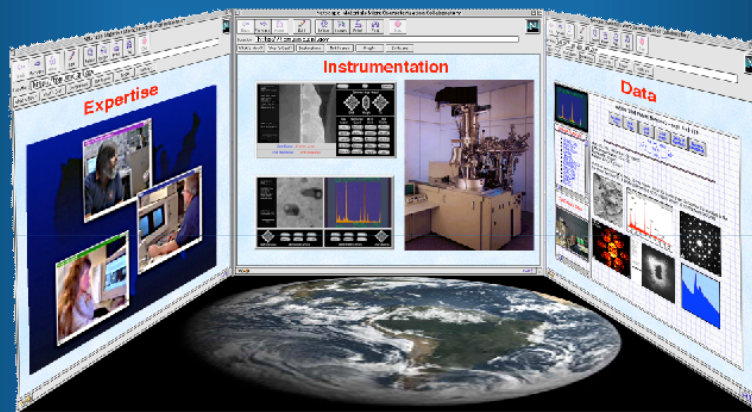


The TelePresence Collaboratory Suite

<http://tpm.amc.anl.gov>



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THE UNIVERSITY OF
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Office of
Science
U.S. DEPARTMENT OF ENERGY

Electron Microscopy Center
Materials Science, Division, Argonne National Laboratory

Acknowledgements

ACMM20

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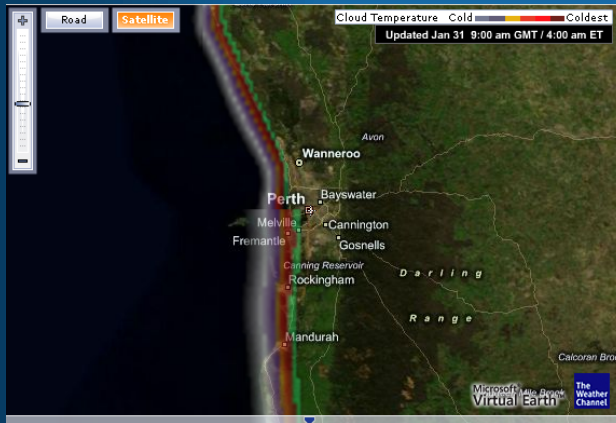
THE UNIVERSITY OF
CHICAGO



Office of
Science
U.S. DEPARTMENT OF ENERGY


Electron Microscopy Center
Materials Science, Division, Argonne National Laboratory

The SemiAnnual Weather Report



10-Day Business Travel Forecast for Perth, Australia

[[English](#) | [Metric](#)] [Printable Forecast](#)

Forecast Conditions	High/Low °C	Precip. Chance
Tonight Feb 10		
 Clear	31°/22°	0%
Mon Feb 11		
 Sunny	34°/23°	0%



The SemiAnnual Weather Report



10-Day Driving Forecast for Bolingbrook, IL

[[English](#) | [Metric](#)] [Printable Forecast](#)

Forecast Conditions	High/Low °C	Precip. Chance
Tonight Feb 9 Partly <i>WINDY</i> Cloudy / Wind	N/A/-18°	20%
Sun Feb 10 Partly <i>WINDY</i> Cloudy / Wind	-17°/-20°	20%

*People have been dealing with Collaboration
Issues For a Long Time*

*The Tower of Bable
circa 4000 BC*



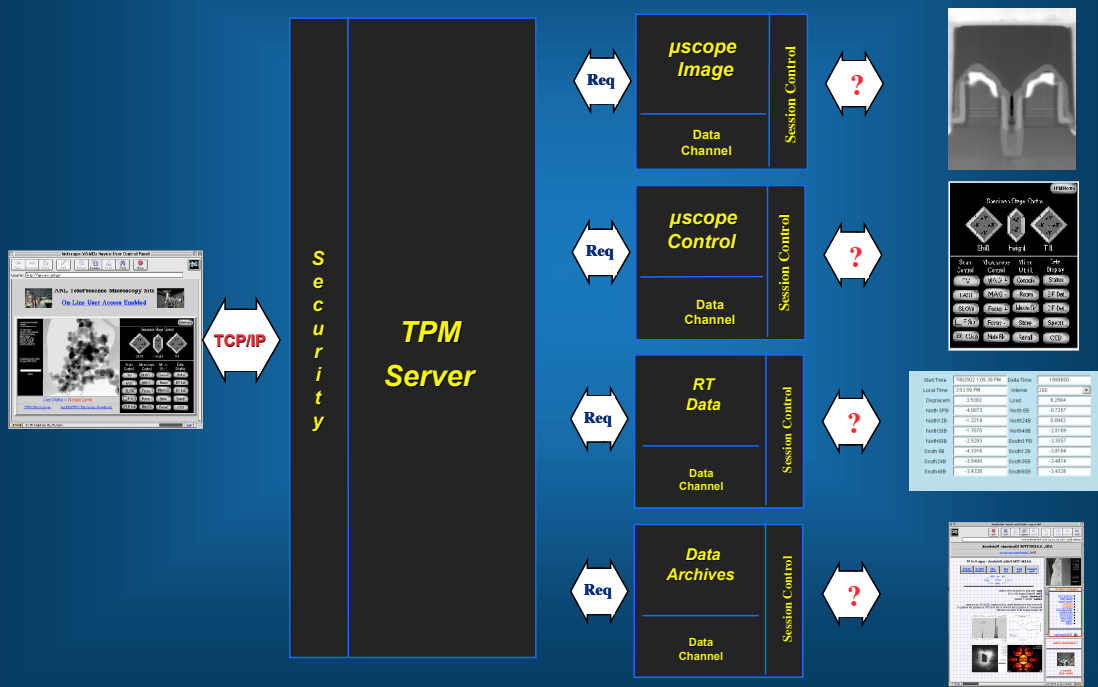
Today



Collaboration Tools

- Many products to choose from
 - Both custom (homebrew) & commercial solutions exist
- Potentially rich set of features and functions
 - What do you need for the tasks
- Multiplatform solutions beginning to appear
 - Essential for the bench scientist
- Some Integration of audio and video
 - Don't reinvent the wheel
- Stand alone and/or server based versions
 - Choose your poison

TelePresence Module Architecture





**Circa 1994
(Macintosh)**

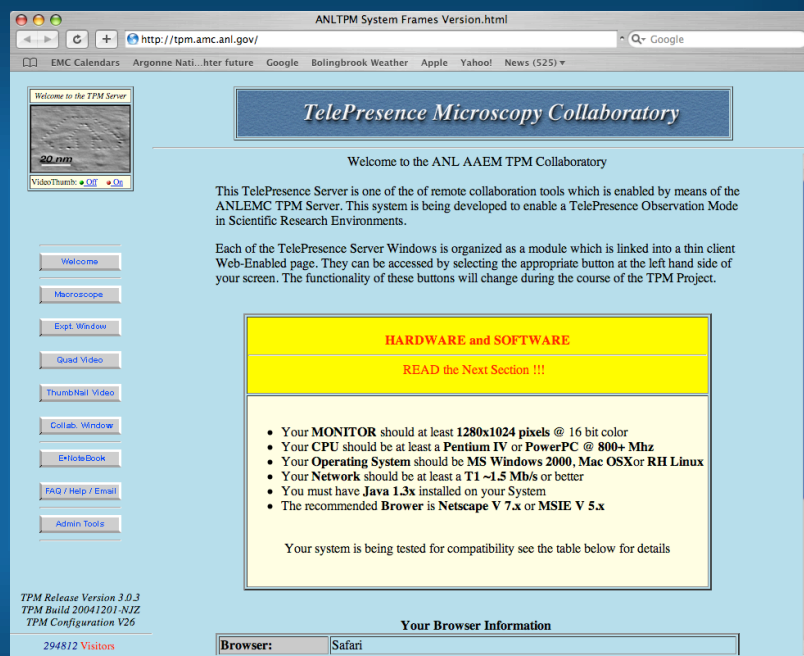
**ANL - WWW
TPM Client Server**



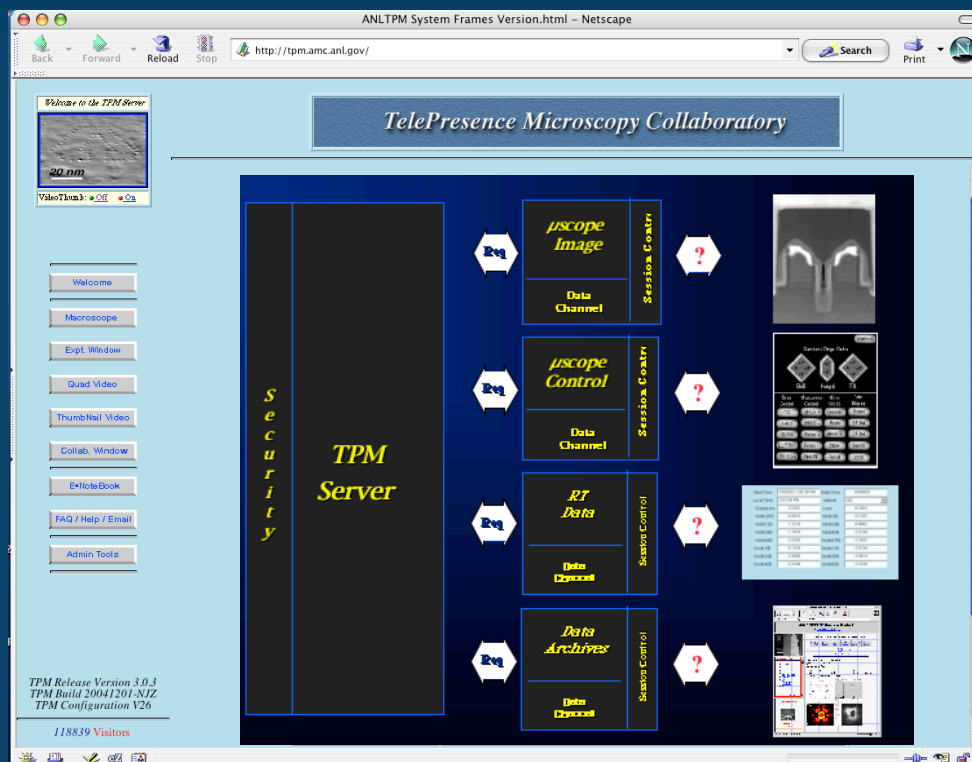
**Circa 2000
(Sun)**

**ANL - WWW
TPM Server**

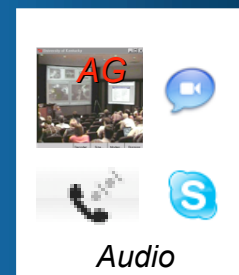
Circa 2007



(Linux based)



Modular Configuration, New Proxy Server, New Video Servers, Increased # Sources, Linux Installer



Static, Telerobotic, Streamed Video Resources, Out of the Box Audio

ANLTPM System Frames Version.html

http://tpm.amc.anl.gov/

Computation Institute WDVL 3D Graphics Tools Apple Mac Amazon eBay Yahoo! News

Welcome to the TPM Server

20 nm

VideoThumbnail: Off On

Welcome

Microscope

Exit Window

Quad Video

Thumbnail Video

Collab. Window

ExitBook

FAQ / Help / Email

Admin Tools

TPM Release Version 3.0.3
TPM Build 20041201-NJZ
TPM Configuration V26

118727 Visitors

TelePresence Microscopy Collaboratory

ANL EMC TPM Site Video 1 AAEMLab TRobotic

AEM080 Wed Mar 23 15:35:00 2005

Camera Controller

Out Zoom In

X&Y Position

Far AutoFocus Near

Select Video Source: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

Available Video Streams

System Status Message: Fri Feb 4 02:43:24 2005

Video Source Number	Description	Type	Access
1	AAEMLab TRobotic	TeleRobotic	Public
2	AAEMStatus	Fixed	Public
3	AAEMDetector1	Fixed	Public
4	AAEMDetector2	Fixed	Public
5	AAEMXEDS/EELS	Fixed	Public
6	AAEMLab Room	Fixed	Public
7	AAEM Workstation	Fixed	Public
8	AAEM DVR	Fixed	Password Required
9	AAEM Results	Fixed	Password Required
10	Hitachi-S4700 SEMLab	TeleRobotic	Public
11	Hitachi-S4700SEMImage	Fixed	Public
12	Hitachi-S4700SEM XEDS	Fixed	Public

On the fly reconfigurator, Public / Private Resources, Unlimited # of Video Streams

ANLTPM System Frames Version.html

http://tpm.amc.anl.gov/

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Welcome to the TPM Server

20 nm

VideoThumbnail: Off On

Welcome

Microscope

Exit Window

Quad Video

Thumbnail Video

Collab. Window

ExitBook

FAQ / Help / Email

Admin Tools

TPM Release Version 3.0.3
TPM Build 20041201-NJZ
TPM Configuration V26

118727 Visitors

TelePresence Microscopy Collaboratory

ANL EMC TPM Site Video 3 AAEMDetector1

ANL TPM-072-2 2005-03-23 02:32:12 PM

UG MICROSCOPES
HB683
AAEM/TPM Project

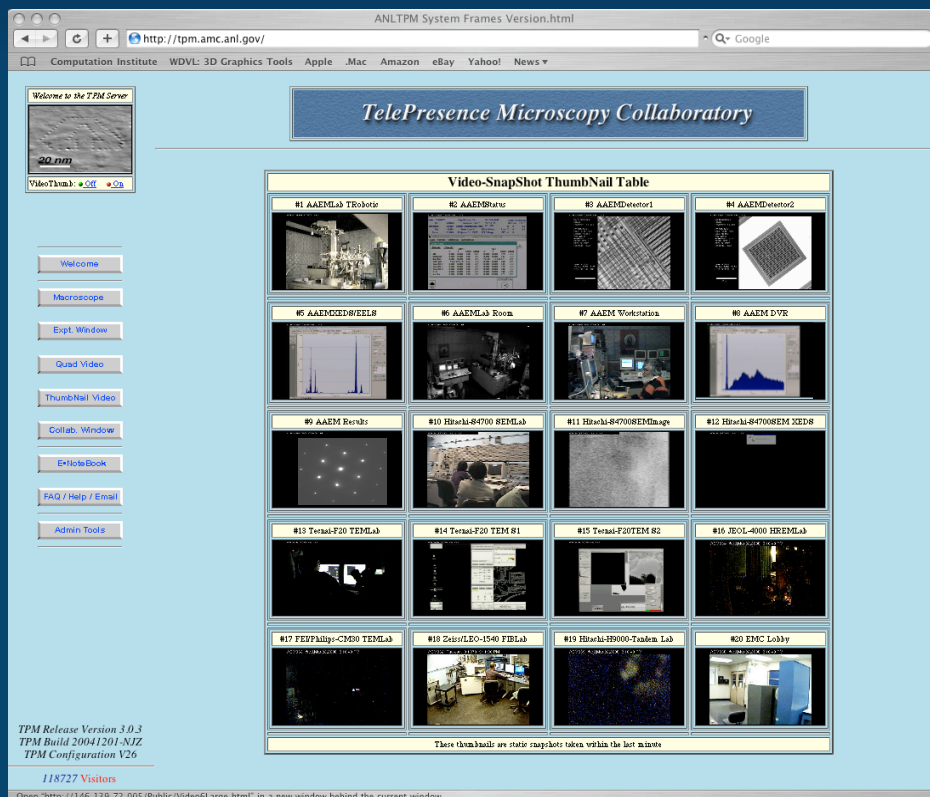
HT 300.00 kV
MODE STEM IMAGE
BRIGHT NORMAL
PRG 20k x
ROTATION 0.0°
PROBE SIZE #1
PROJ CL FREE
EXPOSURE 86.75

USER UG MGH
13-Jun-2003 16:28
FILE 3061305.IMG

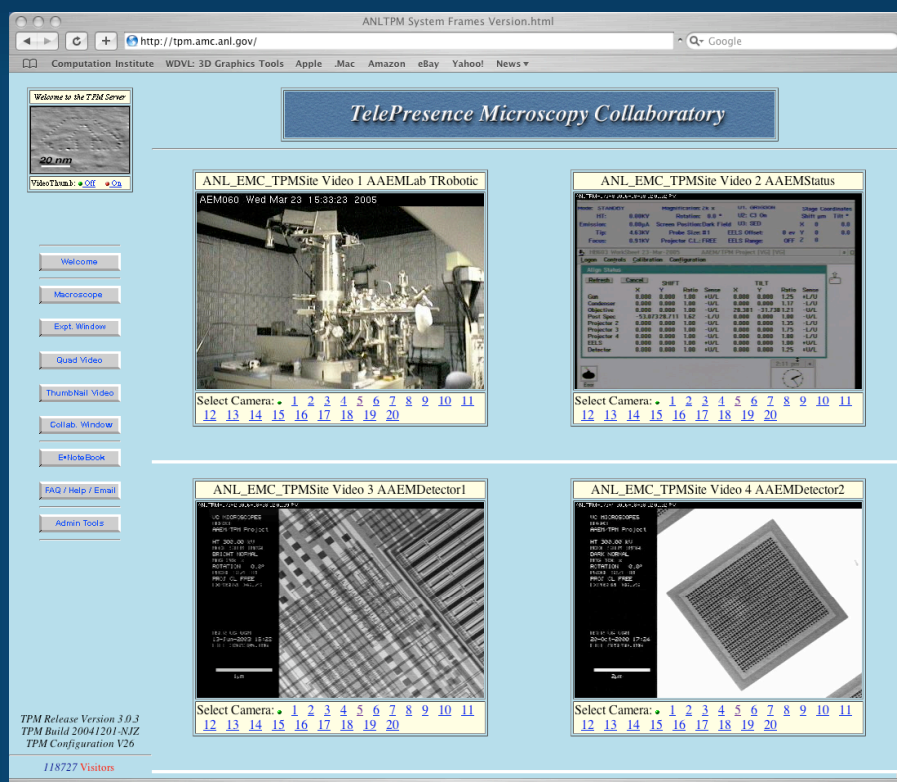
1µm

Select Camera: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

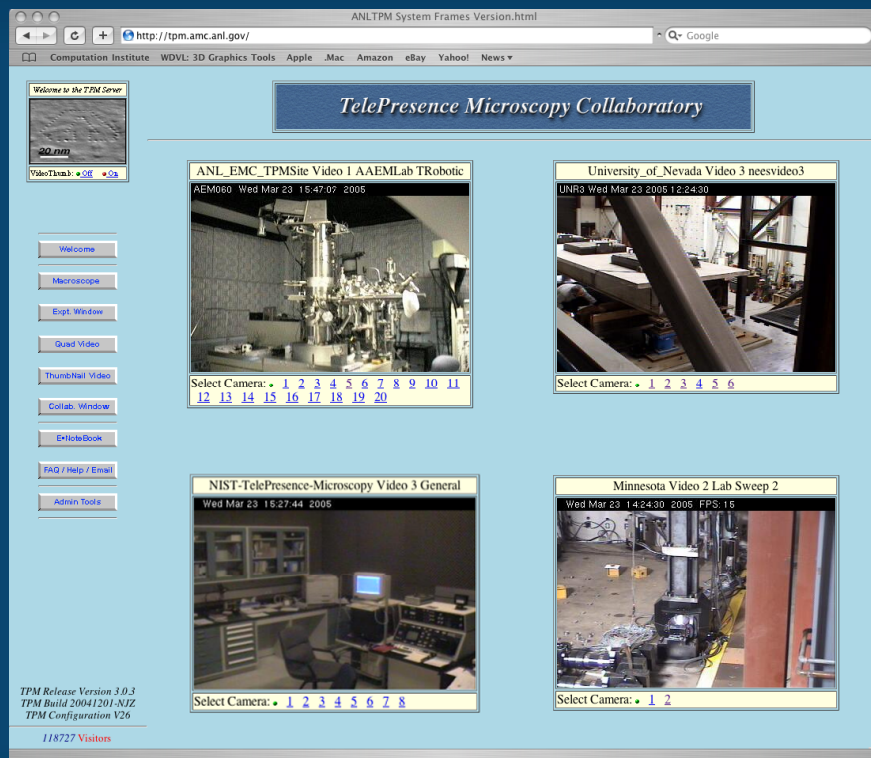
Higher Resolution Displays



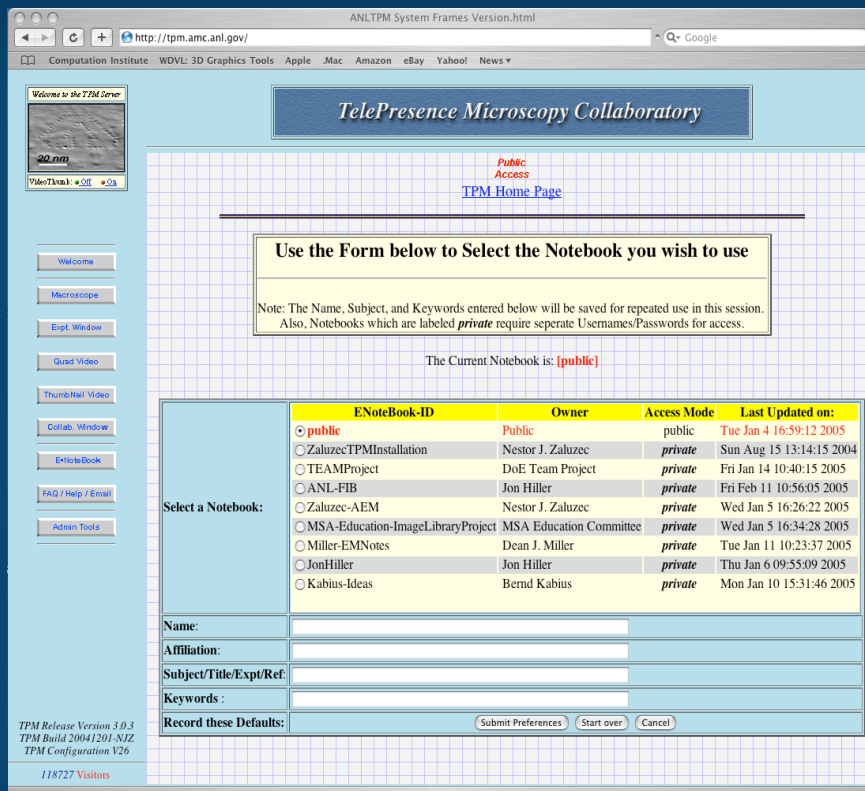
Site Wide Thumbnails



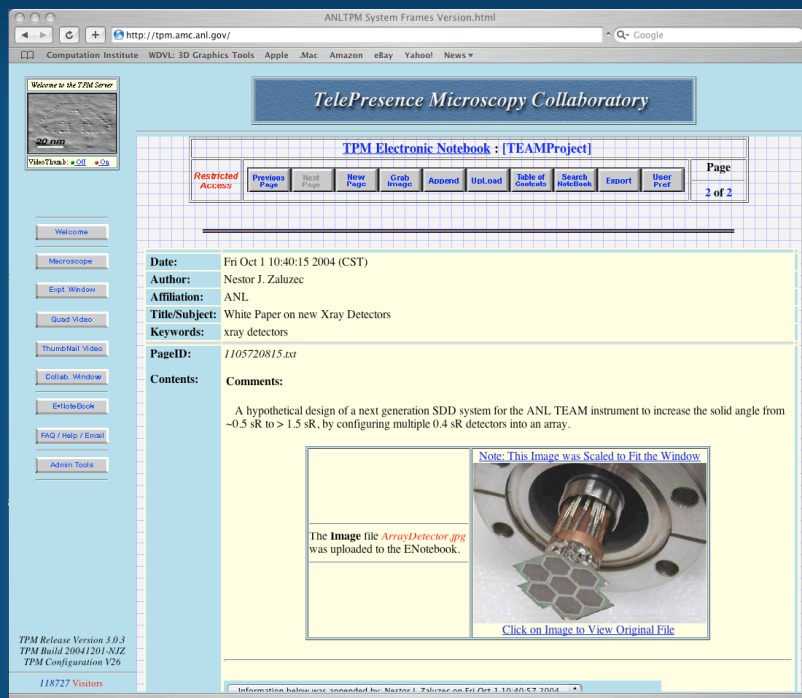
On the Fly Selectable Quad Views



Multi-Site Collaborative Mode



Multi-User Enotebook with public/private modes



Multi-User Enotebook with public/private modes

ANLTPM System Frames Version.html

http://neestpm.mcs.anl.gov/

Computation Institute WDWL 3D Graphics Tools Apple Mac Amazon eBay Yahoo! News

Welcome to the TPM Server

Video/Thumbnail: Off On

TPM Release Version 3.0.3
TPM Build 20041201-NJZ
TPM Configuration V26

118729 Visitors

TelePresence Microscopy Collaboratory

Public Access
TPM Home Page

Append Text and/or UpLoad a File to an Existing Notebook Page

This form allows the user to choose from either or both of two different input methods.
Text/HTML, or File/Image upload.

UserName: _____

Affiliation: _____

Subject/Title/Expt/Ref: _____

Keywords : _____

UpLoad a file
to a new ENotebook page:

1.) **Select File Type** to be uploaded to the ENotebook from the list below.

☐ Text (simple ASCII) ☐ PDF Document

☐ Table in Tab-Delimited Format ☐ MS Word-Documnt

☐ Image (JPG/TIF/GIF/BMP/PNG) ☐ MS XLS-Documnt

☐ Movie (QT/MOV/MPG/AVI) ☐ MS PPT-Documnt

☐ Binary File (type unknown)

2.) **Select File Name** no file selected (required)

Remember it may take time to upload large files so be patient!

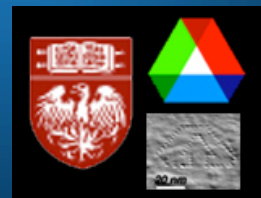
You can type or cut and paste comments/additional descriptive text or HTML into this area and it will be saved with your file

Then submit your entry:

ENotebook will also archive any document type

ANL - Univ. of Chicago Hospital

TelePresence Collaboratory For Surgical Innovation



TelePresence Collaboratory for Surgical Innovation

ANLTPM System Frames Version.html
http://206.69.208.45/

EMC Calendars Argonne Natl...hter future Google Bolingbrook Weather Apple Yahoo! News (525) ▾

Welcome to the TPM Server

UCH-ANL TelePresence Collaboratory TestBed

Welcome to the
University of Chicago Hospital / Argonne National Laboratory
TelePresence Collaboratory for Surgical and Perioperative Innovation

This TelePresence Server is a platform independent remote collaboration tool which is being tested/developed to enable a Passive Observation Mode in a Hospital/Surgical Environment.

Each of the TelePresence Server Windows is organized as a module which is linked into a thin client Web-Enabled page. They can be accessed by selecting the appropriate button at the left hand side of your screen. The functionality of these buttons will change during the course of the Collaboratory Project. This Collaboratory is being developed as a joint project between the ANL EMCenter and the Univ. of Chicago Hospital Depts. of Surgery and Anesthesiology.

Buttons on the left side of the page:

- Welcome
- Macroscopic
- Expt. Window
- Quad Video
- Thumb-Nail Video
- Collab. Window
- ExHoleBook
- FAQ / Help / Email
- Admin Tools

TPM Release Version 3.0.4
TPM Build 20050118-NJZ
TPM Configuration V26

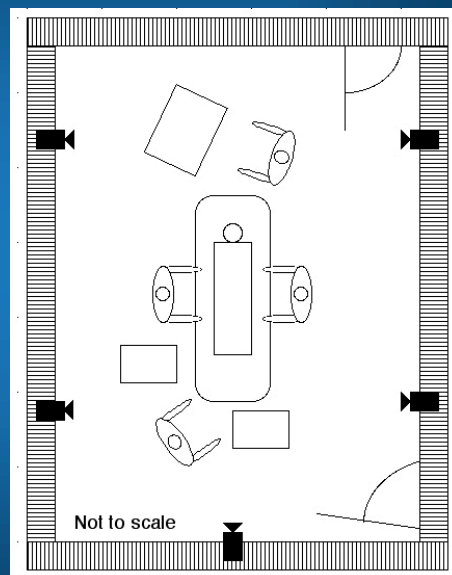
Visitors

HARDWARE and SOFTWARE

READ the Next Section !!!

- Your **MONITOR** should be at least **1280x1024 pixels @ 16 bit color**
- Your **CPU** should be at least a **Pentium IV or PowerPC @ 800+ Mhz**
- Your **Operating System** should be **MS Windows 2000, Mac OSX or RH Linux 7.3** or better
- Your **Network** should be at least a **T1 ~1.5 Mb/s** or better
- You should have **Java & JavaScript** options configured on your System
- The recommended **Brower** is **Safari, Netscape/Mozilla or Firefox**

Your system is being tested for compatibility see the table below for details



ANLTPM System Frames Version.html
http://206.69.208.45/

UCH-ANL TelePresence Collaboratory TestBed

TPMCC_Test Video 1 Sony DV30

Video Transmitter: G... Go

Video Room
Microscope
1st Video
2nd Video
3rd Video
4th Video
5th Video
6th Video
7th Video
8th Video
9th Video
10th Video

Camera Controller

Out Zoom In

X&Y Position

Far Autolocus Near

Select Video Source: 1 2 3 4 5

Available Video Streams

System Status Message: Break is On-Line

Video Source Number	Description	Type	Access
1	Sony DV30	TeleRobotic	Public
2	Canon VCC3	Fixed	Public
3	Sony DV30	TeleRobotic	Public
4	Canon VCC3	Fixed	Public
5	Canon VCC3	Fixed	Public

*The Challenge is **NOT** to create the “Universal Collaboration Tool”*

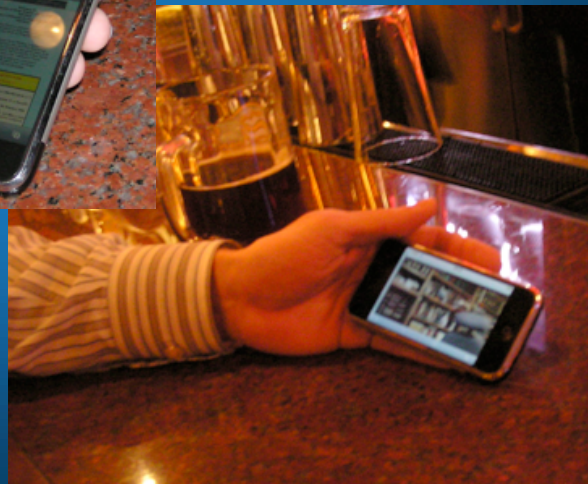
Create a **SYSTEM ENVIRONMENT** into which resources that your Collaborators need can be accessed

Your selected set must function seamlessly

- Single sign on is not always needed
- Data access across applications
- Resource control which supplies the User with what is needed to accomplish the task
- Some common look & feel for the user community
- Platform independence
- The GRID, although useful, is not always necessary!



*The Latest
TelePresence
Access Tool*



*Thanks
Questions?*

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Zaluzec@microscopy.com
<http://tpm.amc.anl.gov>