Research and Systems Design

Department Postproduction Facilities Design
Digital Media Lab
Finishing Suite
Audio Suite
24 Hour Edit Suites
Network Infrastructure

Nims Center Postproduction Facilities Design
HD Screening and Sound Mixing
HD Finishing
ADR Suite
Machine Room
Other Suites
Drawings

Postproduction Workflow Design
Watermarks
Flip Mavens

Panels and Presentations
In the Wake of Katrina (Preparing and Using Technology for a Crisis) – UFVA Summer 2008
Cutting HD File-based Workflows Down to Size – UFVA Summer 2008

Robert Racine Assistant Professor of Digital Technology | 10/10/2008

Department Postproduction Facilities Design

    I designed this facility to accommodate the large numbers of students majoring in Film, Theatre, and Communication Arts. It provides students access to the best technology, and gives us opportunities to teach advanced editing and postproduction techniques that were not possible at UNO five years ago. The design incorporates a shared storage server that enables students to access their work from any of over 46 workstations in the facility.

Digital Media Lab

Photo

25 Seat Digital Media Lab

Statistics

Hardware:	Adobe Creative Suite Design 3
25 HP Dual Core Workstations	Avid DVD
Vista 64 Bit Business	Roxio Easy DVD Burner
19"Monitors	Final Draft
Multi-format DVD Burners	Microsoft Office
Removable Media Readers	Synchroneyes Classroom Management
	Frame Forge 3D Studio 2
Software:	ISIS Client Connection
Avid Media Composer	
Steinberg Nuendo	Network:
Discreet Combustion	Gigabit Ethernet

Department Postproduction Facilities Design

Finishing Suite

Photo

High Definition Avid Finishing Suite

Statistics

Hardware:

    HP Dual Quad Core Workstation
    Vista 64 Bit Business
    Dual 20"Monitors
    Multi-format DVD Burners
    Removable Media Readers
    Avid Nitris DX
    4 Terabyte Avid Video Raid SR
    UVW 1500 Betacam Deck
    BR-DV 3000 DV Deck
    Panasonic DVD Recorder
    JVC HD Monitor
    LG LCD Client Monitor
    Mackie 1402 VLZ Mixer

Software:

    Avid Media Composer
    Steinberg Nuendo
    Discreet Combustion
    Adobe Creative Suite Design 3
    Avid DVD
    Roxio Easy DVD Burner
    Final Draft
    Microsoft Office
    Synchroneyes Classroom Management
    Frame Forge 3D Studio 2
    ISIS Client Connection

Network:

    Gigabit Ethernet

Department Postproduction Facilities Design

Audio Suite

Photos

5.1 Surround Audo Mixing Suite

Whisper Room 4' x 4' Isolation Booth

Department Postproduction Facilities Design

Hardware:

    HP Dual Quad Core Workstation
    Vista 64 Bit Business
    Dual 20"Monitors
    Multi-format DVD Burners
    AT 4065 Microphone
    Yamaha)1v96v2 Digital Mixer
    Midi Keyboard Controller
    KRK V4 5.1 Surround Monitoring
    V10 Sub Woofer
    Martin Sound Base Management

Software:

    Steinberg Nuendo
    Waves Restoration Plugins
    Halion Digital Sampler
    Halion String Edition
    Roxio Easy DVD Burner
    Microsoft Office
    ISIS Client Connection

Network:

    Gigabit Ethernet

Department Postproduction Facilities Design

24 Hour Edit Suites

Photos

7 Private Editing Suites

Statistics

Hardware:

    HP Dual Quad Core Workstation
    Vista 64 Bit Business
    Dual 20"Monitors
    Multi-format DVD Burners
    Removable Media Readers
    M-Audio Speakers
    Mini Monitor Mixers

Software:

    Avid Media Composer
    Steinberg Nuendo
    Discreet Combustion
    Adobe Creative Suite Design 3
    Avid DVD
    Roxio Easy DVD Burner
    Final Draft
    Microsoft Office
    Synchroneyes Classroom Management
    Frame Forge 3D Studio 2
    ISIS Client Connection

Network:

    Gigabit Ethernet

Department Postproduction Facilities Design

Photos

Media Transfer Center

Capture Stations and ISIS Servers

Department Postproduction Facilities Design

24 Hour Suite Statistics

| Hardware:	Software:	Network:
4 HP Dual Core Workstations	Avid Media Composer	Avid Unity ISIS
Vista 64 Bit Business	Steinberg Nuendo	16 Terabyte Shared
20"Monitors	Discreet Combustion	71 Virtual Workspaces
Multi-format DVD Burners	Adobe Creative Suite Design 3	50 Users
Mackie Mixer	Avid DVD	46 Workstation Clients
ADK Patchbay	Roxio Easy DVD Burner	10 GB Uplink
Uv1800 Betacam Decks	Microsoft Office	Cisco 4948 Gigbit Switch
BR-DV 3000/6000 DV Decks	ISIS Client Connection	
Panasonic DVD Burners		
M-Audio Speakers		
Video Compression Server		
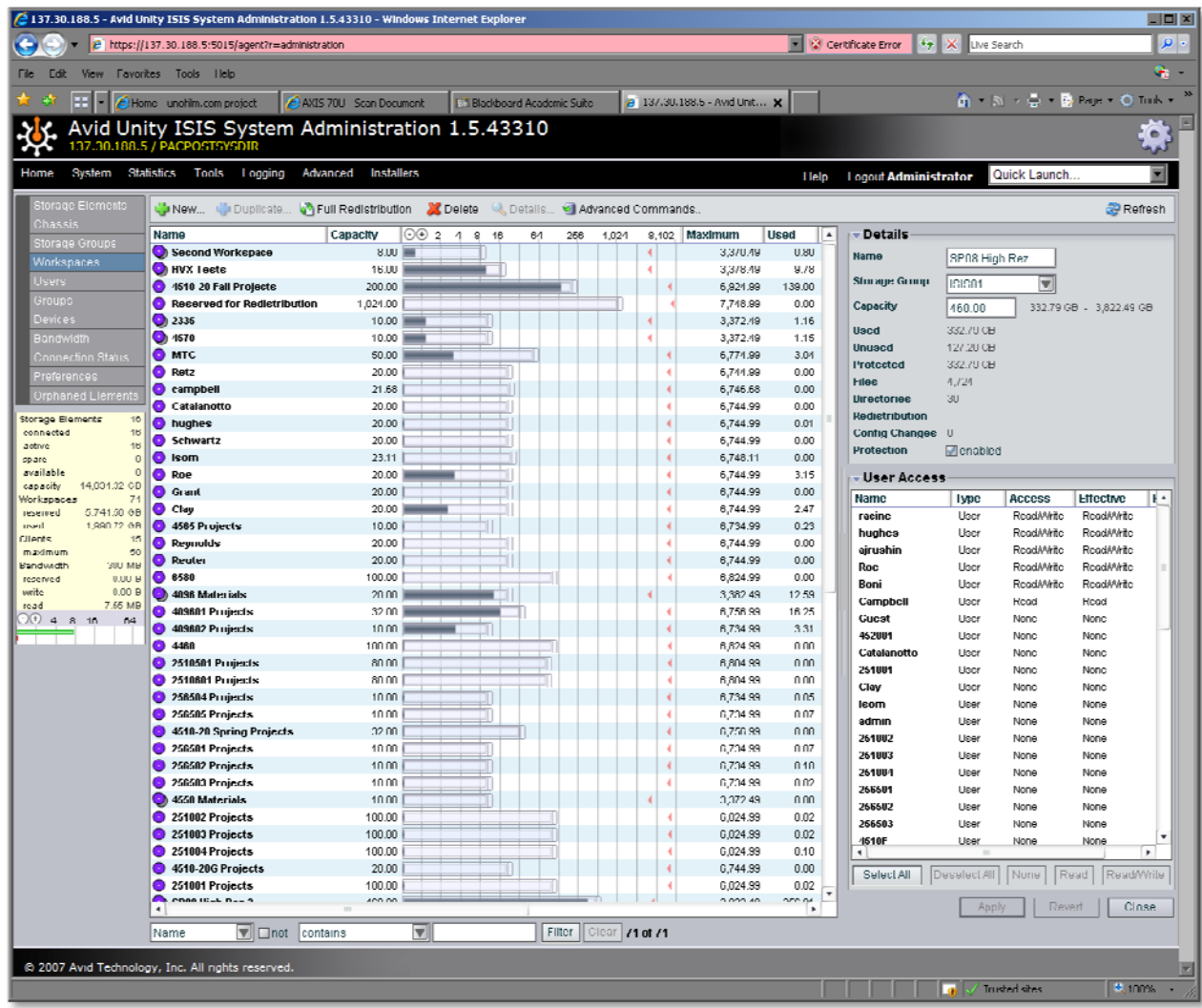
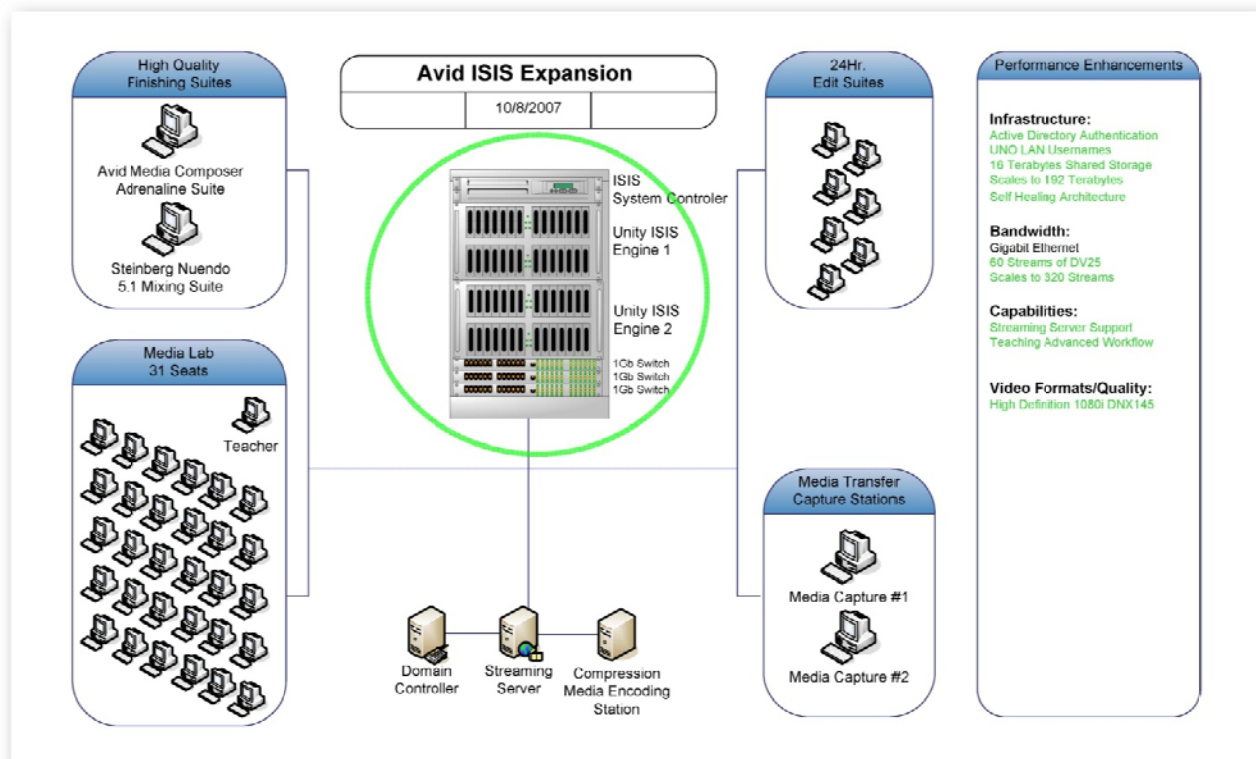**Avid ISIS System Interface and 71 Virtual Drive Workspaces**

Department Postproduction Facilities Design

<u>Schematics</u>
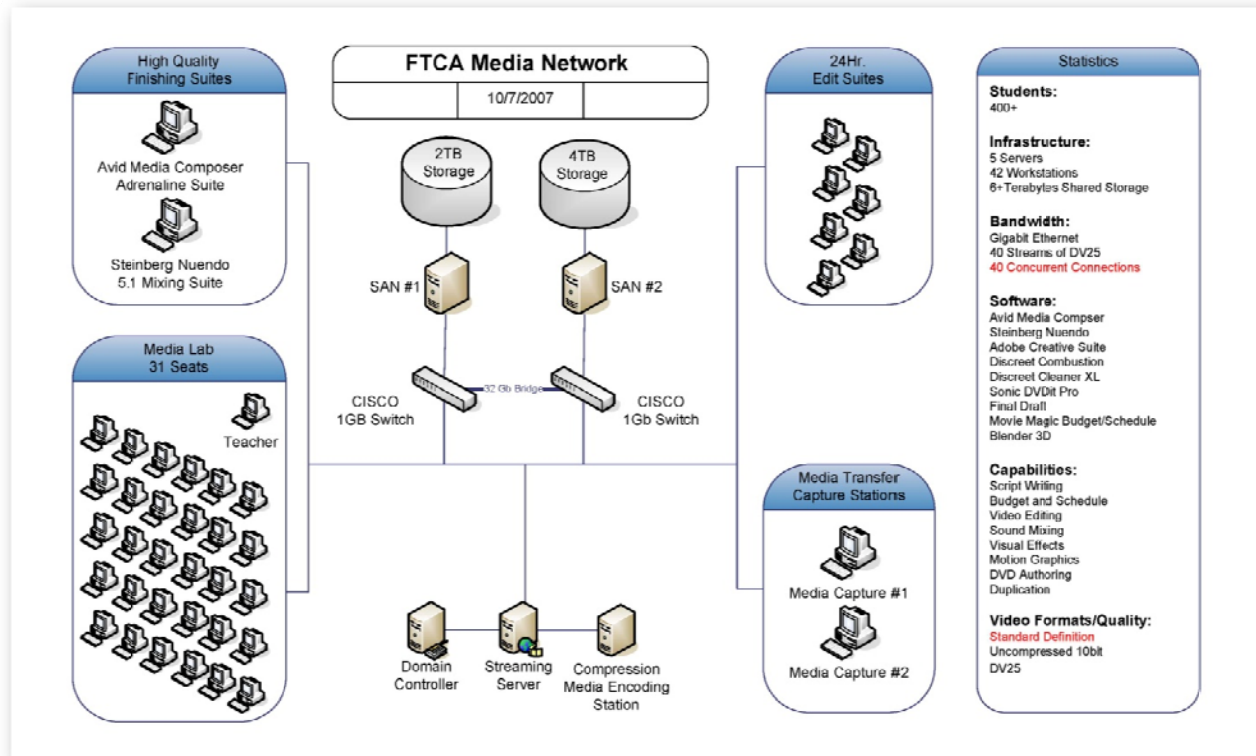
Initial FTCA Media Network

FTCA Media Network with ISIS Shared Storage

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Nims Center Postproduction Facilities Design

The Nims Center postproduction facility is an HD capable screening, editing, and audio mixing facility located in the Robert E. Nims Center for Entertainment Arts in New Orleans. It was funded by a grant from the Department of Economic Development with an equipment budget of approximately $380,000.00. The facility was built to encourage film productions that were already shooting in Louisiana to edit and finish films here in New Orleans. The goal is to provide opportunities for UNO Film students to gain postproduction experience through internships on feature films that use the facility. **I designed the facility and supervised its construction.**

HD Screening and Sound Mixing

Photos

Description

The screening room is equipped with a JVC HD 2K projector and a Stewart Microperf screen. High quality highly accurate audio monitoring is achieved with three Genelec 1037b monitors with dual Subs and four Genelec 8040 surround speakers controlled with a Martin Sound monitor control system. The Euphonix System 5 MC controller is capable of controlling all of the major post production systems in the facility and can even be attached to Avid DS for basic timeline and editing controls. All signals in the facility can be routed to this room. Seating capacity is 30. The room is accessible to paying commercial clients as well as graduate students doing thesis work.

Nims Center Postproduction Facilities Design

HD Finishing

Photos

Description

   The HD finishing suite is equipped with a Sony High Definition Monitor, Yamaha 01v96 Mixer, Genelec 8040 5.1 surround monitoring and access to any of the computer systems in the Machine Room. There is a producer's desk that can be set up with personal monitor and internet access. There is also ample room to sit and discuss and create. Any signal from any deck, computer or routed device can be accessed from the room, and anything that is done in the room can be displayed in any other room. It is simple to route the project being worked on to the screening room for director screening directly from Avid, or to the ADR suite for dialog recording without leaving the room.

   The facility is compatible with SD and HD video at 480, 720 and 1080i and p at frame rates of 60, 59.94, 30, 29.976, 25, 24, and 23.98. Almost all monitoring systems are auto sensing between SD and HD to reduce patching.

ADRSuite

Photos

| 10/10/2008

Description

The Euphonix MC controller can remotely
Control Protools, Nuendo, Avid DS, or Avid
Media Composer. Picture can be routed to
monitors independently from any source.
Two DSL lines allow remote monitoring with
a host of CODECS as well as telephone
hybrid. Microphones are connected to a
Yamaha 01v96v2 mixer and routed via MADI
to the Euphonix router then to any recording
device. Monitoring is done via a pair of
Genelec 8048 reference monitors.

The booth is lined with a sound dampening
carpet material that is compatible with
Velcro. Auralex sound absorption and
diffusion material can be placed on the walls
at any location to customize the room
response at any mic location.

Nims Center Postproduction Facilities Design

Machine Room

Photos

Nims Center Postproduction Facilities Design

Description

The Machine Room is centrally located to the Finishing Suite, ADR booth, and Main Screening Room It is equipped with HD serial digital routing, and 12 channels of 56 channel MADI digital audio routing. The Gefen router can rout any one of four dual monitor computer displays with keyboard and mouse control to any of the 4 rooms. This allows for total silence in the suites and control of any system. The rooms become spaces that are dedicated to types of work instead of equipment. ADR, for instance can be done in Protools, Nuendo or directly into avid Symphony or DS from the same room. The Unity Shared storage system allows access to all project data from any computer system. The third rack is pre wired to the router with 4 slots to house any digital or analog rental deck needed.

Evertz Master Clock ▶

◀Avid Unity 5.0 Shared Storage

Tectronics Waveform Monitor▶

nVision 128 Channel Router▶

◀Dolby Digital Encoder

◀Dolby Digital Decoder

◀Martin Sound Monitor Management

◀Protools Video Sync

◀Big Ben Word Clock

◀Apogee AD 8000 Converter

◀Euphonix 12 Channel MADI Router

◀Euphonix 48 Ch Format Converter

◀Steinberg Nuendo with RME MADI

◀Avid DS/Symphony Nitris

Gefen 4 x 4 KVM Matrix▶
(Routes computer screens to any room)

Protools with SSL MADI Interface▶

Nims Center Postproduction Facilities Design

Other Suites and Screens

Description

The offline suite includes an editors room, and assistant room and a private screening room with 5.1 surround sound monitoring. This facility is designed to be rented to films shooting locally for post during shooting.
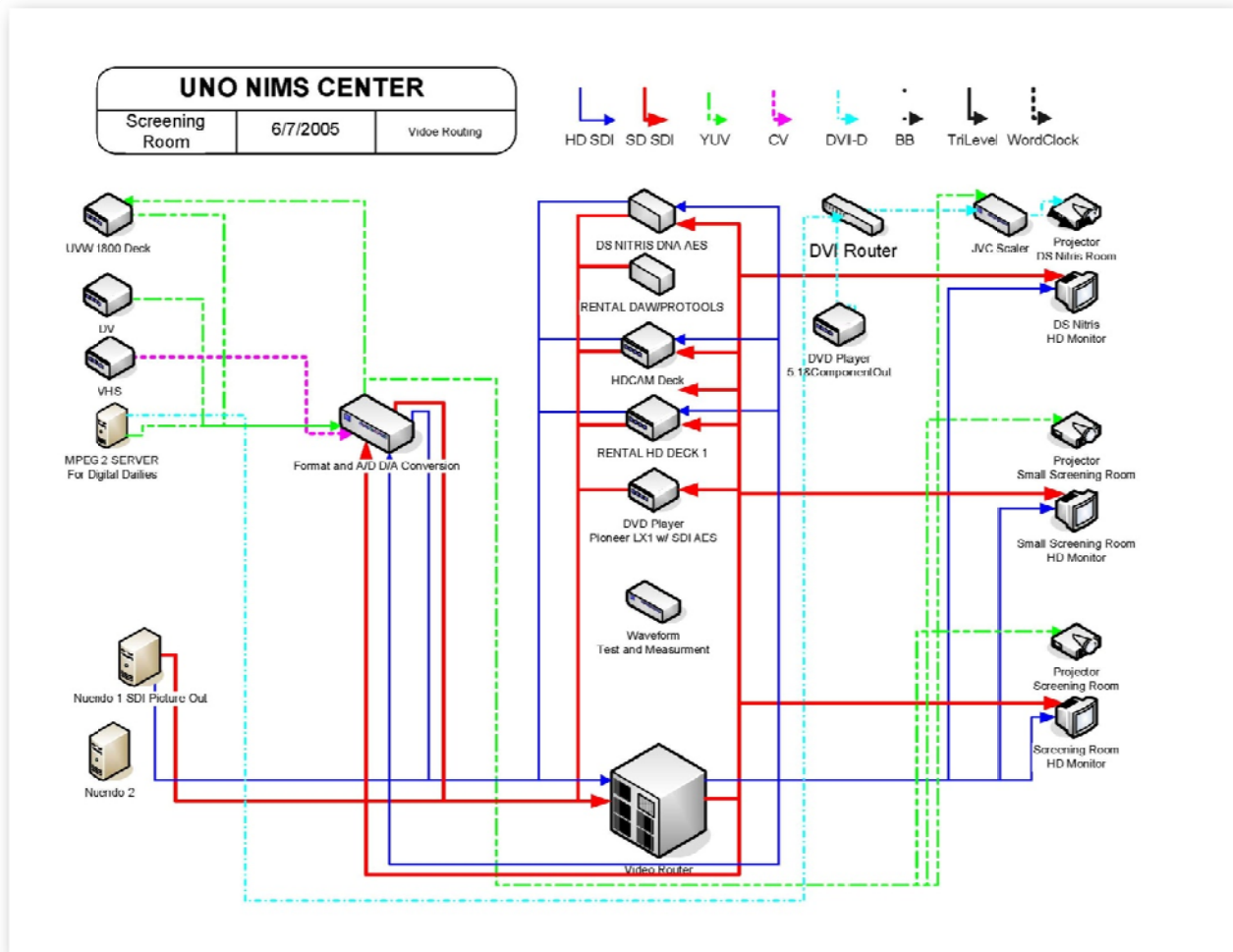
Photos

Editing Suite and Screening Control

Statistics

Hardware:	Software:	Network:
HP 4 Core Workstations	Avid Media Composer	Avid Unity 5.0
24" DVI LCDMonitor	Discreet Combustion	8 Terabyte Shared
Yamaha 01v96v2 Digital Mixer	Adobe Creative Suite Design 3	4Gbit Fibre Channel
UVW1800 Betacam Decks	Roxio Easy DVD Burner	Optical Connections
M-Audio Speakers	Unity 5.0 Client Connection	
Screening Room:		
LCD Projection		
Full Video and Audio Routing		
Genlec 8020 Surround Monitors		

Nims Center Postproduction Facilities Design

<u>Nims Center Visio Design Drawings</u>

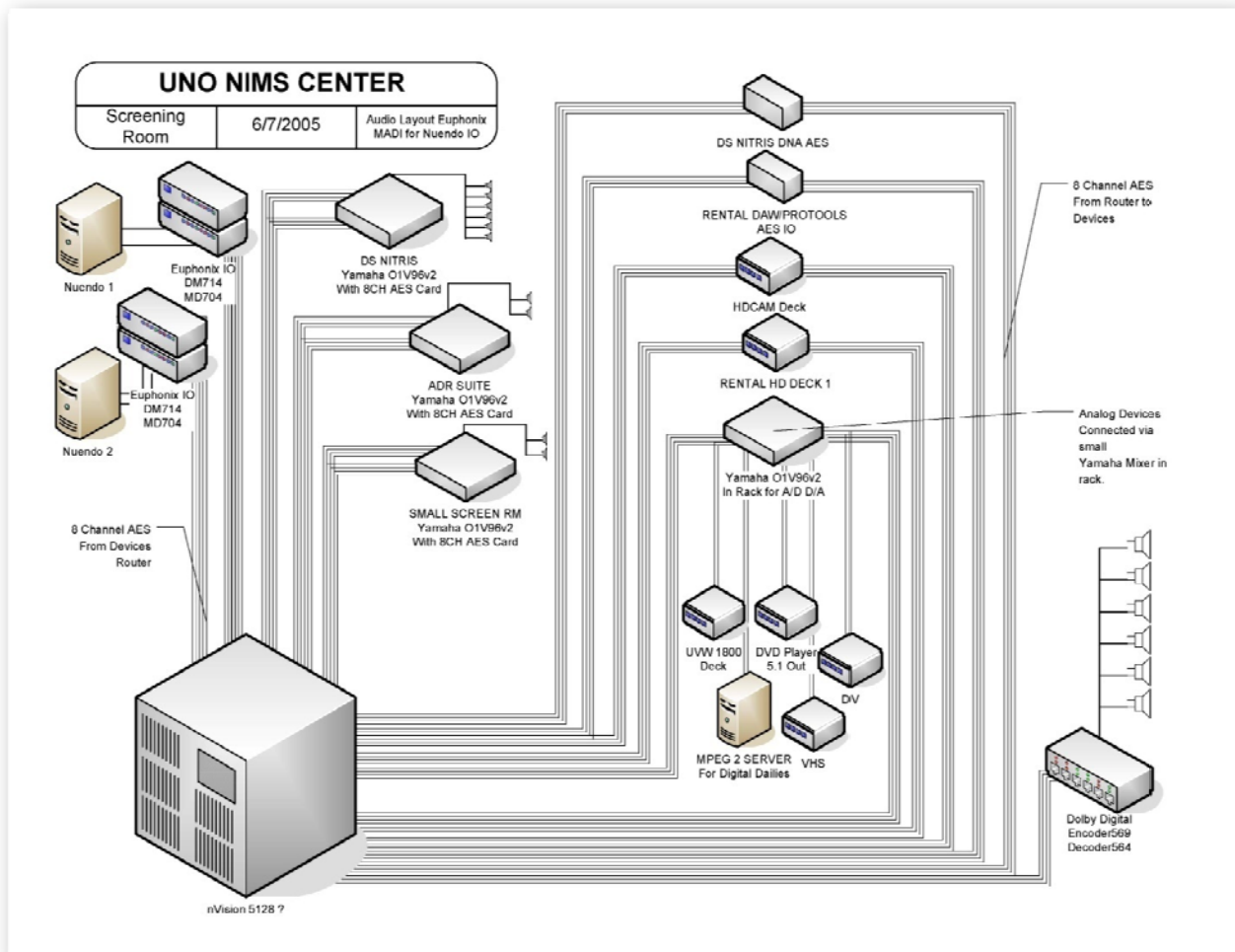**Video Routing**

Nims Center Postproduction Facilities Design

Audio Monitoring and Projection

Audio Routing

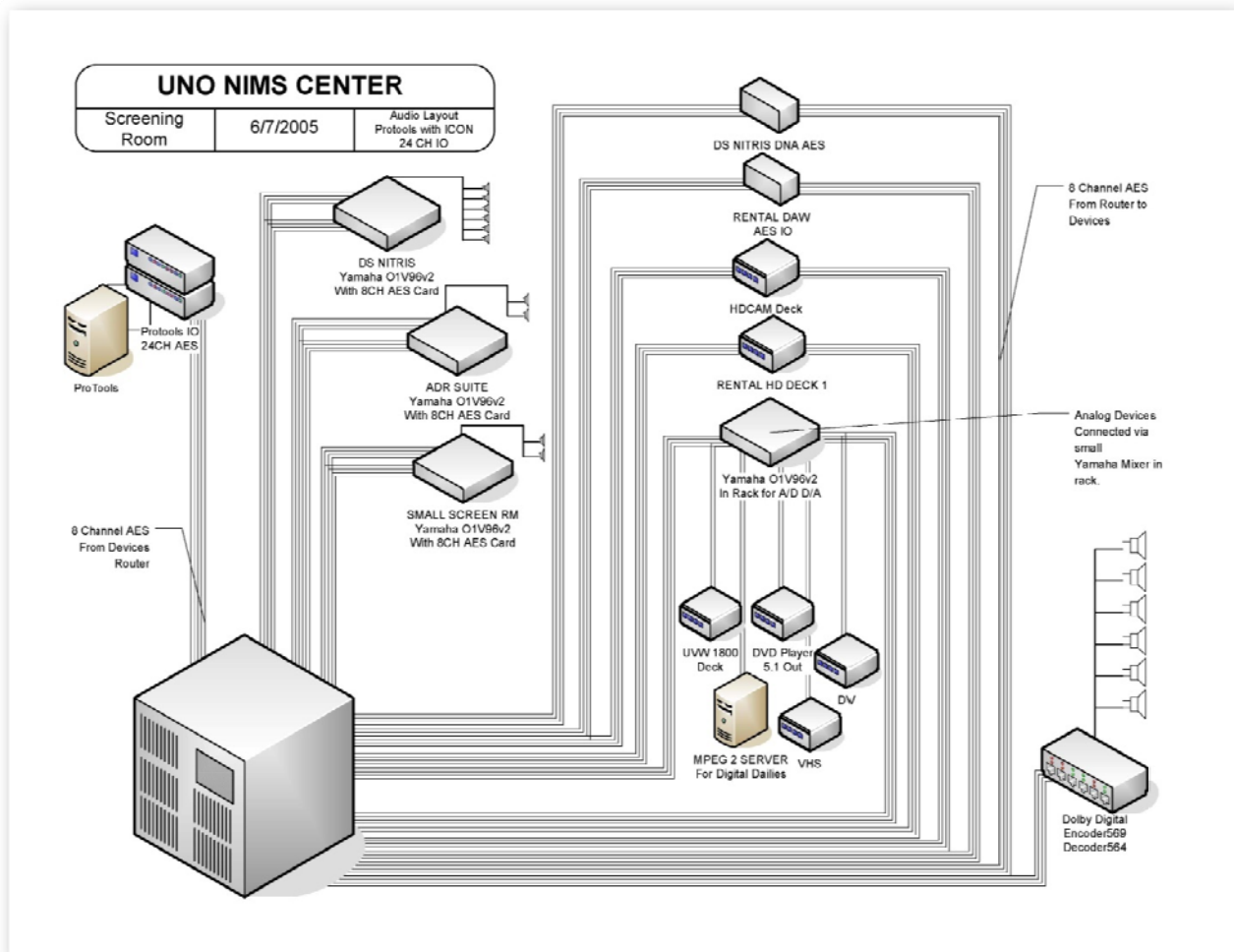**Better Audio Routing System Using nVison Router and Euphonix IO AES**

Nims Center Postproduction Facilities Design
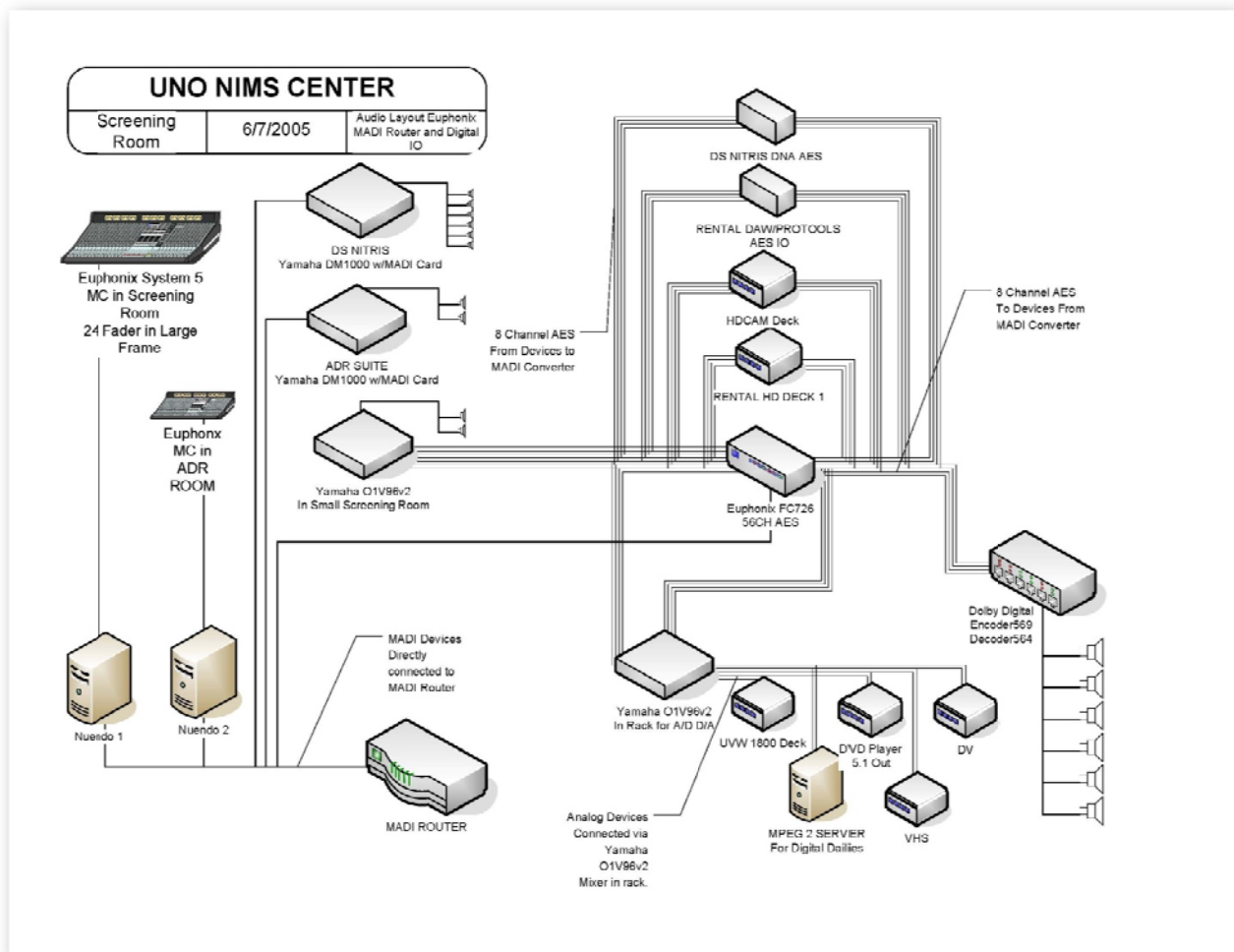
**Final Audio Design Using Euphonix MADI Router and System 5 MC**

UNO NIMS CENTER

Screening Room	6/7/2005	Audio Layout Protools with ICON 24 CH IO

Older Audio System Design with Protools
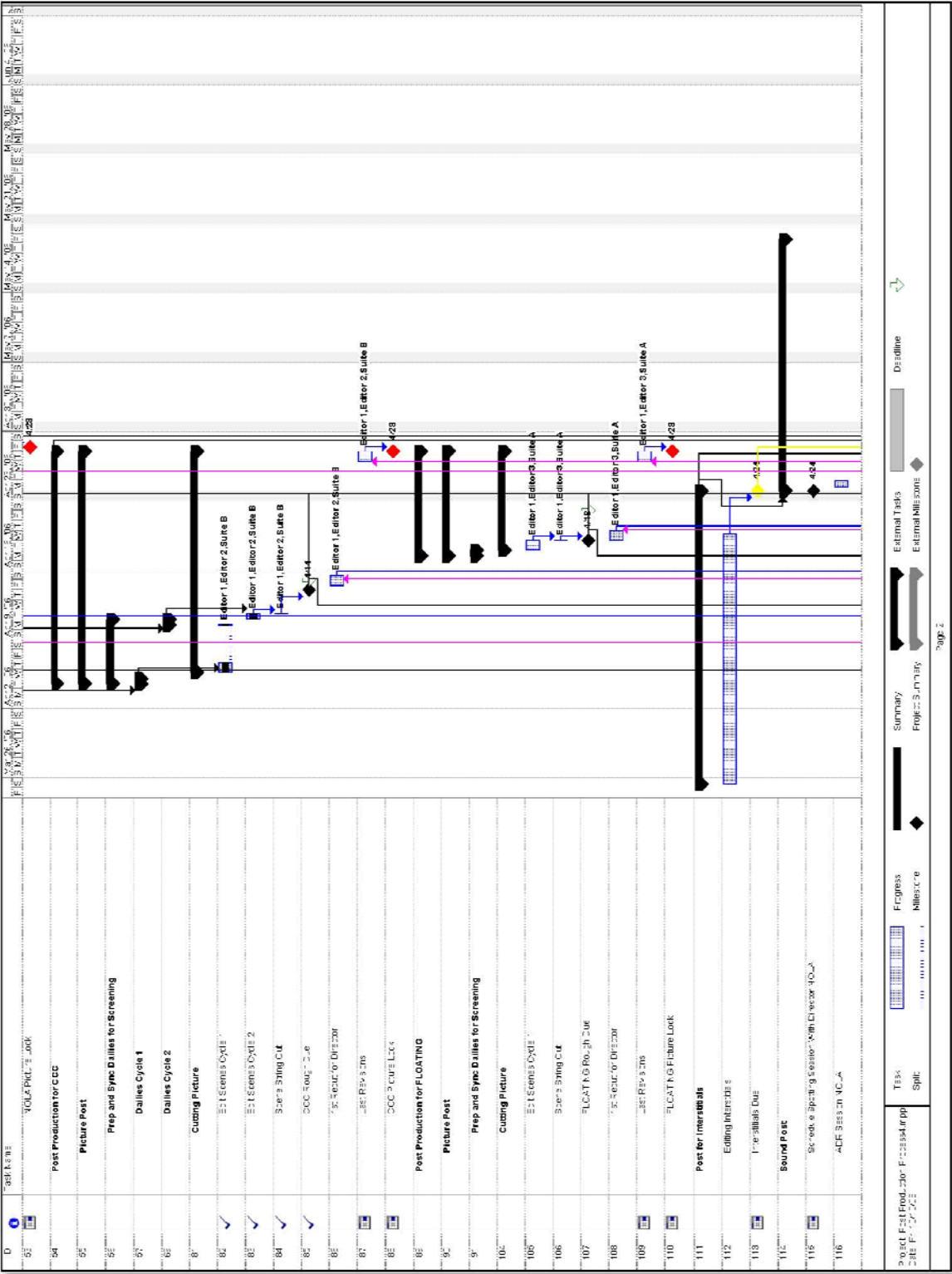
Postproduction Workflow Design

Watermarks

Serving as postproduction supervisor on the spring film Watermarks, I developed a workflow that allowed 3 separate student crews to post three separate short films and combine those shorts together with interstitial material to make one coherent film. The project required tight schedules and coordination to bring together the material created by four production crews, four editors, and four sound mixers along with graphic artists and musicians and complete what is normally a two semester project in one semester after Katrina.
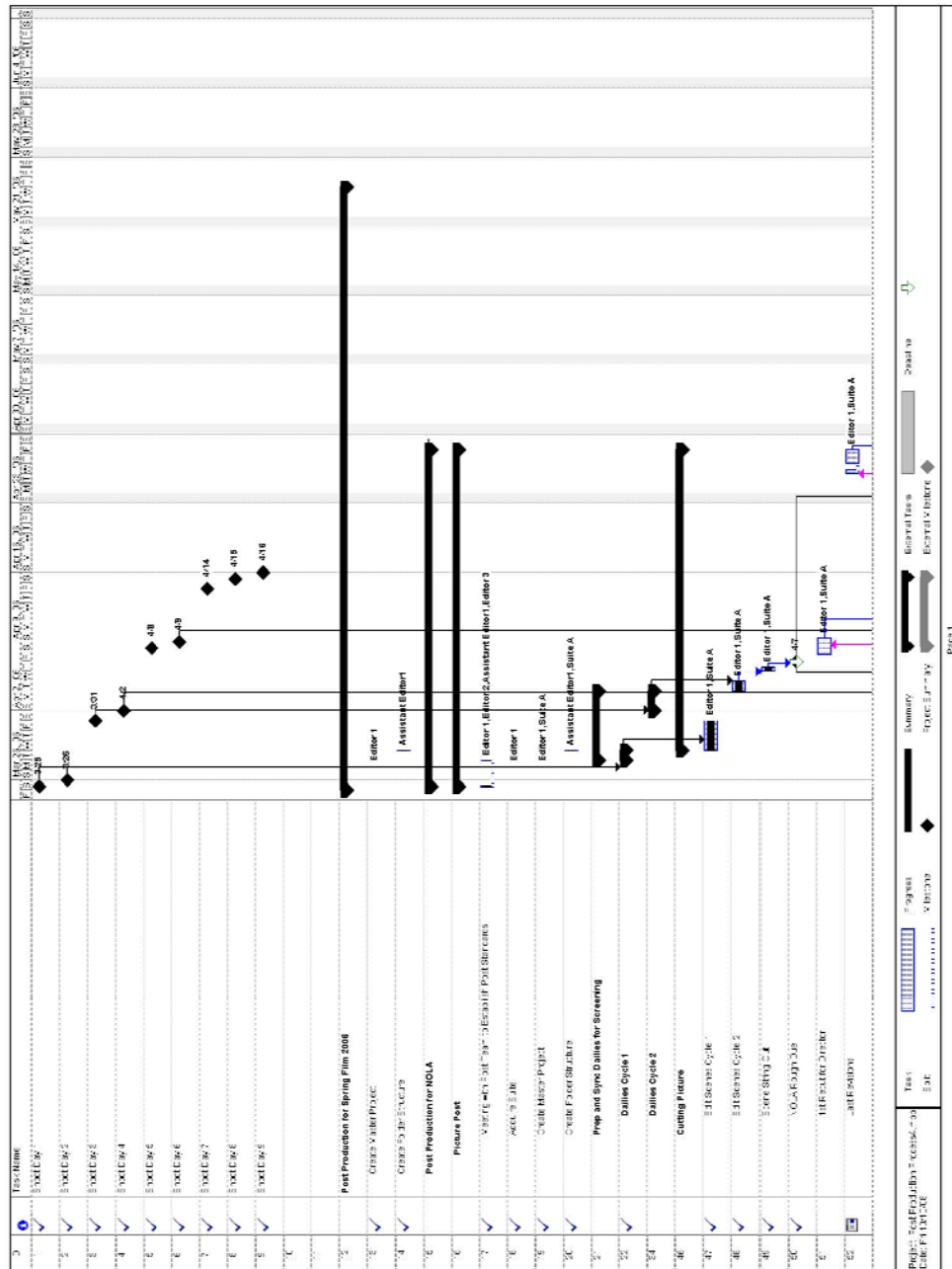
Production Project Workflow Gant Chart

Production Project Workflow Gant Chart

Production Project Workflow Gant Chart

Robert Racine Assistant Professor of Digital Technology | 10/10/2008

Production Project Workflow Gant Chart
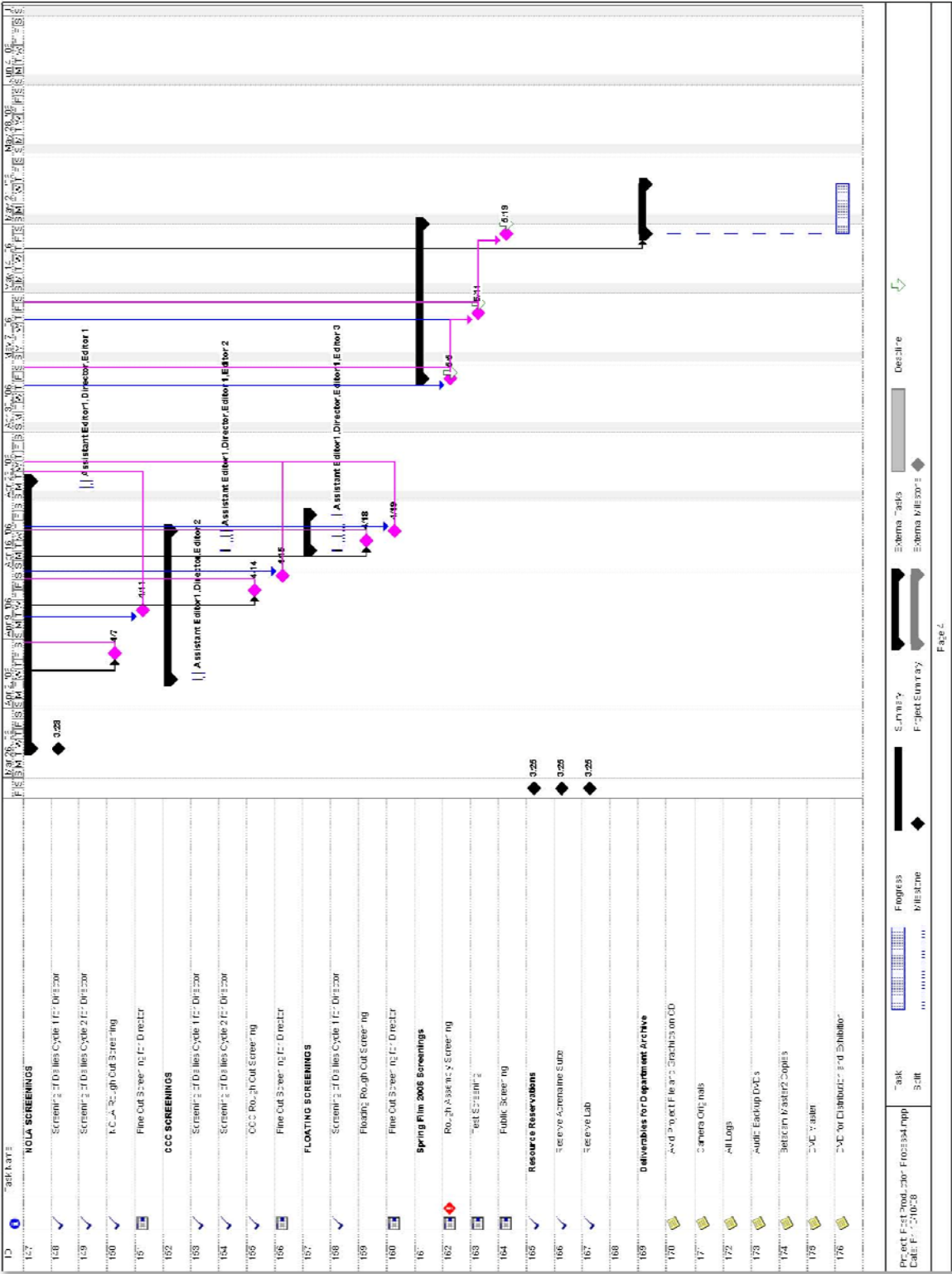
Postproduction Workflow Design

Flip Mavens

The department acquired 8 Panasonic HVX 200 HD cameras in January of 2008. Flip Mavens was the first film that we shot using the P2 HD file based system. I designed a system that would allow for backup of files and ingest into Avid. We also needed to down rez the files to reduce bandwidth on the network while working. My work on this project plus the four years of experience building the department and Nims Center post facilities culminated in August of 2008 when I was invited by Avid Technology to do a presentation on their behalf on file based HD workflow at the University Film and Video Association annual conference in Colorado Springs. Details of that presentation are included in this document.
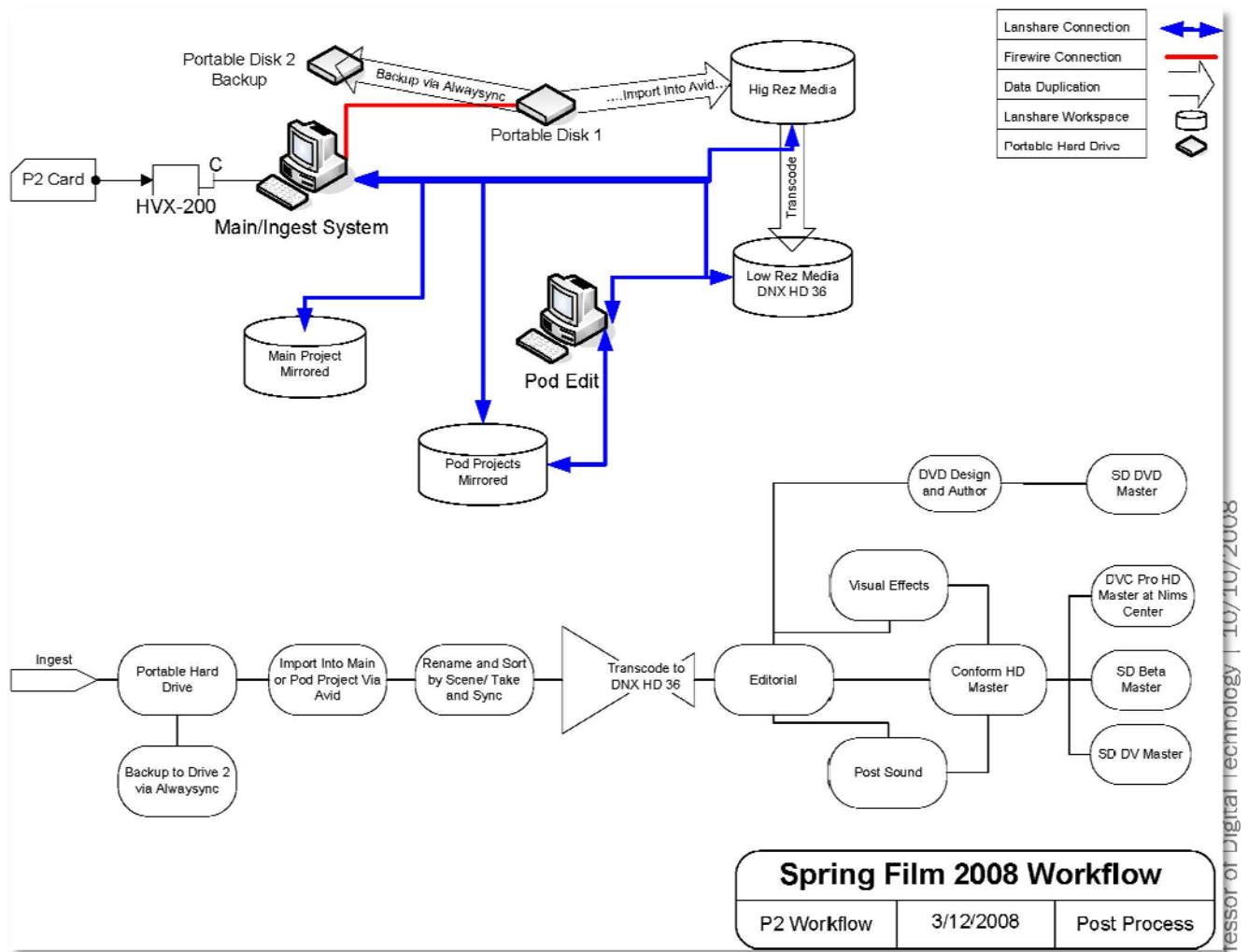
Workflow schematic for P2 media with 720p24n HD source

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