
After entering a port name, select an Output Directory of the previously created "C:\Plots" folder from the "Job Storage Definition" dialog box and click <OK>.



Select Bentley's ProjectWise Plot Organizer Printer Driver.

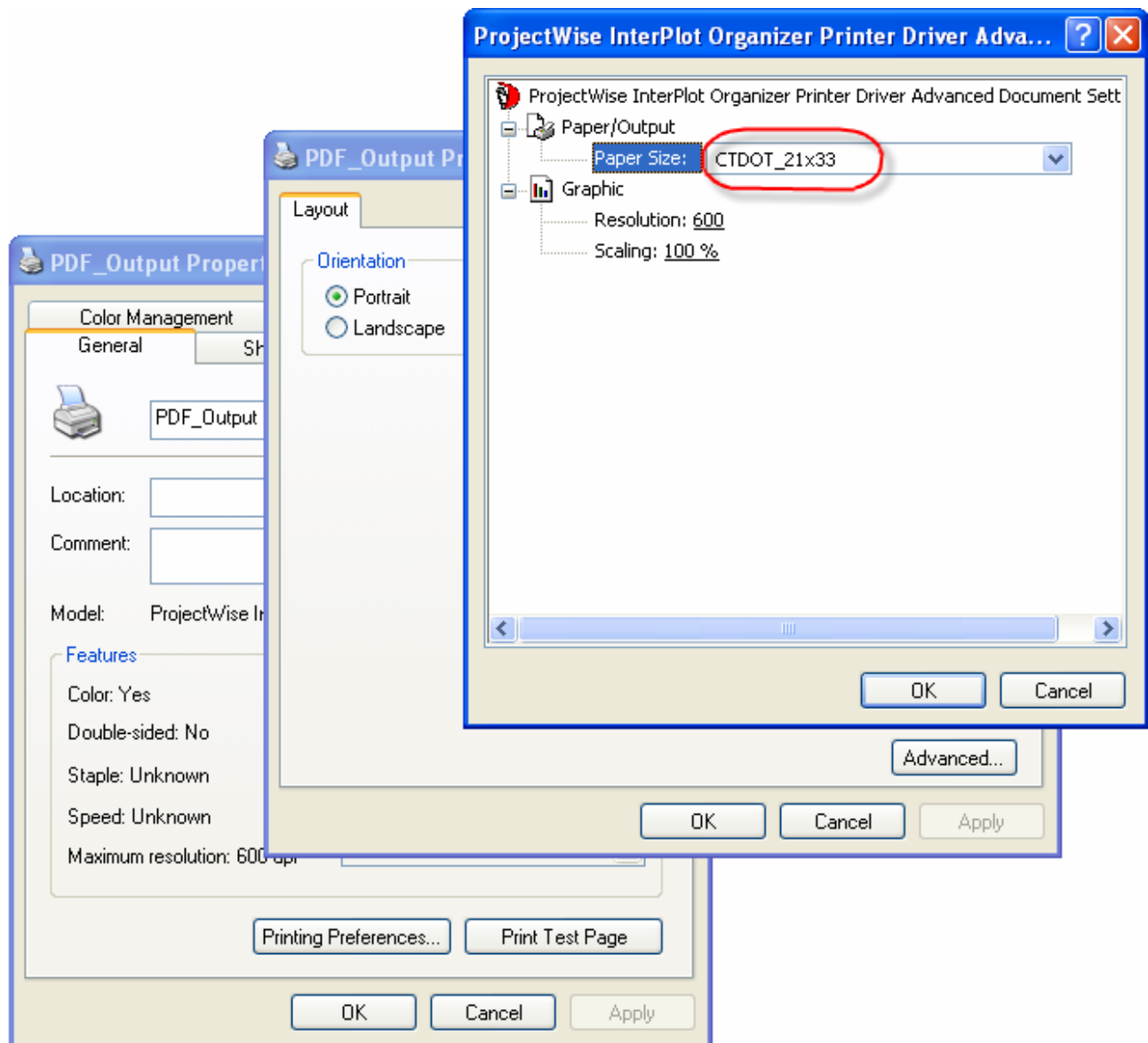


Rename the newly created printer to "PDF_Output".



At this point, the new printer has been created, but its properties must be changed to use the new custom sheet size. From the Windows "Printers and Faxes" list, right click on "PDF_Output" and select "Properties". From the "General" tab, click <Printing Preferences>. Click <Advanced...> in the "PDF_Output Printing Preferences" dialog box. Lastly, choose "CTDOT_21x33" from the Paper Size drop down list from the Advanced Document Settings and click <OK>.

Revised 8/2002



3.3 Custom DLL's

Open the main Workspace folder through Windows Explorer and browse to "...\\CTDOT_V8_Workspaces\\CTDOT_Standards\\Iplot\\design_scripts\\DLL\\". Rename "Register Data Miner Cmd.cmd" to "Register Data Miner Cmd.exe" and click on the file to execute. The custom dll's will register on the local computer. This must be done on each client. An available "CT DOT TOOLS" drop down menu from the "ProjectWise Plot Organizer" menu will confirm that the dll's have been registered.

3.4 Plotter Specific *.set Files

ProjectWise Plot Organizer automatically recognizes settings files if they are named the same as the available printers. To establish the Virtual Printer settings file, browse to the "CTDOT_V8_Workspaces\\CTDOT_Standards\\Iplot\\settings\\2007" folder. Open "PDF_Output.set" with a text editor. Change every occurrence of "SERVER_NAME" within this file to the drive letter or UNC where the main "CTDOT_V8_Workspaces" folder was extracted to. Save changes. Note that this common file will be used by all users regardless of whether the Virtual Printer was installed on each client or on a server.

```

#-----I-----
#
# PDF_Output.set
#
# For PDF creation through the Virtual Printer using 2007 standards
#
# !IMPORTANT!
# Change the following occurrences of "SERVER_NAME" to the name of t
# server where the main CTDOT_V8_Workspaces folder was extracted to.
# An example is \\sh3dgs18\CTDOT_V8_Workspaces\...
#
#-----

#-color_table="\SERVER_NAME\CTDOT_V8_Workspaces\CTDOT_Standards\Iplot\re
#-pen_table="\SERVER_NAME\CTDOT_V8_Workspaces\CTDOT_Standards\Iplot\des:
#-ms_pen_table="\SERVER_NAME\CTDOT_V8_Workspaces\CTDOT_Standards\Standar

-color_table="d:\CTDOT_V8_Workspaces\CTDOT_Standards\Iplot\resource\CTD(
-pen_table="d:\CTDOT_V8_Workspaces\CTDOT_Standards\Iplot\design_scripts\
-ms_pen_table="d:\CTDOT_V8_Workspaces\CTDOT_Standards\Standards\tables\I

-units=in
-paper_size="CTDOT_21x33"
-full_sheet=true
-align_x
-xsize=31.750000
-origin=1.125000,0.125000
-nodisplay[IPLOT_ALL]=[construction,text_nodes]
-nodisplay[IPLOT_MASTER]=[construction,text_nodes]

```

Step 4 Beginning MicroStation

4.1 Desktop Shortcut

Begin MicroStation by selecting a desktop shortcut. If you are a new user to the DDE, any Discipline will do for now.



4.2 New User

A new MicroStation user has to create both a new User Interface and a new User Workspace for each of the MicroStation Programs – 2004 and XM. They are separated by software version to avoid User Workspace corruption. To ensure a complete MicroStation Graphical User Interface (GUI) transition from the default, the new user must open a MicroStation design file, immediately exit, and reenter as follows:

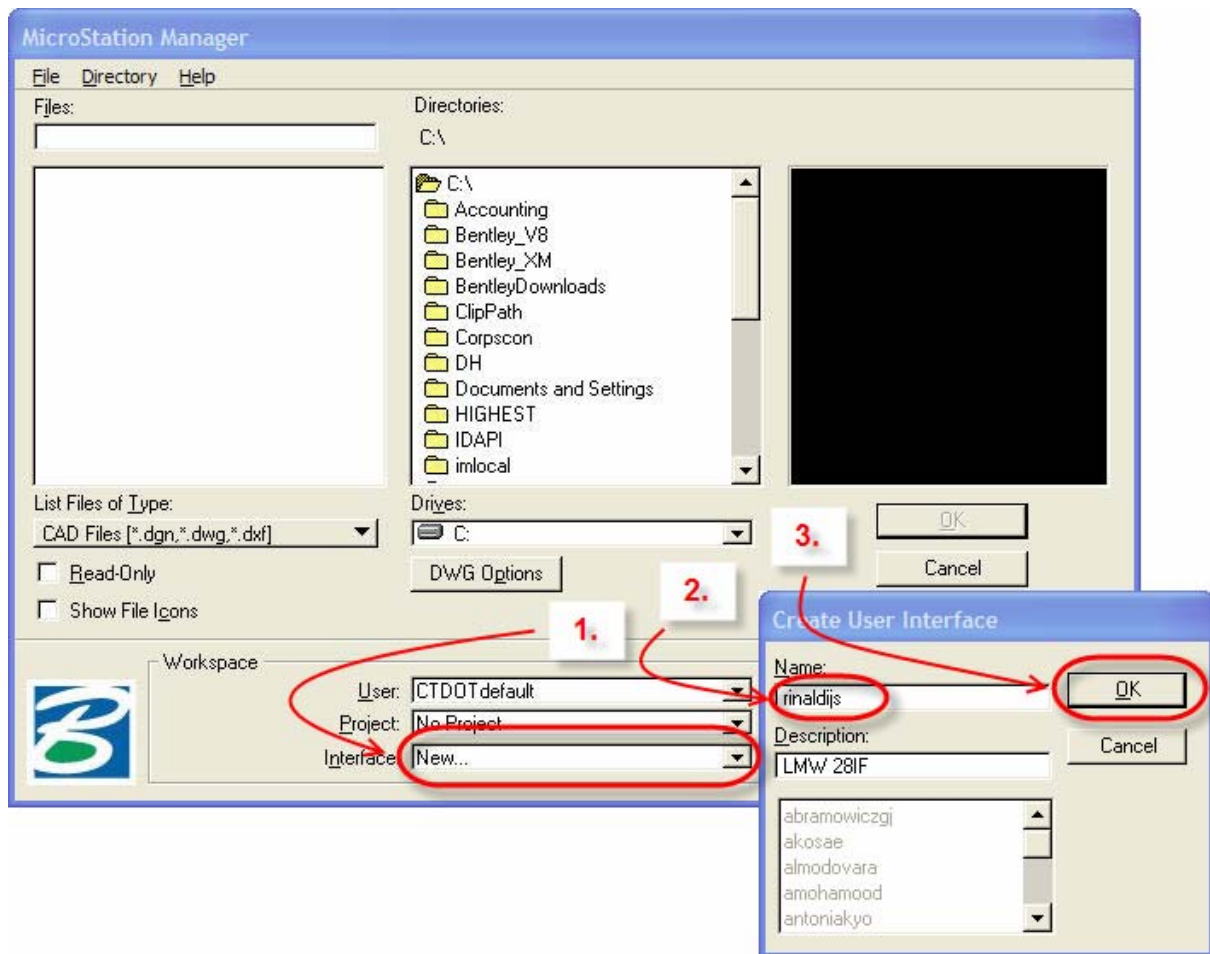
4.2.1 Windows Username

New User Interfaces, Workspaces, and Function Key menus are based on the user's Windows login name\USERNAME. To check the Windows Environmental Variable, USERNAME, go to "Start>Programs>Accessories>Command Prompt", type "SET" and click <Enter>.

```
SystemRoot=C:\WINDOWS
TEMP=C:\DOCUMENTS AND SETTINGS\RINALDIJ\LOCALS~1\Temp
TMP=C:\DOCUMENTS AND SETTINGS\RINALDIJ\LOCALS~1\Temp
USERDOMAIN=CONNDOT_01
USERNAME=rinaldijs
USERPROFILE=C:\Documents and Settings\rinaldijs
windir=C:\WINDOWS
COMPAT_LAYER=DisableNAShowUI
```

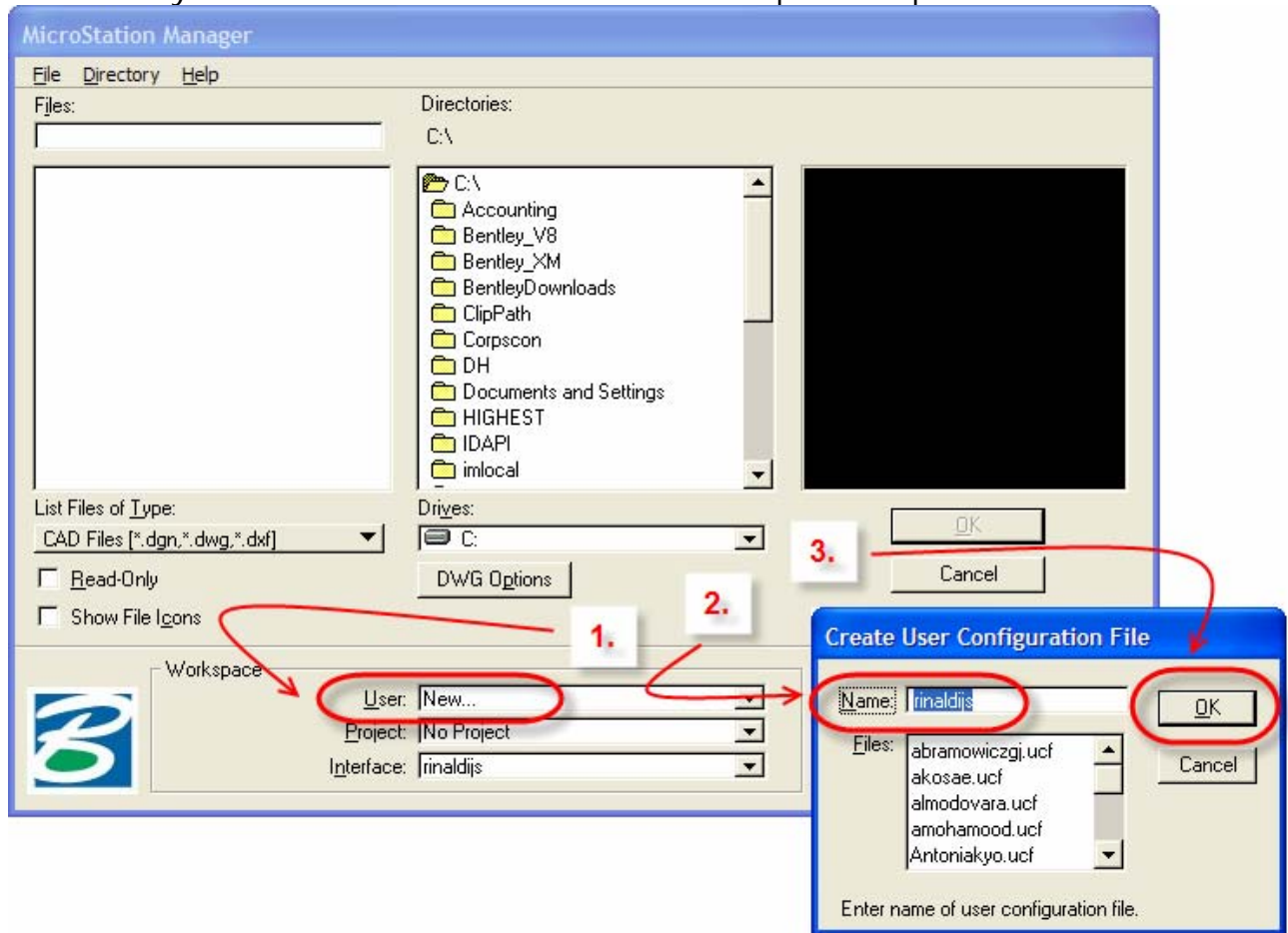
4.2.2 New User Interface

Through the MicroStation Manager, choose "New" from the Interface drop down list at the bottom center of the window. Note that this default GUI is the classic MicroStation Manager. Create a new User Interface named the same as your USERNAME and click <OK>. Description is optional.

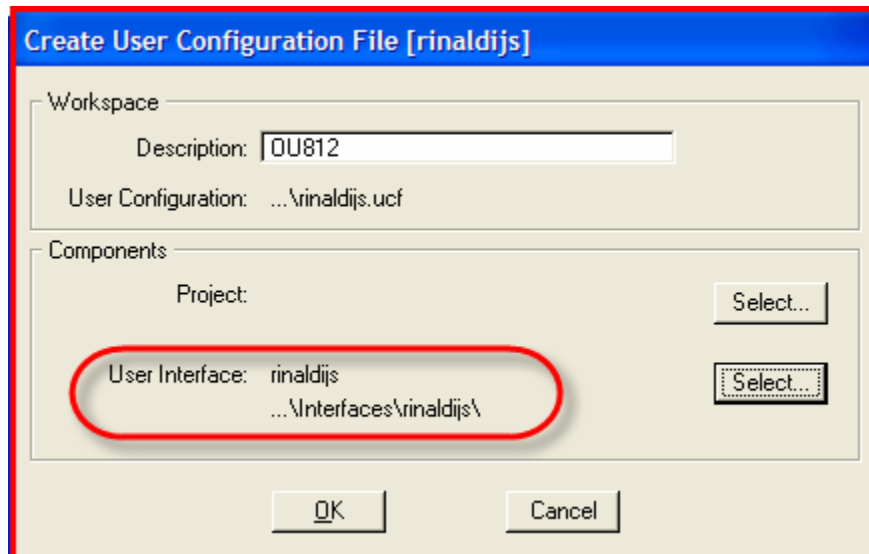


4.2.3 New User Workspace

The default User Workspace is "CTDOT_default" – a read only workspace. Create a new User Configuration File by selecting "New" from the User Workspace drop down list. Enter your USERNAME and click <OK>. Description is optional.



The newly created interface should be attached to your user configuration. A project is not necessary at this point. Click <OK>.



IMPORTANT! A new user MUST now open any MicroStation design file. Once completely IN the design file, do NOT save settings and immediately exit MicroStation. Start MicroStation once again from a desktop shortcut. If New User Instructions were followed correctly, MicroStation should now appear with the Windows Look and Feel Preference turned on and you can proceed to the following step.

If the GUI has not changed, the user must exit MicroStation and his or her User Preference File (upf) must be deleted from the applicable folder – “\CTDOT_V8_Workspaces\User_Workspaces_V82004\” or “\CTDOT_V8_Workspaces\User_Workspaces_V8XM\”. Upon reentering MicroStation, a user preference seed file will automatically be used and the new GUI will appear- assuming that the ucf exists.

4.2.4 Selecting a Project

Do NOT create a new project from within MicroStation Manager. Use the procedure as described in the above Step 2.4. If the Startup.cfg has been properly edited, all projects with a pcf should be available from the “CTDOT_Projects” folder. Once a project is picked, MicroStation should display all of a project’s subfolders to choose from. Good Luck and Happy Designing!

