

Tech Training: Recap 2

Here is a compilation of the major training topics covered in *the second half of the term*, by every new CS tech. Know that this resource is a brief overview of each topic and is not extensively detailed. You are tested on this information. While you are not expected to memorize all of this info, you are expected to be familiar with the basics and know where to find the details.

CLASSROOM TECH

Client Services acts as Generalists (Level 1) for classroom support. We are the first to respond to requests regarding classroom technology. Requests usually come from faculty and involve two main areas:

1. Projector and/or video input control equipment
 - a. A/V control unit (Atlona, Extron, Crestron) not on proper input
 - b. Project input set incorrectly
 - c. Failed bulb on projector
2. Computer software or hardware
 - a. Computer not directing output to external video (Windows + P)
 - b. Windows logon failure (bad password, no network connection)
 - c. OS / software corruption

Process:

- Request received by Faculty Connection (occasionally 4040)
- FC (Beth) handles initial triage, creates ticket, and dispatches appropriate Tech
 - Level 1 = TLC Tech
 - Level 2 = Tony / Tim
 - Level 3 = Media Services / IT
- For Level 1 requests, Tech follows diagnostic steps in attempt to resolve issue
 - Call Faculty Connection (4444) if unable to resolve. Beth will escalate.

See the Classroom Tech tutorial for more info:

http://4040.taylor.edu/tutorials/techtraining/tt_classroomtech.pdf

JOIN THE DOMAIN

Joining Taylor's domain (CAMPUS) creates a trust relationship with Taylor's Domain Controller and allows the computer access to advanced networking capabilities. Personally-owned computers are not joined to the domain. Active Directory is the software IT uses to manage the Taylor domain. Active Directory tracks:

- Usernames
- Passwords
- Permissions
- Client Role
- Policies
- Computers

IMPORTANT: Before you start, you must know the Local Administrator password of the computer. Information Technology manages Taylor-owned, Windows-based computers and joins computers to Taylor's domain during the build process.

Also, removing a computer from the domain orphans the user profile (based on Taylor username). Explaining the creation/orphaning of profiles and how documents are impacted when joining/removing is part of the Education step (VEST).

See the Join Domain tutorial for more info: <http://4040.taylor.edu/tutorials/joindomain/joindomain.pdf>

PASSWORDS/CACHE

Passwords

The Protocol for changing or resetting a Taylor network password includes:

- Identifying the username requiring a new password
- Validating the identity of the person requesting a new password
- Selecting a new password and updating Active Directory

Password Reset Tools

You should be familiar with all three:

- Taylor-owned, domain computer
- Password Manager
- Users and Computers AD plugin

Cache

You should be able to explain how all five of these work:

- Network passwords
- Web pages
- Windows Redirect
- Email
- System Protection

See the Passwords Cache tutorial for more info:

http://4040.taylor.edu/tutorials/techtraining/tt_passwordscache.pdf

REMOTE TOOLS

1. **Browsing the Network** - Using a computer's search feature to access shared resources on Taylor's network
 - a. Windows syntax = Start > [\\computername\sharename](#)
 - b. Mac syntax = Go > Connect to server > //cssrv2/cs\$
 - c. A dollar sign in the share name instructs Windows to hide the share
 - d. Useful for documents, files, and folders
2. **Computer Management** - A remote-capable console which displays several built-in Windows utilities
 - a. Available utilities
 - i. Shares – create/disable shares
 - ii. Users and Groups – give users elevated permissions
 - iii. Device Manager – install/update drivers
 - iv. Disk Management – format disks, assign drive letters
 - v. Event Viewer – system logs
 - b. Right-click Computer Management (Local) and select 'Connect to another computer'

- c. Useful for configuring Windows
3. **Remote Desktop Connection** - Allows log on to a remote computer
 - a. Logged on as you, not the client
 - b. Useful for installing software, removing malware, fixing driver issues
 - i. Anything profile-specific must be done logged on as the client
 - c. Requires that the computer is turned on and is connected to the network.
 - d. The client cannot be logged on at the same time.
4. **Bomgar** – Remote screen-sharing device
 - a. Client/Server solution which allows client to share their screen, keyboard, mouse
 - b. Have client browse to 4040.taylor.edu > Request Help > 4040remote or send them an email invitation
 - c. Useful for anything the client has permissions to do
 - d. See the Bomgar tutorial for more info:
http://4040.taylor.edu/tutorials/techtraining/tt_bomgar.pdf

PROJECTS - INTERMEDIATE

Intermediate projects include photo enhancements, photo printing, and optical disk creation/labeling.

- Project requests arrive in various ways including walkup and email/phone to 4040 or 4444.
- Documents provided by the client should be moved to the _TLC Projects folder on our CS\$ share.
- When resolving the ticket, follow the template in the 3-ring binder at Station 3 for the Resolution Note. Using the exact verbiage of each charge and project type is important. Check Out Desk personnel rely on us to get this right.

See the Projects - Intermediate tutorial for more info:

http://4040.taylor.edu/tutorials/techtraining/tt_projectsintermediate.pdf

FILE SHARING

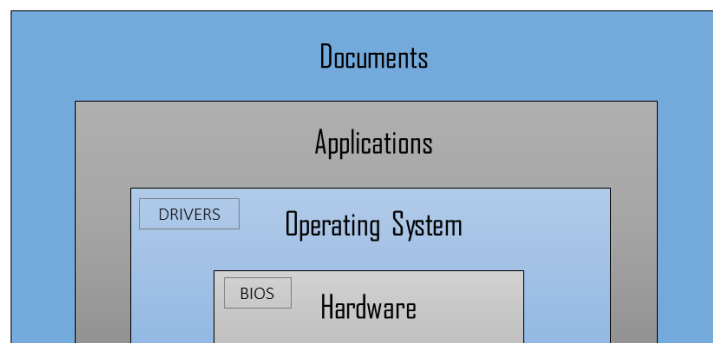
1. Share folders, drives, and peripherals to any network user
 - a. On a domain, the basic Sharing Wizard is insufficient. Use Advanced Sharing.
2. Functional on a home network as well as Taylor's domain
3. Once created, a share is available using Browsing The Network syntax ([\\computername\sharename](#))
4. Shares with a dollar sign at the end of the name are hidden
5. Windows creates Administrative Shares (Users, C\$) by default
 - a. Accessible by all administrators

See the File Sharing tutorial for more info: http://4040.taylor.edu/tutorials/techtraining/tt_filessharing.pdf

COMPUTER HARDWARE BASICS

Hardware forms the foundation. The processor uses BIOS (basic input/output system) instructions stored in the CMOS (complementary metal-oxide semiconductor) chip to locate the hardware. The CMOS chip is powered by a small battery. The last instruction in BIOS is to locate and load an OS.

Loading an operating system on top of the hardware, with applicable drivers, allows the user to interact with and control the hardware. User profiles on standalone computers are managed by the OS and stored on the local hard disk. This is true of personally-owned computers as well as Taylor-owned computer that have been assigned to employees. Lab PCs are a bit different. More on that later. Profile-specific settings, including printers, are installed once, manually.



Launching an application on top of the operating system opens a blank window used to display, create, and edit documents.

Creating documents on top of the application completes the process and allows the user to permanently store, share, and print information.

YouTube videos on computer hardware:

- Hard Disk: https://www.youtube.com/watch?v=Wiy_eHdj8kg
- LCD Monitor: <https://www.youtube.com/watch?v=jiejNAUwcQ8&list=PLA33BC8305BA0F871>
- Fiber Optic Cable: https://www.youtube.com/watch?v=0MwMk BET_5I
- DVD Disk: <https://www.youtube.com/watch?v=xCAuE7Gg-Bs>
- Processor: <https://www.youtube.com/watch?v=lkdBs21HwF4>

Lab Computers

Manual installation of printers for all clients logging into TLC computers would be time consuming and inconvenient. For this reason, IT assigns a Policy to all TLC computers covering the installation of TLC printers. On log in, the computer checks in with Active Directory. AD verifies the client's credentials/permissions, approves log on, and then sends an instruction to install TLC printers (currently TLCPrinter1C and TLC3).

Occasionally, printer installation fails, and TLC printers do not appear as a print option. Log off and log on might solve the problem, but manually adding printers for the client is usually quicker and more convenient for the client.

DATABASES / BANNER

Databases

A database stores data in multiple tables. Each table contains information about a specific entity (Student, Faculty, Class, etc.) A properly designed database allows you to create any report you need by pulling data from multiple tables, using data in one table to locate corresponding data in another table. This is done using Primary and Secondary Keys. The object is to eliminate redundancy by storing data in only one location.

Banner

Banner is a huge database containing information about students, employees, donors, payroll, finance, grades, etc. Active Directory relies on information from Banner. It is Banner that tracks client role, and Active Directory pulls that info instructs the various Taylor servers (myTAYLOR tabs, for example) on what access a client should be granted.

An IT script queries Banner every five minutes for changes. New students, for example, get their username and mailbox based on their Banner record.

See the Databases / Banner tutorial for more info:

http://4040.taylor.edu/tutorials/techtraining/tt_databasesbanner.pdf

HELP DESK BASICS

Help Desk is a means for Taylor faculty, staff, students, parents, and guests to request help without physically coming to the T&LC. Requests are received through phone and email, and the Help Desk tech monitors and answers the 4040 phone line and Outlook mailbox. Techs work with clients to solve technology issues through phone calls, emails, and remote sessions. Phone and email professionalism is expected from each tech working in Help Desk.

Help Desk techs should always remember **Rule #1: Identify the Client**. As you are not seeing who you are speaking to, it's an important step to know what kind of technology they are having an issue with (Taylor/personal computer, Parent Resources, Taylor guest registration, etc.)

Often receiving calls from clients, Help Desk techs will answer 4040 phone calls, place callers on hold or speaker, or transfer a call. Techs should reassure the client that we can help, listen to the problem the client is experiencing, and talk the client through the process of solving the problem. This includes asking the client if they can be put on hold, speaker, or transferred with an explanation as to why you are asking. Take notes while speaking with a client, on both the problem and the path to the solution, to keep important details for when a ticket is created.

Always remember to **keep the 4040 phone line open** for incoming calls. To do this, transfer the incoming call from the 4040 phone line to the Tech 1 phone line (4041).

See the HDBasics tutorial for more info: http://4040.taylor.edu/tutorials/techtraining/tt_hdbasics.pdf

KURZWEIL BASICS

Kurzweil is text-to-speech software used by the Academic Enrichment Center to assist Taylor students who deal with learning disabilities. Client Services has partnered with the AEC in providing this service to our students. Our role is to scan, edit, and burn the resulting Kurzweil data file to CD. The student uses a Taylor-owned laptop with Kurzweil installed (borrowed from the Check Out Desk) to play the data file audibly.

Once we have received a request from the AEC for Kurzweil, we double check any special instructions, make sure we have the Editing Log, and create a ticket for the project. Next, the textbook is scanned by chapter into the Kurzweil software using the computer and scanner located in the AEC. The chapter scans should be saved to `\\cssrv2\cs$\ Projects\ KurzweilProjects` in a folder named the textbook title.

The scans are then accessed on the Kurzweil PC in Zon 109 for editing. There are three types of editing:

- **Zone Editing:** Segments each page into blocks of Primary and Secondary Text. Put blocks of text into an order that will make sense to the listener. This order is how Kurzweil will read the text.
- **Edit Underlying Text:** This tool verifies that Kurzweil has correctly interpreted the scanned-in text. If Kurzweil interprets a word wrong, this is the tool we to re-interpret the reading.
- **Spellcheck:** This is the last step before you finish editing a chapter. This catches any words Kurzweil isn't sure of, and it gives you the opportunity to correct anything missed in Edit Underlying Text or fix how Kurzweil pronounces different words.

Once a chapter is edited, the editing is finalized and the chapter is copied to a CD. The ticket is updated, the Editing Log dated and initialed, and the CD delivered to the AEC.

See the Kurzweil Basics tutorial for more info:

http://4040.taylor.edu/tutorials/techtraining/tt_kurzweilbasics.pdf

VIDEO BASICS

Clients often bring us VHS tapes for capture to a digital format. We use Premier to handle the capture and editing of the new digital file. Once digitized, some projects require burning the digital file to DVD and/or upload to Blackboard.

See the Video Basics tutorial for more info: http://4040.taylor.edu/tutorials/techtraining/tt_videobasics.pdf