

# Civil 3D®: An All Around Geospatial Software Package

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# Disclaimer

- According to policy, the primary software for the USAF engineering career field is Map 3D®
- Practices and opinions expressed do not reflect the overall position of USAF engineering

# Class Summary

- This class will demonstrate how to use Civil 3D® to integrate surveying, GIS, and design into one workflow. It will also cover some of the technical difficulties and solutions we have encountered at Nellis AFB.

# Learning Objectives

At the end of this class, you will be able to:

- Import points into Civil 3D®
- Connect to a GIS database
- Design a road
- Create and Export points for stakeout survey

# Importing Points

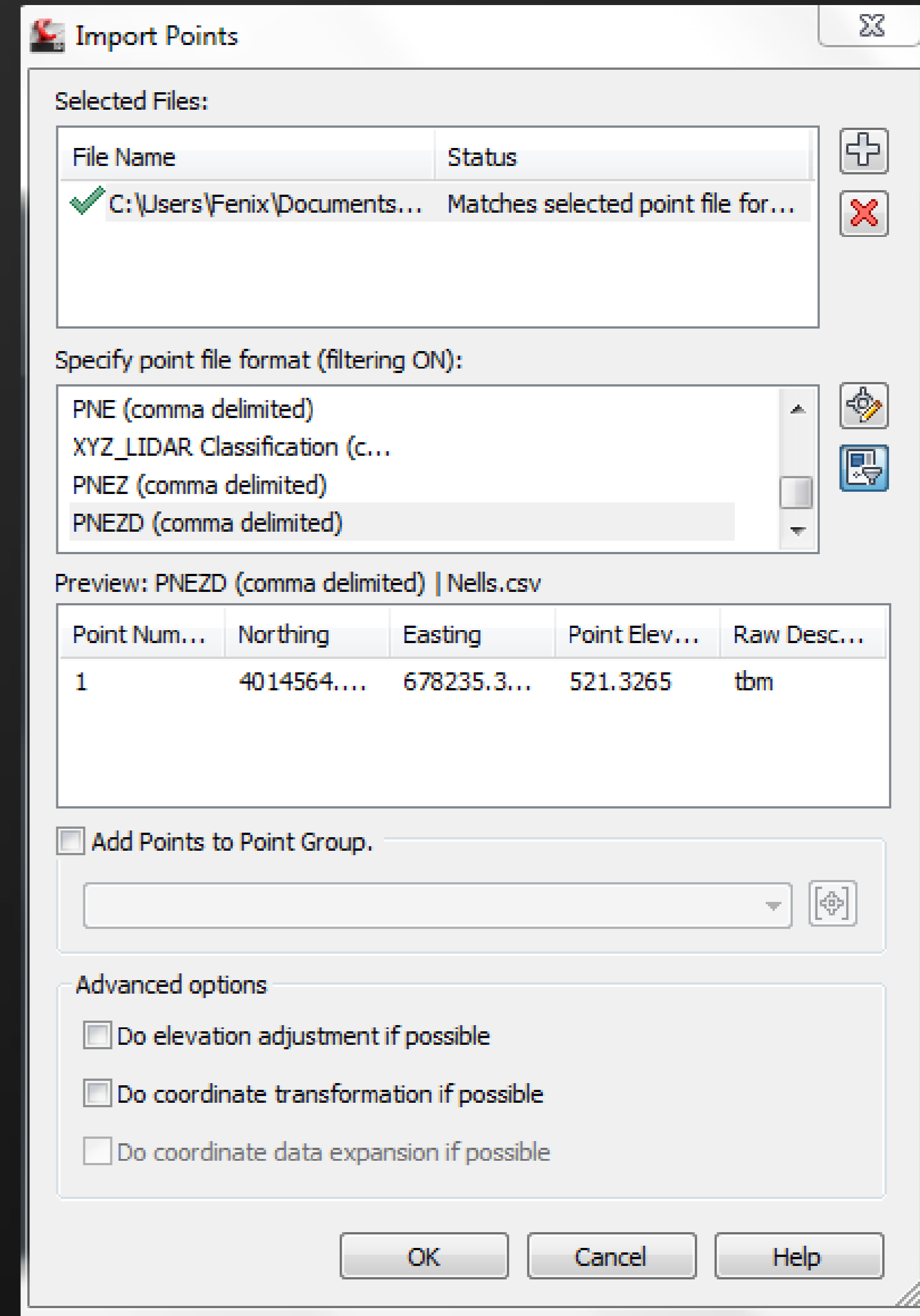
# Data Collection; Sources and Methods

- GPS Survey
  - RTK survey style
  - Trimble R8 rover
  - TSC2 data collector
  - UTM11N WGS84 Coordinate System
  
- Digital Elevation Model (DEM)



# Import Point File

- Importing points from a file is easy and requires only a TSC2, Windows Mobile Device Center, and Civil 3D.
- Advanced options like processing lines are not available when using a point file.



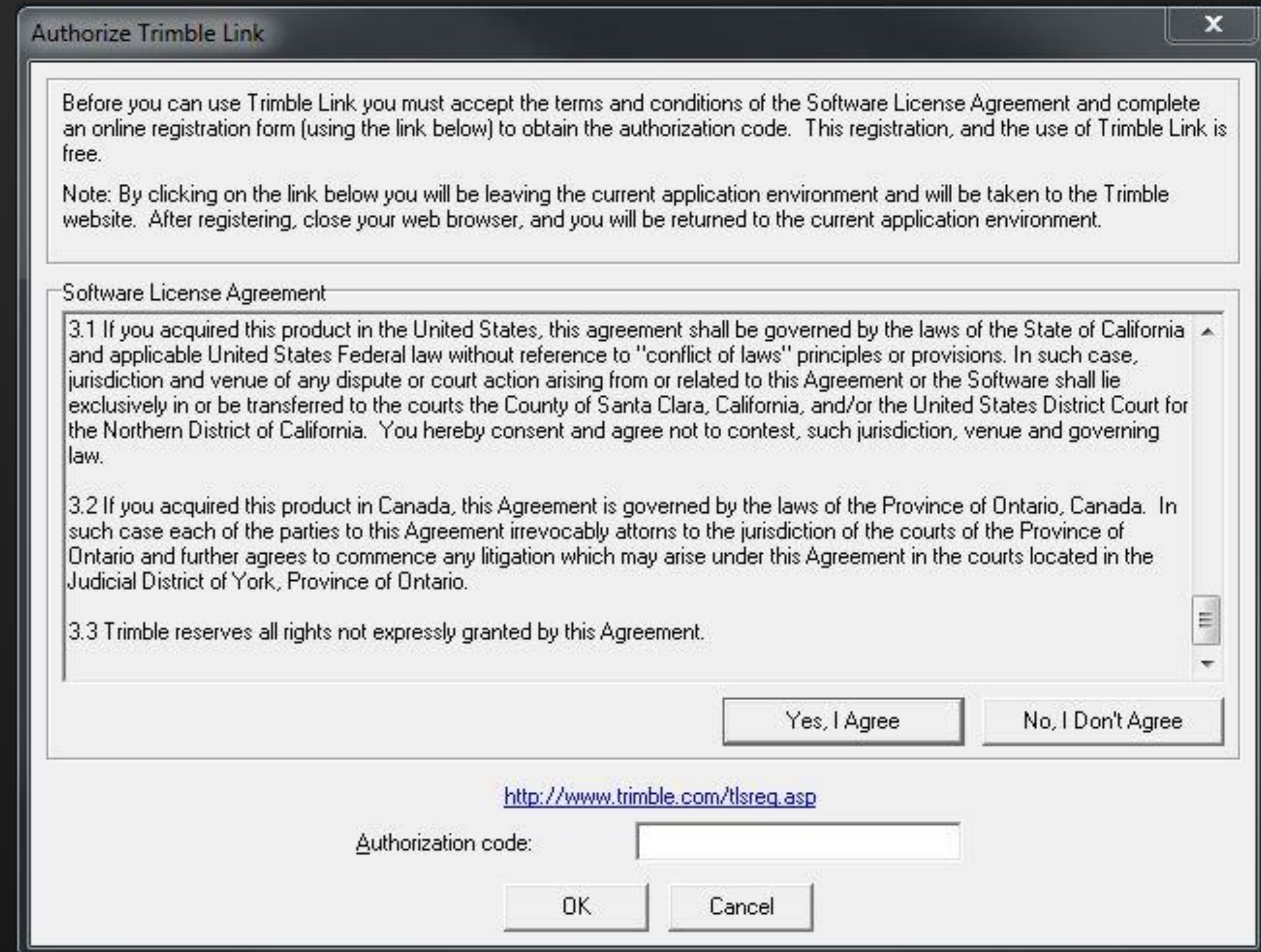
# Import Using Fieldbook File

- Fieldbook file allows use of Figures Prefix Database and Linework Code Sets to process linework
- Uses Survey Database to organize information
- Not native to Trimble, a file generator must be used. Download at [http://www.trimble.com/tsc\\_ts.asp?Nav=Collection-59798](http://www.trimble.com/tsc_ts.asp?Nav=Collection-59798)
- Style sheet for ASCII File Generator also required. Download at [http://www.trimble.com/tsc\\_ts.asp?Nav=Collection-32914](http://www.trimble.com/tsc_ts.asp?Nav=Collection-32914)
- Save style sheet to \Trimble Survey Controller\Custom ASCII Files folder on C drive



# Import via Trimble Link

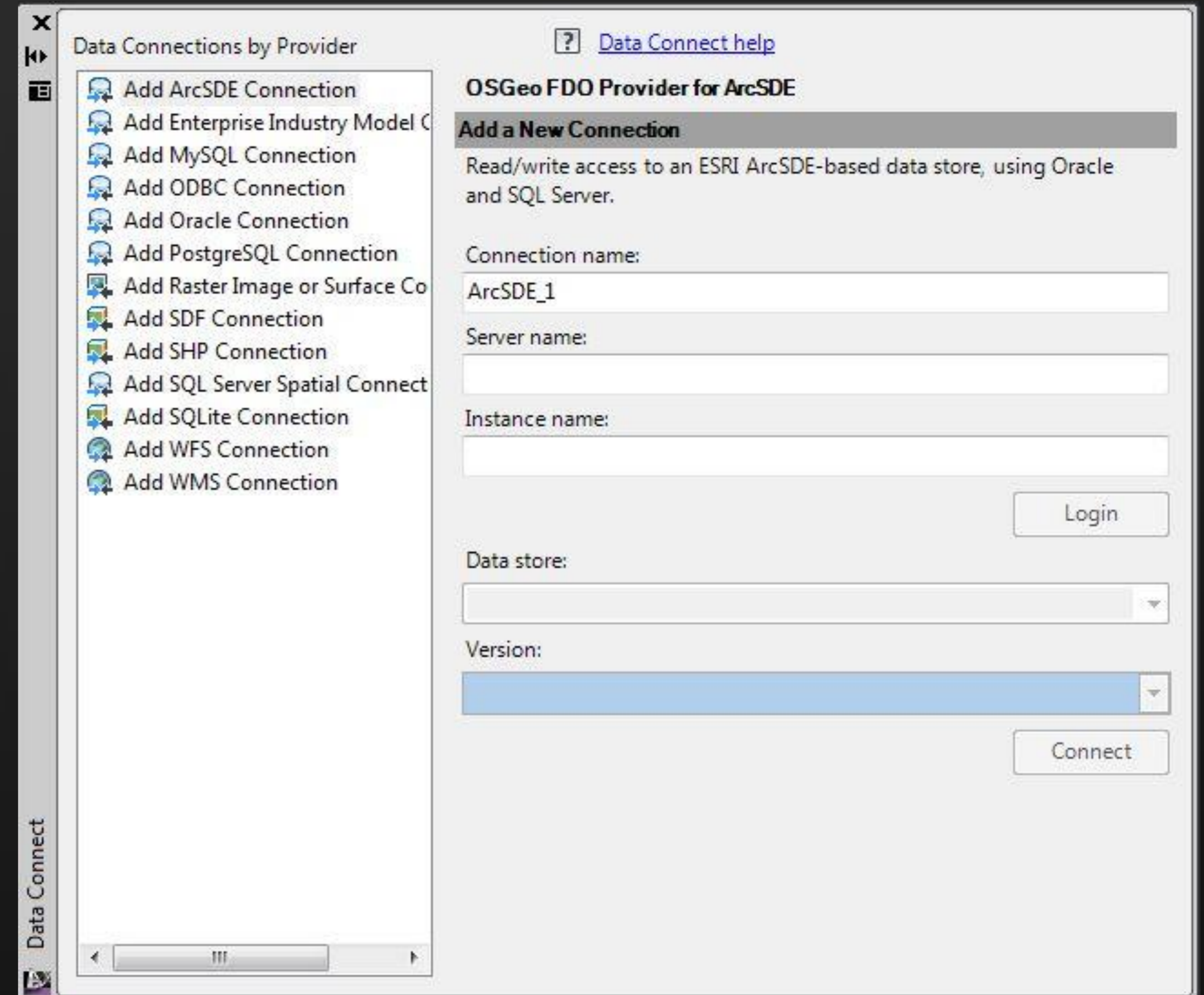
- Download Trimble Link at [http://www.trimble.com/link\\_ts.asp?Nav=Collection-27103](http://www.trimble.com/link_ts.asp?Nav=Collection-27103)
- Allows direct download of .job file to Civil 3D
- When controller is connected, a new tab will appear on the Civil 3D ribbon
- First time use, the Authorization Window will display. Follow the link to get Authorization Code.



# Connecting to GIS Data

# Connecting to GIS Data

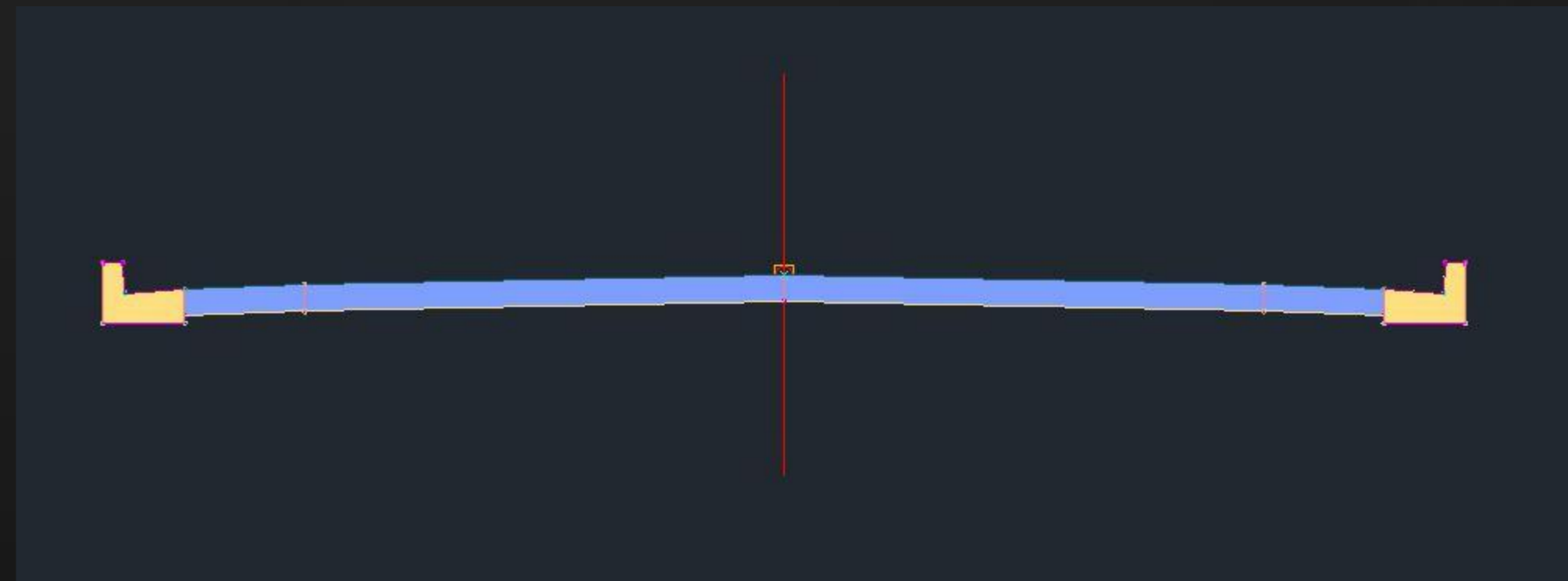
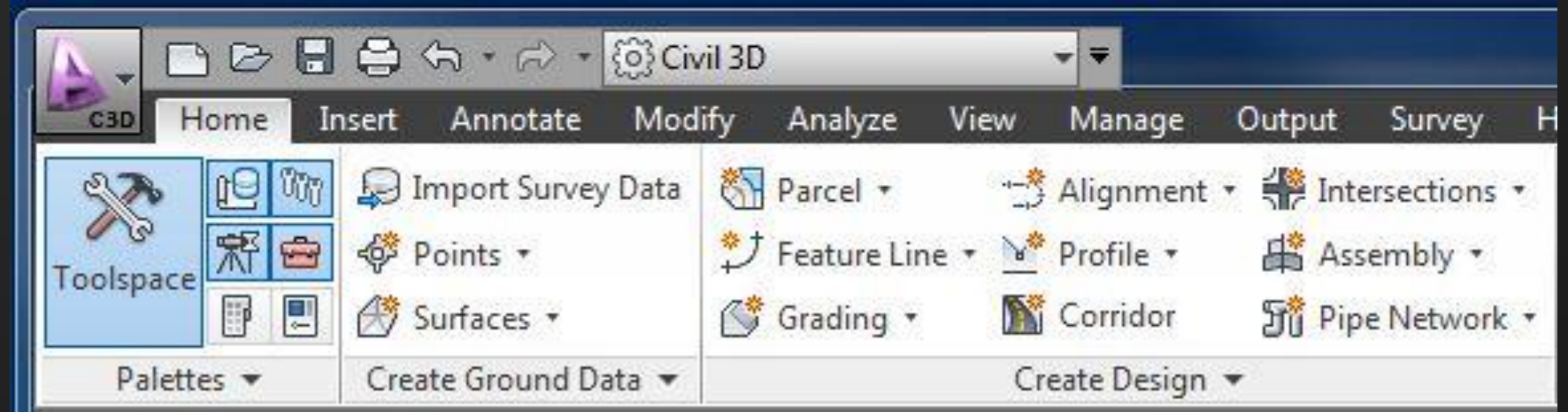
- DLL files in BIN folder
- Task pane, “mapwspace” command
- Enter SDE Database Information



# Road Design

# Designing a Road

- Surfaces
- Alignments
- Profiles
- Assemblies
- Corridors



# Exporting Points for Stakeout

# Exporting Points

- Creating points
- Use point groups to manage exports vs. imports
- Export as point file
- Export via Trimble Link

