

## Autodesk® Fabrication ESTmep - Fundamentals

### Brief Synopsis of Class Contents:

Autodesk® MEP Fabrication Suite is a portfolio of interoperable 3D construction software products that enable mechanical, electrical, and plumbing (MEP) contractors to connect to BIM based workflows at a lower cost of entry. Fabrication CADmep™, Fabrication ESTmep™, and Fabrication CAMduct™ software enable you to generate better estimates, create more accurate detailed model documentation, and directly drive fabrication.

### Learning Objectives:

- Learn how to do on screen takeoff to create an estimate using a PDF, DWG or image file.
- Learn the process of exchanging models with Autodesk Fabrication products.
- Use reporting tools to create PDF reports and excel exports.
- Use the Engineer's model from Revit and quickly import into ESTmep for an accurate and quick estimate.
- Gain working knowledge on how to setup and update pricing inside ESTmep
- ASTI Configuration will be used for training.

### Courseware:

Fabrication ESTmep

### Number of Days:

5 Half Day Sessions

### Continuing Education Hours:

18 hours

### Who Should Attend:

Estimators, Designers

### Prerequisites:

\*Fabrication Database must be setup for Pricing and Design Line use. These topics will not be covered in this course.

### System and Software Requirements:

<http://www.asti.com/LiveLab-Learning-amp-Training/LiveLab-System-Requirements>

### FAQs and Cancellation Policy:

<http://www.asti.com/LiveLab-Learning-amp-Training/LiveLab-FAQS>

## Class Outline and Topics:

### Introduction

- Introduction to the Autodesk Fabrication portfolio
- Similarities between CADmep, ESTmep and CAMduct

### Deployment

- Standalone Installation
- Configuration Packs
- File structure
- Network Installation
- Shared Configuration
- User Permissions

### User Interface

- User Interface Overview
- Pull-Down Menus
- The Utility Bar
- Service Pallet
- Sections
- Center View Pane and Toolbars
- Right-click Shortcut Menus

### Sections (Levels)

- Explanation of sections
- Creation of sections

### Drawing with the Attacher

- Coordinate system
- Navigation in a 3D environment
- Understanding Snaps
- Attacher On, Off, Rotate, Rotate around Attacher

- Takeoff as cut-in
- Item edit
  - Multiple Item Properties
  - Carry over settings

### Drawing with design line

- Anatomy of a Design Line
  - Lines
  - Nodes
  - Source point
- Design Line annotation settings
- Design Line editing
  - Delete
  - Stretch w/Grips
  - Node manipulation
  - Add a Node
- Line Editor
  - Change Constraints
  - Change Elevation
  - Add Fall
  - Ignore Hangers
- Node Editor
  - Change Button Code
  - Set Axis Rotation
  - Set Fixed Height
- Build basic model with Design Line
- Adding slope, insulation, and sections to Design Line
- Revdesign

## Revit to ESTmep

- Exporting Revit Elements
- Importing into ESTmep

## Value Engineering

- Swap Out Items
- Change Specifications and/or Services
- Re-Price

## Total Station

- Export points
- Import points
- View point files

## Costing

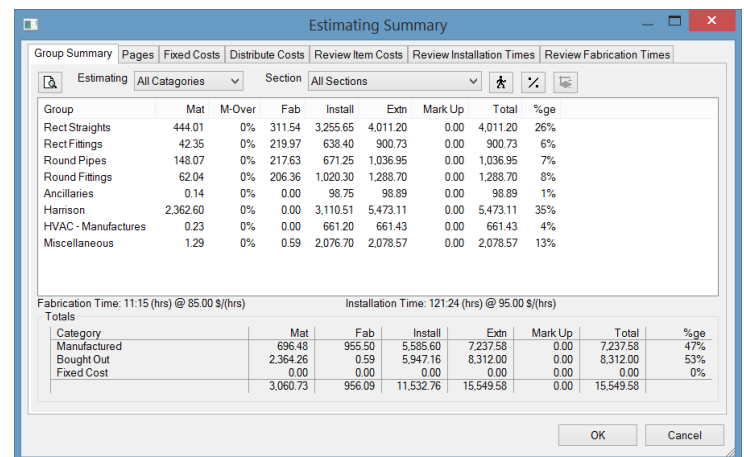
- Overview of Costing
- Understanding How Costing Works
  - Material Cost
  - Fabrication Cost
  - Fabrication Labor Cost
  - Install Labor Cost
  - Value vs. Price List
  - Updating Price List
  - Fixed Cost (overheads)
  - Markups and Discounts

## Drawing Annotation

- Basic annotation, toolbar overview with tag placement
- Custom annotation, trade Specific annotation and Placement
- Annotation editing (on, off, rotate, move, resize)

## Reporting

- Item Reports and Item Report Builder
- Printing Item Reports
- WorkSheets
- CSV export
- Ancillary Reports



**Estimating Summary**

Group Summary | Pages | Fixed Costs | Distribute Costs | Review Item Costs | Review Installation Times | Review Fabrication Times

Estimating All Categories Section All Sections

Group	Mat	M-Over	Fab	Install	Extn	Mark Up	Total	%ge
Rect Straights	444.01	0%	311.54	3,255.65	4,011.20	0.00	4,011.20	26%
Rect Fittings	42.35	0%	219.97	638.40	900.73	0.00	900.73	6%
Round Pipes	148.07	0%	217.63	671.25	1,036.95	0.00	1,036.95	7%
Round Fittings	62.04	0%	206.36	1,020.30	1,288.70	0.00	1,288.70	8%
Ancillaries	0.14	0%	0.00	98.75	98.89	0.00	98.89	1%
Hamson	2,362.60	0%	0.00	3,110.51	5,473.11	0.00	5,473.11	35%
HVAC - Manufactures	0.23	0%	0.00	661.20	661.43	0.00	661.43	4%
Miscellaneous	1.29	0%	0.59	2,076.70	2,078.57	0.00	2,078.57	13%

Fabrication Time: 11:15 (hrs) @ 85.00 \$(/hrs)      Installation Time: 121:24 (hrs) @ 95.00 \$(/hrs)

Category	Mat	Fab	Install	Extn	Mark Up	Total	%ge
Manufactured	696.48	955.50	5,585.60	7,237.58	0.00	7,237.58	47%
Bought Out	2,364.26	0.59	5,947.16	8,312.00	0.00	8,312.00	53%
Fixed Cost	0.00	0.00	0.00	0.00	0.00	0.00	0%
<b>Totals</b>	<b>3,060.73</b>	<b>956.09</b>	<b>11,532.76</b>	<b>15,549.58</b>	<b>0.00</b>	<b>15,549.58</b>	

OK Cancel

