Digging Deeper Into

AutoCAD Civil 3D 2011

Level 2 Training

2

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Cadapult Software Solutions, Inc.

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Level 2 Training

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At Digital Vellum, Scott takes his unique blend of professional experiences and product knowledge into the classroom to give students real world examples and solutions that help students in the learning process. Scott provides training, consulting, and implementation services for the following Autodesk products; AutoCAD, Map, Land Desktop, Civil Design, Survey, Raster Design, and Civil 3D. Since 2002, Scott has been providing contract services to Autodesk to assist with the development of Civil 3D.

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About Cadapult Software Solutions, Inc.

www.cadapult-software.com

Founded in 2002, Cadapult Software Solutions, Inc. is an independently owned small business located near Portland, Oregon specializing in training, consulting services, and technical support for CAD systems with a focus on the Civil/Survey/GIS industry. Cadapult Software Solutions helps clients maximize the return on their software investment through training classes, consulting services, and support. We offer a wide range of Training options, from standard open enrollment classes to customized on-site training. Our mobile training lab gives us the flexibility to bring classes to our clients regardless of the location. Support options ranging from telephone support to on-site visits help to ensure the continued success of your CAD solution. Although we hold several certifications with Autodesk, Cadapult Software Solutions is an independent company and therefore can provide recommendations and solutions that best fit a clients needs rather than being limited to a specific company's product line. Further affiliations with other consultants and software companies give Cadapult Software Solutions a broad range of experience and industry knowledge to draw from that is not common for a company of its size.

About Digital Vellum

www.digital-vellum.com

Digital Vellum is a CAD services firm specializing in providing professional CAD services to civil engineers, surveyors and earth science professionals utilizing the latest Autodesk software. Digital Vellum, headquartered in Fond du Lac, Wisconsin, has been providing services to engineering firms, resellers, technology research firms, and government agencies throughout the United States and Europe since 2000.

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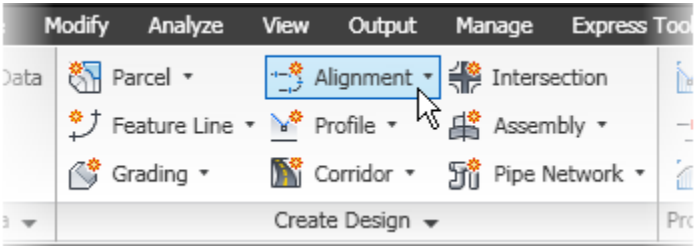
Sample Exercise

3.4.2 Creating an Alignment Widening

In this exercise you will add a widening to the offset alignment to create a third lane.

1. Select **Ribbon: Home ⇒ Create Design ⇒ Alignment ⇒ Create Widening**.



2. At the **`Select alignment:`** command prompt, pick the **Offset Alignment**.

3. At the **`Create Widening portion as a New Alignment:`** command prompt, enter **No**.

4. At the **`Select start station:`** command prompt, enter **`21700`**.

5. At the **`Select end station:`** command prompt, enter **`25000`**.

6. At the **`Enter widening offset:`** command prompt, enter **`61`**.

The widening offset is a distance from the centerline, or in this case reference line, alignment.

The *Offset Alignment Parameters* palette is now opened. Here you can edit the widening parameter that you just set in the command. You can also edit the transition parameters.

7. Review the *Offset Alignment Parameters* and **close** the palette.

8. Zoom in to review the widening in plan view.

3.4.3 Adding the Transition Alignment to the Corridor

1. Thaw the layer **C-ROAD-CORR** to display the corridor.

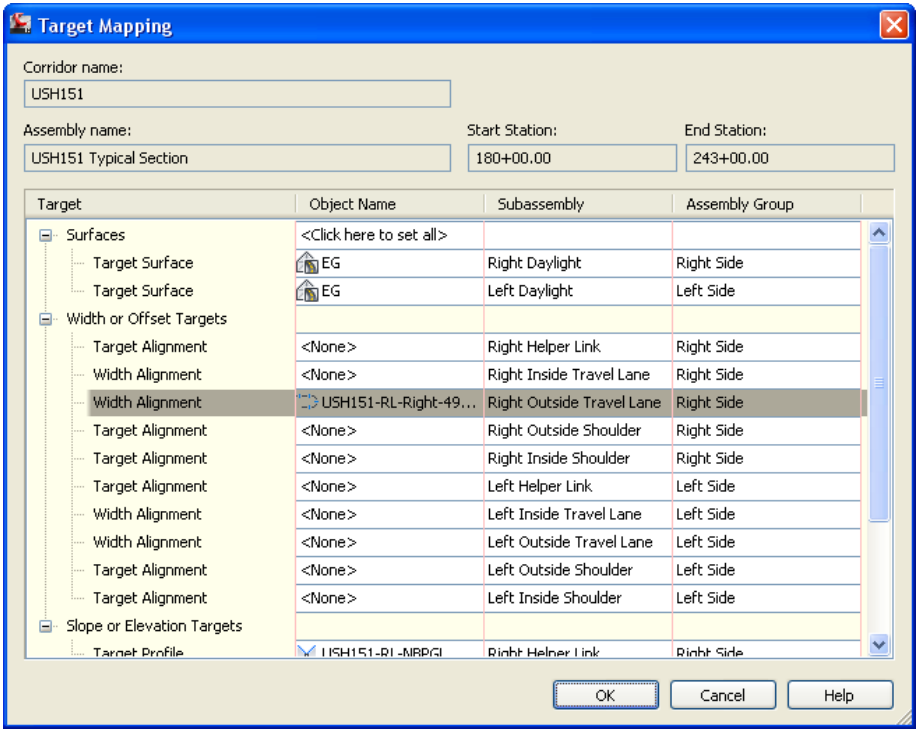
2. Zoom in and examine how the new offset alignment overlays the corridor. You should see it transition out to add the new lane at station 217+00.

3. On the *Prospector* tab of the *Toolspace*, right-click on the *Corridor* **USH151** and select ⇒ **Properties**.

4. Select the **Parameters** tab.

5. Click the **<<Set all Targets>>** button.

This opens the *Target Mapping* dialog box.



6. Under *Width or Offset Targets*, set the *Object Name* for the **Right Outside Travel Lane** *Subassembly* to **USH151-RL-Right-49**.

7. Click **<<OK>>** to close the *Target Mapping* dialog box and assign the alignment to the Subassembly.

8. Click **<<OK>>** to close the *Corridor Properties* dialog box and rebuild the corridor with the new transition.

9. Pan and zoom in to review the changes to the corridor.

10. Save the drawing.

Digging Deeper Into

AutoCAD Civil 3D 2011

is an advanced level book, building on the foundations of our popular introductory level books for Civil 3D. It is largely exercise based giving the reader step-by-step procedures for dozens of common tasks, while completing a rural highway design project, including:

- Creating Horizontal Alignments
- Editing Alignments
- Working with Superelevations
- Working with Profiles
- Working with Corridors
- Designing Intersections
- Plan Production
- Creating Section Sheets
- Working with Pipe Settings and Rules
- Designing Pipe Networks
- Working with Grading Criteria
- Grading with Feature Lines
- Performing Finished Surface Analysis
- Calculating Final Earthwork Volumes

"I highly recommend the books from Cadapult Software Solutions. The information and examples are in-depth and precise. Rick's teaching ability and training materials are top notch. His Civil Engineering background enables him to instruct people to use Civil 3D for real world use. This is why we have chosen Cadapult Software Solutions for all of our Autodesk training needs."

Jeff Hiiva, Senior Designer/CAD Manager
ESM Consulting Engineers

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