

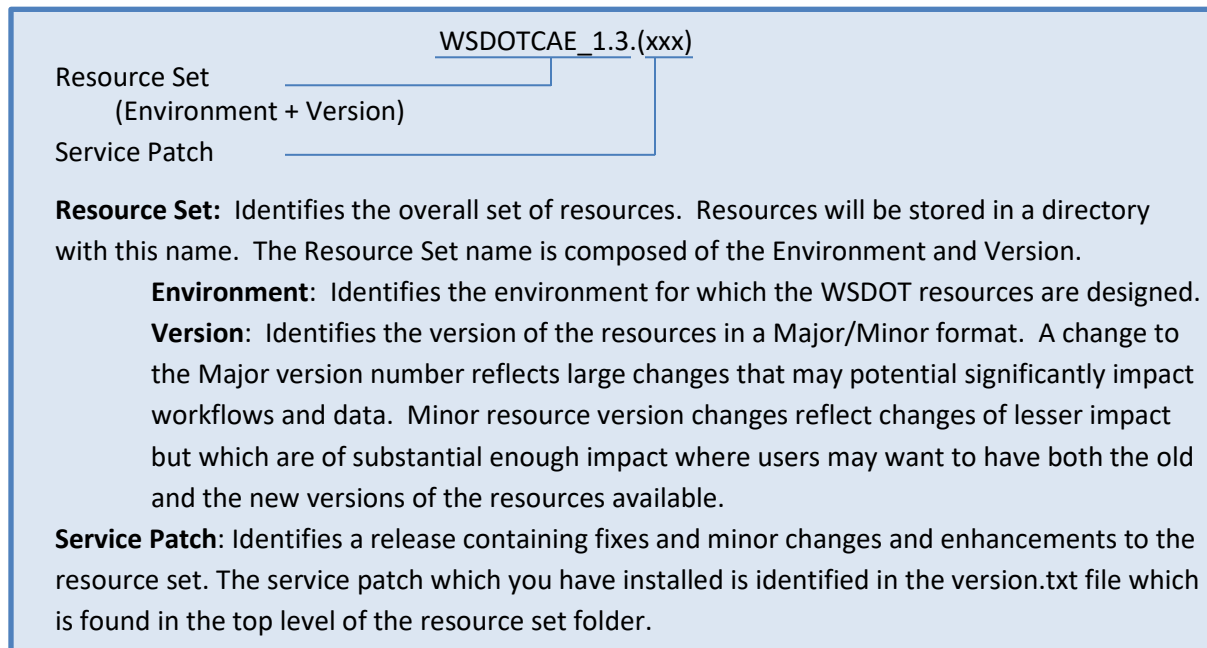
WSDOT Resources for CAE Applications

Overview

WSDOT CAE Support has developed a suite of resources designed to be used in conjunction with WSDOT's standard civil engineering design tool (InRoads) and standard drafting tool (MicroStation). These resources facilitate producing electronic data to required WSDOT specifications and include symbol and line style libraries, feature code definitions, custom tools and macros and so on. These tools and files are automatically distributed to all drafters and engineers in the WSDOT internal environment and are packaged into resources sets that are available for to all external partners to ensure consistency between internal and external customers.

The resources are packaged together into resource sets and it is these sets, not the individual files, which are tracked and assigned a version. So any user of the WSDOT resources can look at the resource set version and be assured that all the individual resources are up to date rather than checking any particular resource file independently.

WSDOT uses the version naming schema shown below to identify our resources:



WSDOT Resource Versioning Schema

The WSDOT Resources themselves are stored separately from your application software and any other customized resources that you have on your workstation. They can be located on the local drive or a network location. The parent folder created as part of the framework holds the resource sets which are each stored in their own individual subfolders. MicroStation can be started in conjunction with any particular resource set by creating a startup icon for MicroStation that points to the resource set's location.

Installation Instructions

Installation instructions are given below for [Installing Your First Set of WSDOT Resources](#), [Updating An Existing Set of WSDOT Resources](#) and [Installing An Additional Set of WSDOT Resources](#). Just pick the set of instructions appropriate for your situation.

Installing Your First Set of WSDOT Resources

1. Download the resource zip file from <http://www.wsdot.wa.gov/Design/CAE/Updates.htm> and place it on your desktop.
2. Create a folder to hold your resource sets. It can be established anywhere on your local drives or network drives.
3. Open the zip file on your desktop and Use Extract All to put the resources in the resource folder created in the previous step.

Example:

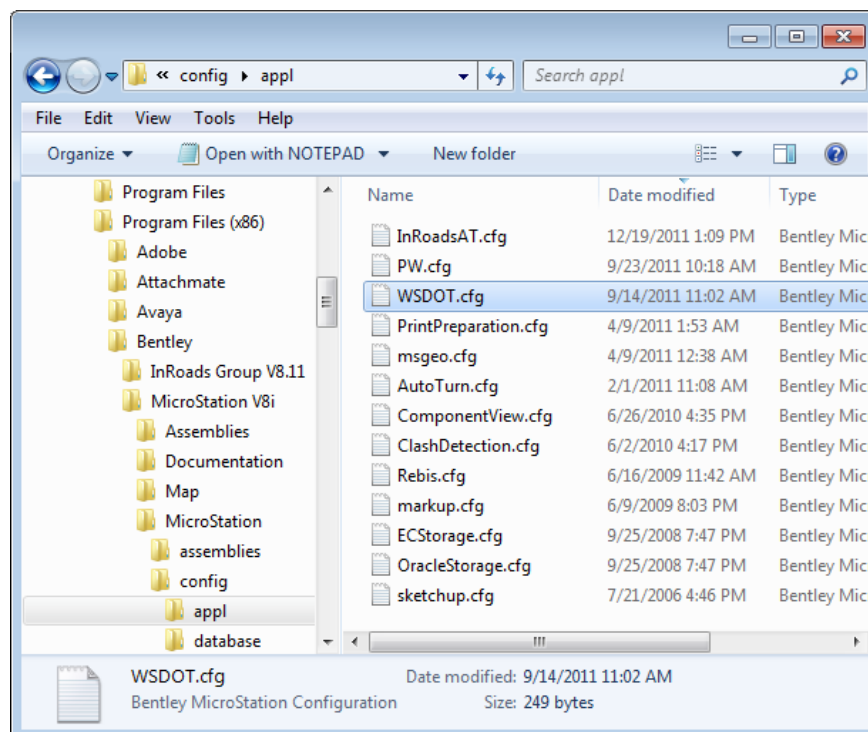
Download WSDOTCAE_1.3.12.zip to the desktop.

Create C:\users\Public\CAD\Standards to hold CAD Resources.

Open zip file and Extract All to C:\users\Public\CAD\Standards. Resources will be installed

C:\users\Public\CAD\Standards\WSDOT_1.3.

4. In order for your new WSDOT Resources to be discoverable, a configuration file needs to be added to MicroStation's startup sequence. The configuration file is called WSDOT.cfg and can be found at top level of each resource set. It needs to be copied to MicroStation's Appl folder. The Appl folder will be found in \config\appl under your MicroStation installation. The specific path for your MicroStation installation can vary depending on your operating system and MicroStation installation options but is often at C:\Program Files (x86)\Bentley\MicroStation V8i\MicroStation on Windows 64 bit systems.



Copy WSDOT configuration file from top folder of resource set top folder to MicroStation Appl configuration directory

5. Create a shortcut to start MicroStation with the downloaded WSDOT resource set. Because each resource set is in a user specified directory and the MicroStation executable may be in different locations in different offices, shortcuts to start MicroStation with the WSDOT resources are not included in the download.

The shortcut needs to have a target that uses your normal command to start MicroStation appended with an extra switch that specifies the location of the WSDOT resources to be used. This switch is text that is added to the end of your normal MicroStation command in the form:

**-wsWSDOT_Resources={WSDOT_CAE_Resources}\{Resource_Set_Name} **

where *{WSDOT_CAE_Resources}* represents the full path to the WSDOT_CAE_Resources folder established in Step 2 and *{Resource_Set_Name}* represents the resource set folder name for the shortcut. Note that there must be a space between the executable path and the -ws switch.

For example, if your WSDOT_CAE_Resources folder is F:\CAD\WSDOT_Resources and you are setting up an icon for the WSDOTCAE_1.3 resources then the target line of your icon would be

"C:\Program Files (x86)\Bentley\MicroStation V8i\MicroStation\ustation.exe" -wsWSDOT_Resources=F:\CAD\WSDOT_Resources\WSDOTCAE_1.3\

An easy way to create the necessary short cut is to make a copy of the shortcut used to start MicroStation in your normal environment and then edit that copy by adding in the new switch text at the end of the existing target.

An icon for your new shortcut can be found in the top level of the resource set if you want to change the look of your new shortcut.

6. Configure the Print Organizer. Because each resource set is in a user specified directory and the MicroStation executable may be in different locations in different offices, MicroStation will not know where to find resources for printing.
Open the WSDOT_Resources.cfg file located in ... \WSDOT_1.3 \Config
Find the variable MS_PLT_ENGINE_CMDLINE_ARGS and set the value to be the same as in step 5, except the final slash is a forward slash /

For example, if your WSDOT_CAE_Resources folder is F:\CAD\WSDOT_Resources and you are setting up an icon for the WSDOTCAE_1.3 resources then the target line of your icon would be

MS_PLT_ENGINE_CMDLINE_ARGS = F:\CAD\WSDOT_Resources\WSDOTCAE_1.3/

Updating an Existing Set of WSDOT Resources

When minor changes are made to a resource set they are flagged a service patch to that resource set. A new zip file is published on the WSDOT CAE website that contains the entire resource set including the modifications. To see which service patch you have installed, open the file **version.txt** which is in the top level of the resource set folder. If the published resource set is a later service patch than you have installed, follow the instructions below.

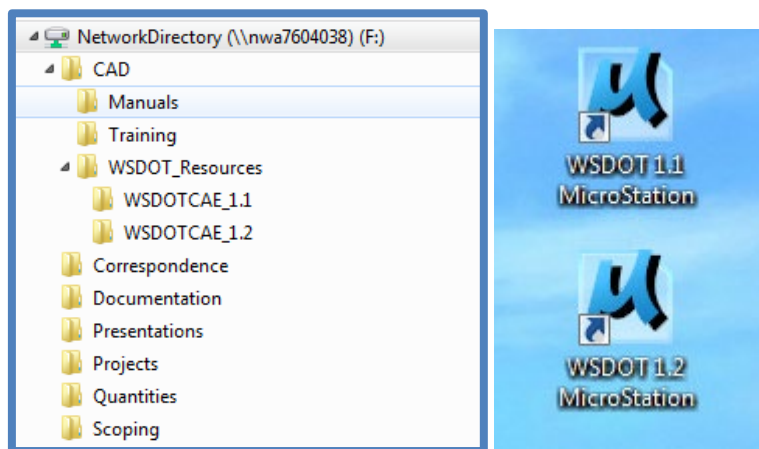
1. Download the resource zip file from <http://www.wsdot.wa.gov/Design/CAE/Updates.htm> to the desktop.
2. Go to your existing resource folder and delete the existing resource set folder.
3. Open the zip file on your desktop and Use Extract All to put the resources in your existing resource folder. Your existing icon does not need to be modified.

Example. To upgrade from 1.3.9 to 1.3.12 with resources stored in C:\users\Public\CAD\Standards:
Download WSDOTCAE_1.3.12.zip to the desktop.
Delete C:\users\Public\CAD\Standards\WSDOTCAE_1.3.
Open 1.3.12 zip file and Extract All to C:\users\Public\CAD\Standards. New resources will be installed to C:\users\Public\CAD\Standards\WSDOT_1.3.

Installing an Additional Set of WSDOT Resources

Major changes or development of a set of WSDOT resources for another environment will necessitate the publishing of a new resource set. When a new resource set is available, the installation procedure is as follows.

1. Download the resource zip file from <http://www.wsdot.wa.gov/Design/CAE/Updates.htm> to the desktop.
2. Open the zip file on your desktop and Use Extract All to put the resources in your existing resource folder. Your resources will be in a new subfolder named the same as the new resource set. Multiple resource sets can exist in your resource folder. In the diagram below resource sets WSDOTCAE_1.1 and WSDOTCAE_1.2 have been installed.



Adding WSDOTCAE_1.2 resources to and installation that already had WSDOT_1.1 resources

3. Create a shortcut to start MicroStation with the new WSDOT resource set. Because each resource set is in a user specified directory and the MicroStation executable may be in different locations in different offices, shortcuts to start MicroStation with the WSDOT resources are not included in the download.

The best way to create a short cut for an additional set of WSDOT resources is to copy and edit an existing shortcut for starting MicroStation with one of your other WSDOT resource sets. Edit that copy by modifying switch text at the end of the target to point to the new resource set folder.

An icon for your new shortcut can be found in the top level of the new resource that you downloaded.