



Operating System 2.0

New Product Training

June 29 & July 1, 2010

**Eldon Greenwood
Ross Livingston**

Key Benefits of OS 2.0

For Customers

- An updated look and a streamlined user experience
- Faster access to audio and video content
- More seamless integration with iTunes, Windows Media Player & other media management tools
- Improved customization of UI and system services
- Support for non-English languages within Navigator
- Access to the 4Store™ Application Marketplace

For Dealers and Installers

- Compelling new custom solutions for customers without significant programming
- Improvements in integration of certified 3rd-party solutions
- New software-enabled functionality
- New hardware products

For 3rd-party Developer, a more capable platform

- 4Store™ Developers Program – develop applications to entertain, inform and enhance Control4 systems
- Flash-based Navigator SDK – allows the development of custom interfaces
- DriverWorks SDK – contains continued improvements to features and documentation based on experience gained working with active partners
- Preferential display of Control4 certified drivers in Composer driver searches

Training Agenda

The Most Important 30 minutes

30 minutes

- What you absolutely must know!
- Licensing: Composer and Software Licenses
- How to Upgrade

OS 2.0 – Features and Functionality

40 minutes

- New User Interface – new Features
 - Favorites, Custom Home Page, Page Flips, etc.
- Other Improvements...
- A Few Limitations...

4Store – Features and Functionality

20 minutes

Q&A

30 minutes

Please submit your questions via the Chat interface. We'll open up for Q&A at the conclusion of the session

Documentation & Instructions

Read This First!

- A one page document that you should review before every customer installation with important reminders to help your installer prepare for a successful outcome

Update Instructions for OS 2.0

- Complete update instructions which walk you through the entire upgrade procedure

OS 2.0 Release Notes

- New Features and Functionality
- Other Changes
- Known Limitations
- Firmware Versions
- Upgrading to OS 2.0, including validated upgrade paths

Tech Support Knowledge Base

- Other important documentation, both existing and newly created...

New My.Control4.com Services

Composer Licensing

- Allows Dealer to de-activate an Installer who's no longer employed
- Default – 50 Composer Licenses per dealer
- Maximum of 5 active licenses per installer account

Electronic Software Licenses – Purchase and Management

- Purchase Software Licenses for Consumers

Credit Card purchases accepted in US and Canada

Purchase Order purchases accepted world wide

- Electronic Software Licenses

Software License 2.0

iPad and iPhone Mobile Navigator licenses

4Sight

Composer HE

- Licenses are assigned directly to consumer accounts without requiring manual entry

My.Control4.com Account Types

Dealer Accounts

- Dealer account on My.Control4.com for each authorized Control4 dealer
- One registered controller (Control4 system) per dealer account
- Each dealer account can have multiple user logins, with various privileges as specified by dealer account owner
- Dealer logins used for remote access to consumer systems: programming, support
- Dealer logins also used to log into dealer portal & Tech Support knowledge base
- New with 2.0 – dealer account logins used for Composer Pro licensing
- Includes free 4Sight, 10 iPad/iPhone licenses, and free 2.0 Software License

Consumer Accounts

- Installer home systems and other dealer systems (besides the main system)
- Customer systems
- Apply licenses for 4Sight, Composer HE, 2.0 Software License, iPad/iPhone
- Web Navigator

Composer Pro 2.0 Activation

1. Dealer Account Owner assigns Composer licenses to dealer user accounts
2. Download and Install Composer
3. Activate Composer using dealer user account credentials
4. Renew activation every 30 days

[manage licenses](#) [purchase licenses](#) [composer pro licenses](#) [order history](#)

Composer Pro License Administration

License Usage

Licenses Available: 35

Licenses Distributed: 15

Licenses Active: 3

Users

user	email		max	active	inactive
control4 dealer	dealer@control4.com	<input type="checkbox"/> Enable	0	0	0
eldon dealer	eldon@control4.com	<input checked="" type="checkbox"/> Enable	5	3	0
ross livingston	rlivingston@control4.com	<input checked="" type="checkbox"/> Enable	5	0	0
matt sand	msand@control4.com	<input checked="" type="checkbox"/> Enable	5	0	0
		<input type="checkbox"/> Enable	0	0	0

[Update All Users](#)

Register Composer...

Please enter your 4Sight dealer credentials to register this copy of Composer before continuing.

[Don't have a 4Sight dealer account yet?](#)

Email Address:

Password:

PC Name:

2.0 Software Licenses

Dealer Account is Free

Free Upgrade Promo

- Primary controllers purchased after December 23, 2009 – no paperwork required – automatically upgraded based on mac address of controller
- All new system purchases

Consumer Accounts

- C4-OS2-Upgrade-E
- MSRP \$399 – Dealer Price \$199.50

Dealer Employee Accommodation Program

- Limited time offer for \$39.95, good through August 31, 2010
- Purchaser must be an employee of an authorized Control4 dealer or distributor
- Software License must be for use with their own system
- Software License must be purchased via the standard Employee Accommodation program process (no online purchase)

Electronic License Product SKUs

Purchased Licenses

ITEMCODE (SKU)	ITEMNAME (Product)	PRICE	MSRP
C4-3PNAV-E	3rd Party Navigator License (electronic)	\$99	\$99
C4-3PNAV-IPAD-E	Mobile Navigator License for Apple iPad (electronic)	\$99	\$99
C4-4Sight-E	4Sight 1 Year Subscription (electronic)	\$49.50	\$99
C4-CHE-XXX-E	Composer Home Edition (electronic)	\$74.50	\$149
C4-OS2-Upgrade-E	2.0 Software Upgrade License (electronic)	\$199.50	\$399

Trial Licenses

C4-3PNAV-TRIAL-E	3rd Party Navigator License (electronic) Trial	\$0	\$0
C4-3PNAV-IPADTRIAL-E	Mobile Navigator License for Apple iPad (electronic) Trial	\$0	\$0
C4-4SIGHT-TRIAL-E	4Sight 90 day Subscription (electronic)	\$0	\$0

Online License Purchases

- Only authorized dealer account users
- Credit Card purchase in US & Canada
- Licenses added to inventory are immediately available for use
- Use the same interface for free license purchases
- All license purchases are final

[manage licenses](#) [purchase licenses](#) [composer pro licenses](#) [order history](#)

Purchase Licenses


Please fill out the information below to purchase new software licenses.

Please note that all purchases are final!

* Indicates required field.

Licenses:

License Type *	<input type="text" value="iPad Trial (30 days)"/>
License Count *	<input type="text"/>
Notes	<input type="text"/>

 Add Licenses

Selected Licenses:

license type	price	count	sub-total	tax	total
iPad Trial (30 days)	\$0.00	<input type="text" value="10"/>	\$0.00	\$0.00	\$0.00
Software License (2.0.0) (no expiration)	\$199.50	<input type="text" value="10"/>	\$1,995.00	\$136.66	\$2,131.66
4Sight Services (365 days)	\$49.50	<input type="text" value="10"/>	\$495.00	\$33.91	\$528.91

Sub-Total	\$2,490.00
Tax	\$170.57
Total	\$2,660.57

 Update Quantities  Checkout

Manage Electronic Licenses

- Only authorized dealer account users
- Only assign licenses to your consumer accounts
- A license is used when it is assigned to a consumer
- Find Licenses
- Lookup Order History

[manage licenses](#) [purchase licenses](#) [composer pro licenses](#) [order history](#)

Manage Licenses

Find Licenses

Consumer Account	<input type="text"/>	Consumer Email	<input type="text"/>
Consumer First Name	<input type="text"/>	Consumer Last Name	<input type="text"/>
License Type	<input type="text" value="Select from list"/>	License Key	<input type="text"/>
Order ID	<input type="text"/>	Order Notes	<input type="text"/>

 Filter

Total Results:

Assign Licenses

license type	licenses available	
4Sight Services (365 days)	39	assign
4Sight Services Trial (90 days)	0	
Composer HE (no expiration)	24	assign
iPhone Navigator (no expiration)	48	assign
iPhone Navigator Trial (30 days)	0	
Software License (2.0.0) (no expiration)	9	assign
iPad (no expiration)	33	assign
iPad Trial (30 days)	0	

Check For Licenses

- Manage Licenses
- Customer Support tab
- See all assigned licenses

Account Name	Service Level	Allows Support	Online	Request Service Connection:
beta-egreenwood	4Sight	Yes	✓	

Account Type:	Consumer		
Name:	Eldon Greenwood	Email:	egreenwood-beta@control4.com
Controller:	control4_hc1000_0019D1948653	Enabled:	Yes
IP Address:	10.156.0.22	Real Ip Address:	204.246.145.6
Dealer:	Control4 Employees	Logged In:	Yes
Created:	9/6/2006	Modified:	6/28/2010
Last Check-In:	6/28/2010 4:31:40 PM	Purchased:	9/5/2006
Service Connection:	Service connection requested		
4Sight Expiration:	12/6/2010		
4Sight Services:	9593-2C47-9743-5994	Expires:	12/6/2010
4Sight Services:	F225-6320-624A-F285	Expires:	12/6/2009
4Sight Services:	598A-3667-F082-AA5A	Expires:	12/6/2008
4Sight Services:	C3FC-B27B-6335-1EF0	Expires:	12/5/2007
iPhone Navigator:	C02C-B460-4CDC-C0BA	Expires:	Never
Software License:	fb2de374-8b8c-4019-907b-a75000b23123	Expires:	Never
4Sight Services Trial:	BETA-0CB0-DC8A-55BE	Expires:	12/5/2006

Updating to OS 2.0

Install and Activate Composer 2.0

- Download and Install Composer 2.0
- The first time you run Composer, you will need to activate your license. Use the credentials of your dealer account on <http://my.control4.com>



Register Composer...

Please enter your 4Sight dealer credentials to register this copy of Composer before continuing.

[Don't have a 4Sight dealer account yet?](#)

Email Address: egreenwood-ebdealer@control4.

Password: ●●●●●●●●

PC Name: EGREENWOOD|

Clear Account Register Cancel

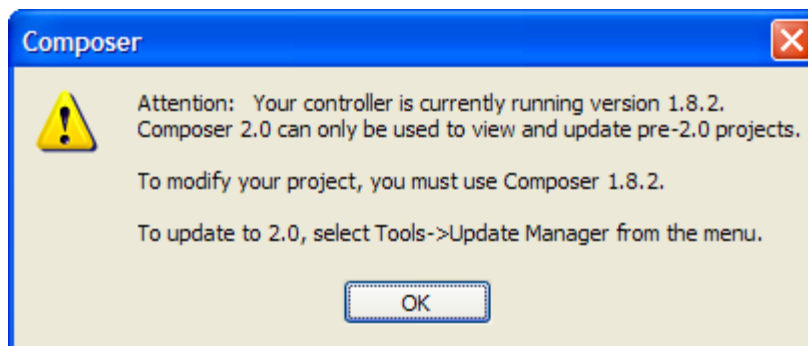
Pre-Work

- Make sure the customer has a consumer account on <http://my.control4.com> and that you are the Dealer of Record
- Purchase and assign a Software License, if needed
- Standard Stuff
 - Make sure your system is working correctly, all devices identified and online
 - Make a backup of your project using the CURRENT version (1.7.x or 1.8.2) of Composer

Converting your Project and Data

Update Manager:

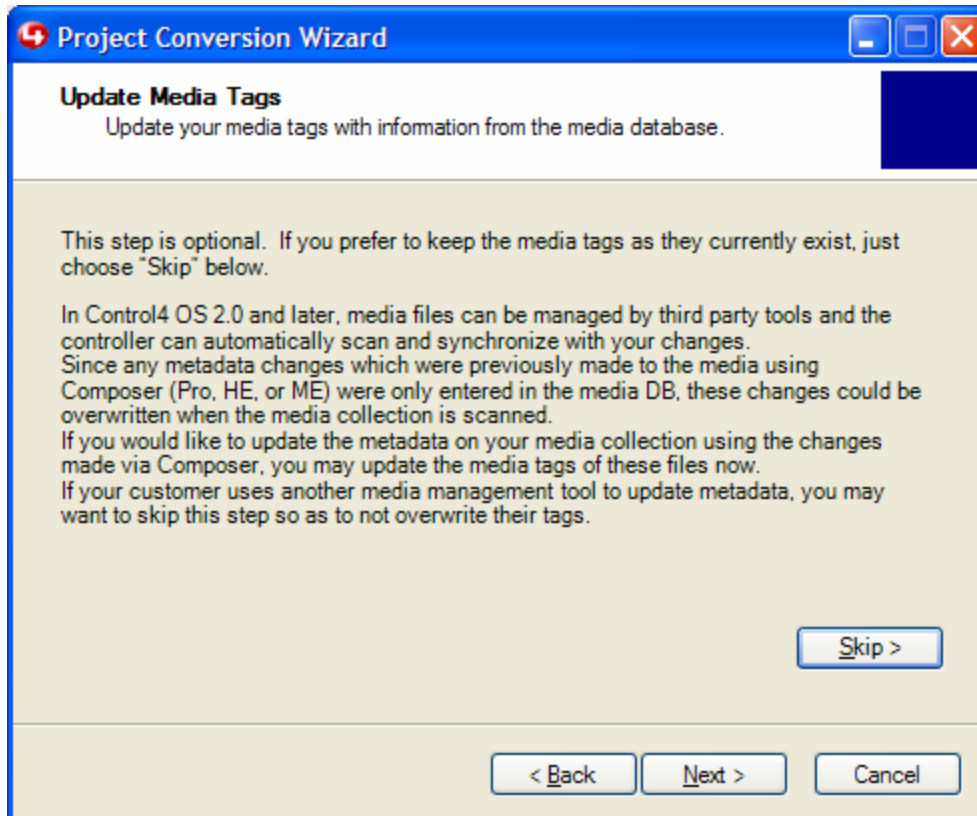
- You can update from any version system. But, you MUST use Composer 2.0 to initiate the update.
- If updating from 1.8.x, you're already on ZigBee Pro. If from a prior version, you will also need to update all ZigBee devices to ZigBee Pro.



Converting Media DB and adding Screen Saver resolution:

- You need to decide if you want to write tags to your MP3 files – this can take a long time
- Media DB will be converted.
- A new Screen Saver resolution (1024x768) is needed with 2.0. We'll use Composer to pre-scale all current screen saver photos to that resolution.

Writing metadata from Media database to tags

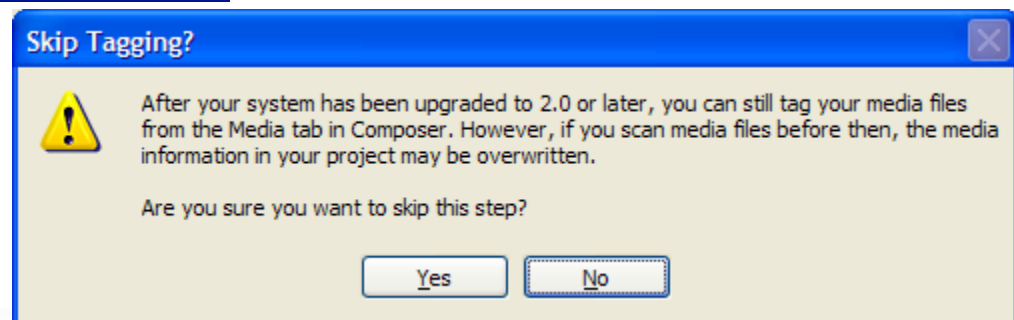


[Next>]

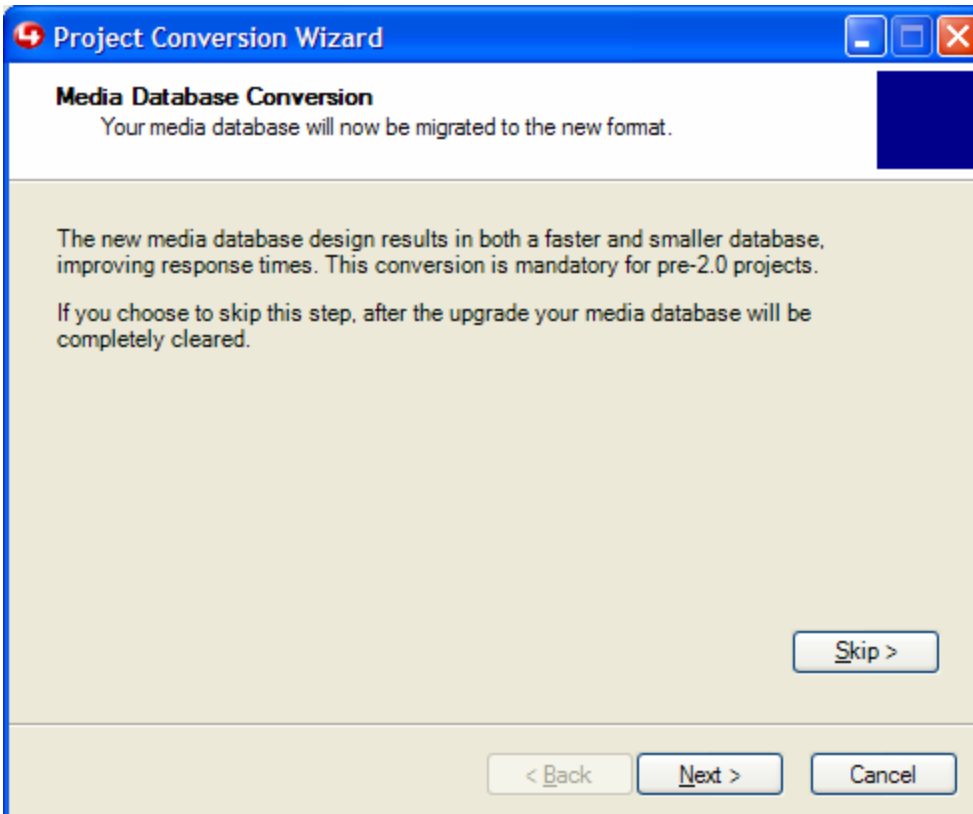
All changes you have previously made using Composer will be preserved. It is possible that you will overwrite id3 tags already included with the files.

[Skip>]

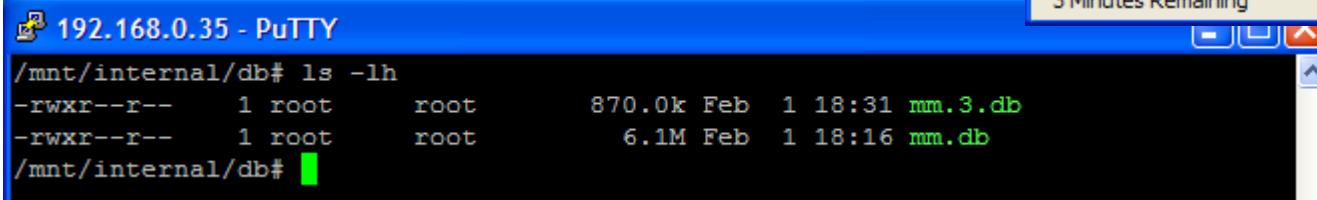
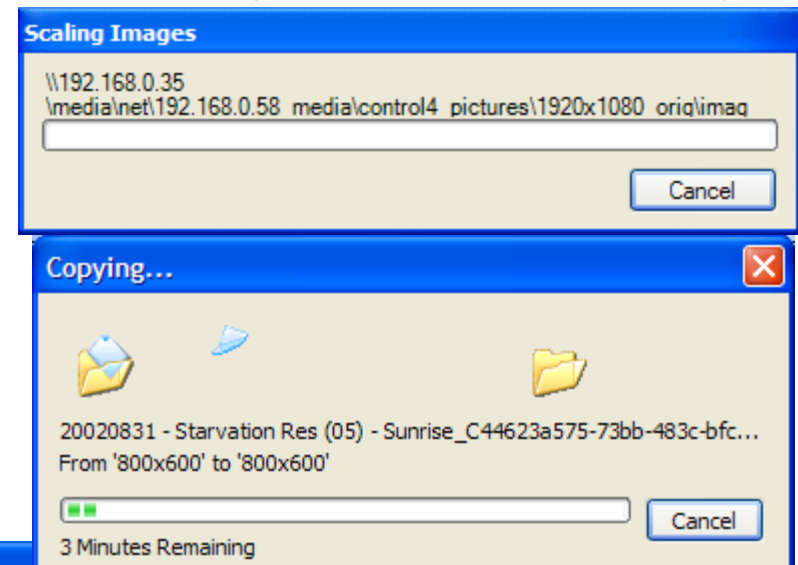
The first time you sync from the MP3 files, your file tags will replace the meta data stored in Composer.



Converting database / scaling images



Pre-scaling Screen Saver images



Converted DB dropped from 6.1 M to 870 K

Update Manager & ZigBee Updates

Update Manager

- IP device updates will proceed as you're accustomed
- You will need to recalibrate all Touch Screen devices

ZigBee firmware updates

- If you are not already on 1.8.x, you will need to create your ZigBee Pro mesh and update devices from EmberNet to ZigBee Pro
- There is new ZigBee Pro firmware for many of the devices within your system. This firmware update will be done automatically. While firmware is being updated, you should expect the ZigBee performance of the system to be somewhat sluggish.

Quick Reference: New Functionality in 2.0

Operating System 2.0

- Electronic licensing – all Control4 software licenses
- Locale (Internationalization)
- Programming Detective
- New media DB, media scanning functionality
- AAC codec support
- Hide/Show/Order Lights and Lighting Scenes
- Macros
- Page Flips – programmatic
- WPA Support
- Secure Connections Only (SSL)
- Select which ZigBee Server allows Join when using multiple ZigBee Servers within a system
- Modest ZigBee Pro performance improvement

2.0 Flash Navigator

- Whole home views, room browse
- Custom Home Page
- Favorites
- 4Store Applications
- Web Flash Navigator (4Sight)
- SDKs

Operating System 2.0 – User Interfaces

Flash Navigator



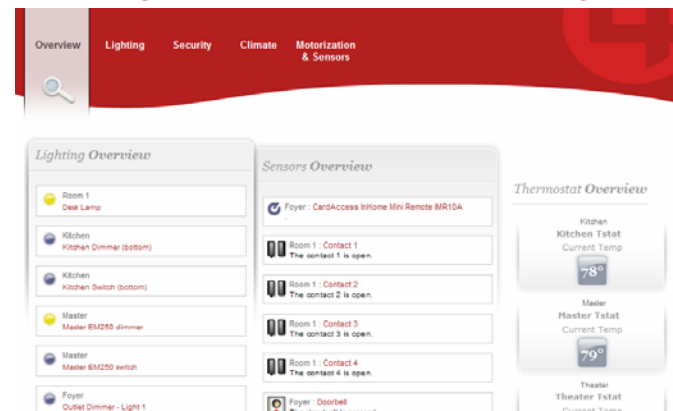
Flash – Web Navigator

List Navigator

Legacy Navigator



Legacy – HTML Navigator



Navigator Platforms

Navigator Platforms:

- List Navigators provide all functionality comparable to prior versions
- Legacy Navigators provide all functionality comparable to prior versions – new functionality will not be provided
- Flash Navigators provide all new functionality and most of the prior version functionality... with some limitations

Navigator Device	Supports update to 2.0	User Interface
Remote V1 / V2	No	
SR-250	Yes	List Navigator
LCD Keypad (POE and ZigBee)	Yes	List Navigator
Mini Touch Screen V1 / V2	Yes	Legacy Navigator
10.5" Portable V1	Yes	Legacy Navigator
10" Wall Mount	Yes	Legacy Navigator
HTC and Media Controller (on screen)	Yes (secondary controller only)	Legacy Navigator
Web Browser (Not Flash Capable)	Yes	Legacy HTML Navigator
10.5" Portable V2	Yes	Flash Navigator
HC-200 / HC-300 / HC-500 (on screen)	Yes	Flash Navigator
7" Wall Mount / Table Top / Portable	Yes	Flash Navigator
Web Browser (Flash Capable)	Yes	Flash Navigator
iPod Touch / iPad / iPhone	Yes	Custom Navigator

User Interface – Landing Pages

- **Access to Sources and Device Control**

- Watch
- Listen
- Security
- Comfort
- Lights *(no landing page)*
- More
- Settings

- **3rd-Party Apps**

- My Apps
- Register to any Landing Page



User Interface – Now Playing

- **Now Playing Bar**

- Always active when there is audio or video playing in the room
- Basic device controls
- Quick Link to Now Playing Page
- Quick Link to Device Control Page

- **Now Playing Page**

- **Device Control Page**



Zones Page

• Improvements

- Better support for analog sources – Amp / Matrix Switch configurations
- List Navigator & Flash Navigator
- Join Current Room to an active session with two clicks



New Media Database Controller-based Media Scans

New DB Benefits

- Smaller – My 6.1 MB media database was reduced to 870 KB just through the upgrade
- Faster / more Scalable
- Song Artists are implemented

Controller Scanning Benefits

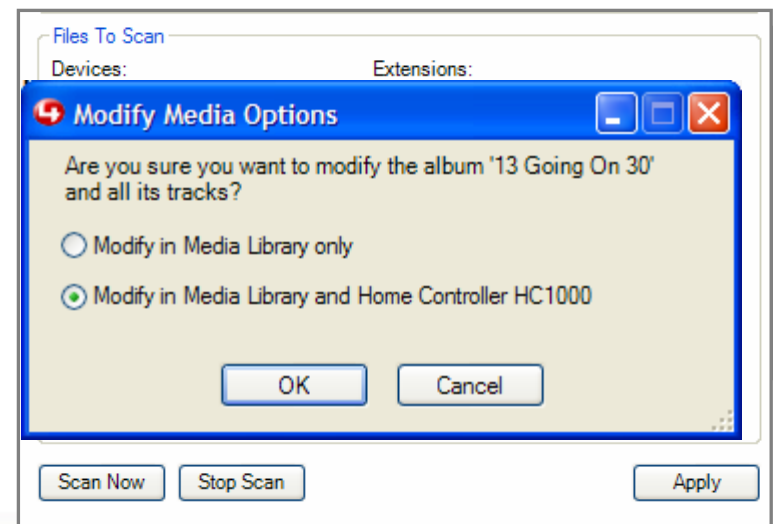
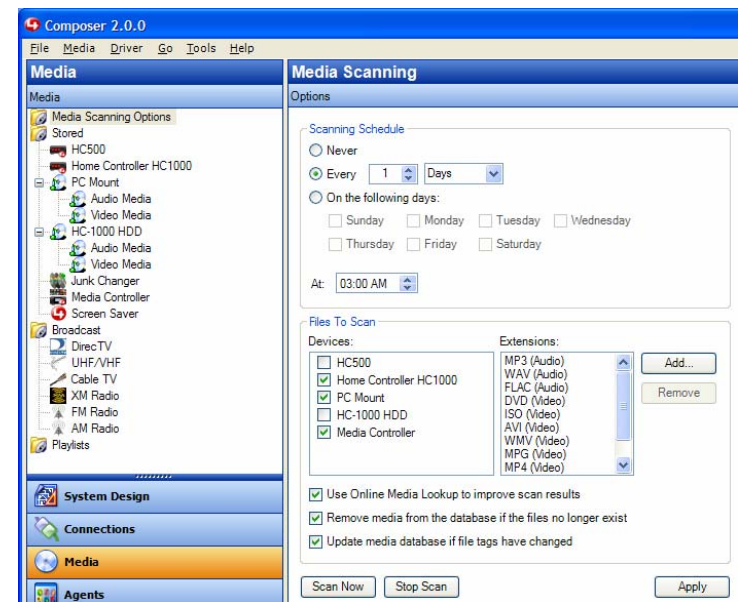
- Composer not required to scan – you can program scanning to anything
- Default scheduled scans available
- Much faster scan times [3,219 MP3 files, 16 GB]
 - 1 hr 15 minutes to scan using Composer 1.8.2
 - 18 minutes to scan using HC-200 running 2.0
 - 6 minutes to scan using HC-1000v2 running 2.0

Ability to use a 3rd-party media manager

- Remove media entry if file is removed (optional)
- Synchronize with tags (optional)
- Write tags to file (optional)

Of Note...

- Director does scanning so scan feedback is in director status area.
- Composer not updating media lists on each new entry. Use F5 to Refresh.



Director Scan Messages

The screenshot displays the Composer 2.0.0 interface. The main window is titled "System Diagnostics" and contains several monitoring panels:

- CPU Usage:** A bar chart showing 96% usage.
- Memory Usage:** A bar chart showing 74 MB usage.
- CPU Usage History:** A line graph showing CPU usage over time.
- Memory Usage History:** A line graph showing memory usage over time.
- Process List:** A table showing the following data:

Process	CPU (%)	Memory (KB)
kjournald	0	0
kstriped	0	0
cifsoplockd	0	0
smbd	0	2700
kthreadd	0	0
ntpd	0	936
smbd	0	2388
openvpn	0	556
zserver2	0	6216
- Director Messages:** A text box showing "12:03:08 PM - Scanning directory (49 of 443): /media/audio/ERG-Music/Les Misérables Original Broad" with a "History..." button.

On the right side, there is a music library window with a table of tracks:

Genre	Tracks
Pop	11
Soundtrack	1
Soundtrack	1
Soundtrack	1
Soundtrack	1
Soundtrack	1
Soundtrack	1
Soundtrack	1
Soundtrack	1
Soundtrack	1
Soundtrack	1
Soundtrack	1
Soundtrack	1
Soundtrack	1
R&B	1
Electronica/...	13
Pop	14

At the bottom of the interface, the "Programming" tab is active, and the status bar shows "Director Status: Scanning directory (49 of 443): /media/audio/ERG-Music/Les Misérables Original Broadway Cast/Les Misérables [D" and a "Connected" indicator.

.m4a (AAC Codec) now supported

Control4 now supports MP3, M4A (AAC), and FLAC Codecs for digital audio

- Add files to media storage location, scan
- Use a Network File Storage mount to access an iTunes library

- Limitations
 - AAC file must not be encumbered with DRM protection
 - AAC files can not be decoded on older processors or Touch Screens

Audio Endpoint	MP3	FLAC	AAC
Mini Touch Screen V1 / V2	Yes	Yes	No
Home Theater Controller and Media Controller	Yes	Yes (limited CPU)	No
7" Wall Mount / Table Top	Yes	Yes	No
Speaker Point	Yes	Yes	No
HC-200 / HC-300 / HC-500	Yes	Yes	Yes

Whole Home Lighting Control

• Improvements

- Hide / Display / Re-order Lights and Light Scenes
- Implicit Off Scenes – programmatic control
- UX model
 - Click On/Off
 - Press/Hold to Ramp
- Whole Home / Room Browser



Whole Home Temperature Control

• Improvements

- Outdoor temperature displayed on top bar (web service)
- All Thermostats in the project are visible on the Landing page
- Elegant interface for programming schedule



Whole Home Motors & Sensors Control

- **Improvements**

- Whole Home Browse Capability
- Icon or List View
- Time Stamp for most recent change
- Sortable by device name or timestamp



UI Customization

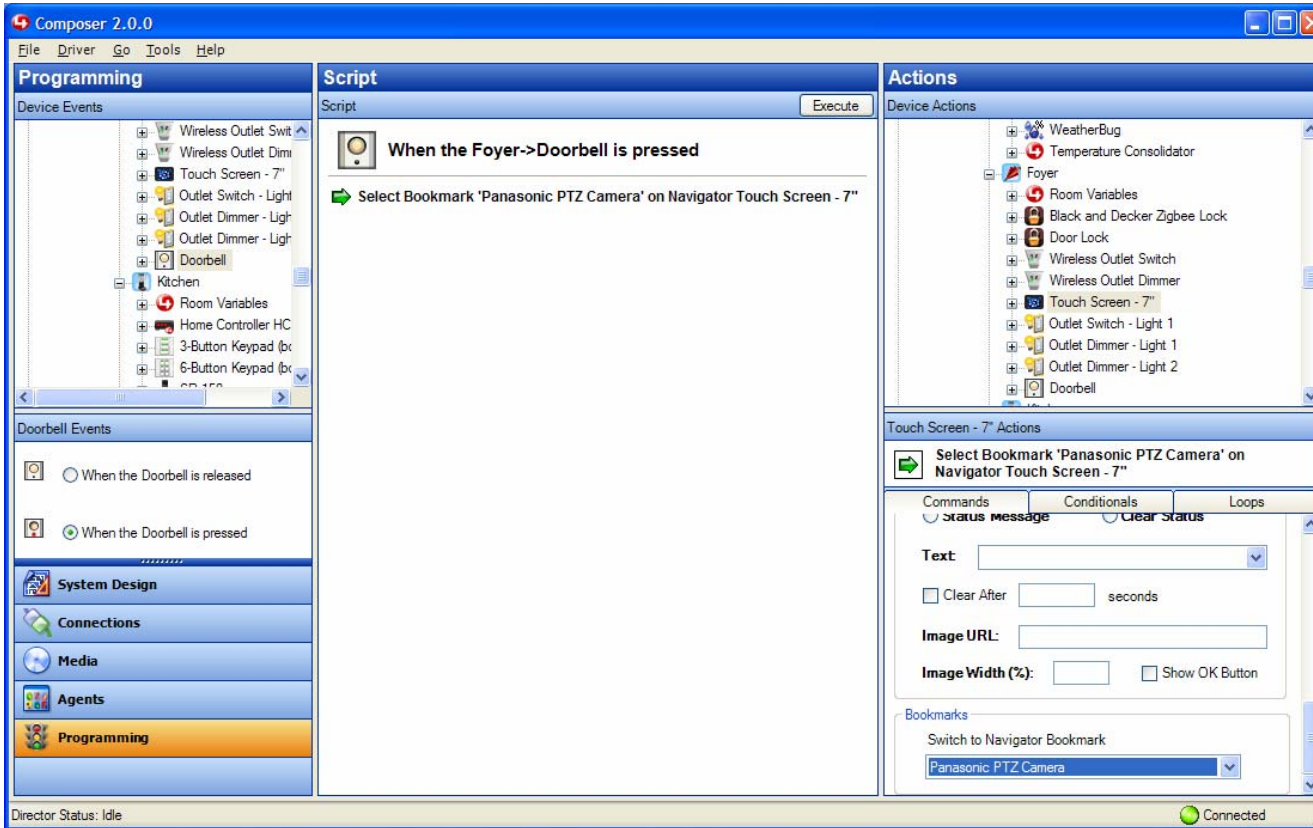
- **Wallpaper**
 - Control4 provided
 - User-provided (future)
- **Favorites**
 - User created Hot Links
 - One Button Access
 - Tie to Macros (optional)
- **Custom Home Page**
 - No programming required
 - Quick Access to Anything
 - Return to Custom Home automatically
 - Return to Control4 Home with one more C4 button press



Page Flips

Navigator Favorites or Shortcuts

- Navigator pages that can be directly accessed
- Favorites
- Composer Programming
- Device-specific Configuration (at present)



Macros

Macros

- Composer programming “routines” – can be executed via other Composer programming or via Navigator Favorites

Add Shortcut

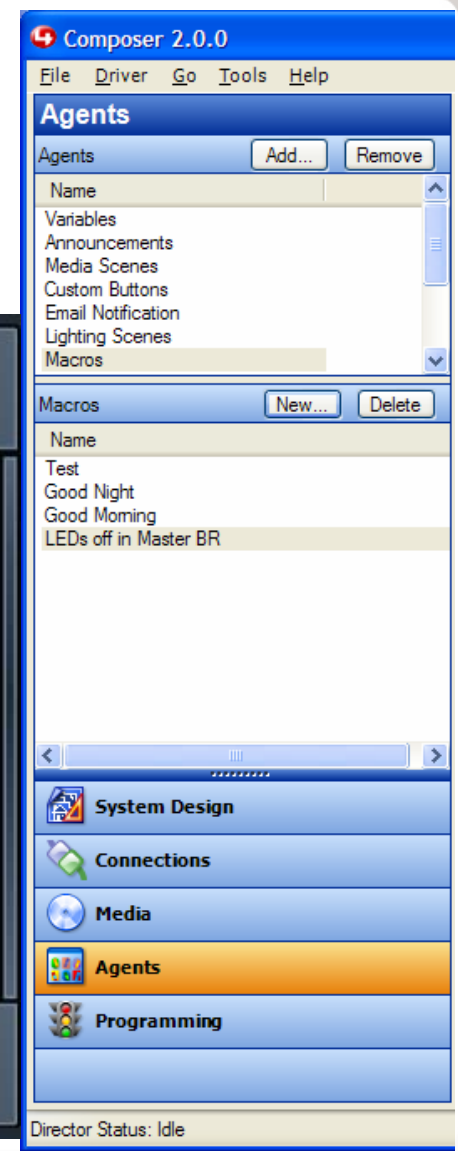
Title:

Icon: 

Go To: Home

Macro:

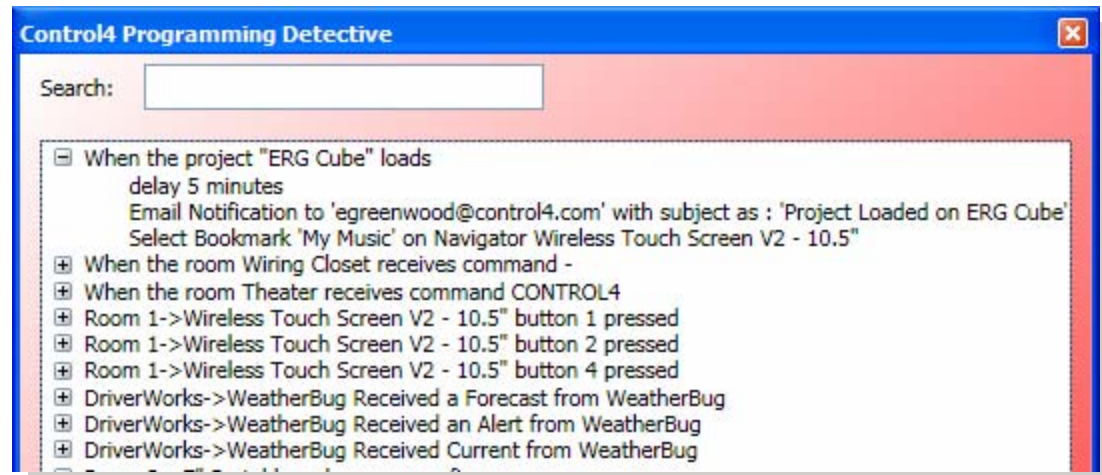
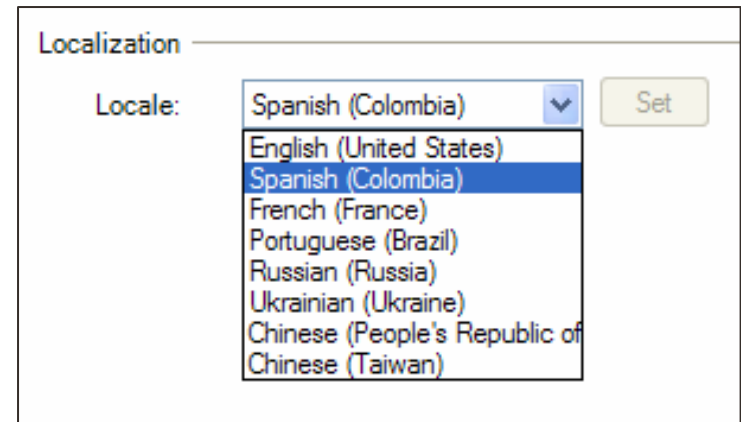
Folder:



Miscellaneous

Select Local Language for Navigator

- Languages supplied by Control4 worldwide distributors
- All Flash-based Navigators within system will use the selected language
- Composer disconnects and Director restarts when a locale is selected



Programming Detective

- Download from:
<http://downloads.control4.com/updates/PD/SelfExtract/ProgrammingDetective.exe>
- Find programming within the project

System Limitations

Standard Definition On Screen Interface

- The SD On Screen interface utilizes a scaled down HD interface. There is some banding on the top and bottom due to the different aspect ratio: HD is 16:9 while SD is 4:3

No USB Restore or USB Install functionality

- If you need to restore a device you will use the USB Restore image for 1.8.2. After it is restored, it can be re-updated to 2.0.
- 2.0 updates require an Internet connection. If you are installing a system without an Internet connection, it will need to be installed on 1.7.4 or 1.8.2 and updated to 2.0 when the Internet service is enabled.

Features Not Included

Features not included in Flash Navigator 2.0:

- Pool control proxy and GUI – this functionality hasn't been provided in the new Flash-based Navigator (yet), but will still work in the legacy interfaces
- Video wall agent user interface
- Lighting scene creation at Navigator interface
- Page locking in User Interface/disable view
- Browse CD (disc changers)

4Store

- A marketplace for apps for the smart home
- Add features without requiring a major OS update
- Differentiate the solution you provide
- Tap the creative genius of dealers, manufacturers, and developers
- Keep customers engaged and thinking about upgrades



How does it work?

- 4Store is installed with OS 2.0
- Users create an account on 4store.com
- Securely store credit card information
- Browse and buy apps on navigator (or web)
- Apps are downloaded to each Navigator
- Customization of Navigator
 - Bookmarks
 - Apps on landing pages
 - Macros, page flips, programming



4Store.com

- Browse Apps
- Search Apps
- Manage Account
- Review Apps
- Accept Gifts
- Beta Test Apps

4Store

- 4STORE HOME
- BROWSE APPS
- DEVELOPERS

My Account

- MY APPS
- MY SYSTEM
- SETUP PURCHASING
- PURCHASE HISTORY
- GIFTS AND INVITATIONS

FOSS

- HOME
- MY ACCOUNT
- LOG OUT

Manager

- UNBLOCK USERS

[MANAGE MY 4STORE ACCOUNT](#)

[LOGIN DEVELOPERS](#)

Apps For Your Control4 System

Introducing 4Store.

The application marketplace designed exclusively for the digital home. With apps you'd know from the Web or a mobile phone, plus those featuring control of entertainment, energy, security and shades, your Control4® system can get better and better with every download. The first are available now.



[Learn More](#) [Develop Apps](#)

Featured Apps

- Photos
- Tetrad
- Dinner Out
- Calendar
- Tweeter

Developers wanted.

Millions of devices. A brand new platform is ready for you. Reap the rewards!



Create Your 4Store™ Account!

You've seen what apps can do on your mobile phone, just think what they can do on every system, available from every touch screen in your home!



4Store on Navigator

Browse & Search for Apps

Update Navigator

Rate Apps

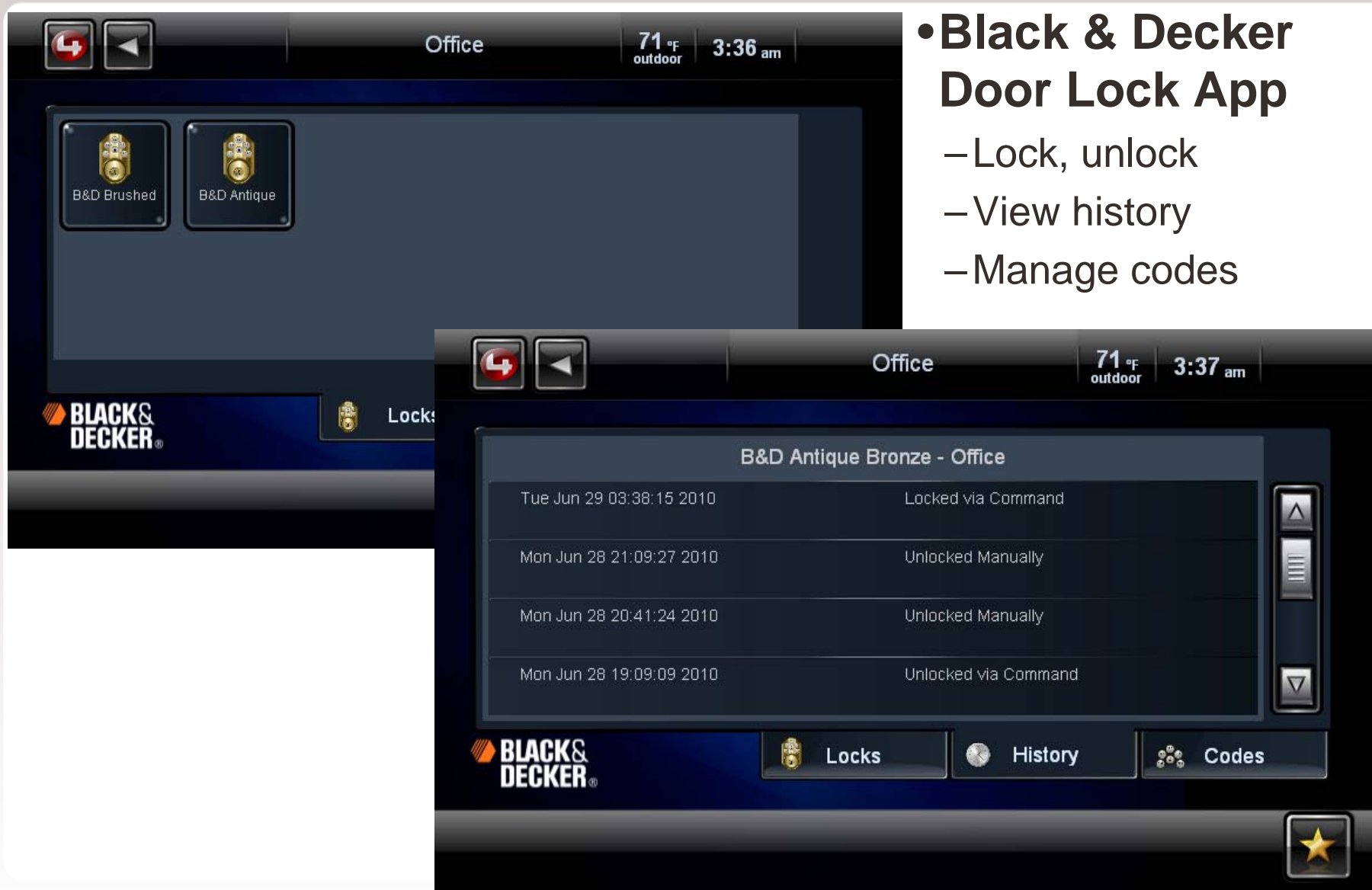
Lock Purchasing

Place apps on landing pages

Safety and Security

- **Black & Decker Door Lock App**

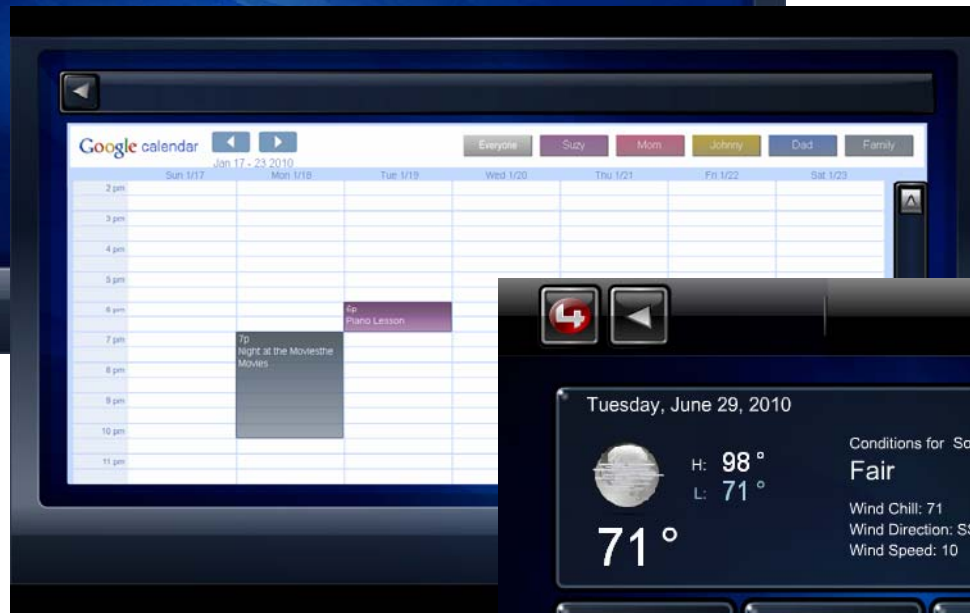
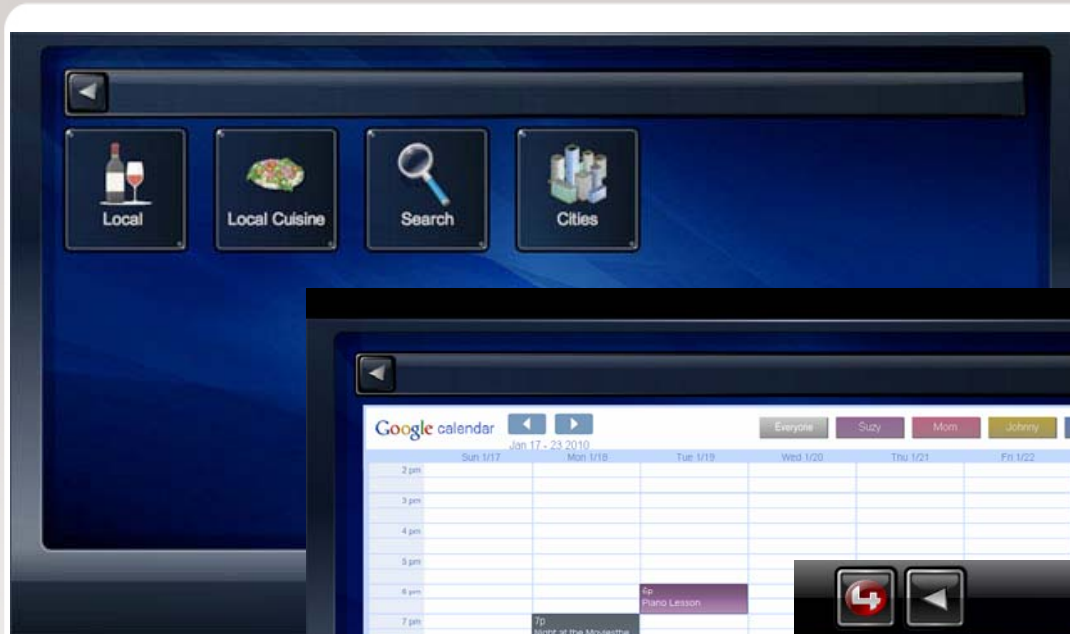
- Lock, unlock
- View history
- Manage codes



Comfort and Convenience

Make dinner reservations

Manage family calendar



Check weather – local or around the world

Peace of Mind



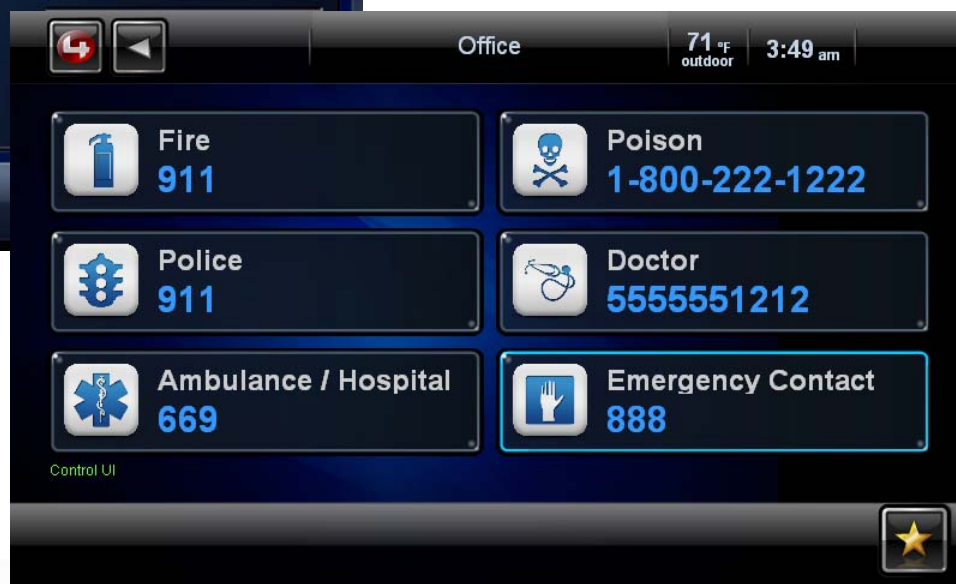
Floorplan view of lights*

Occupancy sensing*

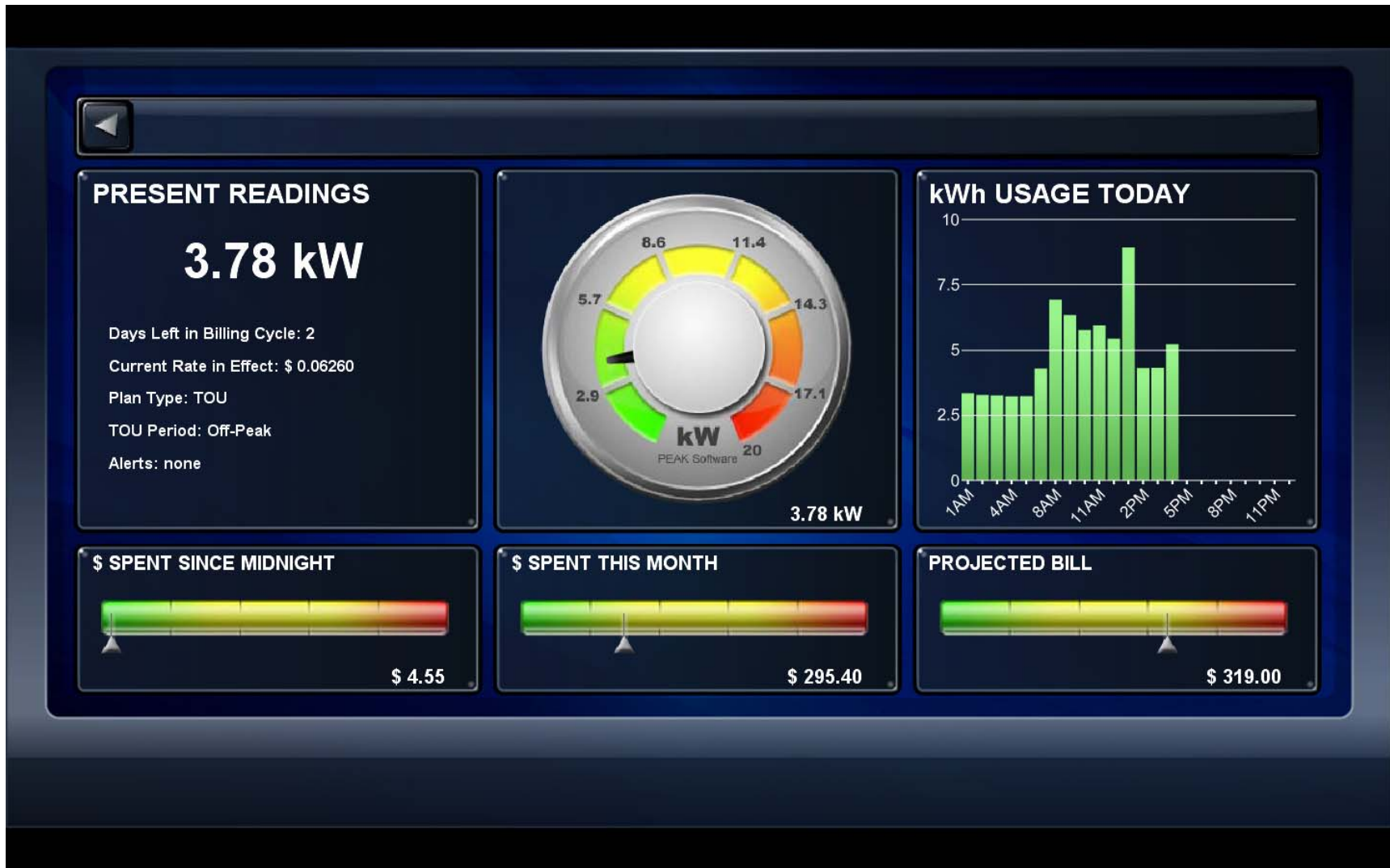
* Concept app (not yet available)



Emergency contacts at your
fintertips



Green Living



Things to Watch Out For

- **Some apps may not support all resolutions**
 - HD OS
 - 10.5" touch
 - 7" touch
 - EC-100
- **Some apps require pre-installation of hardware and/or drivers**
 - User is directed to contact dealer for a bid
 - Dealer installs necessary hardware and drivers
 - App purchase and download is enabled

4Store Developer Program

- **Potential developers**

- Dealers (currently comprise 40%)
- Partners (30%)
 - Sony, Pioneer, Eaton, Zatabit, CardAccess, ControlUI, Fusion Research, NAD, Kaleidescape, ista, etc.
- Freelance developers (30%)

- **Skills**

- Automation/Control experience
- Actionscript 2.0
- PHP

- **Subscription-based**

- \$299 first year; \$99/year thereafter
- Unlimited apps

- **Revenue Sharing**

- 60% / 40%

- **Join in by visiting <http://4store.com/developer/portal/>**