



General - Creating and Managing Standard WSDOT CAE Projects

Ref: [WSDOT Electronic Engineering Data Standards](#), Chapter 3

Overview

Creating Projects

The *Create Project* utility increases the efficiency of a CAE project by generating a standard folder structure that is used state-wide as well as maintains project information that make it searchable. This standard structure also acts as an archive template for future use.

It also sets up the CAE related applications (MicroStation, InRoads, and CAiCE) to work with that project more effectively.

It is highly recommended that the project be created on a network path that is accessible by all direct team members.

An exception to this rule is a field surveyor utilizing a laptop. Accommodating this scenario is covered in **Moving a Standard WSDOT CAE Project**, below.

If a design team, construction office, or survey crew is unfamiliar with the types of files associated with a typical project, the Create Project utility provides a guideline and working example project to start with.

Adding Team Members

Once created, other team members may want to work in the project. In the background, the Create Project utility generates project-specific resources and pointers. Each new team member may join the project and set their applications up to utilize all the project resources efficiently.

This also works for support groups and other collaborative efforts.

Moving Projects

Existing standard CAE projects created by the utility may need to be moved from the local machine to a network resource. The current utility does not directly accommodate this however; there is a short process that allows the project data to be moved to a new location.

This document will step through the following processes:

- Creating a WSDOT CAE Project
- Setting Up Additional Team Members
- Moving or Renaming a Standard WSDOT CAE Project

Creating a WSDOT CAE Project

The Create Project Utility is accessed through either the WSDOT CAE Control Panel, MicroStation v8.5 Expanded Startup, InRoads v8.5 Startup, or CAiCE Startup applications. These resources are represented by the Windows desktop icons for CAE applications.

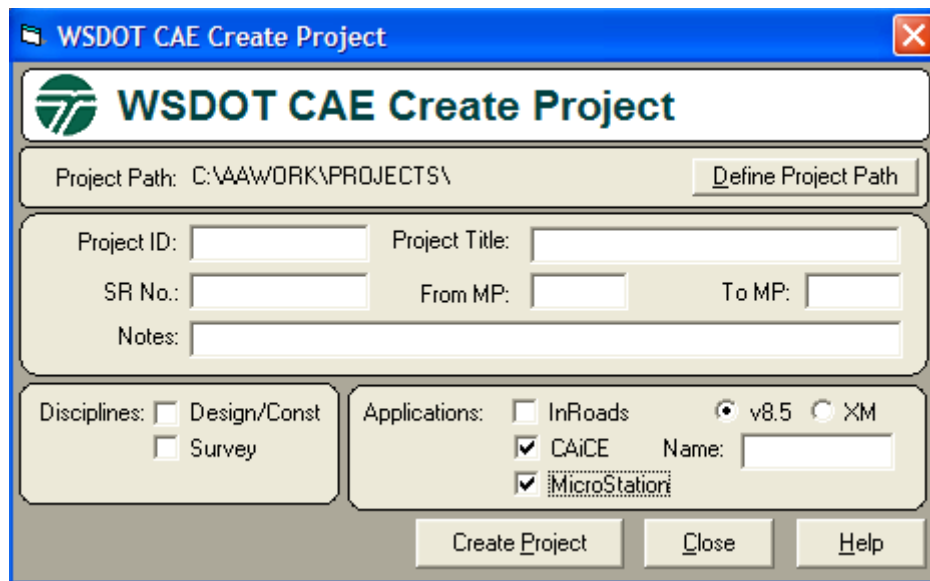
1. Open the Create Project Utility

- a. Double-click on one of the above mentioned desktop icons.
- b. Select the Create WSDOT Project button.

2. Select a Project Path

The project path must already exist.

- a. Click on the **Define Project Path** button.
The "Project Path" dialog box will appear.
- b. Select the drive and location you want your project in
- c. Click on **Accept Project Path**



3. Provide Project Information

- d. Enter the *Project ID*
 - i. For InRoads, this can be the 6 character project ID (for example: XL1234)
 - ii. For CAiCE, this is the 6 character project ID minus the first character (for example: L1234 or C1234)
- e. Enter the *Project Title*, primary SR number, milepost limits, and notes.

4. Choose the Discipline(s)

- f. Check the applicable boxe(s) for the disciplines working on this project.



5. Choose the Application(s)

- g. If InRoads is selected MicroStation will also be toggled on and may not be deselected
- h. If CAiCE is selected MicroStation may be toggled on or off
- i. Also, if CAiCE is selected and the Project ID is more than 5 characters, an alternative CAiCE project name may be entered.

6. Create the Project

- j. Click the **Create Project** button.

Setting Up Additional Team Members

Once a user creates the project, all applications (CAiCE, InRoads, and MicroStation) will recognize the project for that user. To set other team members up to access the project, follow these steps:

For MicroStation

1. Before starting MicroStation, each additional user selects **Define Project Path** in the **WSDOT MicroStation Startup** dialog.
2. Browse to the location of the project and accept the path. This is not the project folder, but one directory up.
3. Start MicroStation.
4. In the *MicroStation Manager's* Workspace area, click the **Project** dropdown menu and select the project.

The manager should automatically navigate to the project's CAD folder.

For InRoads

1. Use *Windows Explorer* to browse to the project location.
2. In the project root folder, find the **ProjectName-Design.reg** and/or **ProjectName-Survey.reg**.
3. Double click on each of these, selecting the preferred discipline last. Click "YES" to add the registry entries, then acknowledge that they have been entered.
4. Start InRoads.
5. To verify, select *File => Project Defaults* and review the current settings.



For CAiCE

1. Open CAiCE.
2. In the *Project Management System* dialog (*File => Project Manager*), create a new project with the same name.
3. In the Location field, select the *Picker Control* and click on **Pick**.
4. Browse to the **ProjectName\Design** folder if the user is a designer or **ProjectName\Survey\WorkingData** if they are a surveyor.
5. Click **OK** to return to CAiCE's *Create Project* dialog.
6. Click on **Create**.
7. A message indicating that a "...project already exists, continue?" should display.
8. Click **Yes**.

CAiCE will open into the already created project.

Moving a Standard WSDOT CAE Project

It is sometimes necessary to change locations of a project that was originally created on a local drive, for example, to a network resource, or copy a project to a laptop from a network resource for use in the field.

There is more to the project structure than the data files. There are resource files that are generated for that project in it's specific location. Renaming or moving the project using Windows Explorer will disconnect this functionality.

Currently, the most efficient way to move or copy the project folder structure is to create a new project in the new location. Then move or copy the data files to the new project folder structure. Lastly, in InRoads, delete the project defaults for the old project.

For MicroStation references, toggle OFF the Save Relative Path option. Then the files will find the references in the new location.

Note that in our environment, MicroStation searches the ProjectName/CAD/BasePlans folder by default for references.

Renaming a Standard WSDOT CAE Project

There are currently no tools available to rename a standard WSDOT CAE project. The process would be similar to moving a project as above, and then renaming and referencing files according to the new project name.

There is more to the project structure than the data files. There are resource files that are generated for that project in it's specific location. Renaming or moving the project using Windows Explorer will disconnect this functionality.



Technical Details

The following section will break down all of the files and resources created or impacted by the WSDOT CAE Create Project utility.

General

The project folder structure source is *C:\CAE_rsc\Common\ProjectShell*

The entries made for Project ID, Title, and Notes are stored in an ASCII text file (*ProjectName.txt*) located in the project root. This will serve in the future with automated documentation functionality.

For CAiCE

The project shell contains two blank CAiCE projects; one in *Design\CAiCEProj* and one in *Survey\WorkingData\CAiCEProj*. If CAiCE is selected, these folders and all their files are renamed to indicate the project ID. If either of the disciplines is not selected, that disciplines CAiCE project is removed from the structure.

The *C:\Program Files\CAiCE\Project.ls\$* is appended with the appropriate project information

The *C:\Program Files\CAiCE\Current.prj* file is revised to point to the new project. If both Design and Survey are selected, the survey project will be the current active CAiCE project.

For MicroStation

The CADD subfolder is generated regardless of any settings.

A *ProjectName.pcf* file is generated and stored in the Project Path (same level as the project folder). This enables the MicroStation Manager's Workspace > Project selector to recognize the project.

The *ProjectName.pcf* file includes a default directory so that when the project is selected in the MicroStation Manager, it will automatically navigate to the CAD folder of that project.

The intent is that if all projects are stored in the same location, all the *ProjectName.pcf* files are in the same path. When opening MicroStation, the manager will allow browsing to project CAD folders with a single click.

The **WSDOT CAE Create Project** utility does not set critical resource variables in MicroStation such that it is mandatory to use the *MicroStation Manager > Workspace > Project selection*. This function is voluntary and is intended to enhance productivity rather than control it.

For InRoads

The Design and Survey subfolders are generated regardless of any settings.



If **v8.5** is selected, the files located in `C:\CAE_rsc\InRoads\INIFiles` are copied into the project folder structure under **Design\Standards** and pre-pended with the project name. If **XM** is selected, the utility will copy the `C:\CAE_rsc\InRoads\Standards` file(s) into the same location.

Windows registry files are generated that contain the InRoads Project Defaults and stored in the project folder. There is one file generated for each discipline selected. Each file is entered into the registry of the local machine for the **current user**. Each file is suffixed with the discipline. For example, XL1234-Design.reg and XL1234-Survey.reg. These names are consistent with the resulting InRoads project defaults.

For questions or comments on this tech note contact your regional CAE Support Coordinator