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Course Title: Training: Where Do I Start? Your Quick Guide to
                    Successful User Training

Course ID: ED31-1

Course Outline:

Are you new to CAD management? Maybe you have recently been asked to tackle the daunting task of training your colleagues on those new upgrades your company recently purchased? Maybe your company cannot afford to send users to get trained so they've turned to you! Does this sound familiar? In-house training is not easy, but it is achievable. This course will help you learn how to begin training your colleagues on your Autodesk products. If the thought of training seems overwhelming, and you need some help getting started, this session is for you.

- Training Suggestions
- Creating Handouts
- Excel Training Spreadsheet

The following information is intended to help start your own customized training documentation for your Autodesk products in your office. It is not intended to replace your reseller from doing training for your company, but rather to enhance that process by training you and working closely with them for subsequent training sessions. Acknowledging the fact that some companies may not have the funds to currently train all of your company's users, in-house training becomes a viable solution to getting the most of your company's Autodesk product investments. The documents and spreadsheets given after the session will help when training costs are being considered. Due to those costs, well-developed plans and documents will assist you track those expenses.

BEFORE THE TRAINING:

One of the most important tasks prior to implementing a training schedule is to have a Strategic Plan for your office. Assuming the purchase is about to happen, or has been done, the person responsible for the money transaction will need to be convinced that their Autodesk purchase will be put to good use.

This Strategic Plan may include the following:

- **Needs Analysis**

    Evaluate current CAD procedures for the various project types in your office to tailor the training session(s) and needs.

- **General Overview**

    Understand whom or why you are training to create the types of training sessions or topics.
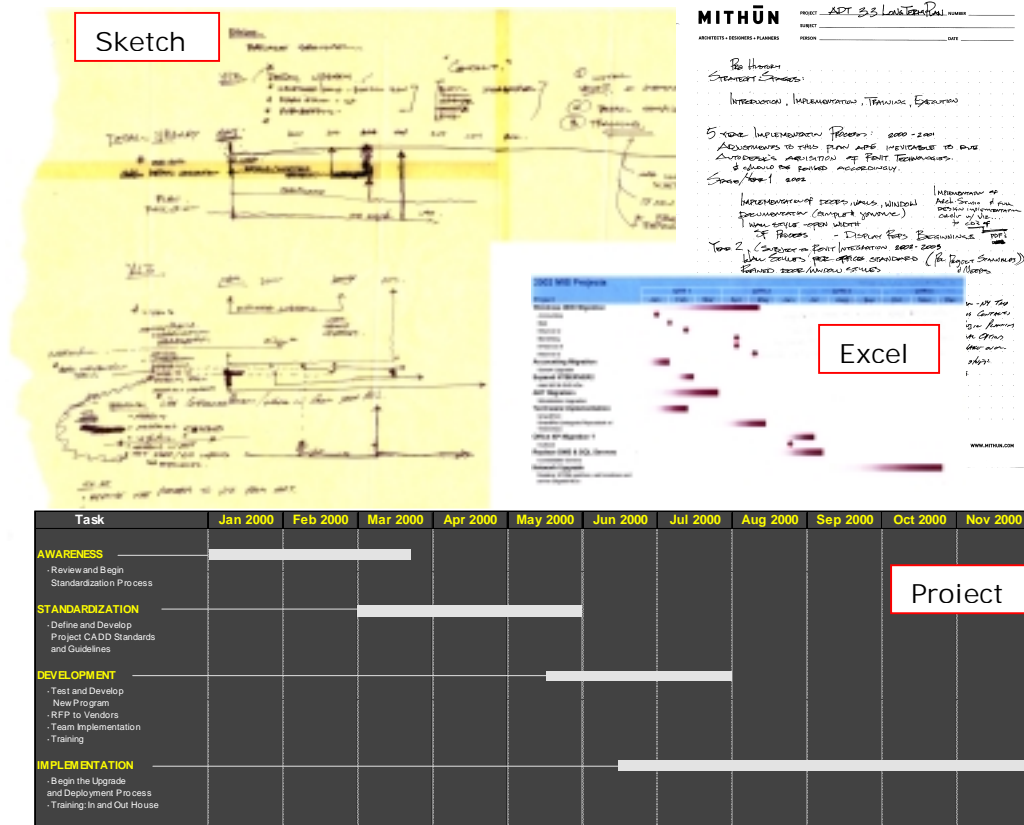
    o Stages of Implementation

        ▪ Hardware – If you have not purchased software, it's an excellent time to look at your hardware. If you have purchased software or received it via your Subscriptions, do some testing on (a) sample drawing(s) or project. Work closely with your Network Manager, Accountant or whoever is responsible for purchasing. It may be that your current hardware cannot support your new software and hence may change the speed at which you had intended on training your users.

    o CAD users

        ▪ Will you do it by team?

        ▪ Are you training VP's, Project Managers, Project Designers, Project Architects and Interior Designers? Or are they CAD Leads who will subsequently support other users? Keeping a log of who gets trained is critical to your success of future training.

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- **Implementation and Training Timeline**

  This timeline can be as simple as some concept ideas on a bum-wad or more refined as a Microsoft Project file.

  Sketch

  MITHŪN

  Excel

Task	Jan 2000	Feb 2000	Mar 2000	Apr 2000	May 2000	Jun 2000	Jul 2000	Aug 2000	Sep 2000	Oct 2000	Nov 2000	Dec 2000
AWARENESS · Review and Begin Standardization Process												
STANDARDIZATION · Define and Develop Project CADD Standards and Guidelines												
DEVELOPMENT · Test and Develop New Program · RFP to Vendors · Team Implementation · Training												
IMPLEMENTATION · Begin the Upgrade and Deployment Process · Training: In and Out House												

  Project

- **Getting Trained**

  Before creating a training session for a new product or an upgrade of it, you need to know your subject matter. At the very least, you should get trained from either a reseller or via the number of online channels listed at the back of these pages.

- **Types of training**

  Once you comprehend the subject matter you need to focus on the type of training you will be doing. Some examples are:

    o Upgrade Training
        - AutoCAD 2000 to 2002, R14 to 2002
    o Migration Training
        - AutoCAD R14 to Architectural Desktop 3.3, or ADT 3.3 to Revit
    o New Hires to your company
    o MicroSation to AutoCAD Training

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- 3D and Visualization Training

  You can also separate the sessions by subtopic. As an example, rather than doing 3 hours of training on all aspects of Rendering, cut it in chunks as follows:
  - 3D models with ADT
  - Printing and Plotting 3D Viewports
  - Viewing and Rendering in ADT/AutoCAD
  - Importing ADT models into Viz4
  - Panoramas and Interactive VR's
  - Fly Through's
- Topic Training
  - Printing and Plotting
  - AutoCAD to PDF
  - Express Tools
  - etc…

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STARTING THE TRAINING PROGRAM

After you have defined the subject matter, the next step is Preparation. The process may be a simple Word document or a document supplemented with graphic images. The steps are as follows:

- **Timing and Scheduling**
  Start thinking about where you will be doing training.
  Schedule the location (and …schedule yourself!)
    - In-house Designated Training Room
    - Conference Room
    - Lunch Break Area
    - Your desk…etc.
    - External locations
        - Hotels and Conference Locations
        - Other Firm's Training Locations

  Use Outlook Calendar when doing multiple classes.
  Send a meeting request to all potential trainees through Microsoft Outlook.
  Include the reminder option, date, time and training topic. If need be, adjust your start time to accommodate for people to get their coffee, etc… This will also ensure that the training will begin at your intended start time.

- **Handout Documentation**
  Be consistent. Once you find a format that will work with your company, you can use it as a template for all subsequent handouts. Give your self plenty of time to do your handouts. Handouts may take various forms. They may be a print out of a Power Point presentation, Prints as do's seen below, PDF files sent via E-Mail or as an image with all the formatting included and inserted into an E-Mail message.

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- **Practice**
  - Mentally, by your self, or with a few colleagues
  - Record yourself
  - Your personal notes

- **Setup and Testing**
  - Projector
  - Board
  - Flip Chart
  - Sign Out Sheet
  - Computers
    Ensure you have a consistent training profile and that all your customized macros and company standards are functioning properly. If you are running Autodesk products on a network, and have a limited number of seats, ensure they close their sessions at their desktop so that these are available for training. If you have no training room and are using a conference room or office, allow time for users to bring in their computers. Know the capabilities of your software; allow time to reconfiguring older machines to be used if need be.

DOCUMENTATION

The documentation process does not have to be painstaking. Following are some basics that have proven to be very helpful.

Methods for creating documentation:

- **Purchasing Courseware**
  There is nothing easier than this! A number of companies that offer courseware, include but no limited to the following:
  - http://www.ascenteck.com/ for ASCENT, a division RAND Worldwide. They recently their purchased from RRTC (Republic Research)
  - http://www.caddex.com/products_summary.shtml for Caddex
  - http://www.autodesk.com/estore/usa/courseware.htm for Autodesk
  - Reseller – Ask local Resellers if they will sell you their courseware…many don't like the idea but I always make the argument that if they are loosing money from you by not training all you users, they should at least make some money by selling to you what is already created.

- **Doing it yourself**
  The following tips are easy guidelines that are still used by many to accomplish their own customized documentation. Most of these are widely used products for users on the Microsoft platforms.

  - Microsoft Paint.
  - Microsoft Word.
  - Microsoft Excel.
  - Microsoft Project
  - Microsoft Outlook
  - Adobe Photoshop
  - Adobe InDesign
  - Architectural Desktop (ADT)
  - Acrobat Distiller

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THE PROCESS

Assuming you are starting from scratch, the following guides will help you accomplish your goal.

- Using **PrtScrn** or **Print Screen**
  This is the easiest of all processes. Lets assume you are trying to take a screen shot of your Autodesk Products. Depressing the "**Print Screen**" key, will allow you to do so. The button is located at the upper right of your keyboard. If you desire to copy on the most active or current toolbar, then you'll want to depress your "**ALT**" key simultaneously with the "**Print Screen**" key.

- **Using Paint**
  Most of the images on this handout were copied pasted from Microsoft Paint. You will find Paint in the startup menu of your machine. This may vary per System Platform, but it is predominately located at "Start/ Programs/ Accessories/ Paint or MSPaint.exe" The icon looks like the one on the right. The only file formats that works with Paint are BMP, JPG or GIF images. Simply open the program and open your file.

  Once you open Paint, depress "**CRTL**" and your "**V**" keys to paste the image into Paint. If the image is larger than the paper size you are inserting to, you will get a dialog box that says: "The image in the clipboard is larger than the bitmap. Would you like the bitmap enlarged?" Depress "**YES**" to it.

  When your image is inserted you can "**SELECT**" tool to select and cut off information you will not be using, as shown in the image below. Then you can depress "**CTRL**" and "**C**" to copy the selection you created and then depress "**CRTL**" and "**V**" to paste the image into Word. If you intend on using the image you created repeatedly, then make the effort to save it. Otherwise you can copy paste directly to your document and bypass this step.

SELECT Tool

Using the **SELECT** tool, you can crop an image and paste it elsewhere such as a Word Document.

Using "**ALT**" + "**Print Screen**" will let you copy/paste dialog boxes as the one below.
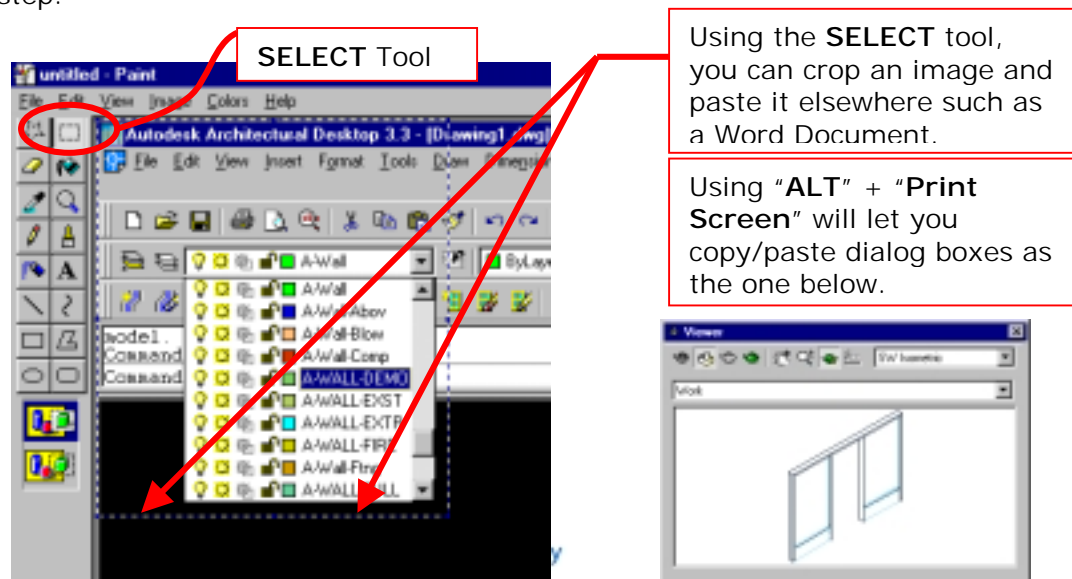
- **Using Microsoft Word**
  Many of the handouts I create are done with Word. There are a number of very simple editing tools that will allow you to accomplish some professional looking handout with out much effort. If you are just starting and you do not have access to other programs, using Word will definably cut the learning curve for those other programs.

  I have requested for all attendees to this seminar to receive "*ADT3 Command Aliases.doc, ADT3 System Variables.doc and ADT-Training Roster.doc*" files. These documents will help you start doing your own customized handouts. Each one of these serves a different purpose.

  o **ADT3 Command Aliases.doc**
    This document is an example on how to use columns in Word. This is best used for handouts that such as Command Aliases and can be printed Double Sided to your Copier to save paper.

COLUMNS Tool
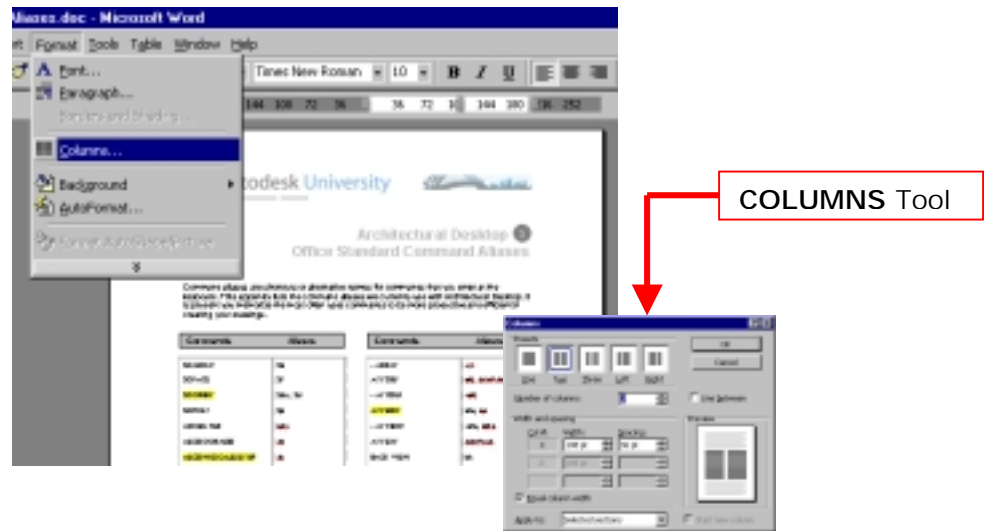
  o **ADT3 System Variables.doc**
    This document demonstrates how you can use the Copy/Paste option from one location into another document to customize it specific to your needs.

    ▪ For this particular document I highlighted the information from the Autodesk Help Tools in AutoCAD/ADT.
    ▪ This also will be true of the Express Tools. Rather than typing anything at all, I can copy paste the text and the icons to create a handout specific to the training session I gave and specific to only those commands being covered.
    ▪ I may even copy/paste from CD's I may have purchased in advance.

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o **ADT-Training Roster.doc**
This document shows a sample of the Training Sign in Sheet. If your company tracks AIA accreditation for training your Architects, check how you can incorporate your training session into it. This becomes greater incentive for Architects to attend and encourage basic AutoCAD/ADT productivity tools in your office.

- **Other useful tools in Word**

  o **Create and Edit a Header and Footer**
  Any one of the .doc files you received will show an example of how they can be used. I have added the AU logo and Autodesk Bridge Logo as an example in the header. Replace both those images with your Company Logo(s).

Header and **Footer** allow the image to reoccur on all or just the first page of your document.

Layout/Wrapping Tool

Drawing Tool
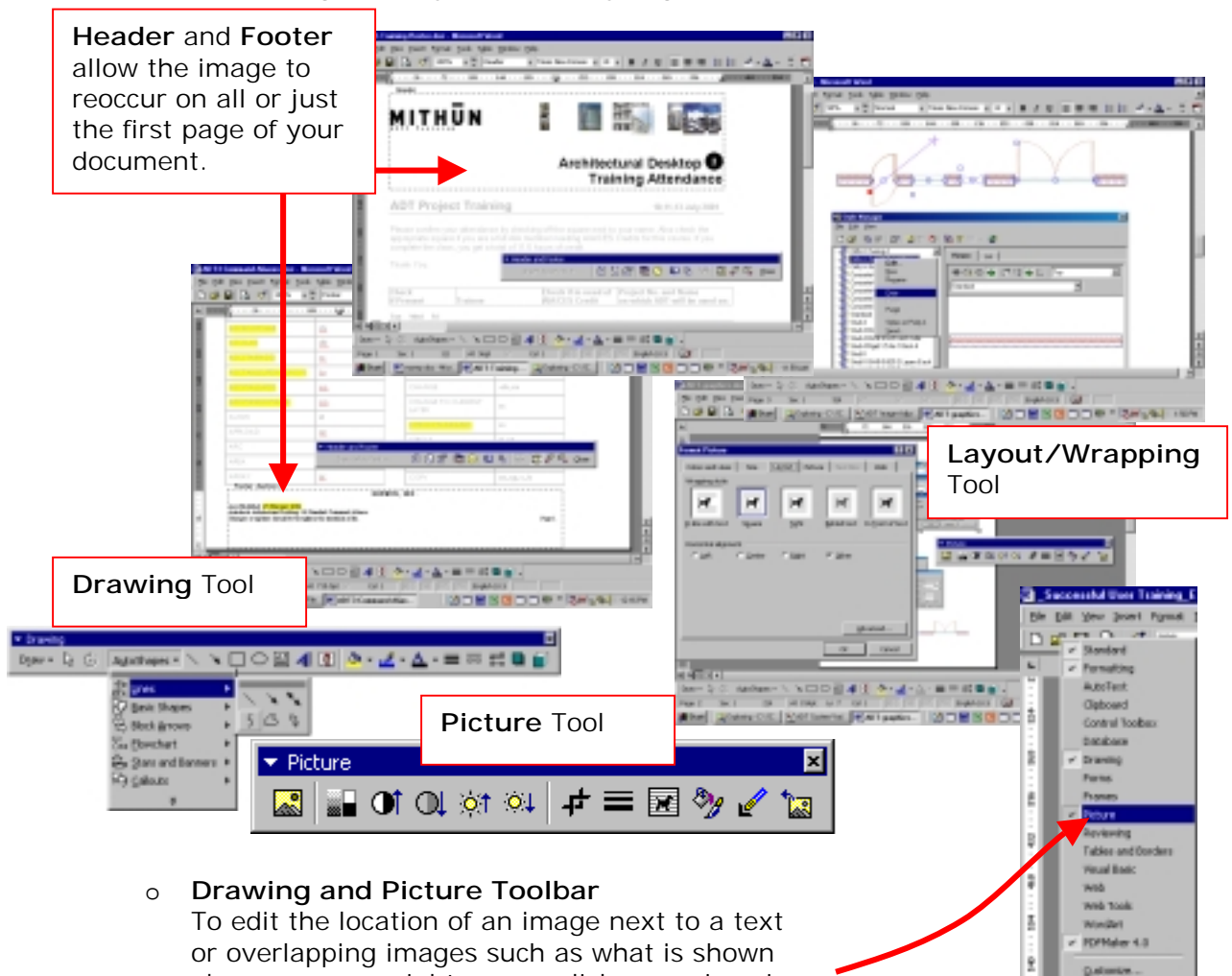
Picture Tool

  o **Drawing and Picture Toolbar**
  To edit the location of an image next to a text or overlapping images such as what is shown above, you can right mouse click on an icon in Word and open the "**Picture**" toolbar as seen above. You can do the same with your "Draw" toolbar to get more editing options.

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- **Using Microsoft Excel**

  The Cost Analysis per Trainee.xls is a good place to keeping track of users who are training and a way to quickly quantify totals.

  The spreadsheet (with some preset numbers and formulas) can be modified to your need. This will save you time from having to figure out how to even begin this effort. As you modify the spreadsheet, you will begin to feel comfortable with how it works.

- **Macros**

  When first opening the spreadsheet, you will be prompted with a Microsoft Dialog as shown to Disable or Enable Macros. This file is clear from "viruses", depressing "**Enable Macros**" will allow the macros to function properly.
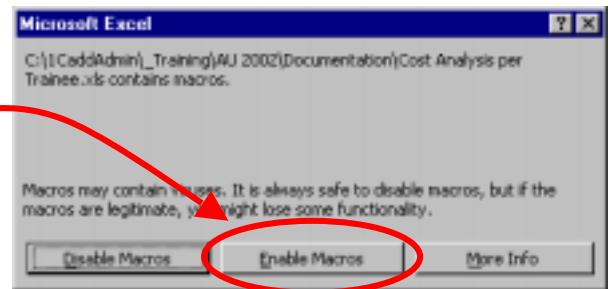
- **Cost Analysis per Trainee.xls**

  This file may be customized to meet your needs. The spreadsheet is based on two training sessions. One for ADT and the other for R14 to 2002 upgrade training.

  o User/Group Trained Field
  o (Ext.) Phone Extension Field
  o Project Field
  o Autodesk Version Installed Field – with checkmark toggle buttons
  o Date Installed Field
  o Date Trained Field on a specified Training Session
  o Date Trained Field on a specified Upgrade
  o Accounting Level (Users cost rate if applied)
  o Original Outsource Training Cost (from your Reseller)
  o Original Outsource Upgrade Training Cost (from your Reseller)
  o In-House Training Costs (see formulas on how this is calculated)
  o Lunch Costs and Total Training Time
  o Training Cost Savings (See formulas on how this is calculated)
  o GRAND TOTAL COSTS AND SAVINGS TO (Your Company Name)

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HOW IT'S DONE

- **Freeze Panes**

  Using the "**Freeze Panes**" option under the "Windows" pull down menu, the right of the "User/Group Trained" field and from the bottom of the lowest "titles" filed, allow you to pan across each category row and column while viewing the users name on the left and the title of that column from the top. Use the **Scroll Bar** to show this.
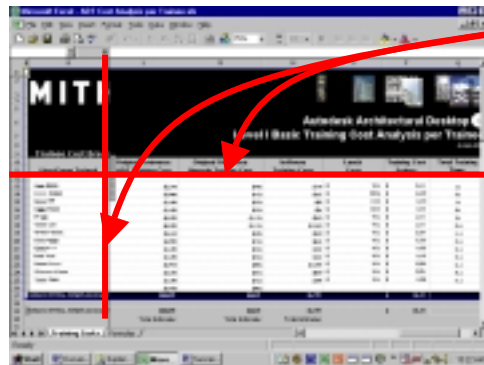
Freeze Panes allow you to Scroll though long spreadsheets

- **Formulas**

  The formulas used are very simple. You can customize these for the intended purpose of your company. Take note of the Accounting Level Field. These numbers are linked to the Formula Tab at the bottom of the spreadsheet. Following are some of the formulas.

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Looking at the Formulas Tab, I placed some generic numbers to start with. The Accounting Level Field here corresponds to the one in the Training Costs Tab. The cost rate numbers you will have to change per your company. You have to get these from whoever has access to these. Usually Project Managers, Accounting or your Human Resource people have these available.

Accounting Level	Average Cost Rate	Average Charge Rate	Example	Example Cost
1	$100.00	$150.00	1	$100.00
2	$90.00	$130.00	2	$90.00
3	$80.00	$120.00	3	$80.00
4	$70.00	$110.00	4	$70.00
5	$60.00	$100.00	5	$60.00
6	$50.00	$90.00	6	$50.00
7	$40.00	$80.00	7	$40.00
8	$30.00	$70.00	8	$30.00
9	$20.00	$60.00	9	$20.00
10	$10.00	$50.00	10	$10.00
100	$0.00	$0.00	100	$0.00
101	-$1,280.00			

Accounting Level	Original Outsource Training Cost	In-House Training Costs	Traning Cost Savings

The formulas function as such:

- o **Original Outsource ADT Training Cost**

  =(LOOKUP(K13,(Formulas!$A$2:$B$12))*48)+1580

  This formula from the "Training Costs Tab", says that Column K and Row 13 should correspond (*LOOKUP*) to Column A, Row 2 up to Column B, Row 12 in the "Formulas Tab". Then multiply (*) 48 and add (+) 1580 to it. These last few numbers correspond to Accounting Level 1 salary times (*) "48" which is the amount of training hours plus (+) 1580 that is the current cost of the course. All these numbers will vary per your location and Autodesk Product.

- o **Original Outsource Upgrade Training Cost**

  =(LOOKUP(K13,(Formulas!$A$2:$B$12))*8)+325

  This cost process is the same as above except that we are looking at an "Upgrade Cost" as oppose to a "full ADT Training Cost". The "12" in Column B, Row 12 allows for a $0.00 field.

- o **In-House Training Costs**

  =(LOOKUP(K13,(Formulas!$A$2:$B$11))*Q13)+O13

  The training cost here is multiplied by the number of days in training (Q13). In this instance it is 5.5, plus lunch costs (O13), which in this case is $9.35.

- o **Training Cost Savings**

  =SUM(L13-(N13))

  The Total Cost Savings is the Original Outsource Training Cost (L13), minus (-) the In-house Training Cost (N13) that includes lunch.

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IN-HOUSE RESOURCES

After all your documentation is done, there are a number of ways to have handouts and procedures available to users.

- **Create a Library**
    - Books for Checkout
    - CD's for Checkout
    - Notebook of Handouts
    - Intranet
        - Standards, etc...
        - Training Handouts
        - Training Videos

You now have some basic tools to begin your own Customized Documentation and begin training in-house. If you did not receive your requested files, you may e-mail me at irar@mithun.com and type **"AU_ ED31-1_Successful-Training Document Request"** on the **Subject Line**. If you are just starting this process, the Spreadsheet is invaluable in keeping track of costs.

Thanks for attending.

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OTHER RESOURCES FOR YOU

Below are other related sources for training. Many will also lead you to other links not listed here and are worth your time perusing.

- **Online**
    - www.greenconsulting.com for Robert Green Consulting
    - www.augi.com for Autodesk User Group International
    - www.cadenceweb.com for Cadalyst
    - www.cadonline.com for Cadence
    - http://dir.whatuseek.com/Computers/CAD/AutoCAD/Education/ for Autodesk Press
    - http://www.cadtutor.net/ for CADTutor

- **Methods of training**
    - Books
        - www.cmpbooks.com for CMP Books
        - www.newriders.com for New Riders Publishing
        - www.Amazon.com for various book listings
        - http://www.autodeskpress.com/products/bookshop/index.asp for Autodesk Press
    - Courseware, On-Line, or On Screen Material
        - http://www.caddex.com/products_summary.shtml for Caddex
        - http://www.ascenteck.com/ for ASCENT, a division RAND Worldwide. They recently their purchased from RRTC (Republic Research)
        - www.cadplayer.com for CAD-TV Corporation
        - www.referentia.com for Referentia Systems
        - http://www.autodesk.com/estore/usa/courseware.htm for Autodesk
        - http://www.keystonelearning.com/cgi-bin/ncommerce3/ExecMacro/alphalist.d2w/report?list=AtoZ for Keystone Learning Systems
        - http://www.masterg.com/e-learn.html for MasterGraphics
        - http://www.autodeskpress.com/products/adpwebtutor.asp for WebTutor
    - Video
        - http://www.hallogram.com/keystone/autocad/ for HALLoGRAM Publishing
        - www.camtasia.com for TechSmith Corporation and including SnagIt

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- **Testing**
  - Instructor Lead, Out of Office or On-Line
    - http://www.cons4arch.com//cad/cad-knowledge-assessment.htm
    - http://www.xlquest.com/skillspro01.html
    - http://www.uti.com/~boudreau/winners.html
    - www.progressprint.com
    - http://www.augi.com/educate/atp/index.asp
    - http://www.oneguydesign.com/
    - http://www.autodeskpress.com/resources/olcs/acad2000/quiz_26/quiz_26.asp

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