

Attaching Reference Ties and Bench Marks

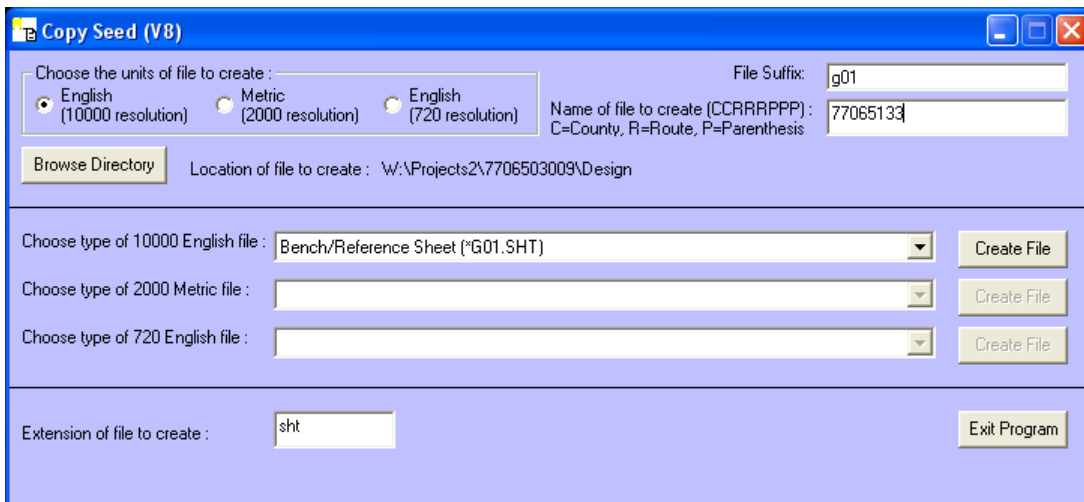
Design Manual
Chapter 20
Project Automation
Information
Originally Issued: 02-10-12

This section provides guidance on attaching **Reference Tie** and **Bench Mark** information to the G Sheets for plan sheet preparation. This information is created by the Preliminary Survey Section,

Refer to Section [1F-8](#) for information on G Sheets.

Creating the G Sheet MicroStation File

Using the **CopySeed** program, create a **Bench/Reference Sheet (*G01.SHT)** (see below).



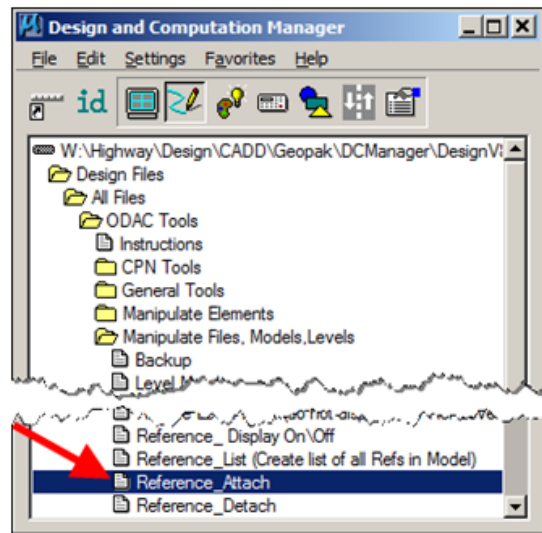
For further guidance on operating the **CopySeed** program, refer to Section [21C-54](#).

Open the MicroStation file created by **CopySeed**.

Referencing the Field_G_Sheet Model

In the **Design and Computation (D&C) Manager** dialog, access the **Reference_Attach** tool, as shown at the right.

NOTE: Do not copy anything active from the **Field_G_Sheet** model. When this model is attached as a reference, any additional survey changes will automatically be reflected in the **Bench/Reference Sheet**.

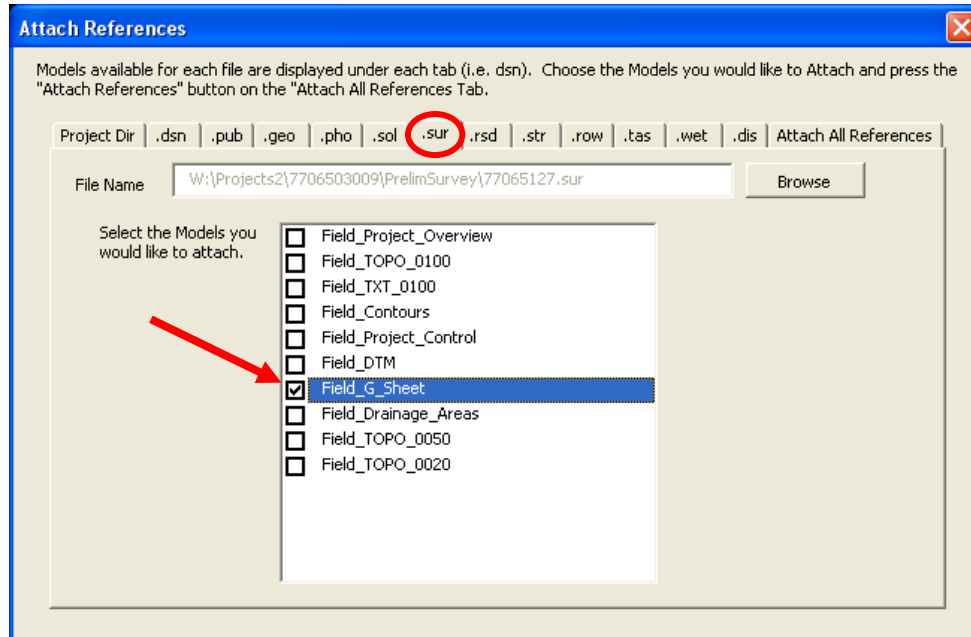


Select the **.sur** tab. Select the **Field_G_Sheet** model.

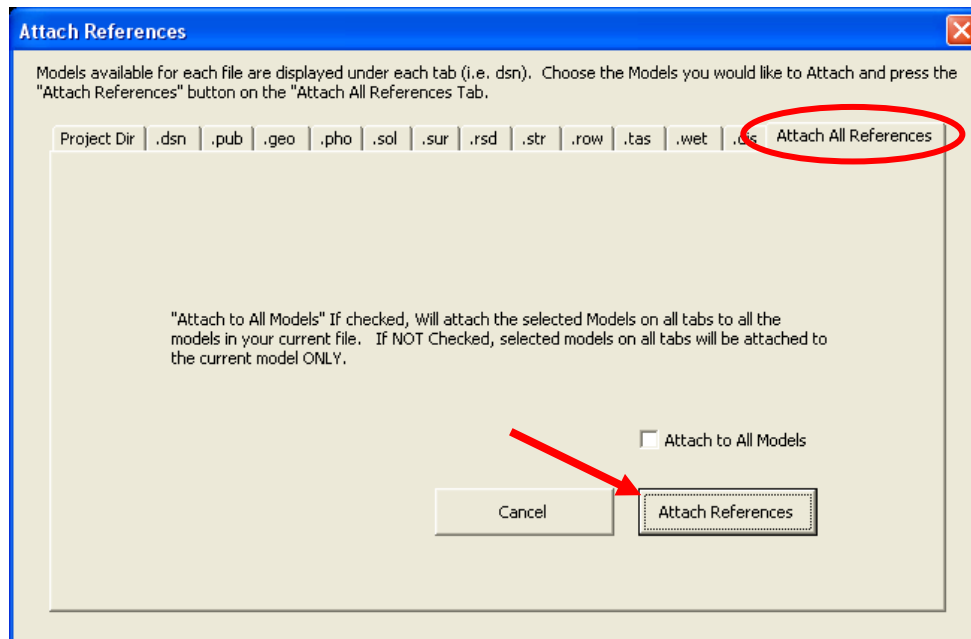
The **CCRRRPPP.sur** file containing the **Field_G_Sheet** model should be located at the following location:

W:\Projects\ProjectDi\PrelimSurvey\ProjectNum.sur

NOTE: The Design File Naming convention, “**CCRRRPPP**”, refers to the 2-digit **C**ounty, 3-digit **R**oute, and the 3-digit project **P**arenthesis number assigned to the project.



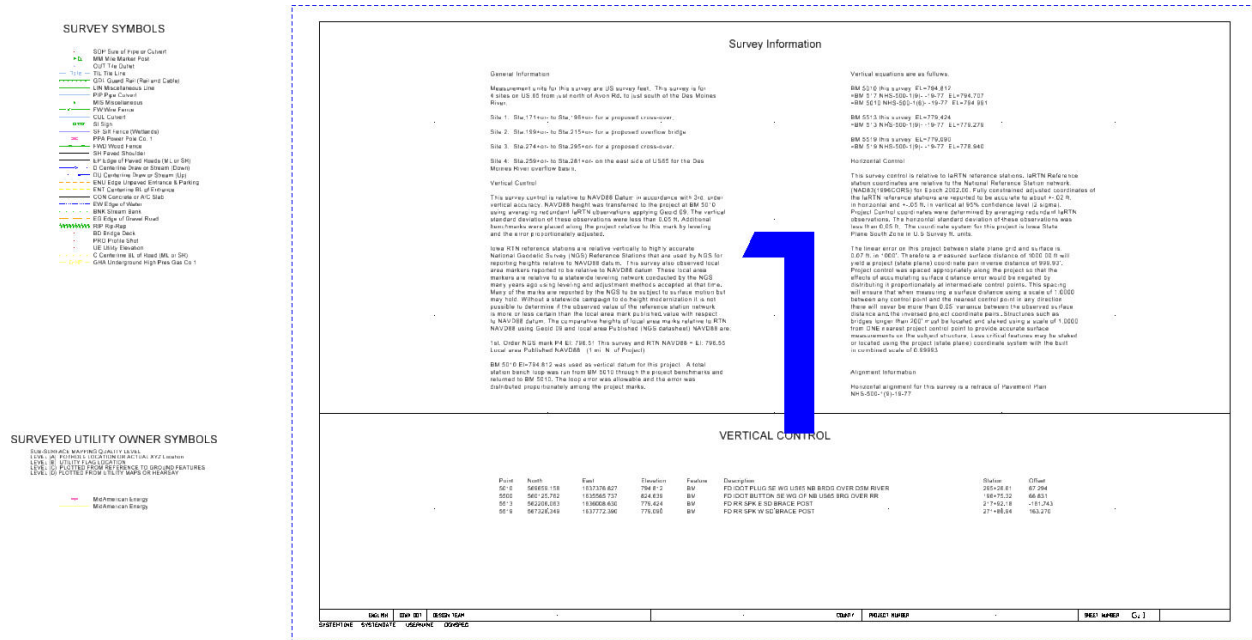
Select the **Attach All References** tab, then **Select Attach References**.



For further instruction on the **Attach_Reference** tool, refer to Section [21A-50](#).

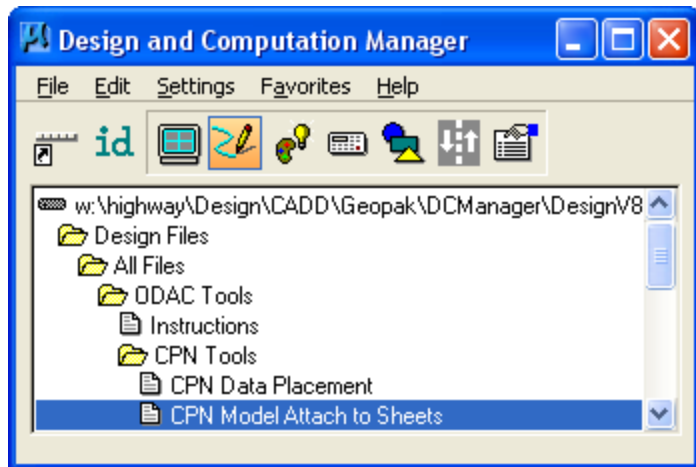
Note that additional information to the left of the first sheet, (Survey Symbols and Surveyed Utility Owner Symbols), will also be displayed in the MicroStation file. This information should not be included in the "Reference Ties and Bench Marks" sheets.

For further information on the use of "Survey Symbols" and "Surveyed Utility Owner Symbols" to create Legend and Symbol Information sheets, refer to Section 21A-52.



Attaching the CPN data

To attach the CPN data, access the CPN Model Attach to Sheets tool in D & C Manager. Refer to Section 21A-1 for further guidance.



Chronology of Changes to Design Manual Section:

020A-020 Attaching Reference Ties and Bench Marks

2/10/2012 NEW
New