

Browser Interface to Symmetry | hawkeyetech.com

# **Contents**

Introduction	3
System Requirements	4
SMS Host	4
IIS	4
Client	6
Supported Scanner Hardware	6
Supported Printer Hardware	6
Installation	7
Configuring ASP.NET Permissions	8
Securing Data in Transit	9
Separating the Web and Database Servers	9
License	10
Login	12
Permissions	12
Visitor Management Users	12
Cards	13
Options	13
Disabled Search Fields	14
Misc	14
Searching Cards	15
Search Fields	16
Card Actions	18
Manual Muster	19
Check Access	19
Activate	19
Deactivate	19
Expire	19
Card Watch	19
Edit	19
Visitor	19
Locator	19
Creating Cards	19
Muster	22
Options	23

Sign Visitors In/Out According to Muster Mode
Show Card-Based Search Results on Muster Screen when Muster Mode is On
Access Granted Only if Virtual Reader is Assigned to Card Holder
Alarms
Clearing Alarms26
Activity
Command Center
Matrix
Options
Force JPEG Mode
Click and Hold PTZ Mode
Internet Explorer
Changing Companies
Logging Off
Working with Physical Cards
Harmony Browser Agent (Windows)
Harmony Browser (Android, iOS)
Printing
Changelog Error! Bookmark not defined.

### Introduction

Hawkeye Mobile Harmony is an ASP.NET web site that's installed on your local network, allowing you to interface with the <u>AMAG</u> Security Management Software using any device with a modern web browser, including iOS, Android, and desktop browsers.

No configuration is necessary. You login to Harmony with your Symmetry username and password. All of your User Role permissions are respected by Harmony, so an Installer account can have unrestricted access, whereas a guest account might be able to only search for cards or create Visitor cards.

The <u>AMAG XML Developer's Kit</u> is only required for the Command Center. Alarms can be cleared without the XML developer's Kit, but any open Symmetry clients must be manually refreshed to reflect a new alarm status as the "alarm cleared" message can only be sent to clients with the XML Developer's Kit. The Data Connect option is required to create or edit cards.

# **System Requirements**

#### **SMS Host**

- IIS
- ASP.NET
- .NET 2.0
- Microsoft Web Deploy 2.0

Harmony has been tested on SMS 6.x, 7.x and 8.x.

See **IIS** section for OS requirements.

### IIS

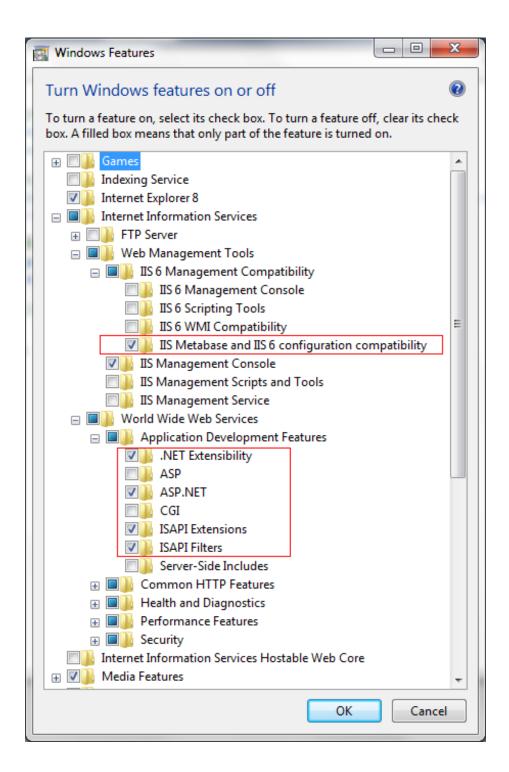
It's best to run Harmony on a server version of Windows, such as Windows Server 2008.

However, it is possible to run Harmony on Windows XP or Windows 7. The problem with these non-server versions of Windows is that IIS will limit the amount of concurrent connections that can be made at any given time. This may lead to stalls (on Windows 7) or broken images (on Windows XP). Windows 7 works better than Windows XP for this purpose.

IIS must have ASP.NET support installed and default items such as Static Content.

The "Configure ASP.NET Permissions" utility requires that IIS 7 (Windows 7 and Windows Server 2008) have **IIS Metabase and IIS 6 configuration compatibility** installed.

The installer will attempt to install IIS and required sub components for you automatically.



### Client

• Modern web browser (Google Chrome, Firefox, iOS, Android, etc...)

### **Supported Scanner Hardware**

- Omnikey high and low frequency smart card (5x21, 6x21, 5x25, etc) using Harmony Browser Agent
- ScanShell/Driver License OCR using Harmony Browser Agent
- <u>RFIDeas pcProx Enroll</u> on any device supporting USB (including iPad with the Camera Connection Kit and Android 3.0+ using a USB adapter). Part number for USB keyboard wedge (HID): RDR-60D1AKU.
- <u>Linea-pro 4</u> barcode
- Grabba HID Prox, iClass, Mifare (works with CAC).
- Android NFC
- Any device supporting Keyboard Wedge mode. Harmony monitors keypresses anywhere
  on the page on most client hardware, and of course the search box can be focused for
  direct input.

Card Tech	iPhone/iPod Touch	iPad	Android	Windows
Software	Harmony Browser		Harmony Browser	Harmony Browser Agent
iClass	Grabba		Grabba	Omnikey
Mifare Classic	Grabba		Grabba, NFC (S5)	Omnikey
Mifare DESFire (HSE Open)			Grabba, NFC (S5)	Omnikey
Prox	Grabba		Grabba	Omnikey RFIDeas Prox dongle
Barcode	Linea-Pro 4 Grabba Camera	Camera	Grabba, Camera	
Magstripe	Linea-Pro 4 Grabba		Grabba*	
Driver License OCR				ScanShell
CAC	Grabba		Grabba, NFC	Omnikey
TWIC	Grabba		Grabba, NFC	Omnikey

Contact us with your card technology and preferred hardware and we'll let you know how it's supported.

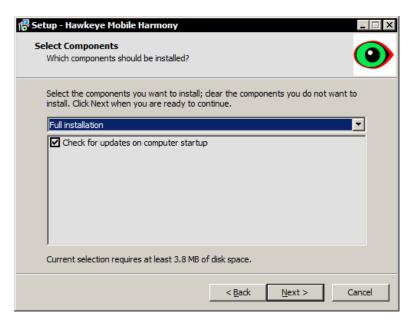
# **Supported Printer Hardware**

• Zebra WiFi CPCL printers, such as QL320+.

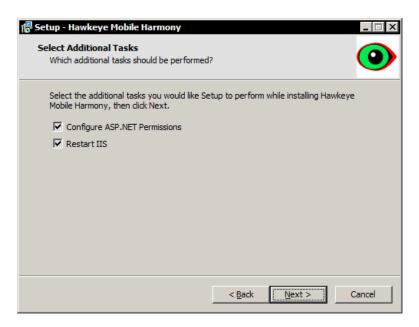
### **Installation**

Run "Hawkeye Mobile Harmony Setup.exe" on the SMS Host and follow the prompts.

Setup will attempt to install all required components automatically, such as IIS, .NET, ASP.NET and Web Deploy.



• Check for updates on computer startup: This optional component will add a shortcut to the Update Checker to the All Users/Public Startup Start Menu group. When the computer starts, it will silently check the update server and notify you if there's an update available.

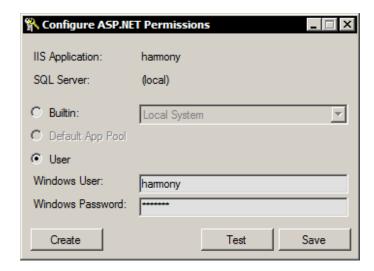


- Set IIS Max Connections to 40: This option will appear on Windows XP installations. It
  will increase the maximum number of simultaneous connections IIS can support from 10
  to 40.
- **Configure ASP.NET Permissions:** A utility will run that will help you set your Application Pool and User impersonation.

• **Restart IIS:** The IIS service will be restarted to ensure configuration changes are enacted.

### **Configuring ASP.NET Permissions**

ASP.NET runs applications under the built in NETWORK SERVICE account, which does not have proper access to the multimax SQL databases. Therefore, the "harmony" application must be set to use an account with database access.



This utility will help you set up the Application Pool (Windows Server 2003 and greater) or Web.Config file (XP).

If your multimax services are set up to run under a user account, the **Windows User** and **Windows Password** fields are populated for you using the multimax service credentials.

Click **Create** to create a local Windows account using the entered username and password. The user will be added to the Users, ACSAdmin and IIS\_IUSRS groups. If you choose to create the user account outside of this account utility, ensure that the user account belongs to these user groups.

The surest way to enable access is to select the **Builtin: Local System** account, however this may represent a security risk to your organization, and it will not work when using separate web and database servers.

Click **Test** to impersonate the selected account and perform the permission tests.



Click **Save** to save the configuration.



Click Finish.

Your default web browser will open and navigate to <a href="http://localhost/harmony">http://localhost/harmony</a>.

### **Securing Data in Transit**

If you are concerned about securing data in transit, for instance, if you are transmitting data over the Internet without using a VPN, it is recommended that you connect to your server over https and not http.

The password on the Login page is always transmitted securely as it is hashed by the client before transmission.

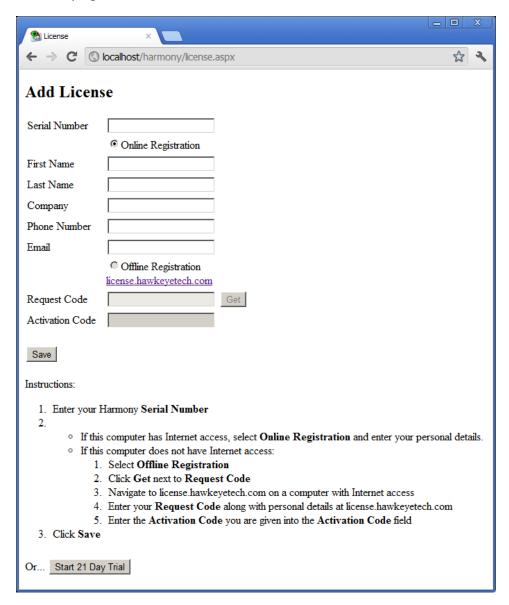
# **Separating the Web and Database Servers**

Harmony has the ability to run on a server separate from your SMS database server. Some organizations may be interested running in this configuration if the performance degradation that comes from network utilization is outweighed by the potential security benefit that comes from not having your database server directly exposed to the internet.

To enable this, create a file named "SMSServer.txt" on the web server in the **%ALLUSERSPROFILE%\Hawkeye Tech\Hawkeye Mobile Harmony\** directory. In this file, enter a single line referencing the computer name or IP address of your database server. Harmony will use "Integrated Windows Authentication" when connecting to the SQL server. Restart IIS or the computer after creating the file.

### License

Harmony requires activation. If a license is not currently installed, you will be redirected to the license page.



#### Enter your **Serial Number**.

There are two ways to activate:

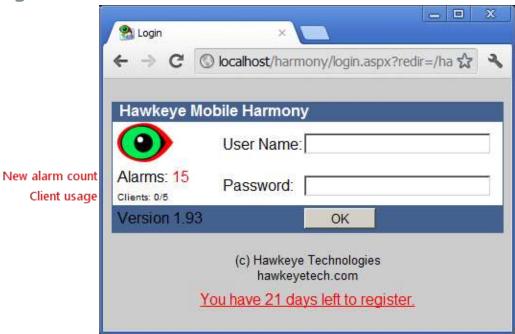
- If this computer has Internet access, select Online Registration and enter your personal details.
- If this computer does not have Internet access:
  - a. Select Offline Registration
  - b. Click Get next to Request Code
  - c. Navigate to <u>license.hawkeyetech.com</u> on a computer with Internet access
  - d. Enter your **Request Code** along with personal details at license.hawkeyetech.com
  - e. Enter the **Activation Code** you are given into the **Activation Code** field

Click Save.

Multiple licenses can be added, and their client licenses will be combined into a single limit.

If you don't have a serial number, you may opt to begin the trial period by clicking **Start 21 Day Trial**. The trial comes with a 5 client license.

# Login



Enter your SMS username and password and press enter.

### **Permissions**

SMS permissions are respected throughout Harmony. You can restrict entire screens and certain controls on screens. The same Enabled/Disabled/Hidden and View/Modify/Delete/None User Role paradigms carry over. These are configurable in SMS via Configure > User > Roles.

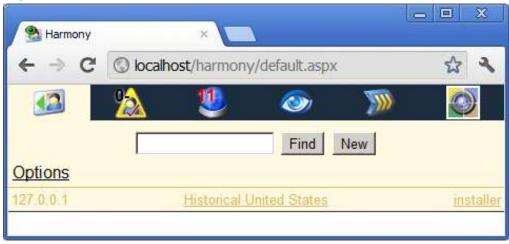
Individual object permissions for items such as card holders, readers, cameras and reader groups are also respected by Harmony.

# **Visitor Management Users**

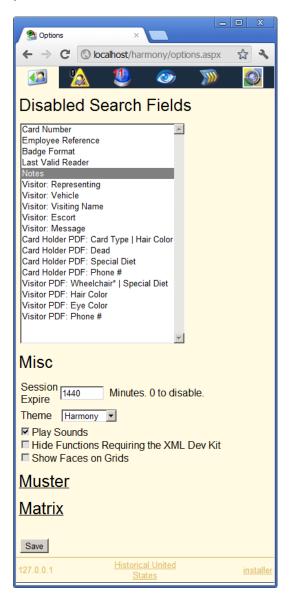
Harmony supports SMS Visitor Management users. These users are created and assigned to Card Holders by using the Personal tab in SMS on a Card Holder definition screen. Visitor Management users are unique in that, when logged in, they can only view and manipulate the visitors they have personally created. In that sense, they are sandboxed to the visitor population for whom they are responsible.

### **Cards**

# **Options**



An Options link is available when a search has not been performed and if the user has Modify permissions to Client Preferences.



#### **Disabled Search Fields**

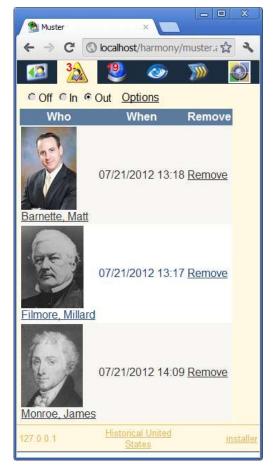
All search fields besides Card Holder Name can be set to not be included in the search criteria. Multiple fields can be selected by holding the CTRL key.

#### Misc

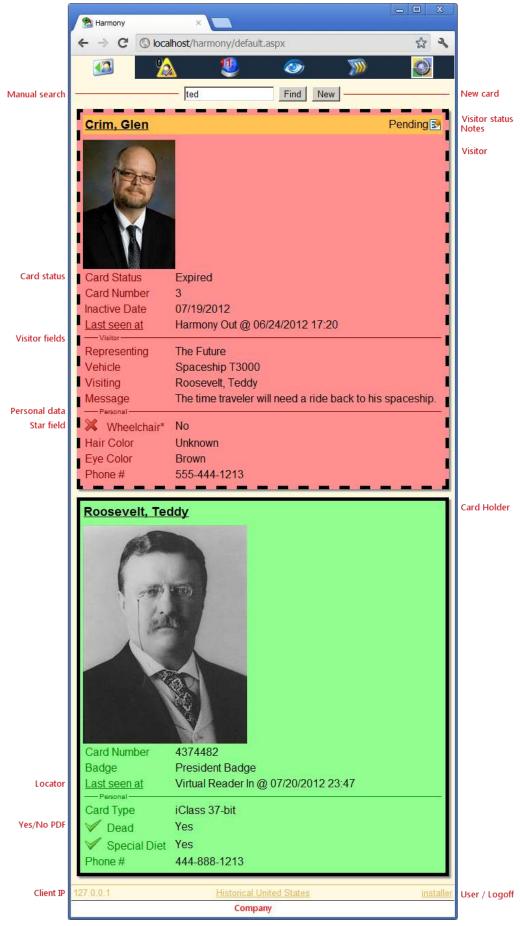
- **Session Expire:** The client will be automatically logged off after this period elapses. Auto logoff can be disabled by setting this to 0.
- **Theme:** The visual theme.
- **Play Sounds:** Uncheck to disable the Active and Inactive beep sounds that are played after a card search.
- **Hide Functions Requiring the XML Dev Kit:** The AMAG XML Developer Kit is required for clearing alarms and using the Command Center in Harmony. These functions can be hidden if you are not interested in their presence.
- Show Faces on Grids: A small version of the person's face will be shown along with their card info on grids such as Muster, Alarm and Activity.

A **Harmony Browser** section will be visible when running Harmony Browser on iOS. It allows for the selection of a weigand format for scanned prox cards. This setting isn't needed for iClass (Auto is appropriate), but it is suspected that is may be necessary for prox.

Links to the Muster and Matrix options are provided here as well.



# **Searching Cards**



Cards can be searched manually and by using supported scanners.

Unlike the SMS search function where you must select whether to search Card Holders or Visitors, and then select the search field, Harmony has a global search function that will search both Card Holders and Visitors and many of their data fields with a single button.

#### Search Fields

- Card Holder Name
- Card Number
- Employee Reference
- Personal Data Items
- Last Valid Reader
- Badge Format
- Notes (exact matches only)
- Representing, Vehicle, Visiting, Visitor Escort, Message (Visitors)

Wildcards are automatically added to your search criteria, so searching for *awkey* will match cards with a field that contain the word *Hawkeye*. Enclosing your search in double quotes ("") will cause an exact match to be performed, and so "awkey" will not return cards that only contain *Hawkeye*.

Entering *visitors* as your search criteria will return all Visitors, and *card holders* will return all Card Holders.

Simply clicking Find with no search criteria will cause the first 50 results to be returned.

The card background color represents their Card Status.

- Pending
- Active
- Forced Inactive
- Expired
- Card Lost
- Stop

Visitors have an additional color around their name that represents their Visitors Status.

- Pending
- Active
- Closed
- Stop

Active and Inactive beep sounds are played when a single search result is returned. A "Multiple Results" sound is played in the case of multiple search results.

Personal Data Fields that contain either "Yes" or "No" will show an additional green tick or red cross. This allows for a quick visual indication as to whether someone has a particular flag set.

Use a Bluetooth earpiece for discrete audio indicators.

A Personal Data Title that contains a star (\*) is called a Star Field. When a single search result is returned, a "Star Field: Yes" or "Star Field: No" sound will follow the Card Status beep sound. This sound and the Card Status sound allow for the option of completely auditory validity checks.

#### **Card Actions**

Clicking a person's name on the Cards screen will take you to their Card Actions.



#### **Manual Muster**

This Card Action will appear when in Muster In or Muster Out mode. It allows for cards to be mustered manually, in the case that the person does not have their card available to scan. When in Muster In mode, the card will be added to the muster list, and likewise removed from the muster list when in Muster Out mode.

#### **Check Access**

Check Access lets you see if the card has access to a given reader at the specified day and time. It will return a familiar SMS response message, like Granted Access, At Wrong Door, At Wrong Time, Expired, etc. (Note that Holiday exceptions are not currently supported.)

#### Activate

Activate creates a "Reactivate Card" import request, clearing such flags as Stop, Card Lost and Forced Inactive. (Note that a temporary SMS bug currently prevents activating individual cards in multiple cards per card holder scenarios / "Force Card Inactive".)

#### **Deactivate**

Select the reason (Force Inactive, Card Lost, Stop) and click Deactivate to deactivate the card. The appropriate flag will be set on the card if Card Lost of Stop is selected.

### **Expire**

Select the date and click Expire to change the Inactive Date on the card. The default is the current day. When expiring Visitor cards, the Active date will be bumped up to match the Expire date if the day range between the Active and Inactive dates is outside the range of the configured "Visitor Maximum No. of Days" setting in SMS.

#### **Card Watch**

Toggle the Card Watch flag.

#### **Edit**

Takes you to the New/Edit card screen, where you can edit things like Card Number, Face, Personal Data and Access Rights.

#### **Visitor**

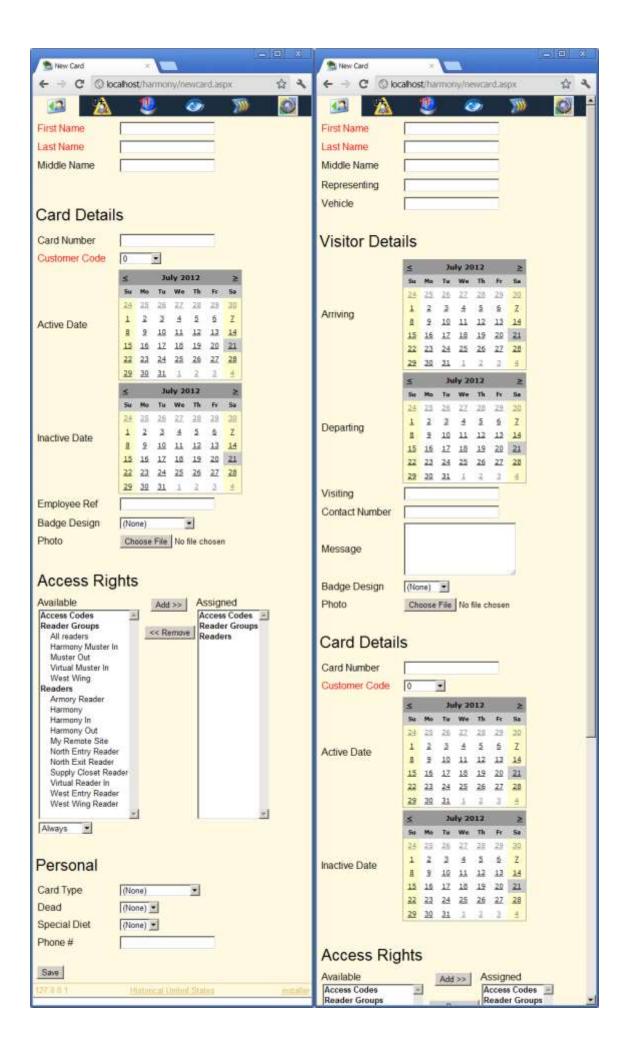
Visitors can be signed in, signed out, and closed.

#### Locator

Last Seen At is shown if the user has View access to View > Locator. Having View access to the Locator tab will cause Last Seen At to become a link, taking you to the Locator page, which shows the last 25 valid transactions for the card.

# **Creating Cards**

Click New, select Card Holder or Visitor and click Next.



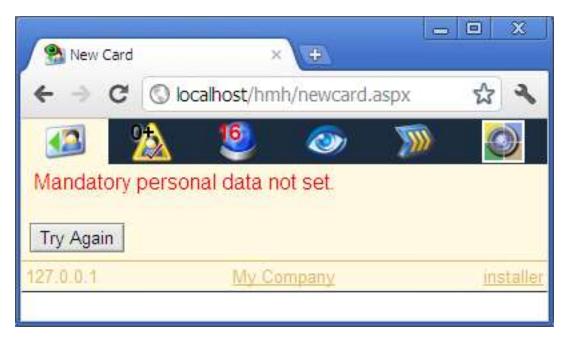
Mandatory fields are in red.

Personal Data Fields that are configured in SMS as "List Only" display dropdowns.

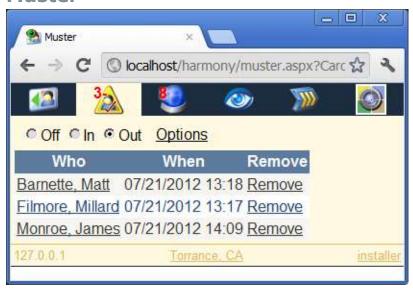
Enter your card information and click Save.

If successful, the card will be presented back to you on the Cards screen.

If errors occurred, click Try Again and correct the errors.



#### Muster



Cards can be mustered into and out of the internal SMS muster lists. The SMS Muster option is not required.

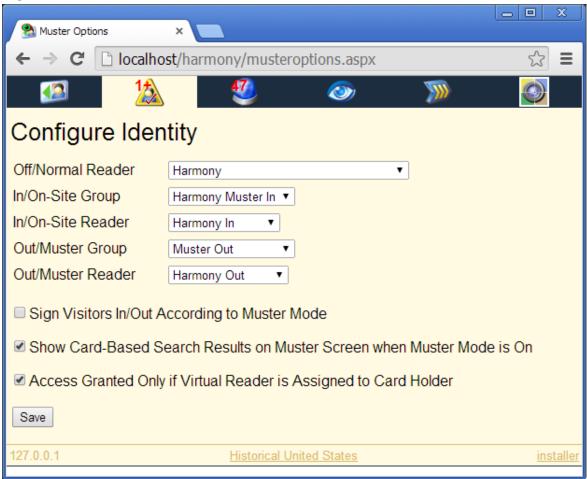
The muster count and Muster Mode are displayed on top of the muster icon.

Select "Off" to disable mustering. Select In to muster cards in and Out to muster cards out.

Scanned cards will be mustered in or out according to the Muster Mode. Cards can also be mustered manually by performing a search, clicking the person's name to navigate to the Card Actions page and selecting Manual Muster. When in Muster Out mode, a Remove link is added for easy removal of cards from the muster list.

For safety reasons, the muster list does not respect the "Card Holders by Company" setting in SMS.

# **Options**



Harmony uses its configured identity when logging to SMS.

#### Sign Visitors In/Out According to Muster Mode

Automatically sign your Visitors in or out when muster is turned on.

#### Show Card-Based Search Results on Muster Screen when Muster Mode is On

After presenting an ID card for searching, the result will be shown on the muster screen rather than the cards screen.

#### **Access Granted Only if Virtual Reader is Assigned to Card Holder**

When this is not checked, only the active/inactive status of a card holder is used to determine whether the card should be mustered. When this is checked and a Virtual Reader is configured (below), access is determined further by checking that the Virtual Reader has been assigned to the card holder and that the current time is valid for the assigned time code.

Every client has its own identity settings. This allows clients to be easily identified in SMS, and it allows the possibility of "multiple mustering", which musters cards into and out of multiple muster areas.

The default values for the Off, In and Out reader are:

- Harmony
- Harmony In

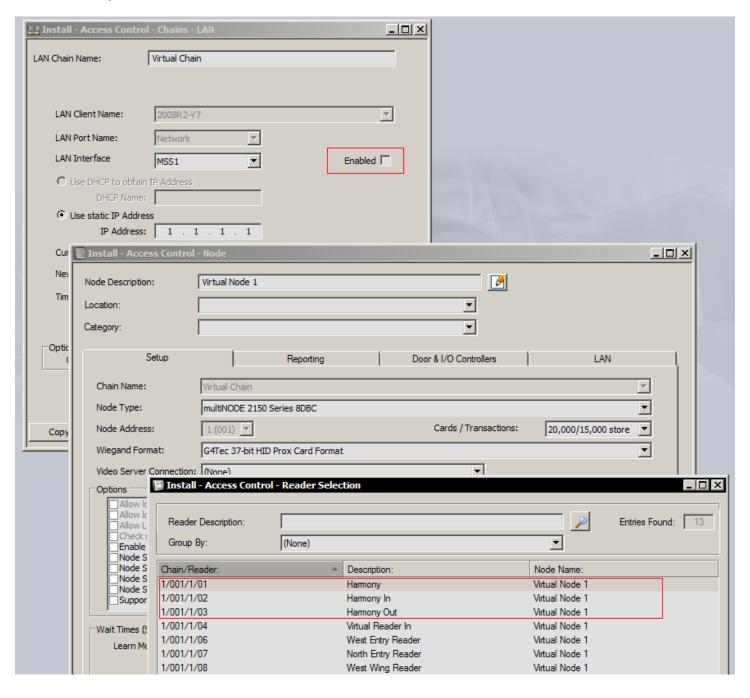
### Harmony Out

Harmony will default to the SMS On-Site Group and Muster Group. Alternatively, the dropdowns can be used to select the desired Reader Group.

The reader identities should be created in SMS as *Virtual Readers*, that is, they exist on a LAN Chain that we create and disable. This allows the *Virtual Readers* to be addressed in SMS as if they were physical readers.

Create a new LAN Chain. Uncheck "Enabled". Create a new Node off this Chain and create the *Virtual* readers off this Node.

Add your In Reader to your On-Site Reader Group and add your Out Reader to your Muster Reader Group.



### **Alarms**



Click a column header to sort. Click a What field to navigate to the Acknowledge Alarm page.

# **Clearing Alarms**

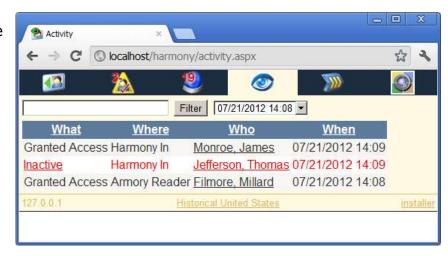


You may select a predefined comment or enter a custom comment if you like.

Alarms can be cleared without the XML developer's Kit, but any open Symmetry clients must be manually refreshed to reflect a new alarm status as the "alarm cleared" message can only be sent to clients with the XML Developer's Kit.

# **Activity**

Activity defaults to showing real-time activity. A dropdown allows you to access activity history.





Activity can be filtered by What, Where and Who fields. Simply type your desired filter and click Filter.

Click a column header to sort. Clicking an active alarm will take you to the Acknowledge Alarm page.

### **Command Center**

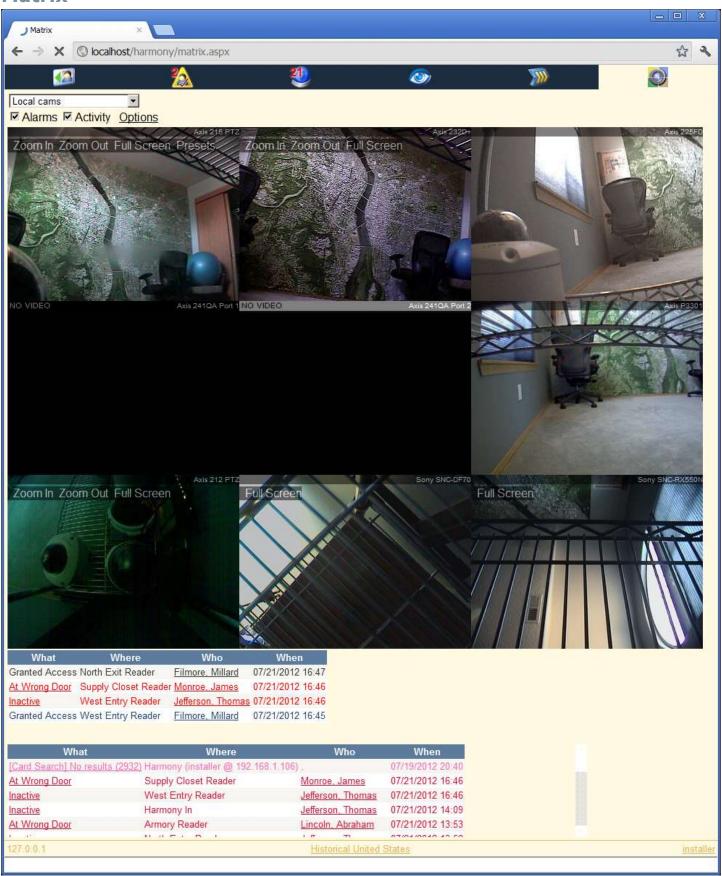
The Command Center requires the AMAG XML Developer's Kit. The status of devices can be retrieved, and the devices can be sent various commands. Readers, Auxiliary Outputs, Monitor Points and some Predefined Commands are supported.

The Filter button can be used to only show devices and device groups matching your search criteria. Items containing the search criteria will be shown.

Selecting (All <Device Type>) when a device group is selected will send commands to all devices in that device group.



### **Matrix**



Axis (cameras and servers), Sony and Bosch digital video definitions are pulled from SMS.

Offline cameras will show a broken image icon and the camera name.

Use the dropdown to select a SMS Matrix view or camera.

Alarms and Activity can be shown below the cameras.

Clicking a camera will zoom into the full resolution of the single camera. Click the camera again to return to the view.

PTZ is supported on Axis cameras.

### **Options**

### **Force JPEG Mode**

Axis and Sony cameras are capable of returning an MJPEG stream with slightly better performance than a JPEG stream, however, it is not reliable in a multi-user configuration. Default is checked.

#### Click and Hold PTZ Mode

Normally, PT is performed by clicking/tapping a point on the camera image, to which the camera will center. Click/tap and hold is an alternate PT method where the cursor/finger must continue to be depressed at a point off center axis, causing the



camera to PT in that direction. This mode is more supported on Axis video servers.

# **Internet Explorer**

IE doesn't support inline authentication by default, and will thus popup a login dialog when trying to view a password protected camera.

#### Workarounds:

- Enable anonymous access to the camera using the camera's setup page.
- Change registry keys to allow inline authentication:
   <a href="http://support.microsoft.com/kb/834489">http://support.microsoft.com/kb/834489</a>. A "Fix it" tool is available at the bottom of the page. Reboot.

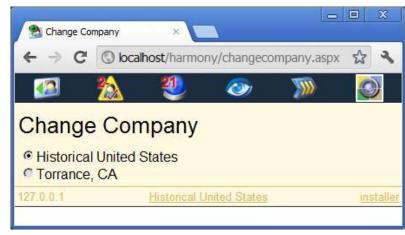
# **Changing Companies**

The Company indicator will be clickable if your user belongs to a Company Group that contains more than 1 company. This is equivalent to View > Change Company in SMS.

This value affects multiple aspects of Harmony depending on the SMS System Preferences.

- Filter by Company / View Menu by Company: Alarms and activity
  - are isolated by company. Harmony isn't a true SMS Client, and so it doesn't support traditional alarm routing. Filtering by company gives us a good alternative. When disabled, Alarms and activity are filtered by company group.
- **Card Holders by Company:** Cards are isolated by company. Cards in the non-current company will still be read-only, as they are in SMS.

Regardless of these two settings, things such as readers, cameras and personal data fields are always company dependent.



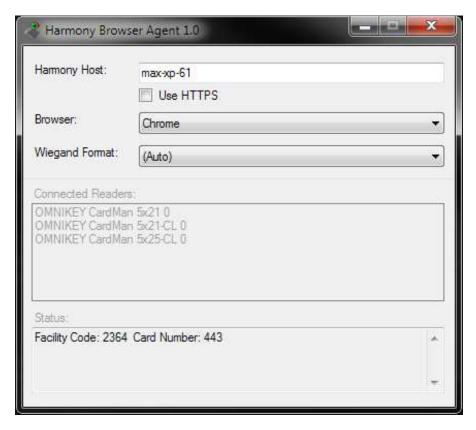
# **Logging Off**

Your session is stored as a session cookie. Click the username in the lower right or close your browser window to logoff.

# **Working with Physical Cards**

## **Harmony Browser Agent (Windows)**

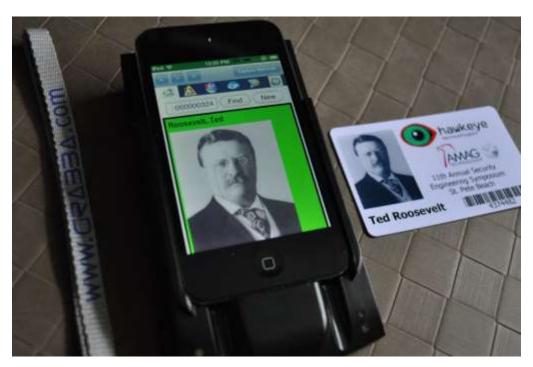
Harmony Browser Agent is a free Windows utility that allows you to use Omnikey Smart Card readers to perform Smart Card searches on desktops, laptops and Windows tablets. It works with low and high frequency readers (such as 5x21 and 5x25). It's compatible with Prox, Mifare, iClass, iClass Corp 1000, contactless CAC cards and Driver Licenses, and works with Chrome and Internet Explorer and Firefox. Download it at <a href="https://harmony.new.google.com/harmony">harmony</a>.



# Harmony Browser (Android, iOS)

Harmony Browser is available for Android and iOS.

- Scan HID iClass, HID Prox, CAC, TWIC, smartMax (Mifare Classic), and Barcode ID cards and check them against your local PACS database.
- Create a mobile muster point.
- Use your camera to capture faces during enrollment.





# **Printing**

Harmony supports printing to Zebra printers using WiFi and the CPCL language, such as the QL320+. It supports printing 3x2" badges, which may be either adhesive backed or simple receipt paper, which could then be stuffed into clip-on badge holders. This is great for visitor badges. It also supports printing the Muster report to receipt paper.

By sending discovery packets, Harmony is able to automatically locate the printer on your network. There is no configuration or drivers to install. You may also manually specify the IP of your printer if you have multiple printers, or if the printer is undiscoverable due to your network configuration.

To the right is scanned sample output from a QL320+.



Ehrich Craig Hawkeye Tech My DoD card





200139508

Xavier Charles Hawkeye Tech

Hawkeye Tech My DoD card

Exp 10-2-2015





Ehrich Ted

Hawkeye Tech West Wing Daily

Exp 2-7-2013

Visitor



# Muster Report

On Site Reader Group

247862

Love, Frank 02/07/2013 09:52 Stark, Tony 02/07/2013 09:52 Xavier, Charles 02/07/2013 09:52