Walk-in Slide: AU 2014 Social Media Feed

1. Click on the link below, this will open your web browser

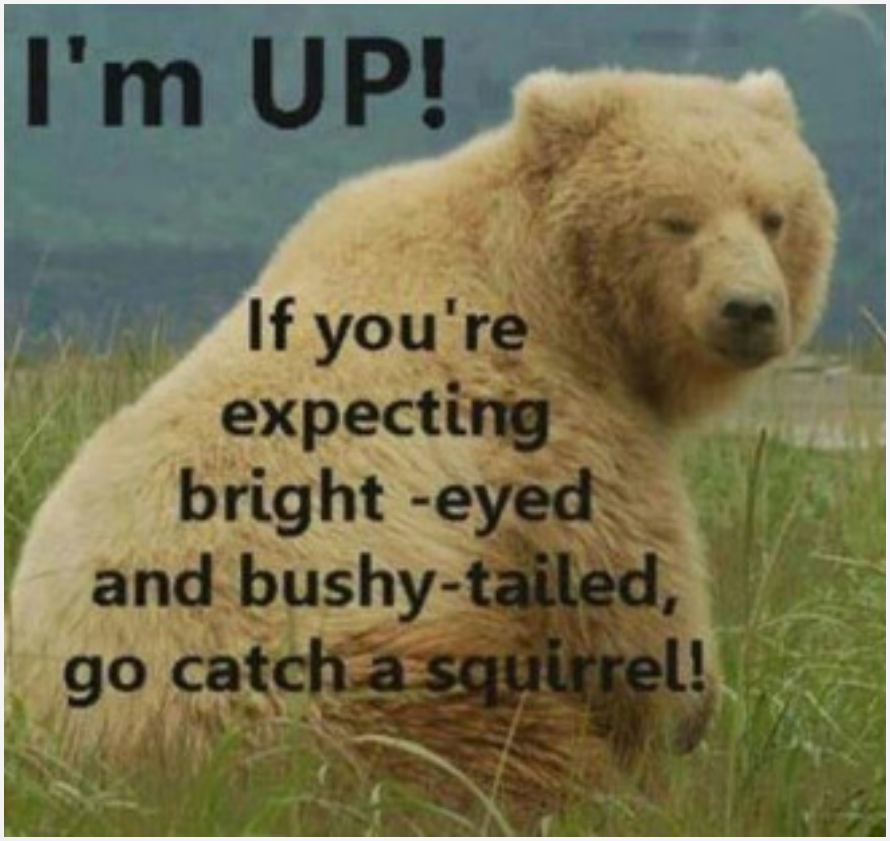
http://aucache.autodesk.com/social/visualization.html

2. Use “Extended Display” to project the website on screen if you plan to work on your computer. Use “Duplicate” to display same image on screen and computer.

MD6033: Feeling the *Spark* for AutoCAD Electrical (For AutoCAD Users)

Tiffany Tucker
TATA Technologies

Thank You So Much for Waking Up and Coming to Your FIRST CLASS OF AU 2014!!!!



Class summary

If you are currently using AutoCAD® to develop controls drawings or if you have AutoCAD® Electrical but you are still primarily using it as vanilla AutoCAD to complete your controls drawings, this is the class for you. Learn key tips and tricks to get you quickly up and running with AutoCAD Electrical, so that you can start utilizing all of its amazing automation! Hot Topics will include template development, support file step up, and user friendly automated commands. This class will be electrifying and have you feeling the spark of love for ACADE!

Key learning objectives

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

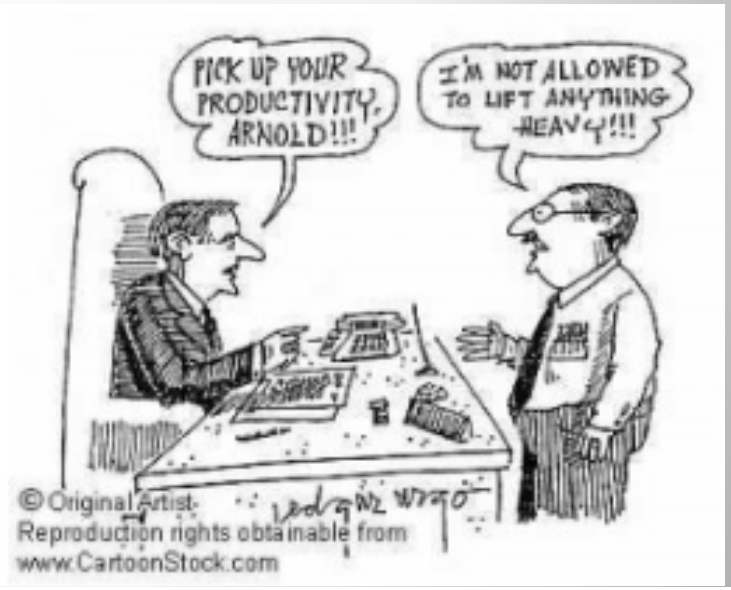
- Understand the benefits of moving to AutoCAD Electrical
- Understand the basic concepts of starting an AutoCAD Electrical Project
- Understand the basic support files that can be made company-specific
- Understand the key items for converting AutoCAD templates to ACADE templates

Learning Objective 1:

Benefits of Moving from AutoCAD to AutoCAD Electrical

Top 5 Productivity Inhibitors when using vanilla ACAD:

1. Manual Creation of Symbols
2. Manual Tagging
3. Manual Cross Referencing
4. Manual Reports
5. Manual Editing



Top 5 Reasons Productivity Increases when using ACADE over ACAD:

1. Symbol Libraries with over 2000 symbols
2. Automatic Tagging
3. Real-time Cross Referencing
4. Automatic Reports
5. TITLE BLOCK UPDATE UTILITY!!

Key findings from Autodesk's AutoCAD Electrical 2015 Productivity Study^

- Creation of new designs was 84% faster.
- Editing existing designs are 77% faster.
- Risk of errors was greatly reduced because of a 67% reduction in number of commands used

Productivity Gain*	AutoCAD (Minuets, Seconds)	AutoCAD Electrical (Minuets, Seconds)	Time savings
Comprehensive Symbol Library	1:30	:16	82%
Automatic Wire\Component Numbering	1:45	:20	81%
Real Time Error Checking	2:01	:22	82%
Real Time Coil and Contact Cross Reference	1:47	:25	77%
Electrical Specific Drafting Features	4:47	1:47	63%
PLC for Spreadsheet	120:00	:39	99%
Smart Panel Drawings	6:21	2:28	61%
Create BOM	9:23	:16	97%
Track Changes	N\A	1:08	N\A
Reuse Drawings	5:31	1:09	79%
Total Time	**153:05**	**8:50**	
Time Savings with AutoCAD Electrical			**80%**

^conducted by an independent consultant

* Image from the AutoCAD Electrical 2015 Productivity Study.pdf

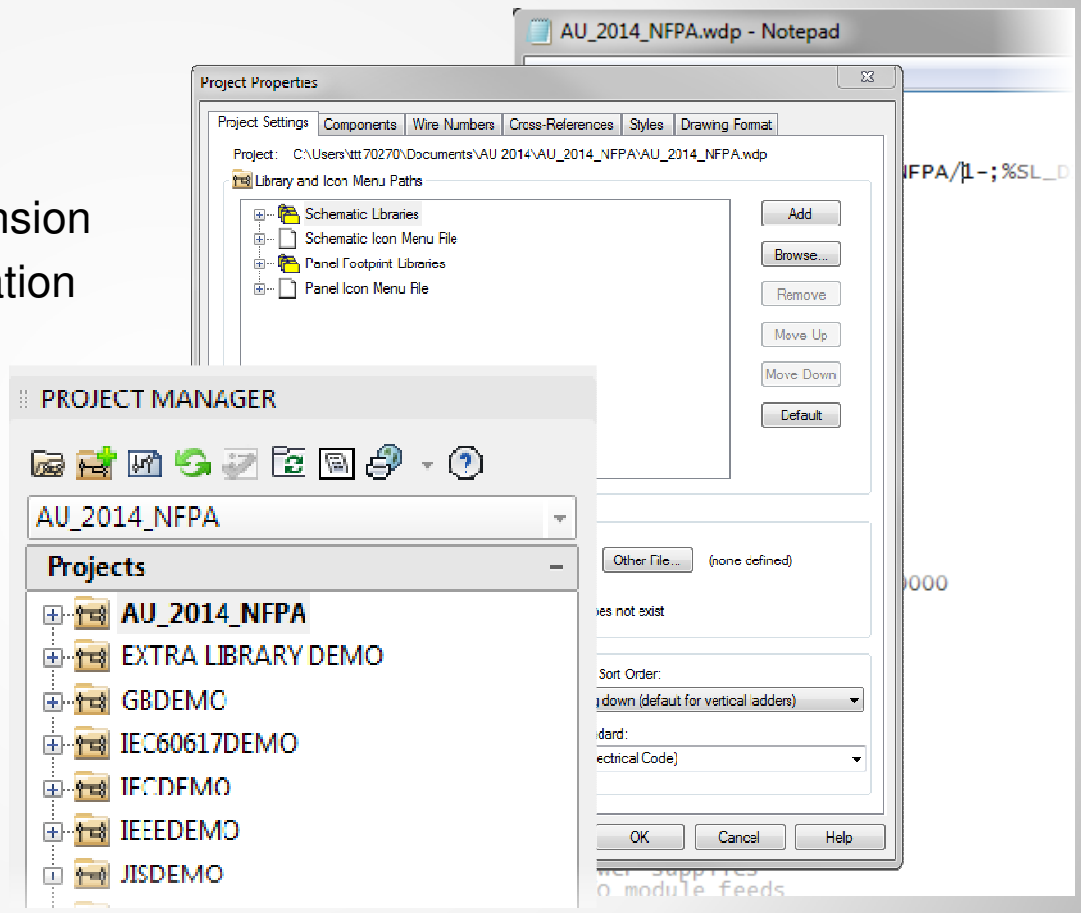
Benefits of Moving from AutoCAD to AutoCAD Electrical

Learning Objective 2:

The AutoCAD Electrical Project

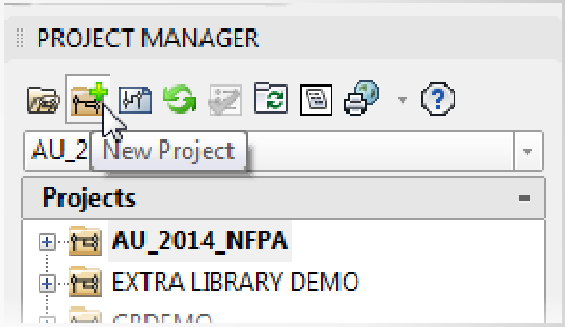
The AutoCAD Electrical Project

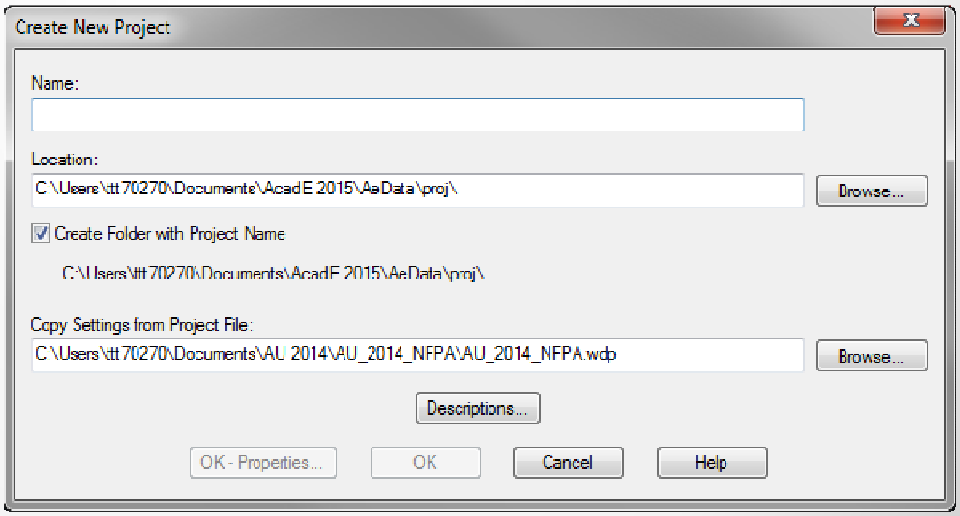
- Project files
  - ASCII text file with a .wdp extension
  - Contain project specific information
- Project Manager
  - AutoCAD Palette
  - Customized Right Click Menus



The AutoCAD Electrical Project

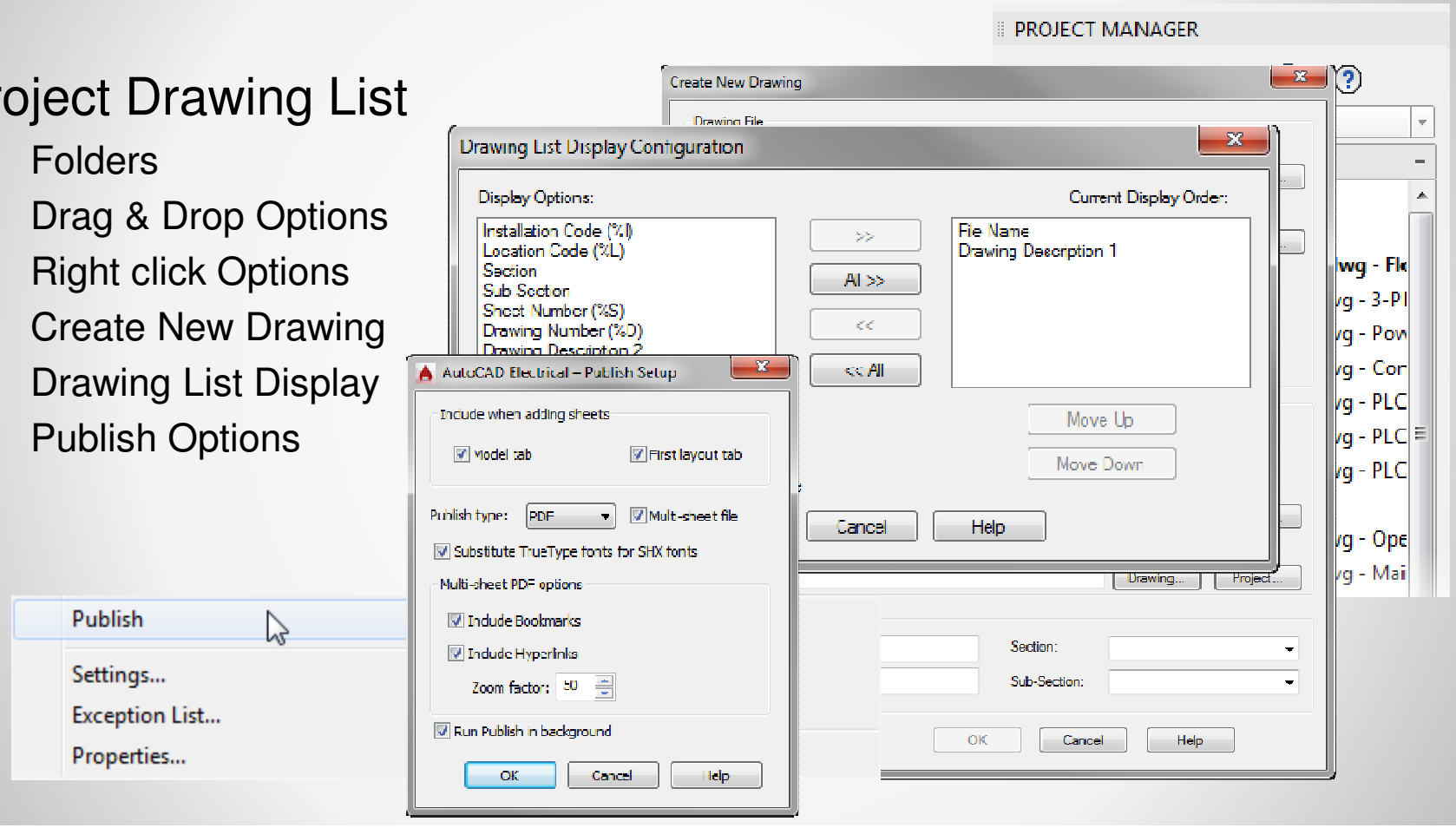
- Create New Project Dialog Box
  - Name it
  - Location for files
  - Option to create a new folder
  - Copy another project file's settings
  - Descriptions: project-wide





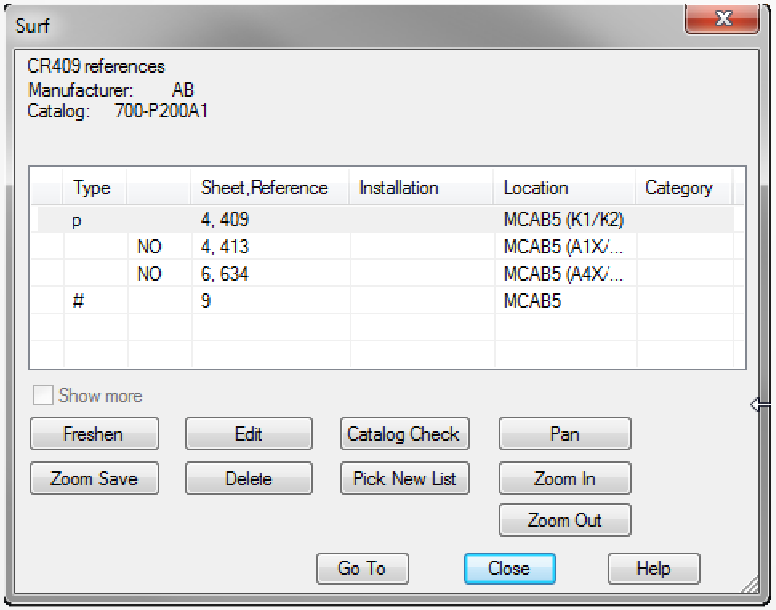
The AutoCAD Electrical Project

- Project Drawing List
  - Folders
  - Drag & Drop Options
  - Right click Options
  - Create New Drawing
  - Drawing List Display
  - Publish Options



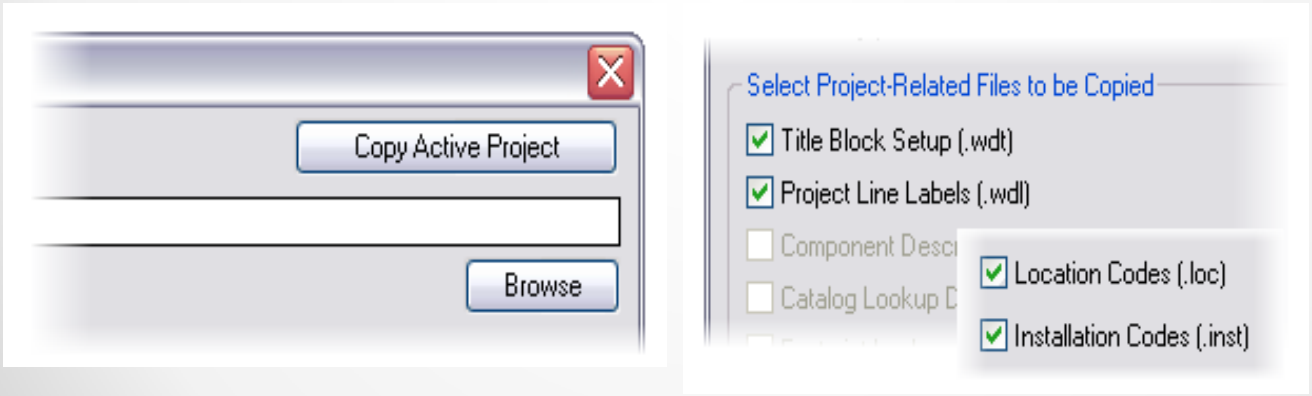
The AutoCAD Electrical Project

- Surfer Utility
  - Move through project files to linked components



The AutoCAD Electrical Project

- Copy ACADE Projects
  - Ribbon: Project Tab
  - Much faster than a manual copy
  - Includes related files



The AutoCAD Electrical Project

Learning Objective 3:

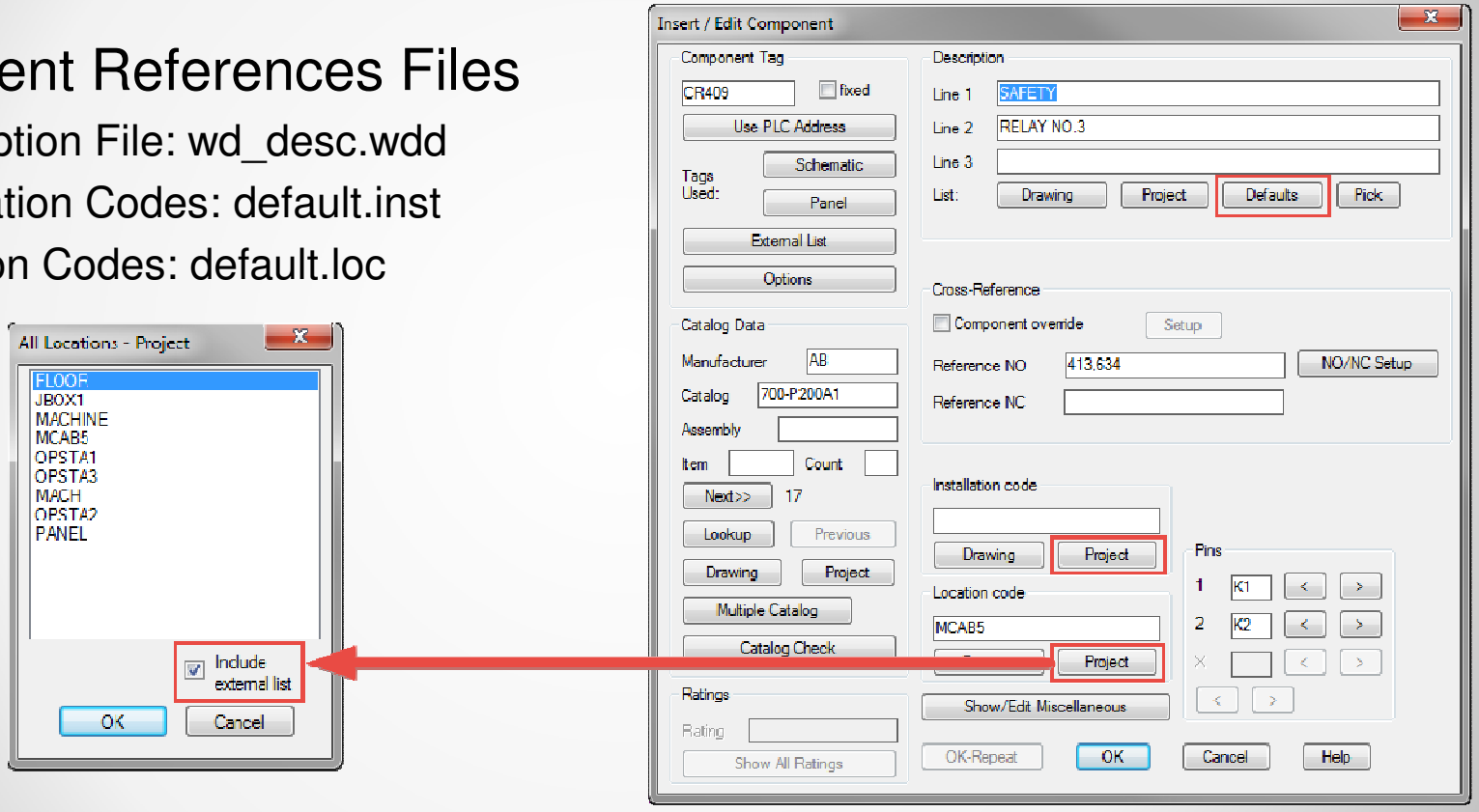
Customizing AutoCAD Electrical Support Files

Customizing AutoCAD Electrical Support Files

- Multiple versions of these files can exist
- Search Sequence:
  - <project name>.<file extension> located in the same folder as the active .wdp file
  - DEFAULT. < file extension> located in the same folder as the active .wdp file
  - DEFAULT. < file extension> located in the Support Directories

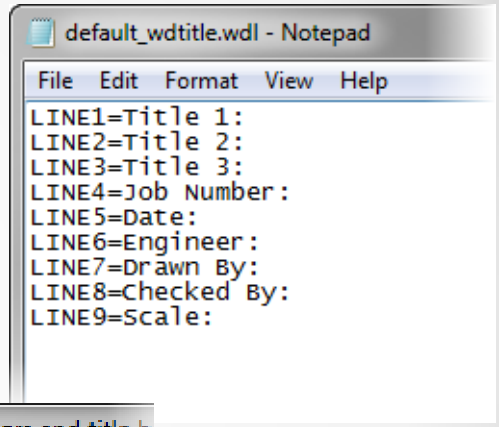
Customizing AutoCAD Electrical Support Files

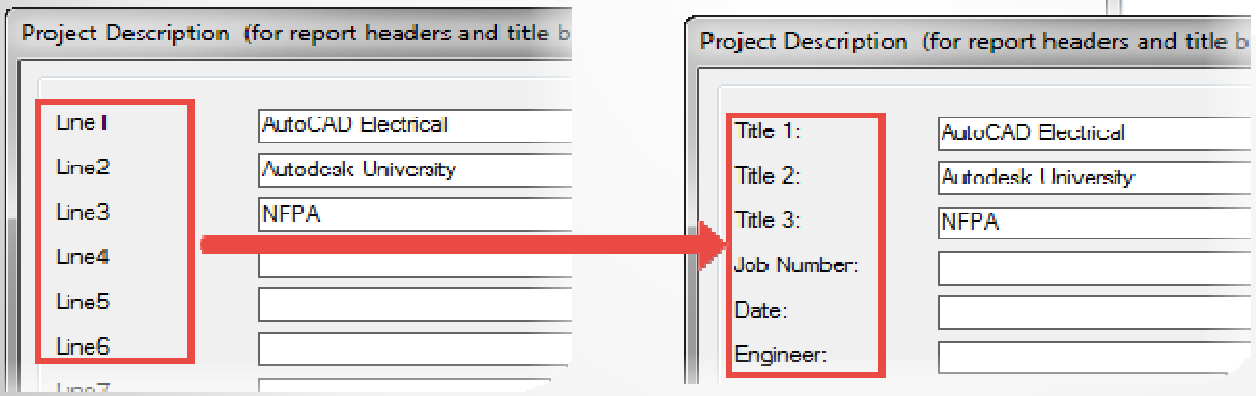
- Component References Files
  - Description File: wd_desc.wdd
  - Installation Codes: default.inst
  - Location Codes: default.loc



Customizing AutoCAD Electrical Support Files

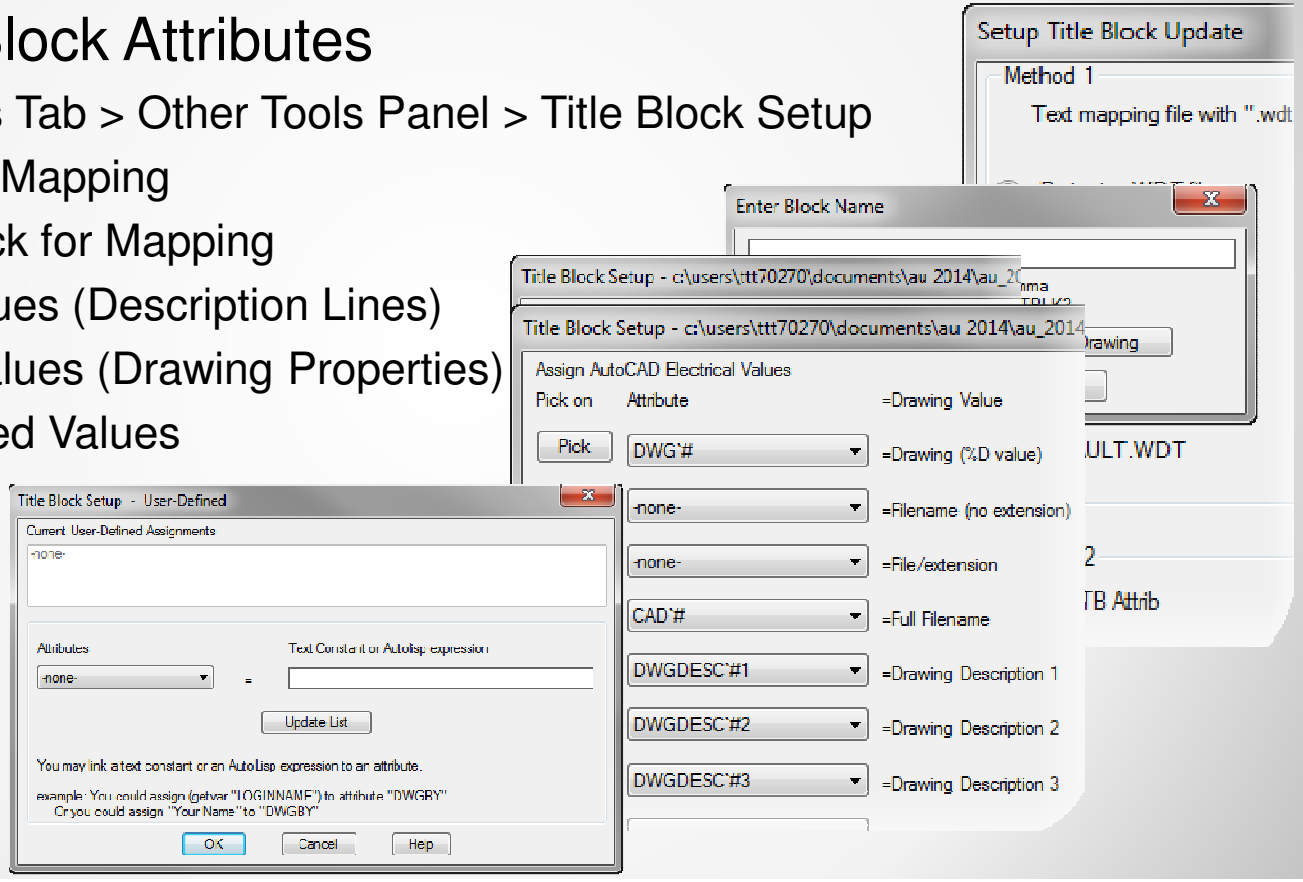
- Project Description Line Labels
  - Customized WDL file
  - Unlimited number of lines can be stored in this file
  - Format for the file is LINEx=label





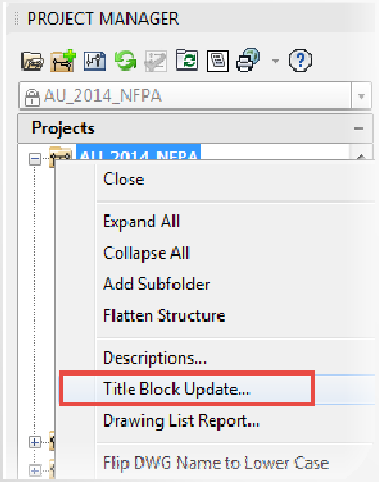
Customizing AutoCAD Electrical Support Files

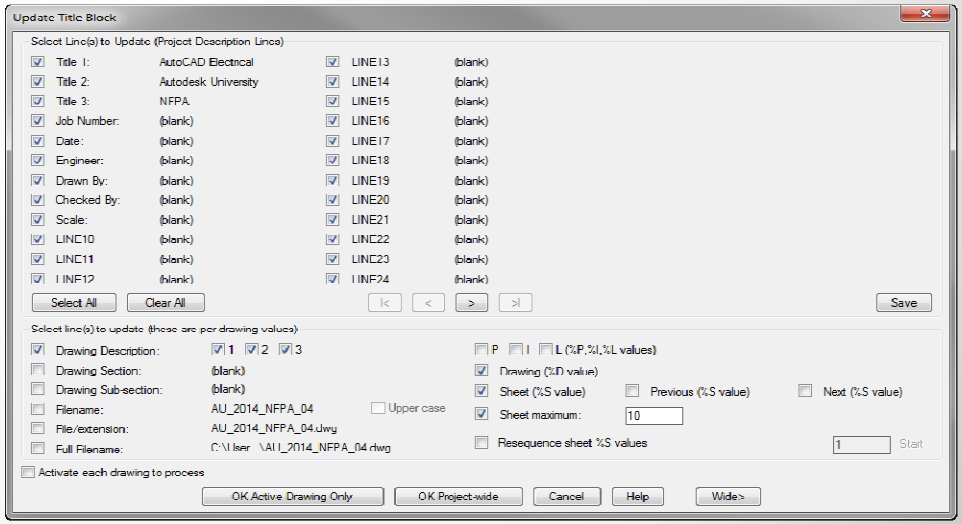
- Updating Title Block Attributes
  - Ribbon: Projects Tab > Other Tools Panel > Title Block Setup
  - Choose Type of Mapping
  - Choose Titleblock for Mapping
  - Map Project Values (Description Lines)
  - Map Drawing Values (Drawing Properties)
  - Map User Defined Values



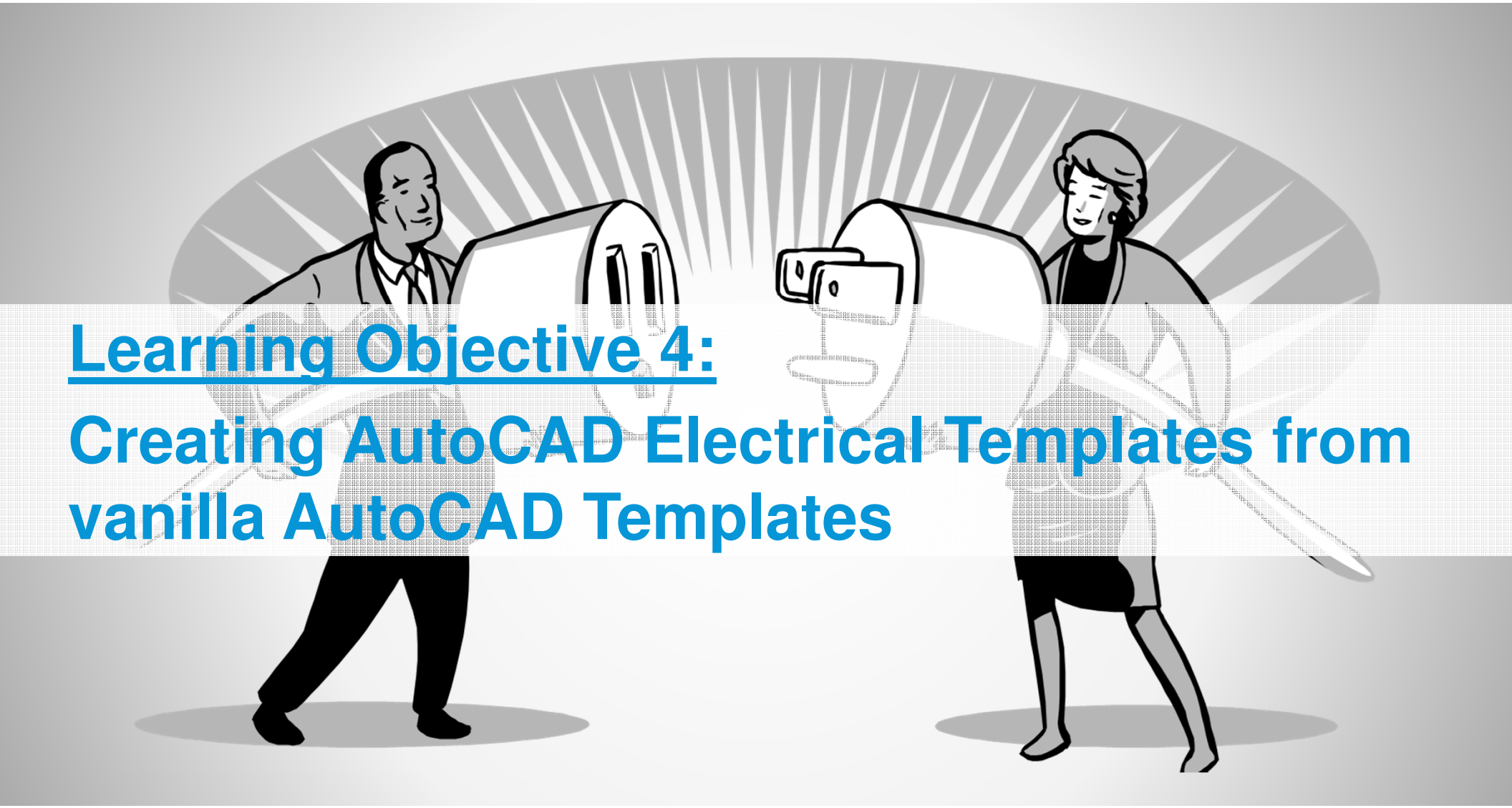
Customizing AutoCAD Electrical Support Files

- Updating Title Block Attributes throughout the project
  - Right click on Project Name in Project Manager and select Title Block Update
  - Select attributes to be updated
  - Select whether this is Drawing Wide or Project Wide





Customizing AutoCAD Electrical Support Files

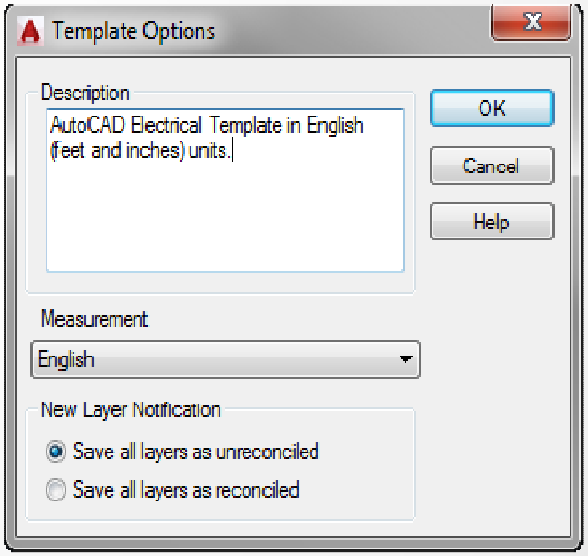


Learning Objective 4:

Creating AutoCAD Electrical Templates from vanilla AutoCAD Templates

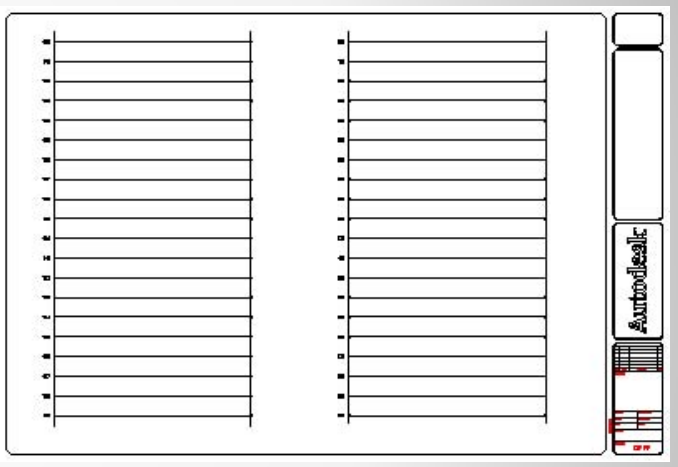
Creating AutoCAD Electrical Templates from vanilla AutoCAD Templates

- Key items that should already be in your AutoCAD Templates:
  - Snap and grid mode settings
  - Dimension Styles
  - Text Styles
  - Table styles
  - Title block (in Paper Space)



Creating AutoCAD Electrical Templates from vanilla AutoCAD Templates

- Key items that need to be added to your ACAD Templates for ACADE:
  - Drawing properties
  - Wire Layers
  - WD_M Block
  - Optional Items:
    - Ladders, circuits, and other graphical entities
    - Non-plotting objects as guidelines for geometry in Model Space & Viewports in Paper Space



Creating AutoCAD Electrical Templates from vanilla AutoCAD Templates

Handout

AUTODESK UNIVERSITY 2014

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- Understand the key items for converting AutoCAD templates to ACADE templates

About the Speaker

Tiffany has been an Autodesk Consultant for Tata Technologies for the last eight years. Her primary focus is as a technical instructor/consultant for AutoCAD, AutoCAD Electrical, and Inventor. She, along with two other consultants, has won awards for developing a full line of online live instructor-led training classes for the Autodesk manufacturing products. Before becoming a consultant, she earned her Bachelor's degree from Michigan State University and she has worked in many different industries gaining valuable CAD experience, including Electrical Engineering, Interior Design/Architecture, Mechanical Engineering, Software Engineering, and was part of MSU's CAD development team. She started on AutoCAD R10 and has carried a strong passion for Autodesk products ever since.
tiffany.tucker@tatatechnologies.com

TATA TECHNOLOGIES
Tiffany Tucker, ACI | Autodesk Consultant
41050 W. Eleven Mile Road | Novi, MI 48375-1302
p: +1 248.699.1988 | f: +1 248.426.8498
email: tiffany.tucker@tatatechnologies.com
website: www.tatatechnologies.com

Autodesk
Certified Instructor

Questions

Do you have your thinking caps on?!

QUIZ: Question 1:

What is one of the Top 5 Reasons Productivity Increases when using AutoCAD Electrical over AutoCAD?

- Symbol Libraries with over 2000 symbols
- Automatic Tagging
- Real-time Cross Referencing
- Automatic Reports
- TITLE BLOCK UPDATE UTILITY!!

QUIZ: Question 2:

Why is a project file so important to use in AutoCAD Electrical?

- Project description lines (most commonly used for automatically updating all title blocks)
- Project default settings (design standards)
- Project drawing list, including: Complete path information, Drawing description lines, Section and subsection assignments
- Other miscellaneous catalog and symbol library settings
- Folder structure of the project drawings

QUIZ: Question 3:

What is one of the customizable support files in AutoCAD Electrical?

- Component Description File (wd_desc.wdd)
- Location/Installation Files (default.loc/default.inst)
- Project Line Labels File (default_wdtitle.wdl)
- Title Block Mapping File (default.wdt)

QUIZ: Question 4:

What is one key item that you should include in your AutoCAD Electrical templates?

- Snap and grid mode settings
- Dimension Styles
- Text Styles
- Table styles
- Title block (in Paper Space)
- Drawing properties
- Wire Layers
- WD_M Block
- Optional Items:
  - Ladders, circuits, and other graphical entities
  - Non-plotting objects as guidelines for geometry in Model Space & Viewports in Paper Space

Session Feedback

- Via the Survey Stations, email or mobile device
- AU 2014 passes given out each day!
- Best to do it right after the session
- Instructors see results in real-time

Thank You So Much for Your Attention!!
Enjoy the Rest of Your AU 2014 Experience!!!!

WHO'S AWESOME?!
You're Awesome!

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