FDOTSS3/SS4 DESIGN SURVEY WORKFLOW
Part 1 of 3

FOR BENTLEY OPEN ROADS TECHNOLOGY

Introduction to Open Roads

- Open Roads Technology for Surveying
- FDOT Resource Files
- Characteristics of the SS3/SS4 DGN
- Settings and Configurations

OPEN ROADS TECHNOLOGY

- Open Roads Technology is about 3D Design
- 3D Design uses Corridor Modeling
- Corridor Modeling is “Feature” based
- Design, Surveying and even RW elements can be featurized

FEATURES

- Features are integral to design in Open Roads and therefore featurized survey data is also important. (vs simple MicroStation elements)

- Bentley describes a feature as a “real-world entity” (Topo, Planimetric Data, Improvements)

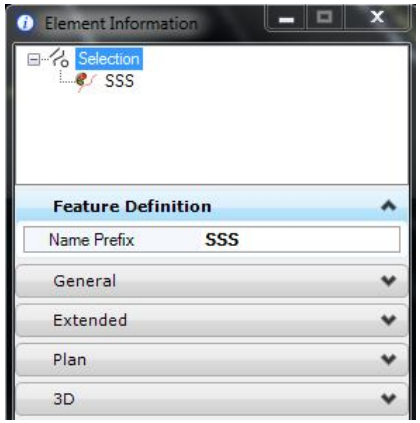
- Elements become Features by being assigned a Feature Definition

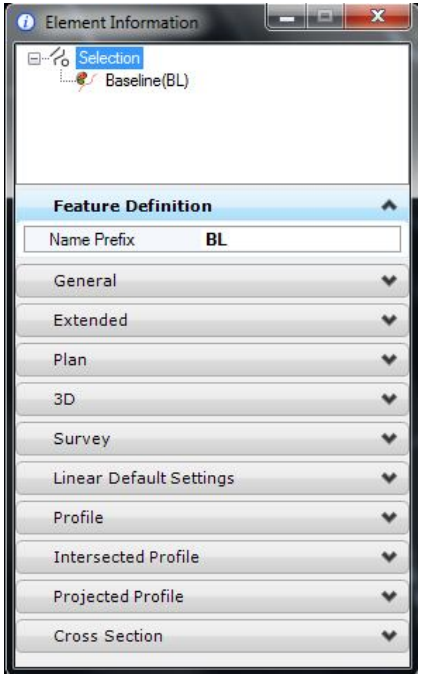
Feature Definitions

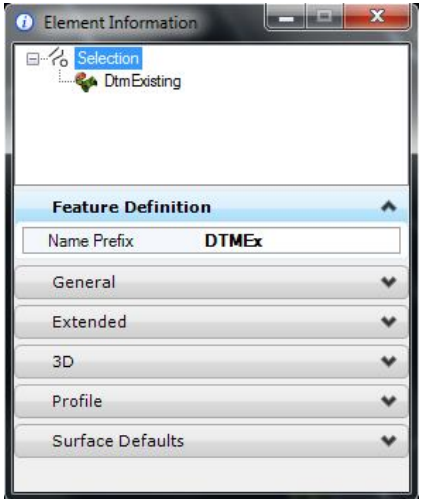
- There are three types of Feature Definitions
  1. Point Features
     - Spot Shots
  2. Linear Features
     - Chains
  3. Surface Features
     - Existing Ground

Feature Definitions

- Each Feature Definitions will have it’s own set of properties that can be defined



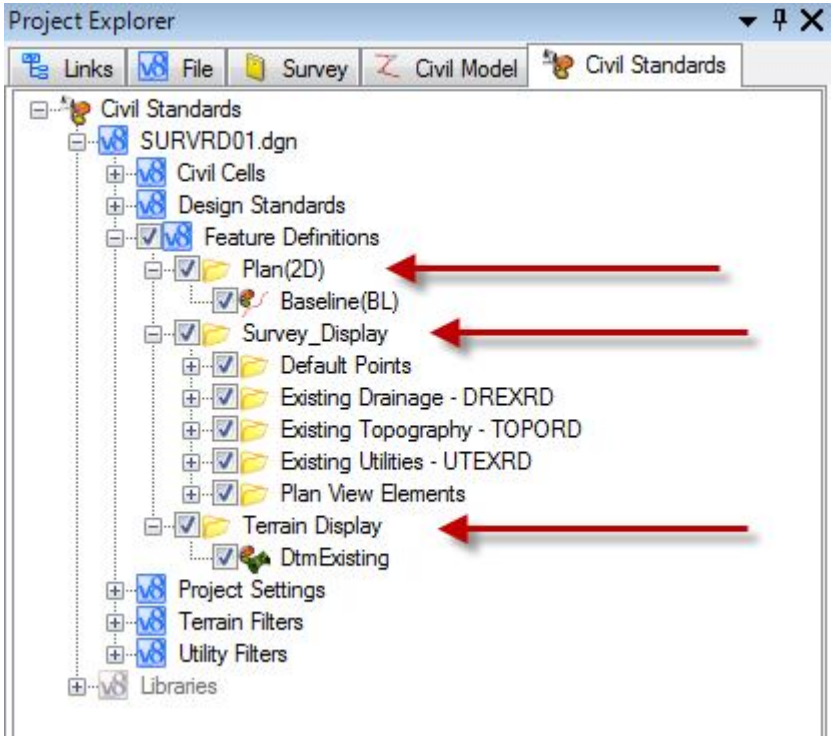




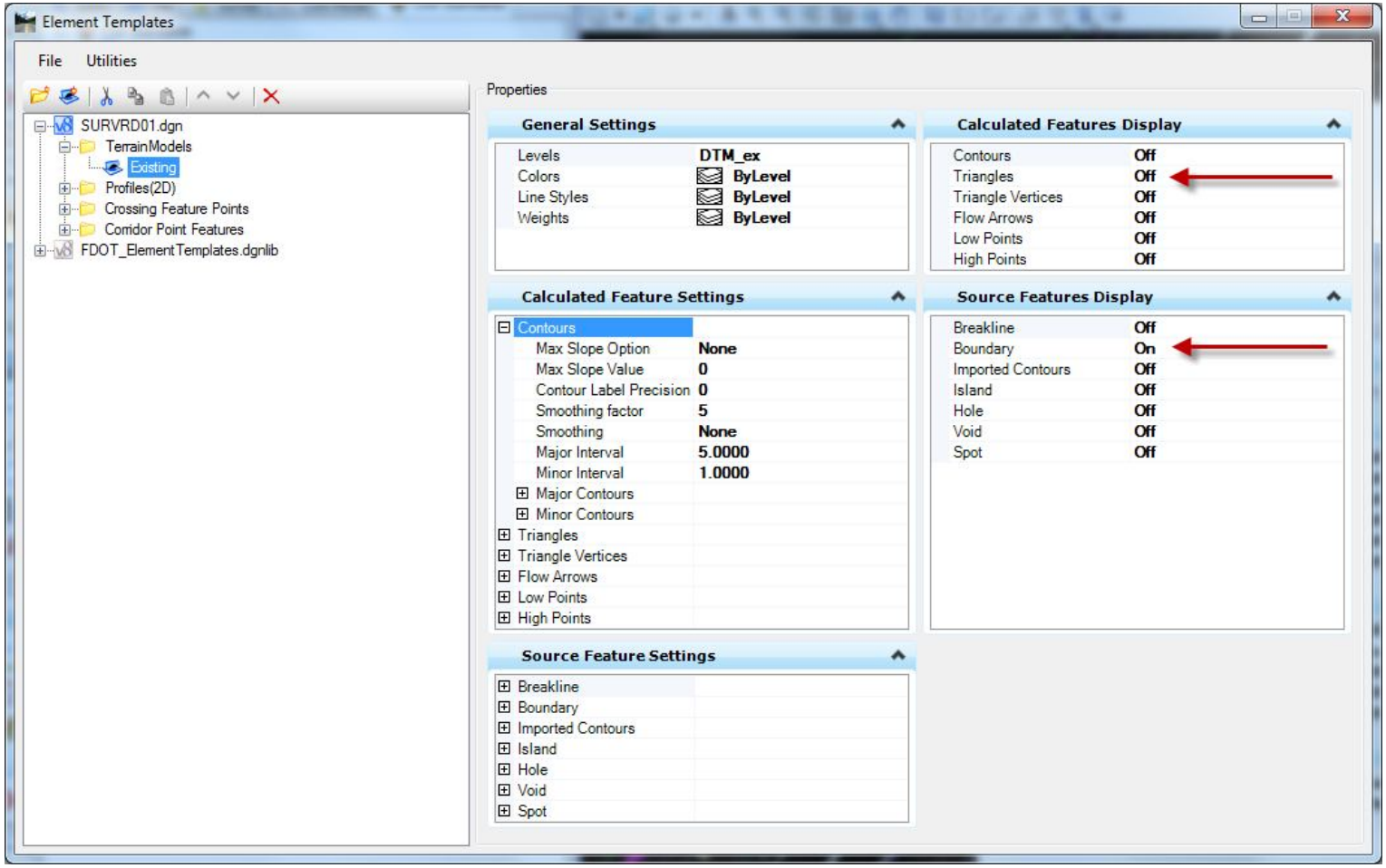
Feature Definitions

- There are three ways to apply a feature definition in the FDOTSS3/SS4 Software
  1. Link to Native
     - Link to the GEOPAK DDB
  2. Survey Features
     - Link to the GEOPAK SMD (XML)
  3. Element Templates
     - Allows for a variety of attributes for a single feature such as a Terrain Model

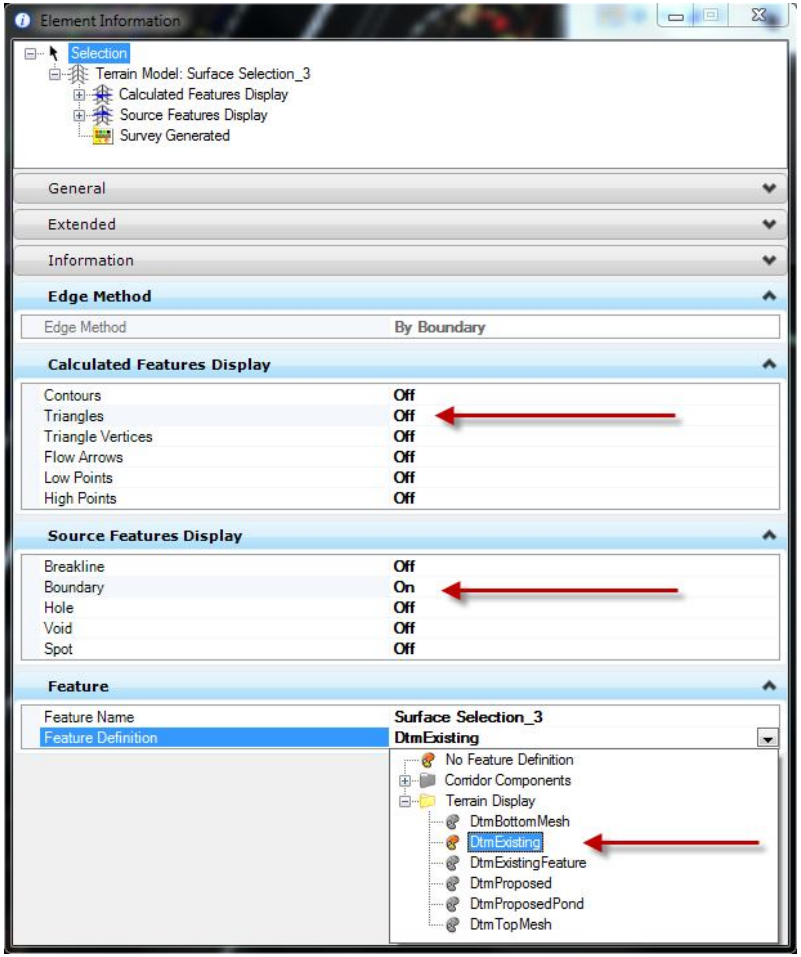
Feature Definitions



Element Template



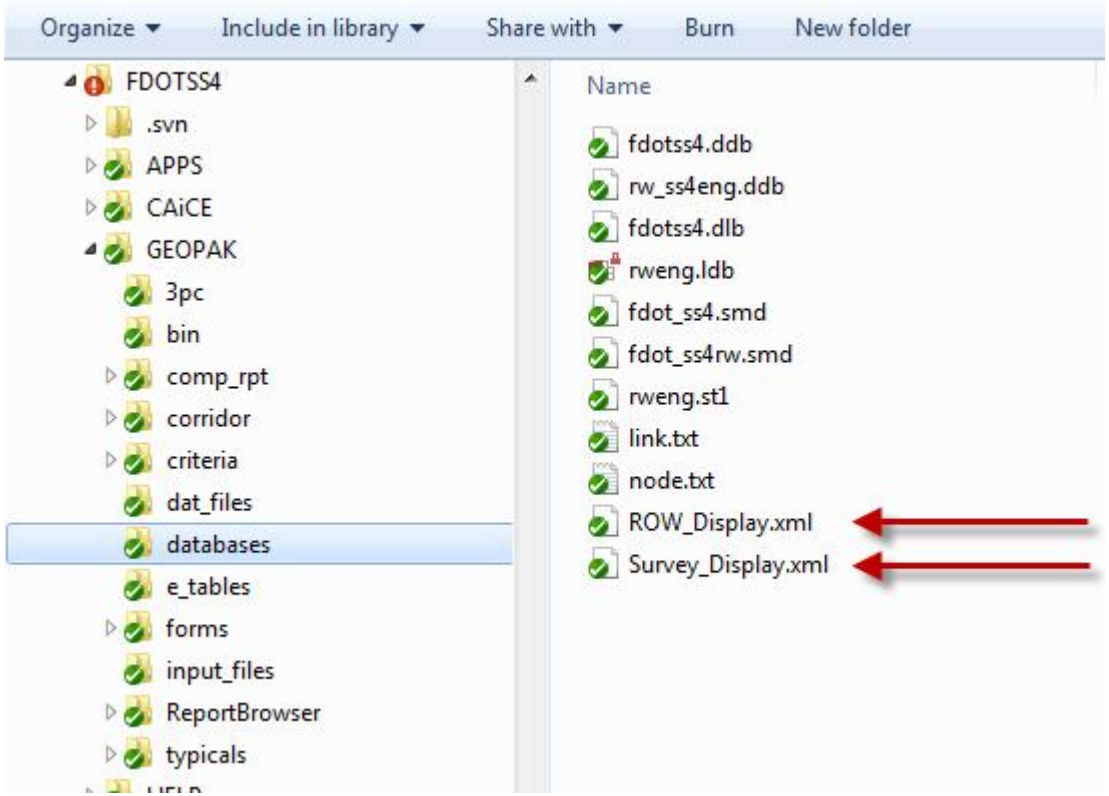
Element Template



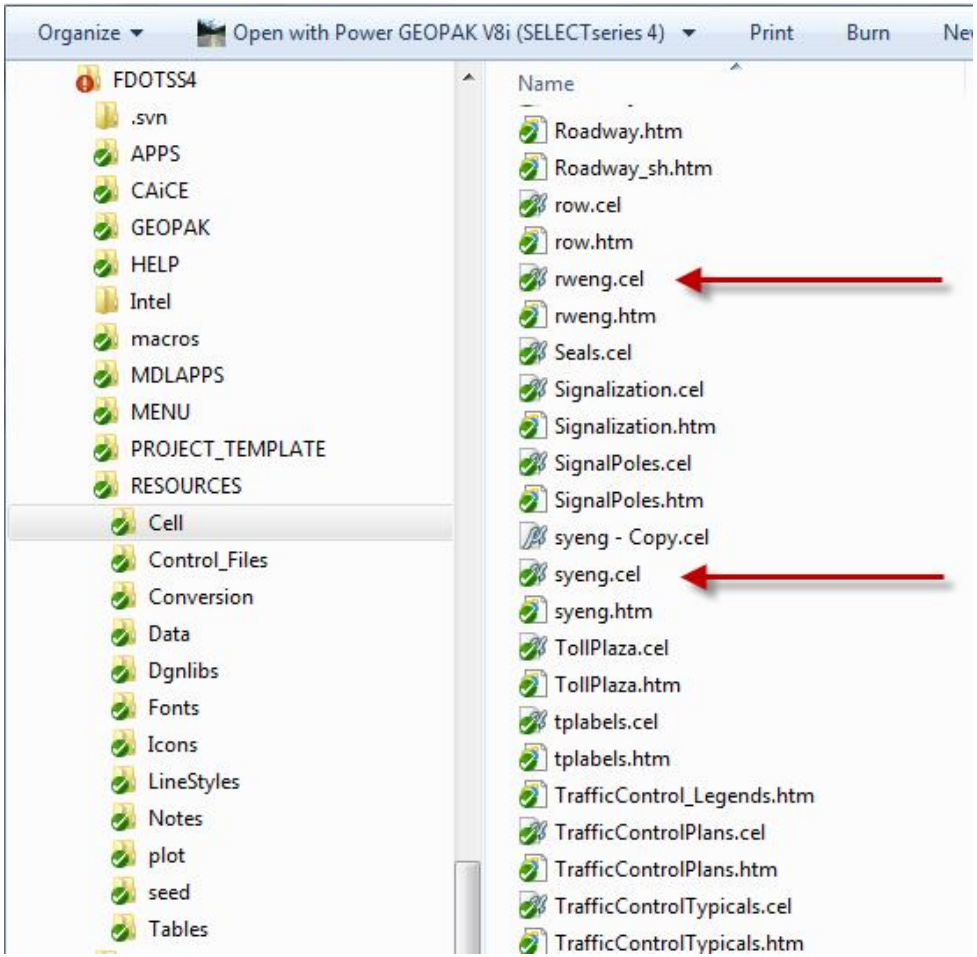
FDOTSS3/SS4

The importance of the FDOT resource files

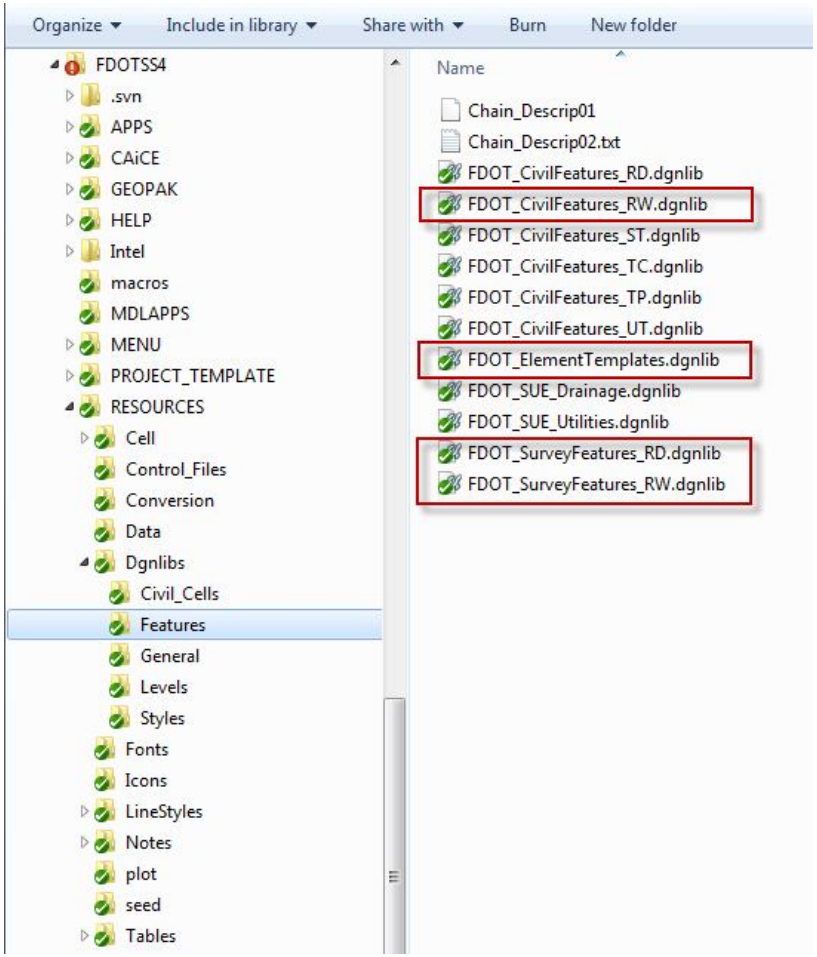
FDOTSS3/SS4



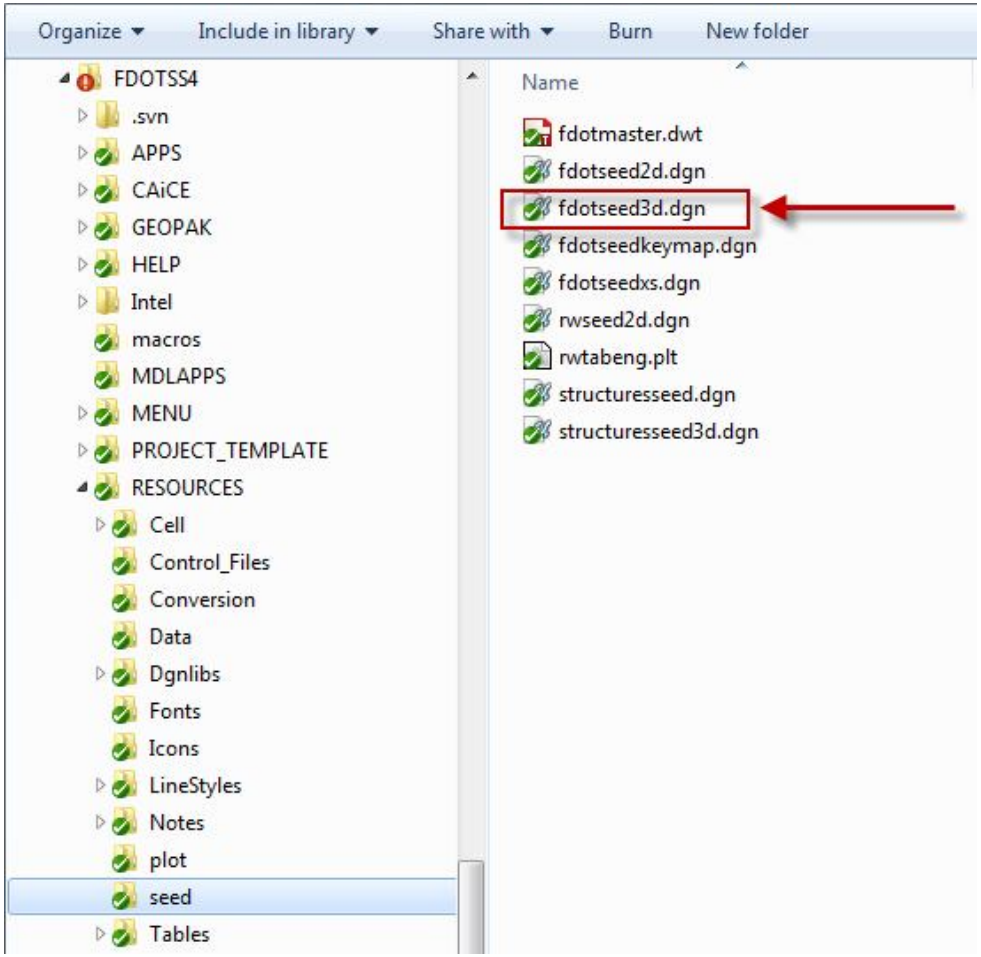
FDOTSS3/SS4



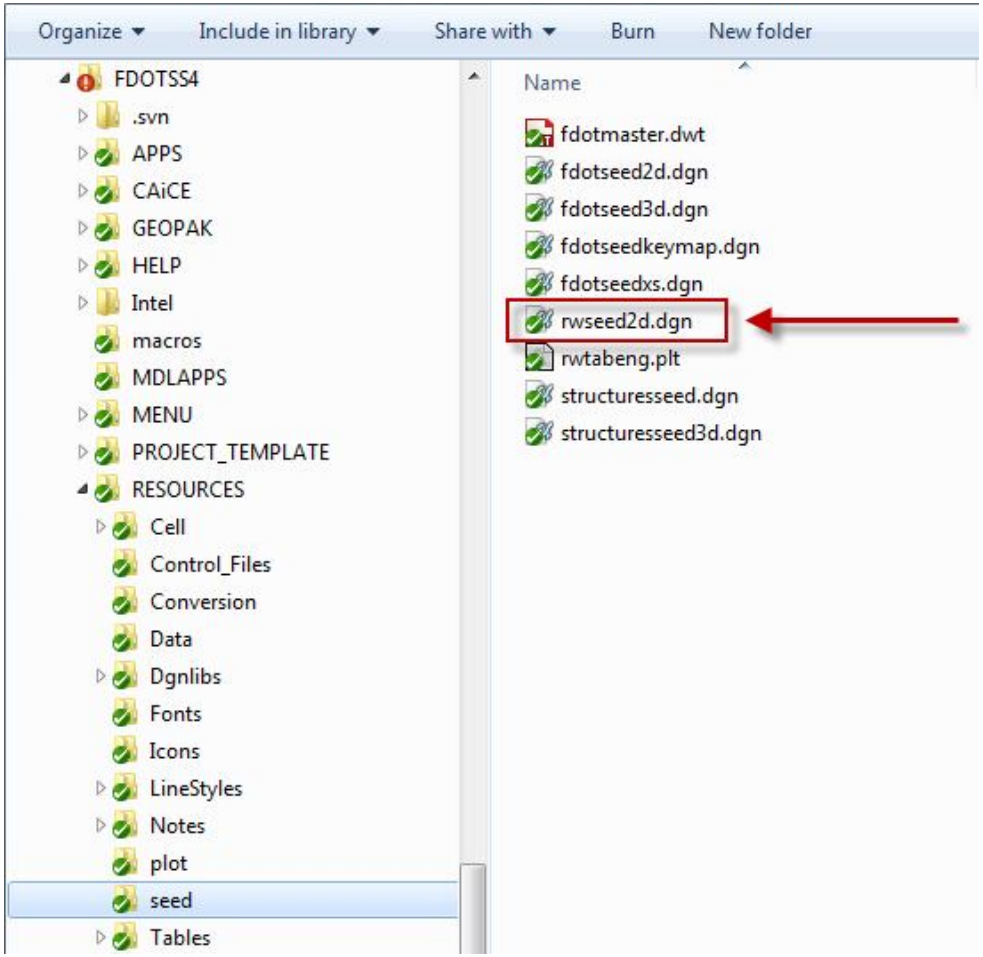
FDOTSS3/SS4



FDOTSS3/SS4



FDOTSS3/SS4



FDOTSS3/SS4

Characteristics of the SS3/SS4 DGN

VS

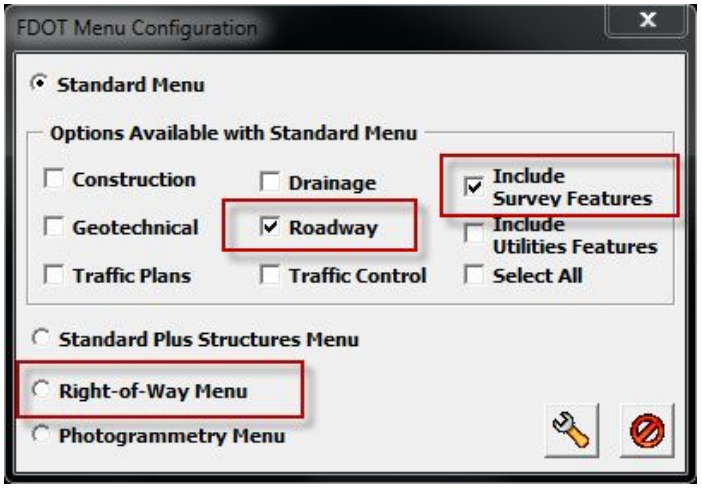
The Legacy DGN

FDOTSS3/SS4 DGN

- Element Templates
- Element Information (aka “Properties”)
- Project Explorer
- Civil Tools Task Menu

FDOTSS3/SS4

- Settings
  - ✓Geographic Projections
  - ✓Maximum Triangle Length
- Workspace Configurations



FDOTSS3/SS4

- Avoiding Pitfalls When Starting a Project
  1. Always use the latest FDOTSS3/SS4 Seed File to avoid issues with survey settings – Max Triangle Length, Auto Terrain Generation. Also Introduction of unwanted RSC elements like old custom linestyles
  2. Use 3D seed for Design Survey – Survey Filters and Terrain Models available
  3. Use 2D seed for Right of Way – Mask issues in 3D

QUESTIONS?

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