

**Madison City Channel
Five-Year Equipment and
Software Purchasing Plan**

2010-2014

Introduction

This document only covers equipment and software purchases. It does not include office supplies, storage media such as optical discs and videotape, batteries, gaffer's tape, or lighting and set construction supplies. It does not include repairs or preventive maintenance. It does not include training, travel, advertising, subscriptions, and other costs traditionally funded by MVS. It also does not include a contingent reserve, although such a reserve would be advisable, particularly as it applies to major system upgrades.

Included in this document are annual recurring costs for software upgrades, updates, and maintenance agreements. These costs will likely increase from year to year. Other less frequently recurring costs include hardware upgrades of non-IT supported computers, additional online storage arrays, additional hard drives for offline backups of those arrays, and power distribution equipment for those arrays.

In addition to these recurring costs, the studio control room, the remote multi-camera production system, the council chambers robotic production system, and the master control suite are scheduled for upgrades between 2011 and 2014. These upgrades include replacement of all major components. It is anticipated that these components will need to be replaced again after approximately ten years of operation.

Estimated costs are based on either list prices or retail prices of current models. Actual costs will likely be lower. However, unanticipated costs of cables, connectors, power distribution, and rack mounting equipment will likely make up for the difference. It may be wise to include a contingent reserve of 5-15% to cover unanticipated expenses related to installation.

Estimated Expenses by Year

2010	\$15300
2011	\$161411
2012	\$95843
2013	\$134787
2014	\$120293

2010 Summary

Based on the 2010 capital budget, all items from 2010 were moved to 2011 and all subsequent purchases were pushed back a year. However, as we've been filling our online storage arrays faster than anticipated, an online storage array with backup hard drives was moved up from 2011.

2010 also includes replacement of our wireless microphone systems, which will become illegal to operate on June 12, 2010 as a result of recent FCC VHS frequency reassignments.

2010 Purchases

Revised 5/5/2010

Master Control

Promise Vtrak VTJ610sS SAS JBOD Expansion Module	2600
2TB SATA HD (16)	4800

2TB SATA HD (16)	4800
	<u>12200</u>
<u>Wireless Microphone Systems</u>	
Sennheiser EW ENG G3 Wireless Mic System (lavs/plug-on) (2)	1600
Sennheiser EW 165 G3 Wireless Mic System (handheld) (2)	<u>1500</u>
	3100
TOTAL	15300

2011 Summary

2011 contains several purchases carried over from previous years. This includes a primary acquisition camcorder to replace the Sony UVW-100 Betacam camcorder purchased in 1997, audio improvements to the remote multi-camera production system, a DVD burner/printer/duplicator, and fiber optic equipment to allow live broadcasts from remote locations such as Monona Terrace, Overture Center, or other city facilities with fiber optic connections to the Madison Municipal Building. An automated titling system to allow text messages and graphics to be overlaid on our outgoing signal in Master Control is also included.

2011 also includes the upgrade of the studio control room and the studio cameras. This system was scheduled to be upgraded in 2010, and was last upgraded in 1999. The upgrade replaces all major components and includes cameras that can also be used with the remote multi-camera production system, or as standalone camcorders for single-camera productions. This upgrade would utilize the existing HD/SD capture computer for primary recording, and an existing VTR for standard definition backup recording. The current audio equipment would continue to be utilized.

2011 Purchases

Revised 5/5/2010

Master Control

APC SUA3000RMJ2UB 2700W UPS (4)	4176
Symetrix 422 AGC	295
TitleBox	7100
Fiberlink 3440 Fiber Optic Video System (2)	<u>3240</u>
	14811

Remote Multicamera Audio Improvements

Mogami Neglex Quad Mic Cable (565')	579
Neutrik XX Female XLR Connectors (24)	60
Neutrik XX Male XLR Connectors (24)	57
Atlas DS-7 Adjustable Desk Stands (4)	68
Gooseneck Mics (12)	3720
Whirlwind PB12C 12 Channel Press Box	400
Mackie SRM-350 Powered Speakers (2)	1100
Carvin SS20 Speaker Stands (2)	100
DBX AFS224 Feedback Eliminator	<u>300</u>
	6384

Primary Acquisition Camcorder

Panasonic HPX500 Camcorder/4 16GB P2/Fujinon Lens w/2X	21845
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Studio Control HD Upgrade

Panasonic AV-HS400 Switcher	9200
Panasonic AG-HPX500 Camcorder (3)	60000

Panasonic AJ-RC10G Remote Control (3)	12000
Panasonic BTLH80W 7.9" HD Monitor (3)	6000
Comprehensive 25' Power Cable (3)	150
Comprehensive 50' Power Cable (4)	320
Datavideo CG-350 Character Generator	5000
Apple 23" Cinema Display (2)	1700
Black Magic HDLink (2)	800
Tektronix WVR5000A0 HD WFM/VSM	<u>5900</u>
	101070

Software

IMSI TurboCAD Mac Pro v2 (MAC)	192
OmniGraffle Professional 4 (MAC)	144
Parallels Desktop 3.0 (MAC-NLE1)	77
SonicFire Pro Music/Software Bundle	300
Updates, etc.	<u>8500</u>
	9213

Support Subscriptions/Maintenance Plans

.Mac	100
PlayBox	1123
MetaSan	<u>2720</u>
	3943

Misc.

Aja IOLRM Rackmount Kit for IoLA	100
Griffin PowerMate	45
Epson PP-100 Discproducer CD/DVD Burner/Printer	3000
Motherboard/CPU/RAM (MCC12CCB)	500
Motherboard/CPU/RAM/Video Card (MCC12OFFLINE)	<u>500</u>
	4145

TOTAL 161411

2012 Summary

2012 includes the upgrade of the remote multi-camera production system. This system was built in 2002. The upgrade replaces all major components and includes cameras that can also be used in the studio, or as standalone camcorders for single-camera productions. This upgrade would utilize an existing VTR for standard definition backup recording. The current audio equipment would continue to be utilized. The upgrade also includes the addition of an online character generator.

Also included in 2013 are upgrades to two of the nonlinear edit suites and the laptop that's used with the remote multi-camera production system.

2012 Purchases

Revised 5/5/2010

NLE Upgrade

MacPro (w/FCP Studio 3) (2)	10000
Aja Kona LHe (2)	<u>3000</u>
	13000

<u>Laptop Upgrade</u>	
17" MacBook Pro	2800

<u>Remote Multicamera HD Upgrade</u>	
Panasonic AV-HS400 Switcher	9200
Panasonic AG-HPX500 Camcorder (2)	40000
Panasonic AJRC10G Remote Control (3)	12000
Panasonic CR020M 20 Meter Cable (4)	930
Panasonic BTLH80W 7.9" HD Monitor (2)	4000
Comprehensive 50' Power Cable (4)	320
Datavideo CG-350 Character Generator	5000
MOTU V4HD Interface	2750
Tektronix WVR5000A0 HD WFM/VSM	<u>5900</u>
	80100

<u>Software</u>	
Updates, etc.	9000

<u>Support Subscriptions/Maintenance Plans</u>	
.Mac	100
PlayBox	1123
MetaSan	<u>2720</u>
	3943

TOTAL	95843
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2013 Summary

2013 includes the upgrade of the Council Chamber robotic production system. This system was built in 2005. The upgrade replaces all major components.

Also included in 2013 is an online storage array with backup hard drives and an uninterruptible power supply.

2013 Purchases Revised 5/5/2010

<u>Master Control</u>	
APC SUA3000RMJ2UB 2700W UPS	1044
Promise Vtrak VTJ610sS SAS JBOD Expansion Module	2600
2TB SATA HD (x16)	4800
2TB SATA HD (x16)	<u>4800</u>
	13244

<u>Council Chamber Robotic System HD Upgrade</u>	
Panasonic AV-HS400 Switcher	9200
AK-HC1800N Camera (3)	84000
Datavideo CG-350 Character Generator	5000
Apple 23" Cinema Display (2)	1700
Black Magic HDLink (2)	800
Aja Kona LH	1500

Tektronix WVR5000A0 HD WFM/VSM	5900
	<u>108100</u>
<u>Software</u>	
Updates, etc.	9500
<u>Support Subscriptions/Maintenance Plans</u>	
.Mac	100
PlayBox	1123
MetaSan	<u>2720</u>
	3943
TOTAL	134787

2014 Summary

2014 includes the upgrade of the automated master control system. This system was built in 1999. The upgrade replaces all major components. The current PlayBox servers will be upgraded to HD and retained for backup.

2014 Purchases

Revised 5/5/2010

<u>Master Control HD Upgrade</u>	
Black Magic DeckLink HD Extreme (2)	2000
Link Electronics 862-1616DAF 16x16 HDSDI Router	12300
AirBox HD Server	12000
TitleBox HD Server	12000
Apple 23" Cinema Display	850
Black Magic HDLink	400
TV One C2-2355 HDSDI Scaler	2800
Comm. Specialties 3150-B7L/3151-B7L HDSDI/Fiber Converters (x2)	1700
MacPro (w/FCP Studio 3)	5000
Sony Bravia 32" 1080p LCD HDTV (2)	2400
Tektronix WVR5000A0 HD WFM/VSM	<u>5900</u>
	106350
<u>Software</u>	
Updates, etc.	10000
<u>Support Subscriptions/Maintenance Plans</u>	
.Mac	100
PlayBox	1123
MetaSan	<u>2720</u>
	3943
TOTAL	120293