

NHDOT Connect Workspace Installation Information

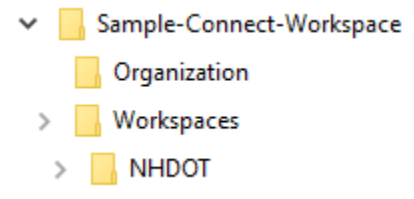
Current Software Versions

NHDOT is presently using MicroStation Connect Edition Update 16 (10.16.03.011) and OpenRoads Designer CONNECT Edition - 2021 Release 2 - (10.10.21.04). Attempting to use some of the workspace files on earlier releases may produce unexpected results.

Installing the NHDOT CONNECT Workspace

The goal of the NHDOT CAD/D section is to make the implementation of the Department's CONNECT workspace as simple as possible. Any recommendations for improving this process are welcome.

Bentley's default configuration has an Organization and Workspace component. The **Organization** is fixed for each site and cannot be changed by the end user for different types of projects. Knowing that the consultant community will need to operate with standards from multiple clients, NHDOT has avoided customizing the **Organization** settings. All customization has been done through the **Workspaces**.



By having all customization at the **Workspaces** level, consultant designers should be able to copy the NHDOT folder from the zip file provided into their **Workspaces** folder and have all folders under it populate with the Department's standards. If successful, there will be a **NHDOT** option in the Workspace listing the next time MicroStation or OpenRoads Designer (ORD) are opened.

There is also a file called *NHDOT.cfg* which goes into the **Workspaces** folder. *NHDOT.cfg* sets some variables which need to be modified for each location.

NH_PROJECT – This is used to define the top level folder where NHDOT projects are stored. It is used internally in the *Workset* (project) configuration files to define default file locations for the project.

_USTN_WORKSETSROOT – defines the location of *Workset* (project) configuration files.

_USTN_WORKSPACEROOT defines the location of the NHDOT *Workspace*. The default setting is `$(_USTN_WORKSPACESROOT)NHDOT\`

_USTN_HOMEROOT should be redefined if you have individual user configurations or commented out if not.

The definition of **MS_DESIGNSEED** is set differently depending on whether MicroStation or ORD is being used. Seed variables do not need to be updated if using the NHDOT seed files.

At NHDOT, the same workspace is used for MicroStation and ORD. Since there is some customization that varies slightly between the two (such as seed files), this configuration file has a check to see which application is running and set variables accordingly.

Another file which defines a number of other workspace configuration variables is *NHDOT-Standards.cfg*. It is stored in `$(_USTN_WORKSPACEROOT)Standards/Config/`.

Update **CIVIL_WORKSPACE_TEMPLATE_LIBRARY_NAME** for the default ITL file to be used for a project.

Other variables point to files within the delivered workspace and should be fine.

CIVIL_UPGRADE_PROMPT_OFF = 1 disables the prompt for upgrading the drawing to the latest schema. Comment it or set it to 0 (zero) if you wish users to be prompted if a file needs to be upgraded.

When the products are installed, ConfigurationSetup.cfg is replaced by an edited copy which defines the **_USTN_CUSTOM_CONFIGURATION** variable to the root level of the CONNECT workspace.

MicroStation Connect Edition Update 17 and OpenRoads Designer 2022-R1

NHDOT is testing these later releases before deploying into production. With these versions, a new feature has been added providing the ability to select the configuration to be used. Although this is still being tested within NHDOT, indications are that it will become easier to install and select the NHDOT configuration when desired.

The following information is being offered for consultants who are already using these later versions. Keep in mind that this information could change as NHDOT development progresses.

In addition to replacing the *ConfigurationSetup.cfg* mentioned previously, there is also a *configuration.xml* file which establishes the available configurations. Note that they are stored in the User folder and there are different ones for MicroStation and OpenRoads. The MicroStation file can be found at `%USERPROFILE%\AppData\Local\Bentley\MicroStation\10.0.0\prefs`. The location of the OpenRoads configuration file will vary depending on which versions of ORD are installed on the computer. Under `%USERPROFILE%\AppData\Local\Bentley\OpenRoadsDesigner\` there will be one or more folders beginning with `10.0.0` such as `10.0.0_1` and `10.0.0_2`. You will need to determine which one is associated with the version you are using. Edit the MicroStation and OpenRoads copies of *configuration.xml* to add the following lines after any `</ConfigurationModel>` line and before the final `</ArrayOfConfigurationModel>` line. Note that the file path in red needs to be modified to the location of the *Workspaces* folder where the NHDOT workspace files were placed.

```
<ConfigurationModel>
  <Title>NHDOT Configuration</Title>
  <Description />
  <ConfigurationVariable>_USTN_CUSTOM_CONFIGURATION</ConfigurationVariable>
  <Type>Local</Type>
  <IsActive>true</IsActive>
  <Path>N:\CADD\CADD\Connect-Workspace</Path>
  <IsSelected>true</IsSelected>
  <IsEditable>true</IsEditable>
</ConfigurationModel>
```

Status of Migration

What has been done:

- Linestyles have been completely recreated so they are responsive to changes in drawing scale.
- Cell libraries have evolved over the years and, as a result, contained cells created at various metric and Imperial scales. Most cell files have been recreated to be a consistent scale, responsive to drawing scale changes and compatible with subsurface utility tools. Cell files whose names begin with **NH-CE-** have been recreated for Connect edition products. Others are still in the process of being converted.
- To work towards being more consistent with standards being delivered with ORD, we are revising level naming conventions.
- Most MicroStation Task Menus to set proper element attributes (level, color, linestyle, weight, etc.) have been recreated using newly created Element Templates
- Feature Definitions have been developed for ORD
- The Engineering font that we use for most drawings was developed by Bridge Design when MicroStation was implemented in 1999. Unfortunately, it is not compatible with some of the new features of MicroStation Connect and ORD. Bentley provides a new *Engineering Vert* font which includes all the characters needed from the in-house developed font except for Bridge Design's bar bend symbols. The new font is to be used whenever possible. The old *nh_engineering* font will continue to be available when it is needed.
- Some VBA programs have been modified as necessary to function in MicroStation Connect and ORD.
- Basic roadway templates have been recreated for ORD.
- Our current CAD/D specifications document which outlines the electronic CAD/D data expected from our design consultants was updated in May 2022.

What has NOT been done:

- A few cells remain to be recreated to be responsive to drawing scale.
- A few text favorites have been set up, but there is still much work to be done in this area.
- Not all VBA programs have been modified to work within MicroStation and ORD.
- The Station-Offset macro is a combination of BASIC and MDL routines and cannot be brought forward. We are seeking a replacement.
- There are plans to set up item types for quantity calculations.
- We have not yet begun working with or developing level filters.
- Subsurface Utility features are still in development.
- Procedures for preparing final plans, profiles and cross sections are still in development.
- Procedures for adding detail to cross sections from plan data are still in development along with testing options for calculating end area volumes.
- Documentation of new processes is underway but still in the early stages of development.