



# CRAB Design Systems “Technology Days 2013”



June 6 & 7, 2013 - CRAB Offices, Olympia, WA ----- June 4 & 5, 2013 - CTC, Wenatchee, WA

9:00am–9:15am	<b>OPENING REMARKS</b> – Autodesk & Jim Ayres P.E., CRAB	
<b>Time</b>	<b>Track 1 –Room 280</b>	<b>Track 2 – Room 260</b>
9:15am–10:15am	<p><b>Civil 3D for Surveyors</b></p> <p><b>Attendee Profile:</b> Surveyors, GIS Professionals</p> <p><b>Topics:</b> This is an introductory session to the survey functionality within Civil 3D. Users will learn the following in this session: setting coordinate systems, survey database, importing data, specifying feature codes and attributes, connecting survey points using control coding, editing points and figures, and generating drawings.</p>	<p><b>AutoCAD Civil 3D 2014 New Features &amp; Tips &amp; Tricks</b></p> <p><b>Attendee Profile:</b> Project Managers, Designers, Surveyors, GIS Professionals.</p> <p><b>Topics:</b> This session will focus on new enhancements to the latest &amp; greatest release of Autodesk’s Civil 3D. Demonstrations of several new tools to this new release will be shown as well as a few tips &amp; tricks that will help a user's production will be shown in this session.</p>
10:15am–10:30am	<b>Break Time</b>	<b>Break Time</b>
10:30am–Noon	<p><b>Civil 3D Surface Modeling</b></p> <p><b>Attendee Profile:</b> Surveyors, GIS Professionals.</p> <p><b>Topics:</b> This session will focus on the best practices for creating and manipulating surfaces. Users will be able to use these methods in their daily design processes. In general we will be creating importing topo points, setting up a point group for surface points, create a surface using the point group to define the surface. Edit &amp; refine the surface utilizing some of the features such as swap edges, edit breakline vertices &amp; add surface labels into the drawing to display contours spot elevations, and surface slope banding.</p>	<p><b>Infrastructure Design Suite Modeler</b></p> <p><b>Attendee Profile:</b> Project Managers, Designers and Visualization Specialists.</p> <p><b>Topic:</b> Users will be shown how quickly and easily it is to complete preliminary design work by generating data-rich proposals in the context of the existing environment, supporting more informed decision-making and an accelerated design process for civil infrastructure. Develop plans and estimates at the appropriate level of detail to help confirm scope, budget, and schedule. Better predict how project alternatives will behave within the context of the existing environment, and communicate more effectively to stakeholders.</p>
Noon–1:00pm	<b>Lunch Break</b>	<b>Lunch Break</b>
1:00pm –2:30pm	<p><b>Civil 3D LIDAR Tools, Point Clouds, &amp; Feature Extraction</b></p> <p><b>Attendee Profile:</b> Surveyors, GIS Professionals</p> <p><b>Topics:</b> Users will develop an understanding in this session on how the can utilize an accurate point cloud to validate the true design versus the as-built condition. This session will use an example roadway project to demonstrate how to classify and vectorize key features of the roadway, including the centerline and edges of lane.</p>	<p><b>Corridor Modeling, Road Reconstruction Basics with Civil 3D and ADA Design Practices</b></p> <p><b>Attendee Profile:</b> Project Managers and Designers</p> <p><b>Topics:</b> This session will cover more advance corridor modeling techniques. Special emphasis will be given to reconstruction techniques, including widening and overlays. Users attending this session will learn of the best practices for corridor modeling on reconstruction projects. How to ensure pedestrian facilities within our public rights of way are “accessible to and useable by” all people, including those with disabilities ADA.</p>
2:30pm–3:00pm	<b>Break Time</b>	<b>Break Time</b>
3:00pm–4:30pm	<p><b>AutoCAD Infrastructure Raster Design</b></p> <p><b>Attendee Profile:</b> Surveyors, CAD, GIS, and Visualization Specialists</p> <p><b>Topics:</b> This session will show how to make the most of raster images, maps, aerial photos, satellite imagery, and digital elevation models. With powerful raster editing and raster-to-vector conversion tools, AutoCAD Raster Design software helps you to easily clean up, edit, enhance, and maintain scanned drawings and plans in a familiar AutoCAD software environment for use in AutoCAD Civil 3D, AutoCAD Map 3D and AutoCAD.</p>	<p><b>Drainage Design &amp; Pipe Networks with Autodesk Storm &amp; Sanitary Analysis (SSA)</b></p> <p><b>Attendee Profile:</b> Project Managers, Designers, Hydro/Hydra Professionals</p> <p><b>Topics:</b> Learn how to perform the analysis of drainage systems in Autodesk Storm and Sanitary Analysis (SSA). Explore its use in modeling and analyzing drainage systems and stormwater management features such as detention basins, including its interaction with AutoCAD Civil 3D. Model water quality best management practices (BMP’s) that are required by regulatory agencies. Create custom reports with the click of a button.</p>



# CRAB Design Systems “Technology Days 2013”



May 28<sup>th</sup> & 29<sup>th</sup>, 2013 - CRAB Offices, Olympia, WA ----- May 30<sup>th</sup> & 31<sup>st</sup>, 2013 - CTC, Wenatchee, WA

Time	Track 1 –Room 280	Track 2 – Room 260
9:00am–10:30am	<p><b>Civil 3D Quantities, QTO, &amp; Reports</b></p> <p><b>Attendee Profile:</b> Project Managers, Designers</p> <p><b>Topics:</b> This session will show how to use materials and sectional or profile information to extract and report material volumes. Apply pay items to AutoCAD Civil 3D objects to analyze quantities. Creation of tables and reports can be performed once these material lists are generated. Import pay item files from contracting agencies, tag objects, closed areas, and compute quantities to create quantity reports and tables.</p>	<p><b>Drainage Design &amp; Pipe Networks with Autodesk Storm &amp; Sanitary Analysis (SSA)</b></p> <p><b>Attendee Profile:</b> Project Managers, Designers, Hydro/Hydra Professionals</p> <p><b>Topics:</b> Learn how to perform the analysis of drainage systems in Autodesk Storm and Sanitary Analysis (SSA). Explore its use in modeling and analyzing drainage systems and stormwater management features such as detention basins, including its interaction with AutoCAD Civil 3D. Model water quality best management practices (BMP's) that are required by regulatory agencies. Create custom reports with the click of a button.</p>
10:30am–11:00am	<b>Break Time</b>	<b>Break Time</b>
11:00am–12:30pm	<p><b>Plan Production, Sheet Set &amp; Electronic Delivery Output</b></p> <p><b>Attendee Profile:</b> Surveyors, CAD, and Designers</p> <p><b>Topics:</b> AutoCAD Civil 3D has two powerful functions; Plan Production and Sheet Manager. Creating several plan and profile sheets at many different paper sizes &amp; scales becomes effortless. Plan production creates views, sheets, and cuts the profiles to match. Easily revise several overlapping view port frames based on the alignment, sheet scale, and associated view port. Then Sheet Manager uses those View Frames to create sheets. Users will also be shown how to bring in their own County border into the layouts.</p>	<p><b>Infrastructure 3ds Max Design for Civil Engineers</b></p> <p><b>Attendee Profile:</b> Project Managers, Designers and Visualization specialists</p> <p><b>Topics:</b> This session will provide examples and workflows to show users how an effective visualization tool can help other government agencies and community stakeholders better comprehend design intent and project impacts. We'll show that civil engineering professionals no longer need to have a deep knowledge of 3ds Max Design to create their own renderings. With the Civil View feature set of 3ds Max Design, AutoCAD Civil 3D users can automatically create cinematic-quality renderings and animations from Civil 3D model data. Autodesk 3ds Max Design can help you:</p> <ul style="list-style-type: none"> <li>• Better evaluate designs and project performance</li> <li>• More accurately communicate design intent</li> <li>• Build stakeholder support for civil infrastructure projects</li> </ul>
12:30pm–1:00 pm	<b>FEEDBACK/PANEL DISCUSSIONS</b>	

**GENERAL REGISTRATION INFORMATION:**

>You can choose which workshops from either track 1 or track 2 to attend.

> Name Badges are required for entrance into all Sessions, Workshops, and Panel Discussions.

>Vendor Door Prizes!!! Don't forget to hang around to the end of the 2<sup>nd</sup> day to drop off your evaluations and then be eligible for some nice merch!