

PROGRAM GUIDE



SEPTEMBER 27-30, 2011
PLANET HOLLYWOOD
LAS VEGAS, NV



SESSION DESCRIPTIONS

TUESDAY, SEPTEMBER 27TH

4:00 PM - 8:00 PM

Registration
Registration Desk

6:00 PM - 8:00 PM

Welcome Reception
Mezzanine

Sponsored by



TradeService™

WEDNESDAY, SEPTEMBER 28TH

7:00 AM - 8:00 AM

Continental Breakfast
Mezzanine

8:00 AM - 5:00 PM

Registration
Registration Desk

8:00 AM - 8:15 AM

Welcome!
Celebrity Ballroom 4

8:15 AM - 9:25 AM

KEYNOTE SPEAKER: Garrison Wynn

“The Real Truth about Change Management and BIM: Nobody Wants to be a Senior Beginner”

Celebrity Ballroom 4

8:25 AM - 9:40 AM

Conference Logistics & Agenda
Celebrity Ballroom 4

WEDNESDAY, SEPTEMBER 28TH

(CONT.)

9:40 AM - 10:15 AM

Morning Break
Ballrooms Foyer

10:15 AM - 5:15 PM

Product Certification Exams
Sunset 1 (closed during lunch)

10:15 AM - 5:15 PM

Company Consultations
Westwood Boardroom

10:15 AM - 11:15 AM

The BIM Process
Celebrity Ballroom 4

The BIM Process is an important overview and explanation of where BIM fits in for contractors and where you should focus your efforts as a contractor to profit in the BIM environment, as well as providing cautions to limit your risk. The session details BIM from a current and historical point of view, a practical point of view and discusses how to truly meet BIM requirements.

Drawing Waste Piping
Celebrity Ballroom 5

This topic explains examples where piece-by-piece drawing and design-line drawing are best, and includes the use of piece-by-piece drawing with sloping, fill routines with drop in to fall and the use of (though not details of setup) Design Line with the drainage tool. Development of assemblies for plumbing, including orientation considerations and multiple material combinations within the assembly are taught.

Crew Rates, Labor Table Setup & Implementation
Celebrity Ballroom 6

This topic presents new tools for establishing crew rates as opposed to single value rates against items in EST takeoff or EST Reporting of FAB/ CAD Models. Included will be a full explanation of labor table setup and implementation, including using labor table factors and multiplying labor table elements by factors. A full explanation of the use of Value Sets will be included, and recommended labor table implementation methods will be discussed.

SESSION DESCRIPTIONS

WEDNESDAY, SEPTEMBER 28TH

(CONT.)

10:15 AM - 11:15 AM (CONT.)

GUEST SPEAKER: Chad Lowe, CPA
Tax Advantages to Implementing BIM (RND Credits)
Celebrity Ballroom 7

Implementing and using BIM and other modeling programs may qualify your company to receive federal and state research and development (R&D) tax credits. These credits can increase your bottom line and speed up the return on your software investment; however, many eligible companies in your industry are not taking advantage of this lucrative incentive. Typically, companies fail to take advantage of the R&D tax credits because of a general lack of information about how these credits apply to construction and the related industries. During this presentation, the R&D credit will be discussed as it specifically applies to BIM users.

Advanced Pressure Class Setup and Service Spec Application
Celebrity Ballroom 8

With the advent of the ability to utilize truly spec driven alternate connectors and seams in pressure classes, items can be setup to be fully driven by the specification, as opposed to locking connectors and seams for special circumstances. The implementation from a specification standpoint is taught in this class, along with recommended practices for dealing with multiple specifications across multiple materials. Stiffeners are only briefly touched on as they are discussed in a more detailed tie-rod/ stiffeners topic. A complete review of the Pressure Class setup process is taught, including the financial benefit and process of differentiating by fittings versus straights, and varying fitting setups based on width and depth AS WELL AS length considerations to optimize your specifications. Additional considerations of the differences between straights and fittings from an estimating standpoint is also discussed, such as differentiating between TDC with cornermatic for straight versus fittings from an accuracy of estimating costs standpoint.

11:30 AM - 12:30 PM

Design Line Setup Including New Interface and SizePad Interface
Celebrity Ballroom 4

The Design Line Interface has just been updated to allow an integrated set of tools to be used for dramatic improvement of speed of entry. Additionally, specific to EST/ CAM entry, the interface includes a new "Number Pad" ("Service Pad") method for mouse takeoff. The new interface is taught, based on the US Configuration and build including practical examples in using the tool for design line entry. Each of the new "Number Pad" types are discussed, including the "Service Pad", "Size Pad" and "Speed Pad" along with the (potential) obsolescence of the existing "Numpad". Additionally, the customization process is taught as well as a discussion of future development plans including service specific "Size Pads."

Advanced Stiffener Setup
Celebrity Ballroom 5

This session teaches both the background detail and the setup detail for SMACNA based tie rod implementation and use, for optimal/ minimal cost. The program now supports specifications that analyze the Tie Rod requirements independently for Long and Short sides, considering both the evaluated side dimension and the rod length in determining the rod to use. The result is often a different actual rod in the width versus depth direction, and the topic explains the reporting process for isolating and reporting each.

Recommended Default Database Text Setup, Drawing Template Setup for Text
Celebrity Ballroom 6

This topic presents the process to setup text, styles, dimstyles, both from the CAD Database Settings side, and the AutoCAD File setup. The process will be explained step by step including creation of the file, which will be made available after the User's Group.

Run a Full Estimate from Revit
Celebrity Ballroom 7

This topic provides an overview and complete walk-through of the process of Estimating a Revit Drawing. This includes likely holes that may need to be filled to complete an estimate from Revit due to possible drawing inefficiencies from the Engineer. Methods and their benefit will be discussed from add-on of a few pieces in Mouse takeoff to design line correction. The completed Estimate from FAB will be run through the full Estimate process.

SESSION DESCRIPTIONS

WEDNESDAY, SEPTEMBER 28TH

(CONT.)

11:30 AM - 12:30 PM

CAM Reports

Celebrity Ballroom 8

This topic provides training on the overall view of reports and features a detailed training on report creation, including report fields and graphics (Labels vs. Item/ Ancillary Reports), basic report setup including Page Layouts, Printer settings, Fonts and Graphics/ Report Options, and Header Setup and Development, including standardizing Headers and Footers as Templates to be reused in creating additional reports. The process of creating report tables, copying report tables between reports and creating and saving new reports (including recommendations to maintain the same .irp name as the report name). The Report Setup includes an introduction to Fields Used, Naming and Headers, Column Widths, Filtering and Calculated Fields, and an explanation of how to group fields together or into collections, how to set fields to summarize or collect totals, how to modify the column orientation/ justification of a field of data, and in introduction to indexed fields. Additionally, the use of calculated fields for calculations as well as for collection headers with colons to title tables is taught, as well as the use of blank objects for headers. Considerations when merging rows and collecting tables to make sure fields only report multiple entries with commas when desired is explained.

12:30 PM - 1:45 PM

Lunch

Mezzanine

1:45 PM - 2:45 PM

Introductory Design Line

Celebrity Ballroom 4

This session trains on the basics of design line, including the most efficient methods for entry in design line, zooming and navigation considerations, specific points to remember to eliminate having to delete line segment mistakes, filling and use and placement of terminals. Common mistakes in terminal placement, segment ending will be discussed along with illustration within the new features of how to directly view (new green bar) when your design line is active, and when to exit out of design line, select create new design line (green button) and when to only use line create, to avoid mistakes in design line differentiation. The newest Size Pad interfaces will be used, and the process of creating, deleting, joining and editing segments will be discussed.

Open Forum - What do you use scripts for and how the program(s) can address your needs

Celebrity Ballroom 5

TSI and MAP will present and discuss a number of tools developed within the software to eliminate the need for customer scripting and having to run scripting processes. Alternate Seams and Connector enhancements, Text Data Viewing enhancements (TrimV Toolset). The session will then open to customers to provide feedback on what they need scripting for and how we may enhance the programs in development directly to eliminate those needs.

Up to Date Recap Report Process and Quoting Process

Celebrity Ballroom 6

This session walks you through the full process from start to finish of bidding with the EST-Duct/Mech software from a reporting standpoint. This includes report checking processes for errors, Reporting processes to deal with items missing costs and requiring quotations, and wrap up of the total bid.

Planning Your Implementation of Building Data

Celebrity Ballroom 7

Dependencies between building data and MAP will be discussed, including version management. System requirements including virus, network, firewall, port and web service access for the Content Manager will be discussed. System configuration and setup requirements, including install process via support including scheduling with support.

Advanced CAM Reports

Celebrity Ballroom 8

This topic features a detailed explanation of report creation, including report fields and graphics (Labels vs. Item/ Ancillary Reports), the Report Setup including Fields Used, Naming and Headers, Column Widths, Filtering and Calculated Fields, and an explanation of how to get each of the fabrication CAM Components critical to manufacture to report, including the differences between Item Reports and Ancillary Reports, the use of Nest Reports, Special Quantity/ Count Rules to consider with connectors, reporting of Hangers and Hanger subcomponents, insulation reporting as well as the new Ancillary Reporting Fields available better tying the ancillary to the higher level subcomponent by type and name, such as Connector or Stiffener. Advanced setup of reports for stiffeners including the new tie rod variables and options.

SESSION DESCRIPTIONS

WEDNESDAY, SEPTEMBER 28TH

(CONT.)

2:45 PM - 3:15 PM

Afternoon Break

Celebrity Ballroom Foyer

3:15 PM - 4:15 PM

Design Line with Terminals and Assemblies (incl. Elbow Over)

Celebrity Ballroom 4

The Design Line with Terminals, Assemblies and Elbow Over options session features all the background and details needed for setup of the powerful assembly tools for in-line and end of line run examples, found as needs in all trades, Terminals as can be applied to Floor Drains, from the ground up, and Ductwork Grilles/ Diffusers from the ceiling down (or ground up in some cases, i.e. under floor heating, etc.), and the setup of elbow over functionality to allow multi-line branches to seamlessly cross via design line without unnecessary added pipe stub pieces and extra weld joints, saving labor and cost.

New Optimized Fill Routines and Setup and Methods

Celebrity Ballroom 5

The use of fill routines can be generically described as all routines in CAD/CAM/EST/FAB that fill multiple pieces. These include Multi-Point Fill (Fill), Fill 2 Ends (f2e), and Design Line. Methods for filling will be taught along with the newest feature which introduces the automation of Bi-Directional Duct Stretching for short piece elimination. With this greatly enhanced feature, re-drawing after auto-filling (further detailing) can be eliminated. Specifics as to how this stretching occurs between elbow-elbow and elbow-transition nodes will be discussed and detailed, as well as transition node stretch rules. The system now allows for a fitting level setup to specify the allowed stretching on a fitting by fitting basis, and this setup will be taught.

3:15 PM - 4:15 PM (CONT.)

EST Reporter

Celebrity Ballroom 6

The EST Reporter is an advanced reporting tool in excel allowing estimating reporting from EST takeoffs, CAD or FAB models to be brought in to an excel interface to merge with your company's existing reporting processes and/ or utilize the EST Reporter tools for Advanced Labor Analysis and Adjustment tools including Spool/ Pre-Fab Labor Analysis and Bidding, Hanger Labor/ Pre-Fab/ Layout Options Analysis and General Shop and Site/ Field Labor Tools. The EST Reporter also includes a full set of tools that can be used for Equipment Buyouts, Subcontractors and Overall Bid Wrap-up / Markup. This year's release represents the most significant advancement in the EST Reporter, and combines new functionality with a significant effort/ focus on ease of use, making the EST Reporter a practical tool for Estimators and Detailers/ Project Managers alike for pricing review.

Service Setup

Celebrity Ballroom 7

This topic explains the Services Setup process from start to finish. This includes adding conditions with size breaks, bringing in items to buttons, giving buttons button codes, setup up buttons with types, such as terminals, setting up specs and hanger spec applications, button mappings, terminals styles, as well as briefly discussing layer setups.

CUSTOMER PRESENTATION: Growing Revenue through a BIM IPD Proposal & Execution Process

Celebrity Ballroom 8

Presenter: Dave Pikey, The Hill Group

SESSION DESCRIPTIONS

WEDNESDAY, SEPTEMBER 28TH
(CONT.)

4:30 PM - 5:30 PM

Using Multi-Service Design Lines

Celebrity Ballroom 4

Multi-Service Design line provides the ability to run multiple pipes, conduits or ducts or any combination of the three types on a single run, in a much faster drawing method. This tool can even include racks or racking systems. Methods for drawing, change or direction, elevation changes, and even branches and reductions/ layout (items within the rack) are discussed, including practical limitations and practical recommendations for working with MSL's and with the resultant single lines for continued runs and branches are taught. The discussion for ideas of enhancement of Multi-Service Design lines will then take place, and customer feedback on current experiences.

CUSTOMER PRESENTATION:

Legal Implications of 3D Coordination and Building Information Modeling

Celebrity Ballroom 5

Presenter: David Morris, Emcor

This presentation will explore the legal implications of 3D Coordination and 3D Modeling in various contractual relationships.

Estimating Pre-Fab/Spooling Using EST Reporter

Celebrity Ballroom 6

Detailed practical examples are provided for estimating with considerations for spooling/ pre-fab labor, and the tools in EST Reporter to modify labor accurately to reflect the pre-fabrication results. This includes recommendations for Estimating jobs with pre-fab as a consideration and re-estimating real CAD Models for labor scheduling and planning with real world spool automated by virtue of the CAD Detailing department having spooled the job. Methods and recommendations, including an open customer discussion, for tracking your spooling/ pre-fab results and bettering the accuracy of your estimates are discussed.

Revit Drawing and Data

Celebrity Ballroom 7

This topic will present the process of drawing in Revit, and setting up a full Revit Project and using the tools of Revit. Future plans for Building Data Content will be generally discussed.

NEWER Opus CAD 5 Interface and New Nesting Routines

Celebrity Ballroom 8

"Green Nesting" represents a significant enhancement in nesting methodology and accuracy over any methods previously available anywhere in the industry. The new technology uses advanced "No Fit Polygon" NFP Nesting. This method provides an advanced mathematically accurate placement of parts eliminating more waste using University Research Generated complex algorithms. The setup process will be explained along with the methods including margin reduce setup requirements. The example will include display of the console command which illustrates that alternatives are actually tried from all four corners. Future enhancements include offloading of processing to the graphics card from the core processor for further enhancement of processing speed. This topic also includes training on the Opus 5 interface, which includes enhanced dynamic tool tips, enhanced slicing tools, dimensioning tools, improved part profiler, true type text support for creating letters on metal parts of any font. The Raster to Vector add-on for flat pattern part creation will be taught. **Raster-to-Vector is an add-on with an added cost.

6:30 PM - 8:30 PM

Reception, London Club

Following the TSI Reception at the London Club, all TSI User Group Attendees will have the opportunity to visit the new Gallery Nightclub which opens at 10:00 pm. No cover charge for TSI attendees (must wear badge for entrance). Not a TSI-hosted event.

Sponsored by:



SESSION DESCRIPTIONS

THURSDAY, SEPTEMBER 28TH

7:00 AM - 5:30 PM

Registration

Registration Desk

7:00 AM - 8:00 AM

Continental Breakfast

Mezzanine

8:00 AM - 8:20 AM

Introducing the Mind-Touch Site

Celebrity Ballroom 4

8:20 AM - 9:00 AM

MAP Awards Ceremony

Celebrity Ballroom 4

“CAD-Duct Drawing of the Year” Award

“Innovator of the Year” Award

9:00 AM - 9:40 AM

GUEST SPEAKER: Future Developments & Industry Trends

Celebrity Ballrooms 1-4

Presenters: Andy Robins & Stuart Barcock, MAP

9:40 AM - 10:00 AM

Morning Break

Ballrooms Foyer

10:00 AM - 5:15 PM

Product Certification Exams

Sunset 1 (closed during lunch)

10:00 AM - 5:15 PM

Company Consultations

Westwood Boardroom

10:00 AM - 11:00 AM

CUSTOMER PRESENTATION:

Using TSI Software/BIM to Promote Lean Construction Practices

Celebrity Ballroom 4

Presenter: Joseph Mierzewjewski, J. C. Cannistraro, LLC

This presentation will discuss lean construction as it applies specifically to attendee piping/sheet metal trades; the difference between lean manufacturing and pre-fabrication/mass production (which is what most companies generally do) as well as examples that we use and overall savings potential as well as uncalculated savings.

Insulation Specifications and Doublewall Setup - Manufacturing, Drawing and Estimating Parameters

Celebrity Ballroom 5

The insulation specification setup has greatly enhanced the automation of multiple parameters with a single specification selection. Applying insulation specs to design lines and items will be generally taught, along with the full range of automated parameters that the specification addresses and their setup in the Insulation Spec Setup area. Insulation specs address automation of use of different sizes/ types of insulation for different pipe/ duct sizes, automation of changes to connectors used for ductwork and doublewall ductwork, inner liner selection AND inner skin material selection in the case of doublewall.

BD EST Manager and Material Pricing

Celebrity Ballroom 6

The Building Data EST Manager provides significantly enhanced ability to manage pricing updates as well as manage and modify multiple labor books, and ties in directly to Building Data (TSI-Content) Managed Data Content Items. The EST Manager has a variety of tools for filtering and selecting which items from a supplier update are to be brought in and updated at a given moment in time, for filtering and more quickly applying discounts to like items, and management of multiple labor books. This topic provides all the working details of operations and background information on the enhanced estimating capabilities of BDI Items. Additionally, the update process is taught to bring the results into EST-Mech/ Duct.

SESSION DESCRIPTIONS

THURSDAY, SEPTEMBER 28TH
(CONT.)

10:00 AM - 11:00 AM

Introductory Design Line

Celebrity Ballroom 7

This session trains on the basics of design line, including the most efficient methods for entry in design line, zooming and navigation considerations, specific points to remember to eliminate having to delete line segment mistakes, filling and use and placement of terminals. Common mistakes in terminal placement, segment ending will be discussed along with illustration within the new features of how to directly view (new green bar) when your design line is active, and when to exit out of design line, select create new design line (green button) and when to only use line create, to avoid mistakes in design line differentiation. The newest Size pad interfaces will be used, and the process of creating, deleting, joining and editing segments will be discussed.

CAM Entry Methods

Celebrity Ballroom 8

This topic teaches the up to date service based takeoff/ entry methods, with options for detail takeoff, as well as design line options for CAM introducing the 3D Viewer interface. Methods for editing files in 3D brought from CAD will be discussed.

11:15 AM - 12:15 PM

Interoperability - IFCs - Tekla

Celebrity Ballroom 4

For models and collaboration not done in Revit/ as Revit families, Industrial Foundation Classes/ IFCs have been adopted an a universal standard for Item sharing. This session features a demonstration and teaching on methods for collaboration using IFCs and working with IFCs in and out of the FAB (CAD) environment, including specific examples using Tekla structures, the leading Structural Steel Detailing and Design Software in the industry.

Design Line with Terminals and Assemblies (incl. Elbow Over)

Celebrity Ballroom 5

The Design Line with Terminals, Assemblies and Elbow over options session features all the background and details needed for setup of the powerful assembly tools for in-line and end of line run examples, found as needs in all trades, Terminals as can be applied to Floor Drains, from the ground up, and Ductwork Grilles/ Diffusers from the ceiling down (or ground up in some cases, i.e. under floor heating, etc.), and the setup of elbow over functionality to allow multi-line branches to seamlessly cross via design line without unnecessary added pipe stub pieces and extra weld joints, saving labor and cost.

CAD Text-Level Blocks, Ctext, Combined Size/Level Blocks

Celebrity Ballroom 6

The CAD-Duct/ Mech/ Elec Programs include dynamic intelligent text, meaning that as items are updating in any way (size or elevation location) the text fields update automatically. This topic teaches both the basics and details of text setup and the power of the text tools to automate the layering and ease of selection of text components, filtering out (on or off) of text components and to look and feel, including colors, blocks/ symbols applied to text components within the CAD Program, such as Size, Length, Elevation and Number Text, as well as the ability and process to create custom dynamic text fields. Options for auto placement of text even situationally auto placing text is discussed (such as once at each size or elevation change). Options and setup for the text and dimension styles, blocks, leader lines, directional arrows for Transition Sets are all taught.

Trimble-MEP

Celebrity Ballroom 7

This session explains the use of the Trimble MEP software from start to finish on a job, as well as describing the newer features allowing you to use multiple data fields on your points. Field Link as an option for layout and field tracking is also discussed.

SESSION DESCRIPTIONS

THURSDAY, SEPTEMBER 28TH
(CONT.)

11:15 AM - 12:15 PM

CAD-Elec Libraries and Services Structure

Celebrity Ballroom 8

This topic unveils the latest greatly expanded libraries for Electrical (CAD-Elec) including a full range of multiple conduit and tray/ channel systems and equipment/ components added. Integral to the addition of libraries are the extensive service libraries themselves. The layout of the services is explained in this topic as well as the use of each service (due to multiple options and material types) and the specifics of the components matching the service conduit or channel parts (such as material and specification specific junction boxes and panels) is explained. An open discussion is then intended on content specific needs of our customers for electrical (Not to include feature specific discussions - see Wish List - CAD). Methods for changing items used situationally to a different model or even manufacturer for the same purpose, within the service setup, is discussed.

12:15 PM - 1:30 PM

Lunch

Mezzanine

1:30 PM - 2:30 PM

CUSTOMER PRESENTATION: Case Study UCSF Mission Bay Hospital BIM Implementation

Celebrity Ballroom 4

Steve Whitmer & Marco Polo, ACCO Engineered Systems

Story of how a \$1.1 billion, 660K square foot hospital was coordinated in 16 months. How the protocol was setup for designers and contractors to collaborate, including big room integration of over 80 people. We will discuss the QC, metrics, and cost analyses that were included to lessen the budget by more than \$500 million. We will discuss the coordination process in which there were no real "coordination meetings". Instead, coordination was occurring 40 hours a week. Then we will discuss the construction phase, where the project is to date and how schedule is being condensed due to BIM processes.

Advanced Ductwork Item Setup for CAD and CAM

Celebrity Ballroom 5

With the advent of the ability to utilize truly spec driven alternate connectors and seams in pressure classes, items can be setup to be fully driven by the specification, as opposed to locking connectors and seams for special circumstances. This allows a configuration to be built (with a few exceptions in multiple options for girth split/ selection of the number of parts to be applied to a fitting) in a fully open manner where a single fitting can be used in multiple circumstances, improving interoperability with multiple companies, divisions, fabricators and engineers. The full item setup with this new ability, inclusive of item editing, and universal costing/ estimating setup and properties setup to standardize reporting is taught.

FAB-MEP Full Drawing and E-Link Referencing

Celebrity Ballroom 6

This topic teaches the ability to utilize FAB in its own right to draw using design line and the piece by piece method. Additionally, the practical use of "FAB" as a Fabrication and Coordination Station are taught, including E-Link Referencing, pulling models together and modifying the completed model such as joining up models fully where floors or sections drawn by multiple detailers may often not properly connect.

Add Report

Celebrity Ballroom 7

This topic focuses on the many features of the Add Report functionality in CAD (CAD-Duct/ CAD-Mech/ CAD-Elec). The add report feature allows for adding custom reports to a CAD model, either in text form or Table Form. The topic includes details of Table Setup and Report Setup including Fields Used, Naming and Headers, Column Widths, Filtering and Calculated Fields, and a series of real world examples of their application for Equipment, Grille, Fixture, etc. Schedules as part of either your fabrication process, ordering/ procurement process or a part of your submittal/ as-built / CAD Drawing Documentation Fulfillment requirements.

SESSION DESCRIPTIONS

THURSDAY, SEPTEMBER 28TH
(CONT.)

1:30 PM - 2:30 PM

Design Line Plumbing Lab

Celebrity Ballroom 8

A Lab Specific to the Plumbing Piping Trades and Design Line, this session will provide hands-on experience in using the latest Design Line Tools for Plumbing Piping with a specific focus on sloped drainage piping, both with standard design line features and the latest drainage tool features, allowing you to place mid run elevation holds, to slope the pipe to certain elevations, and to choose specific hold points at the end of the line to minimize trenching (for a below ground example) or maximizing ceiling space (for an above ground/ multi-level building example), as well as the latest end of Line Assembly options, and various options for routing / merging waste and vent systems and stacks and single or multiple fixture assembly examples.

2:30 PM - 3:00 PM

Afternoon Break

Ballroom Foyer

3:00 PM - 4:00 PM

CUSTOMER PRESENTATION: Trimble Field Link & Trimble CX 3D Laser Scanner Overview

Celebrity Ballroom 4

Presenter: Jerry Dossett & Robert Beck, Trimble

The Trimble Field Link for MEP construction layout solution builds on the Trimble Building Construction Division's philosophy of providing products and services that help to extend the BIM to field workflow. Designed for contractors implementing Virtual Design & Construction and 3D BIM processes, Trimble Field Link for MEP offers layout specific task-based workflows, customizable views, field level reporting and a new user interface to optimize the power of 3D job files in the field. Trimble CX 3D Laser Scanner Overview will review scan data collection with Trimble CX with Trimble Access on Tablet to capture rich, visual data as well as scan data processing with Trimble RealWorks software to generate meaningful deliverables.

Hanger Setup Including Impact of Insulation

Celebrity Ballroom 5

This topic provides detailed training on the setup and use of automated hangers for design line, including item setup, service level button setup and specification application, hanger specification creation (service Level) and insulation spec use, and the impact of insulation on hangers. Additionally full setup of the hanger "Specification or setup" within the fittings database is taught. This includes new features within the hanger setup to specify the actual rod diameter as a value, and an illustration of the intelligence of the system when oversizing for insulation for not oversizing the rod, ie pulling the oversized "Support" based on oversizing the insulating, but not oversizing the rod, which is based on the requirements of the pipe itself.

Using FAB-MEP From CAD for Spooling

Celebrity Ballroom 6

This topic teaches the practical use of "FAB" as a Fabrication and Coordination Station, including E-Link Referencing, pulling models together and spooling in one coordinated location, and planning pre-fabrication. The process of spooling in FAB, viewing options for the overall models (labels and colors), annotation/ text setup for Fab and full spool drawing setup is taught. FAB as a spool tool also includes auto-dimensioning (length dimensions with arrows to true center and end locations) and this process and setup is taught.

Design Line Sheet Metal Lab

Celebrity Ballroom 8

A Lab Specific to the Sheet Metal Ductwork Trades and Design Line, this session will provide hands-on experience in using the latest Design Line Tools for Ductwork, including design line runs with multiple materials and specifications, advanced options for use of terminal runs (Various Grille and Box Combinations) the latest in-run and end of Line Assembly options, and various examples and scenarios for effectively and most efficiently drawing with design line through real world examples of size and elevation changes, and service/ specification swapping.

SESSION DESCRIPTIONS

THURSDAY, SEPTEMBER 28TH
(CONT.)

4:15 PM - 5:15 PM

Complete Spool Drawing Setup

Celebrity Ballroom 4

Spooling or setup for pre-fabrication is perhaps the most beneficial and cost saving tool that a company can implement. This topic teaches to process of setting up a spool drawing completely, including the use of dwg files for the template, the assignment and placement of report blocks (as markers) (to allow output of summarized specific data values such as the inches of welding in a spool in total and define placement of added report fields or BOM(s)) and Report locations and the customizing of the reports to be located in spools is discussed including an explanation of the customization of Bills of Material for prefabrication.

CUSTOMER PRESENTATION: Remote Entry Improves Workflow Process and Reduces Field Ticket Time

Celebrity Ballroom 5

Presenter: Rich Gebler, Miller Bonded

Remote Entry brings the TSI database to the field through an interface similar to the PM2000 and ensures that the field foremen are turning in what your shop can build because it uses the same database as CAD, Estimators, and the Fabrication Processor. With the field using this interface it reduces time on the inevitable pieces that will be turned into the shop from the field on all jobs and is an excellent tool for remodel jobs. The old process of hand writing tickets, faxing or scanning/emailing them in, then the Fabrication Processor entering into the PM2000 is now replaced by emailing a file that is taken directly into the PM2000 and flows right on out to your fabrication equipment.

Estimating CAD Drawings

Celebrity Ballroom 6

Options for Estimating of CAD Drawings is taught, including methods for saving the jobs to sent to estimators (Create CAM/ .maj) and estimating reporting directly in CAD. Methods for Cost analysis for route optimization / cheapest detailed route/ solution are discussed including Cost Breakdown, Item Reports to summarize costs and Fill 2 Ends automated cost listings. For Estimating directly in CAD, the use of Standard Estimating reports is explained, as well as the Export process and basic use of the EST Reporter. **Note EST Connect is a requirement to use the later version of this reporting feature set.

JOB-Site Lab

Celebrity Ballroom 7

This lab will present a real world "Layout" scenario, including challenging in DR (Direct Reflex) and Prism layout and distinctions as to appropriate scenarios for both methods and the use of both methods concurrently. Troubleshooting examples including repositioning, unit setup common mistakes and best practices for feedback from the Site back to the CAD Office will be taught.

CAD-Elec Drawing Conduit Routing and Connectivity

Celebrity Ballroom 8

This topic includes training on drawing for electrical specific to conduit. Methods include Multi-Point Fill (Fill), Fill 2 Ends (f2e method) and Design Line, as well as piece by piece drawing. In design line, how to place junction boxes and properly continue filling is discussed. The details of the automated connectivity including true fabrication ready parts (connectors and couplings) is explained.

THURSDAY EVENING FREE

SESSION DESCRIPTIONS

FRIDAY, SEPTEMBER 30TH

7:00 AM - 5:30 PM

Registration
Registration Desk

7:00 AM - 8:00 AM

Continental Breakfast
Mezzanine

8:00 AM - 9:00 PM

BIM AUS Initiative and Future BIM Directions of the Industry
Celebrity Ballroom 4

9:00 AM - 9:20 AM

Morning Break
Ballroom Foyer

10:00 AM - 5:15 PM

Product Certification Exams
Sunset 1 (closed during lunch)

10:00 AM - 5:15 PM

Company Consultations
Westwood Boardroom

9:20 AM - 10:00 AM

CAD Wish List
Celebrity Ballroom 4

This session allows users to contribute their desired software development and configuration/ content improvement request as well as allowing the attending user group members to vote on prioritization of development. Staff will initially take inquiries but also will be able to analyze the customer need to determine how the need may be met with existing features, or what changes or areas that change request fits within from a programming standpoint in advance of grouping the items for vote. This session is specific to all CAD Users, including CAD-Duct/ CAD-Mech/ CAD-Elec/ CAD-MEP

EST Wish List
Celebrity Ballroom 5

This session allows users to contribute their desired software development and configuration/ content improvement request as well as allowing the attending user group members to vote on prioritization of development. Staff will initially take inquiries but also will be able to analyze the customer need to determine how the need may be met with existing features, or what changes or areas that change request fits within from a programming standpoint in advance of grouping the items for vote. This session is specific to all Estimating Users.

FAB/PM Wish List
Celebrity Ballroom 6

This session allows users to contribute their desired software development and configuration/ content improvement request as well as allowing the attending user group members to vote on prioritization of development. Staff will initially take inquiries but also will be able to analyze the customer need to determine how the need may be met with existing features, or what changes or areas that change request fits within from a programming standpoint in advance of grouping the items for vote. This session is specific to all FAB (Orbiter) Users.

CAM Wish List
Celebrity Ballroom 7

This session allows users to contribute their desired software development and configuration/ content improvement request as well as allowing the attending user group members to vote on prioritization of development. Staff will initially take inquiries but also will be able to analyze the customer need to determine how the need may be met with existing features, or what changes or areas that change request fits within from a programming standpoint in advance of grouping the items for vote. This session is specific to all CAM Users, including Track-It Users.

JSS Wish List
Celebrity Ballroom 8

This session allows users to contribute their desired software development and configuration/ content improvement request as well as allowing the attending user group members to vote on prioritization of development. Staff will initially take inquiries but also will be able to analyze the customer need to determine how the need may be met with existing features, or what changes or areas that change request fits within from a programming standpoint in advance of grouping the items for vote. This session is specific to all JOB-Site (Trimble Layout) Users.

SESSION DESCRIPTIONS

FRIDAY, SEPTEMBER 30TH
(CONT.)

10:00 AM - 11:00 AM

Integrated BIM: Bi-directional Revit Use and the AMCA Data Initiative

Celebrity Ballroom 4

The AMCA - Australian Mechanical Contractors Association - Initiative in coordination with TSI is an industry standardization of Fitting and Equipment use and data along with a series of tools from TSI and Building Data along with content to make Bi-Directional use of Revit a reality. This session includes real world examples of Revit models designed and brought in to the FAB/ CAD environment and the methods with content and data mapping for bringing models using your real fabrication components back in to the Revit Model environment as real Revit "Families" or real Revit items within your Revit Projects.

From Revit-MEP to Fabrication

Celebrity Ballroom 5

This topic includes not only training on the direct Run Processing of Revit Files and the potential to directly fabricate the models, but a real world discussion about workflow between Revit and FAB and additional CAD Detailing work then done in CAD and FAB for optimal routing and improvement from the engineers design. Workflow of Estimating and Validation is discussed generally as well.

CUSTOMER PRESENTATION: Samsung C&T Approach and Success for Rapidly Implementing TSI Software

Celebrity Ballroom 6

Presenters: Denis Leff & Mijeong (MJ) Ahn

In South Korea, like many other parts of the world, BIM is just starting its emergence in becoming an industry term; but the experience level is minimal. It's estimated that in Korea, fewer than 5% of subcontractors and fewer than 10% of design firms use BIM. In its infant state many are wary and don't know where to begin with BIM. Samsung C&T has set out to fast forward, not just the Company's BIM capabilities, but the industry partners in these regions as well. The focus on the presentation will be how Samsung C&T set out to achieve its goals specific to the MEP side, share the obstacles they faced, how they dealt with the many +/- aspects of their journey that has led them to a positive and continuing outcome.

Service Setup for Electrical

Celebrity Ballroom 7

This topic explains Service Setup from Start to finish but focuses specifically on Electrical needs, and describes the process of new service creation from the standpoint of recommended copying procedure to preserve the default setup and minimize reworks.

Advanced CAM Reports

Celebrity Ballroom 8

This topic features a detailed explanation of report creation, including report fields and graphics (Labels vs. Item/ Ancillary Reports), the Report Setup including Fields Used, Naming and Headers, Column Widths, Filtering and Calculated Fields, and an explanation of how to get each of the fabrication CAM Components critical to manufacture to report, including the differences between Item Reports and Ancillary Reports, the use of Nest Reports, Special Quantity/ Count Rules to consider with connectors, reporting of Hangers and Hanger subcomponents, insulation reporting as well as the new Ancillary Reporting Fields available better tying the ancillary to the higher level subcomponent by type and name, such as Connector or Stiffener. Advanced setup of reports for stiffeners including the new tie rod variables and options.

11:15 AM - 12:15 PM

Managed Data Content - Building Data - Using the Site and Service - Lab

Celebrity Ballroom 4

This lab will walk users through a hands-on experience of the ease of use of the Building Data site, the vast availability of manufacturer specific content and the process of bringing data back in to your FAB database / CAD/EST Databases for use in drawing, takeoff and Revit Conversions. Methods for requesting additional content and manufacturer sponsorship will be taught.

Design Line Mechanical Lab

Celebrity Ballroom 5

A Lab Specific to the Mechanical Piping Trades and Design Line, this session will provide hands-on experience in using the latest Design Line Tools for Mechanical Piping, including design line runs with multiple materials and intelligent branch/ material change assembly options, the latest in-run and end of Line Assembly options, and various examples and scenarios for drawing with design line through real world examples of size and elevation changes, and service/ specification swapping.

SESSION DESCRIPTIONS

FRIDAY, SEPTEMBER 30TH
(CONT.)

11:15 AM - 12:15 PM

CUSTOMER PRESENTATION

Celebrity Ballroom 6

Presenter: Mike Descourouz & Bryan Tamboli
APi CAD Services

CAD Reports

Celebrity Ballroom 7

This topic focuses specifically on Item Reports (not add Reports) used in CAD. This topic features a detailed explanation of report creation, including report fields, the Report Setup including Fields Used, Naming and Headers, Column Widths, Filtering and Calculated Fields, and a few examples of common Bill of Material, spool breakdown, pipe cut list break down reports used and their need. Issues and development requirements and direction with regard to item vs. ancillary level fields for reporting of Hangers and Hanger subcomponents is discussed.

Advanced Stiffener Setup

Celebrity Ballroom 8

This session teaches both the background detail and the setup detail for SMACNA based tie rod implementation and use, for optimal/ minimal cost. The program now supports specifications that analyze the Tie Rod requirements independently for Long and Short sides, considering both the evaluated side dimension and the rod length in determining the rod to use. The result is often a different actual rod in the width versus depth direction, and the topic explains the reporting process for isolating and reporting each.

12:15 PM - 1:30 PM

Lunch

Mezzanine

1:30 PM - 2:30 PM

TradeService Submittal Manager: Submittal Documentation Solution with TSI Managed Content and PDFs

Celebrity Ballroom 4

This topic will introduce a soon to be released integrated solution between TradeService Submittal Manager and TSI Managed Content. The solution will improve your speed and accuracy to create BIM project submittal documentation. TradeService Submittal Manager is a web-based solution that eliminates searching paper catalogs and manufacturer websites for PDFs that are today right at the fingertips of TSI Managed Content users. In this session you will learn how this comprehensive tool is used to create professional submittal packages including job information, company logos, headers/footers and page numbering. The end product submittal is a comprehensive PDF, with a table of contents, that can be e-mailed as a link.

Drawing Annotation Tools Lab

Celebrity Ballroom 5

This lab features a detailed work through example of placement of annotations, including auto-placement of text as a starting point and placing additional text to meet real world requirements. The lab includes going through the exercise of all annotation setups based on the one specified option (set) chosen for the lab. The lab then has detailed examples of viewport text placement options and turning on and off viewport text as appropriate, and renumbering a full drawing system by system with practical considerations as well as an open discussion of future options desired for texting

1:30 PM - 2:30 PM

Import Underlay, Layering, Elinks, Using Tabs for EST Design Line Tabkoll

Celebrity Ballroom 6

This topic teaches the management of drawing files within the EST environment, including managing multiple "Drawings" within one maj/ esj job, using tabs to separate the takeoffs of these drawings, but seeing the base full model in the default general tab, using layers to turn off systems for view within the viewing tabs, and working with multiple drawings to coordinate a takeoff spatially (elinking drawings in). Batch processing (not elinking) as the ultimate method to create the final completed estimate is taught and discussed as well.

SESSION DESCRIPTIONS

FRIDAY, SEPTEMBER 30TH
(CONT.)

1:30 PM - 2:30 PM

Spooling for Electrical

Celebrity Ballroom 7

This class teaches the entire spooling process from start to finish as well as setup of templates with a discussion geared toward the template needs for Electrical, and an open discussion of the realities of parts to pre-fab for successful profits in electrical.

Advanced Developments: New Insulation Development Setup and Opus dxf Import Example Including Part Validation

Celebrity Ballroom 8

The advancement in insulation development options include the ability to specify expansion of the insulation developments or shrinking of insulation development uniquely for radial fittings based on inner, outer or central dimensions for flat patterns within radial dimensions. This allows insulation when curved to line up properly (outside of a more exact beveling process). This topic includes full explanation of the setup requirements and the results in each scenario on several flat pattern developments. Additional flat pattern part usage with Opus and dxf importing for flat parts and validating these parts is included.

2:30 PM - 3:00 PM

Afternoon Break

Ballroom Foyer

3:00 PM - 4:00 PM

Spooling and Pipe Nesting

Celebrity Ballroom 4

Linear Pipe Nesting allows you to nest directly into full pieces of pipe, the actual pieces of pipe to use on given standard lengths. Item Reports can be generated with the linear nest group report options, allowing you to report out specific pipe length breaks to minimize the amount of pipe standard lengths bought/ used, saving you money. This topic includes the full report setup explanation, which involved report settings, and calculated fields, as well as the program setup (or report setup) for the length to nest to, which will be taught for setting up the Linear nesting tab for each material.

Service Setup for Enhanced Plotting Including Viewport Text

Celebrity Ballroom 5

This topic presents the latest recommended Plotting Settings and options for Specifying setup specific to services or globally only. Level Blocks/Size Blocks can be defined at the service level, viewport on/off options are available globally for text types, or via independent service based layers which can be viewport on/off. Also discussed are methods for using the hide text in viewport command; Pen Assignments for plotting; Pen Width at the service level. A review of problems with hide plots including line width problems. The discussion moves to an open discussion and question on customer experiences and issues with plot settings.

The BIM Process (Repeated)

Celebrity Ballroom 6

The BIM Process is an important overview and explanation of where BIM fits in for contractors and where you should focus your efforts as a contractor to profit in the BIM environment, as well as providing cautions to limit your risk. The session details BIM from a current and historical point of view, a practical point of view and discusses how to truly meet BIM requirements.

3:00 PM - 4:00 PM

Drawing Waste Piping

Celebrity Ballroom 7

This topic explains examples where piece by piece drawing and design line drawing are best, and includes the use of piece by piece drawing with sloping, fill routines with drop in to fall and the use of (though not details of setup) design line with the drainage tool. Development of assemblies for plumbing including orientation considerations and multiple material combinations within the assembly are taught.

Pointbuilder for CAD and Revit Environments

Celebrity Ballroom 8

This topic teaches the use and support of the following components which develop into points for Output to the Trimble MEP Software. AutoCAD Blocks and Mvparts, AutoCAD MEP "Devices". The software is greatly enhanced to allow automated point development, as well as having an interface for point selection and name assignment, as well as the output process as a whole. New features will be displayed for support of the latest trimble files and point modification and selection.

SESSION DESCRIPTIONS

FRIDAY, SEPTEMBER 30TH
(CONT.)

4:15 PM - 5:15 PM

Using FAB-MEP for Collision Checking & Validation and Navis NWD Options

Celebrity Ballroom 4

This topic teaches the use of "FAB" as a true Fabrication and Coordination management tool, including bringing multiple drawings in using e-links, and Collision checking and performing a range of validation checks. The process of utilizing the check results and modifying in FAB as well as back in CAD are taught. Options for nwd and Navis use for collision either directly in CAD models, or with a combined FAB Model are taught.

Using Worksheets and Labels for CAD and CAM

Celebrity Ballroom 5

This topic focuses specifically on Worksheets (not "Reports") used in CAD. This topic features a detailed explanation of report creation, including report fields and graphics (Worksheets), the Report Setup including Fields Used, Naming and Headers, Column Widths, Filtering and Calculated Fields, and a few examples of common worksheets used, and alternatives to use Items reports and their setup requirements as a "Worksheet Set" creation tool. Examples of using worksheets as well as CID based specific item reports for Takeoff Sheets is discussed.

Design Line Electrical Lab

Celebrity Ballroom 7

A Lab Specific to The Electrical Trades and Design Line, this session will provide hands-on experience in using the latest tools from Design Line for Tray Layout, Conduit Single Runs, Multiple Conduit Runs with Racking and the latest tools for the new fully modify-able bendable straight run, allowing for conduit straight sections to fill a real world "Kick" or "Bend" scenario as the piece is used in real construction.

Track-It

Celebrity Ballroom 8

The Track-It program provides bar code tracking of status changes, which allow the contractor to accurately track and report and process items shipped from the shop, or installed on-site and report this information back to the office as well as updating CAD and EST Jobs with updated "Status" field values. This session explains from start to finish both the setup and use of the Track-It program. This includes an explanation of the benefit of tracking status changes, review of reports available with status changes, review of CAD and FAB outputs visible in status changes, and discussion of hardware to use.



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