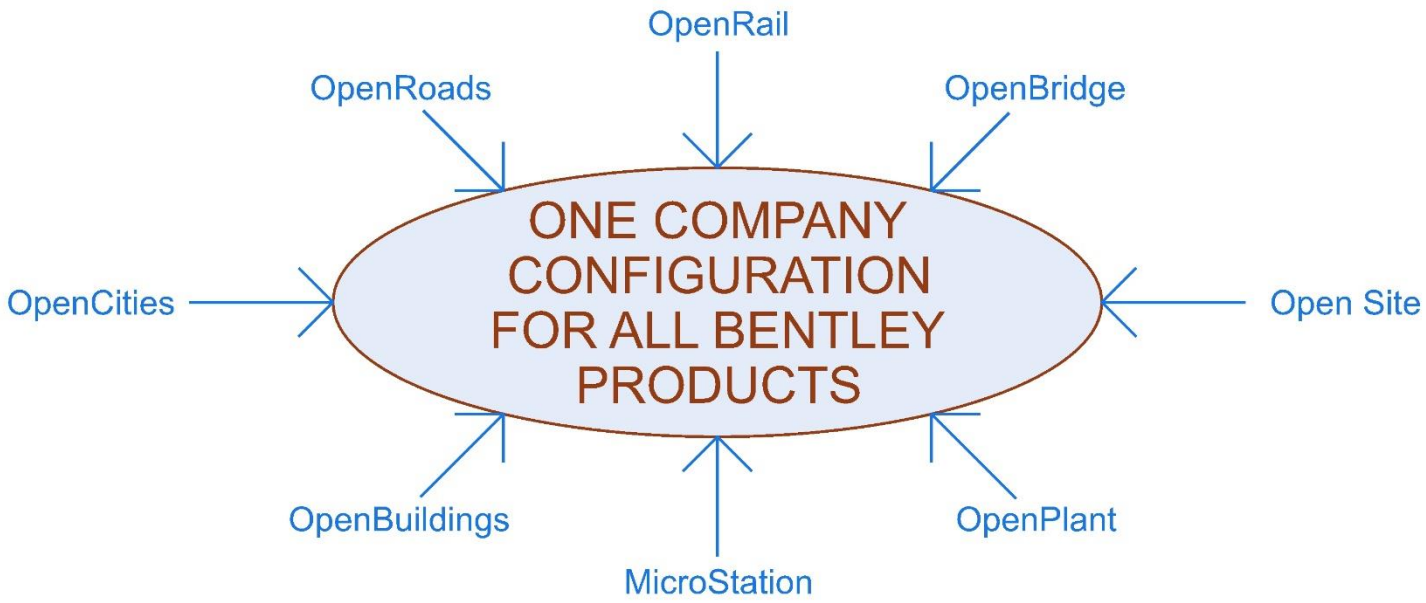
ONE CONFIGURATION IMPLEMENTATION GUIDE

By John Davidson of Bentley User Group Victoria Australia



ONE CONFIGURATION CAN BE SETUP IN MANY DIFFERENT WAYS, THE FOLLOWING METHOD UTILSES THE FUNCTIONS THAT BENTLEY HAVE INCLUDED AT THIS POINT IN TIME TO ENSURE THAT ALL PRODUCTS WILL FUNCTION CORRECTLY AND EFFICIENTLY, AND TO MAKE CONFIGURATION AS SIMPLE AS POSSIBLE FOR ADMINISTRATORS. BENTLEY ARE STILL DEVELOPING ONE CONFIGURATION AND IT WILL CHANGE SLIGHTLY FROM WHAT IS COVERED IN THIS DOCUMENT, BUT SHOULD REQUIRE MINIMUM CHANGES WITH FUTURE DEVELOPMENT.

IMPORTANT NOTES: -

To fully understand what is required to create One Configuration it is necessary for you to understand the functions of the new msconfig.cfg, the file that drives the configuration for all the Bentley OpenX and MicroStation products. **You must also understand that all products to be included in One Configuration must be running the same or compatible msconfig.cfg version to avoid extra configuration to handle version control.** The first version of msconfig.cfg released for the One Configuration is V10.15.02, the version number can be found in the first section of msconfig.cfg. If you don't find a version number, you will be looking at an older version of msconfig.cfg and you will have to update your products to the latest version or versions that are compatible, or you will have to manage configuration to control version specific differences.

The next page is a flow diagram for msconfig.cfg showing the order your configuration is processed. The following pages will show the basic principles of setting up your One Configuration folder structure that will require minimum set-up and editing of configuration files.

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CONNECT EDITION CONFIGURATION
msconfig.cfg V10.15.02 FLOW DIAGRAM
PRODUCT SPECIFIC CONFIGURATION SHOWN GREEN
OTHER CONFIGURATION IS FOR CORE MICROSTATION COMPONENTS

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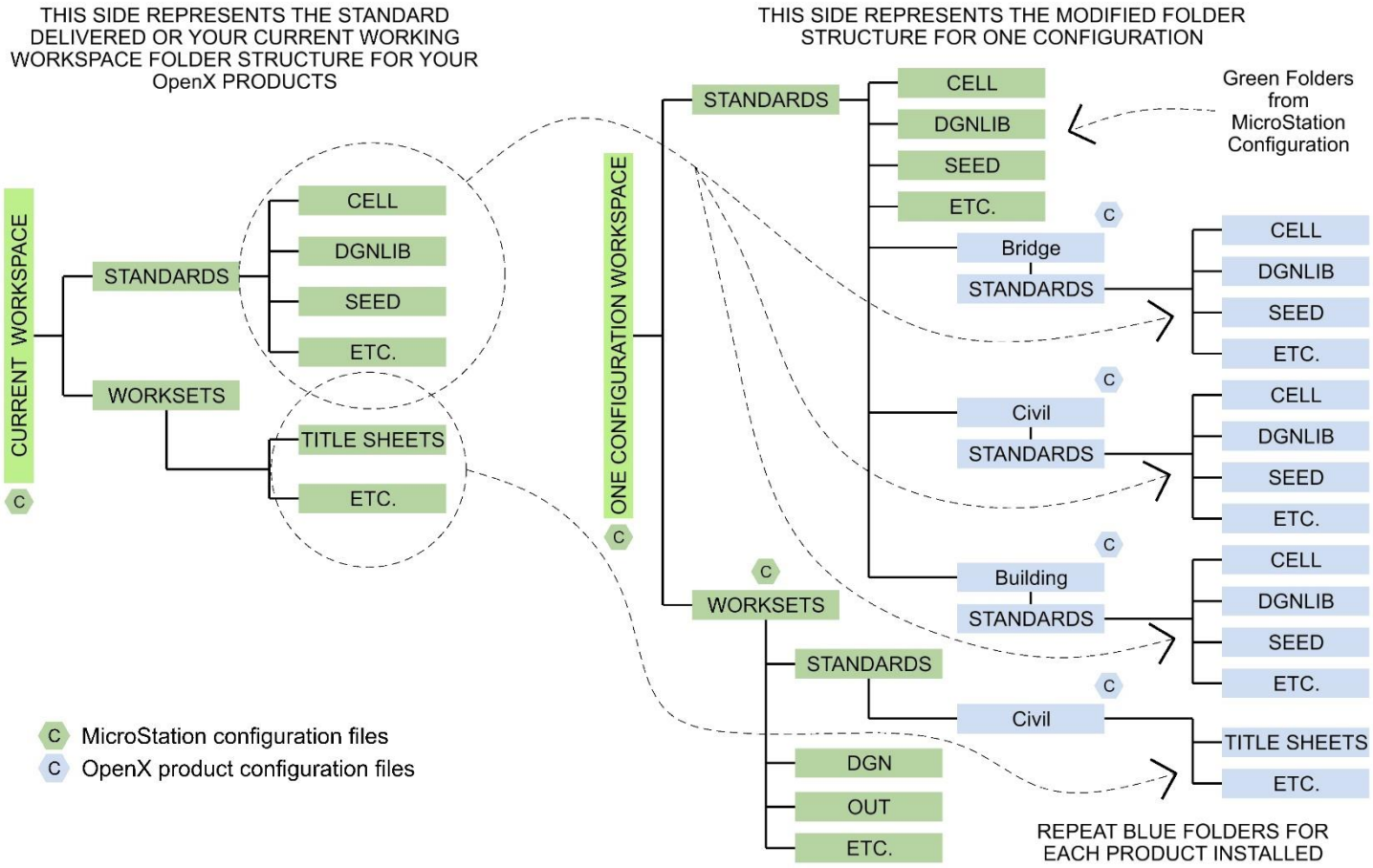
ONE CONFIGURATION DIAGRAM



This diagram is a general schematic layout and is purely a guide only, your specific requirements will drive the names and number of folders within each section of the configuration and also the contents of the folders and configuration files. This diagram is designed to show the fundamentals for creating One Configuration. Your requirements may also need you to locate the workspaces and or worksets in different physical locations.

In the One Configuration folder structure the Green folders will contain all common information required for all products including MicroStation.

The Blue folders will contain only the information required for the particular product groups and subgroups. This folder layout will be fundamentally the same in the Organization and Workset folder structures where required.

When any product is started it will configure all the Green folders, but will only configure the blue folders for the running product.

The symbols C in the hexagon represent the configuration file locations, the Green ones are for MicroStation or OpenX common components, and the Blue ones are for each installed product.

This enables all the OpenX products access to the common data to function exactly the same as MicroStation for the core product functions, and you have only one configuration to manage reducing the time and effort required otherwise.

HOW TO SETUP ONE CONFIGURATION

ONE CONFIGURATION CAN BE SETUP IN MANY DIFFERENT WAYS BUT THE FOLLOWING METHOD AVOIDS MAJOR PROBLEMS MAINTAINING AND UPDATING THE CONFIGURATION AS THINGS CHANGE AND IS CONSISTENT WITH BENTLEY BEST PRACTICES AT THIS POINT IN TIME.

Connect Edition products in comparison to V8i provide a multitude of options for configuring them to suit your needs, and this is provided as a guide only.
Here I will outline the basics required to setup One Configuration, it is not going to provide all the information for your specific needs for obvious reasons, but hopefully will give you enough ideas to design your system with a fairly standard approach.

1. Assuming you already have a working configuration for each product that you want to include in you One Configuration. Take a copy of your working MicroStation configuration to a new location that each product can have access to. The One Configuration folders location can be anywhere on your system that can be accessed by all the users.
2. In the copy, create a new folder in each Workspace\standards folder with the name designated to the variable (_USTN_PRODUCT_ONE_GROUPNAME) for each product, and in that folder create another folder with the name designated to (_USTN_PRODUCT_ONE_SUBGROUPNAME). More about this later.
3. Copy the workspace config files for each product from your original configuration to the corresponding new groupname folders as shown in the diagram. These may need to have minor edits to point to the new folders, but we will come to that later. These config files for the running product will be processed automatically on start-up, no other configuration required for them to be processed.
4. Copy the folders and contents of each OpenX product workspace to the corresponding new groupname folders.
5. Apart from any edits to config files and perhaps some minor changes that is it for the Workspaces, except if you have core product (MicroStation) content mixed with the product content you will need to delete that as it will be already included in the MicroStation content from the MicroStation configuration.
6. Repeat the same process for the Organization and Worksets folders as required and you are ready to go. Workset folders may be stored in different locations, like where the project files are stored, but will need to be configured accordingly.

   The minor edits to config files will be changing the variables to point to the appropriate new folders. For example (_USTN_WORKSPACESTANDARDS) to (_USTN_PRODUCT_ONE_GROUPNAME)standards.

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GENERAL ONE CONFIGURATION INFORMATION

This document was developed to show how to implement One Configuration with the current Bentley Systems products as at September 2021. Bentley are still refining the development and documentation and for that reason some things may change and this document will be revised or replaced as that happens. I have been in contact with Bentley Systems to ensure that this is as much aligned to the final development as possible to ensure that only minor changes will be required as development advances.

One of the things I have mentioned that will change is the naming of the product group and subgroup folders, this has not been implemented as yet but will probably be included in the next product updates, so in the interim we need to input some configuration for that. It will be something like this.

Temporary Product Folder Mapping

```
#--------------------------------------------------------------------------
#       Temporary Product Folder Mapping
#--------------------------------------------------------------------------
#       MicroStation
%if $(_ENGINENAME)== "MicroStation"
        _USTN_PRODUCT_ONE_GROUPNAME       :MicroStation
        _USTN_PRODUCT_ONE_SUBGROUPNAME  :MicroStation
#       OpenRoads Designer
%elif $(_ENGINENAME) == "OpenRoadsDesigner"
        _USTN_PRODUCT_ONE_GROUPNAME             :Civil
        _USTN_PRODUCT_ONE_ SUBGROUPNAME         :Roads
#       OpenRail Designer
%elif $(_ENGINENAME) == "OpenRailDesigner"
        _USTN_PRODUCT_ONE_GROUPNAME             :Civil
        _USTN_PRODUCT_ONE_ SUBGROUPNAME         :Rail
#       OpenPlant Designer
%elif $(_ENGINENAME) == "OpenPlantDesigner"
        _USTN_PRODUCT_ONE_GROUPNAME             :Plant
        _USTN_PRODUCT_ONE_ SUBGROUPNAME         :Modeler
#       OpenBridge Designer
%elif $(_ENGINENAME) == "OpenBridgeDesigner"
        _USTN_PRODUCT_ONE_GROUPNAME             :Bridge
        _USTN_PRODUCT_ONE_ SUBGROUPNAME         :Modeler
#       OpenBuildings Designer
%elif $(_ENGINENAME) == "OpenBuildingsDesigner"
        _USTN_PRODUCT_ONE_GROUPNAME             :Building
        _USTN_PRODUCT_ONE_ SUBGROUPNAME         :Designer
%endif
#--------------------------------------------------------------------------
```

As you can see with **OpenRoads** and **OpenRail** there is **common civil data** for both, and there is data for each specific product, to avoid duplication the use of group and subgroup folders allows us to access the common data with either product. With many of the other Bentley products similar situations occur and can be managed using similar techniques, and you need to remap the folders for each product.

The names you use may not ultimately be correct but as development occurs all you will need to do is delete the remapping configuration and rename the folders as per the delivered folders in the latest release.

As you build your One Configuration you will need to give thought to how you need to separate various parts of the configuration to achieve your most efficient design.

General guide to where to put your various bits of data within the configuration.

ORGANIZATION

The data here is processed by all products and is accessible by all users regardless of workspace/Workset selection.

Examples are:
Anything that all users require

Printing functions, Applications/Functions specific for Company use only, Company logos etc.

Usually the content here is read only for users to ensure data integrity.

WORKSPACES

The data here is usually where Company/Clients Standards, and anything that is applicable to all projects within a specific workspace are stored, you may have one or many WorkSpaces, but each one will be similar in structure.

For some products you only need product group folders and others you will also need product subgroup folders but that will become evident with your knowledge of the products you are managing.

Usually the content here is read only for users to ensure data integrity.

WORKSETS

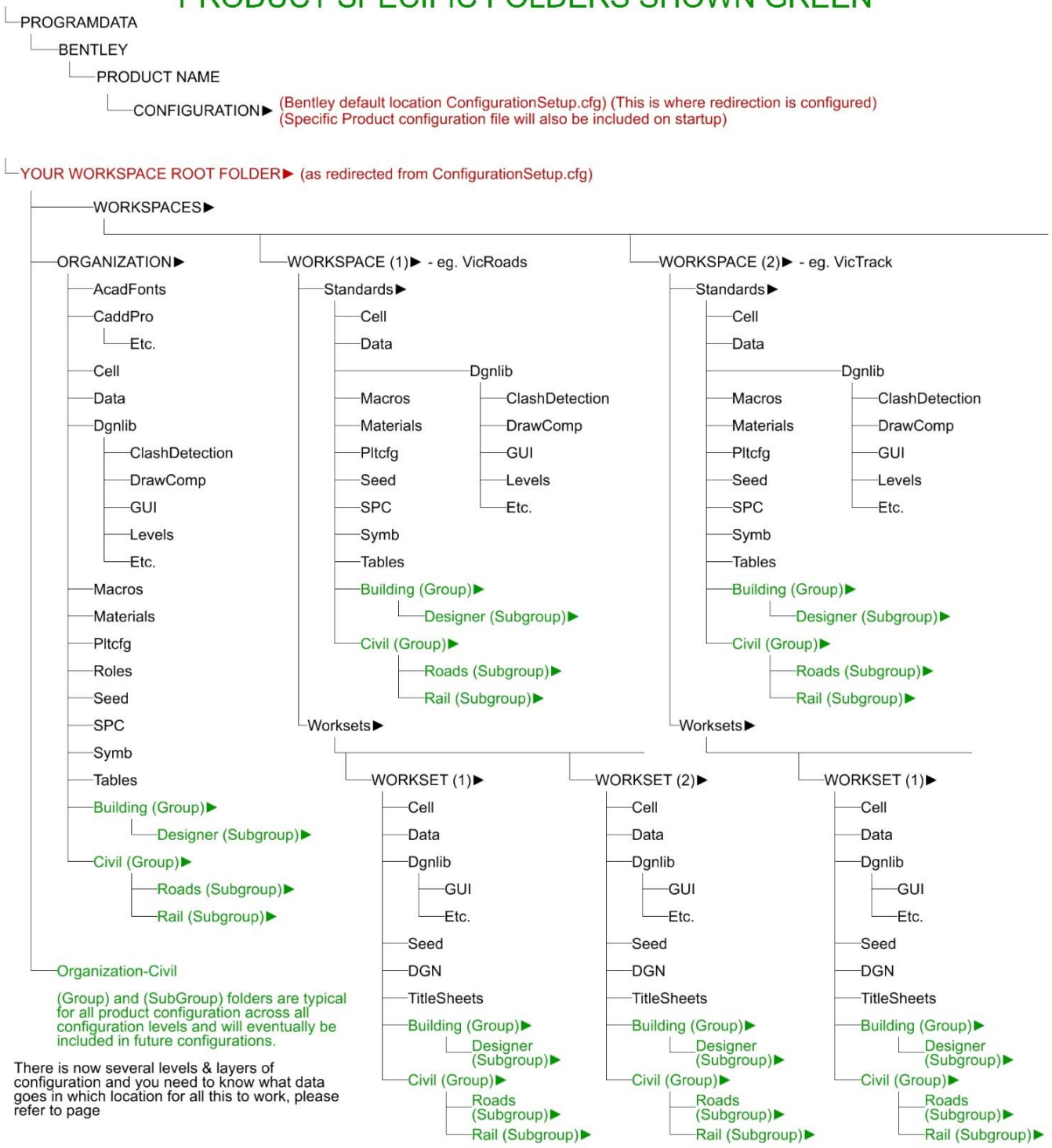
It is normal to have a Workset structure for each project, and the data here is usually related to one specific project, this may be located with the rest of the configuration or as in many cases is physically located in the same location as the project data/files. It will include any overrides or extensions to standards, perhaps any interface changes, and anything that is required for the project that is not already included. It may include group and subgroup folders as required.

The content in a workset may need some files to be read/write by users, for example an OpenRoads Designer template file, so some Workset or Workset content locations may need to be configured to where users have security access etc.

Buddy Branham *Senior Consultant, Project Delivery* **Bentley Systems** has started a WIKI on ONE CONFIGURATION Product Administration which I refer you to for further information as Bentley develop this system.

EXAMPLE ONE CONFIGURATION FOLDERS INCLUDING REDIRECTION TO ANOTHER LOCATION FOR ALL CONNECT EDITION PRODUCTS

PRODUCT SPECIFIC FOLDERS SHOWN GREEN



All .cfg files within the folders marked with ► will automatically be processed on startup via msconfig.cfg.

The ProductName folders will contain the Product group and subgroup specific configuration files, and Folders that only contain information relevant to the specific Product group or subgroup.

Workspace and Workset folders could be located in other locations with relevant redirection included in configuration.

The folders required in all these areas will depend on what products are installed, what is required for each company or standard specifications, and will be different to what is shown here, but this shows a typical simple folder structure.