

# CA-Kiosk for RMS by Computer Analytics Digital Signage and Price Checker

The CA-Kiosk for RMS is designed for use by a customer in a retail store using the Microsoft Dynamics Retail Management System (RMS). It allows anyone to scan an item's UPC barcode to display product information and pricing, including any sale pricing.



The kiosk operates in two modes: The Digital Signage mode is the default display when no one is using the kiosk for product or pricing information. The kiosk will display a series of screen images which you control to alert customers regarding specials and other general advertising. Each image will display for 15 seconds and then cycle to the next image, and so on.

The store customer (or store personnel) uses the touch screen to change to the Price Checker mode. The user will see the camera display on the screen. The user presents the item's UPC barcode to the kiosk so that the camera sees the UPC in focus. Then, when the kiosk has successfully read the UPC, the kiosk will display product information.

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## Price Checker

For product information and price checking, one scans a UPC barcode to display the desired information on the kiosk. There are many options for the store to control the information. Below is a default product display. All information is obtained from the RMS data base.

A picture is displayed. If the picture is not available, the store logo image in RMS is displayed.

Changes to the display are possible to accommodate specific situations and your store-specific use of data in the RMS data base. See the section on Customization.

### Women's Wave Sayonara

• **\$109.00** until Jun 30 **\$119.00**

Light, low to the ground, versatile.

The Wave Sayonara makes everyday a Go Fast day.

U4ic midsole provides resiliency and a smooth ride at a fraction of the weight of traditional midsoles.

G3 SOLE has lightweight, superior traction, creating a pure connection to the ground. Upper design provides exceptional forefoot hold and assurance at toe-off.

Colors:  
Electric / Silver / Purple Magic (4U73)  
White / Lime Punch / Blue Atoll (004i)

Sizes 6-11



Available Quantity  
27

WIC Eligible



Tap here to scan a bar code for product information.

### Example Product Information Display

## Dealing with Barcode Read Errors/Problems

Although most people have no difficulty scanning barcodes, some might. Or possibly, the product's barcode image is smudged or otherwise not readable.

If the kiosk is not able to read the barcode in a certain amount of time, the kiosk will display the question: "Having trouble scanning? Do you want to enter the barcode manually?" Press OK to

enter manually. A keypad will be displayed for you to enter the number manually. Press OK when done. If the number entered is not found, a message will be displayed requesting if you want to try again. Once the number is entered and the item is found in the RMS data base, the normal item product information display is displayed.

Because the user is looking at the barcode itself and we do not necessarily know what is in the RMS data base, we are making multiple attempts to try to find the item. The user may or may not key in the first digit of the barcode so we consider this. And, the user may or may not key in the check digit so we consider this. Generally, we do not want to penalize the user so multiple attempts at the data base are used. This is our way of trying to make this more user friendly.

## **Digital Signage**

You define the signage by including panels of information which could be either images (such as a jpg image) or product information displays (looks just like the price checker display).

Each kiosk will display one image for 15 seconds (can be changed by you) and then goes onto the next one. There is no maximum number of different images to be displayed.

And, you can select multiple signage sequences so that some kiosk devices will display one sequence and another displays a different sequence. This is useful to display only images appropriate to a kiosk's physical location in the store.



**Example Digital Signage Advertising**

### **General Prerequisites**

Each kiosk device is a tablet computer running the Android operating system. It has been specially setup so that store customers cannot control the tablet other than through the CA-Kiosk for RMS's designed user interface. Users do not see and cannot access any of the Android functions.

The kiosk must be placed in an area of reasonably good light for the camera to see the barcode. The item (not the tablet) must be bright enough for the camera to work. If lighting is a problem, it is acceptable to place a light behind the kiosk so that light will shine on the item when a barcode read is attempted. Most store lighting is acceptable.

The kiosk must be placed where an AC power outlet is accessible. Although the kiosk tablet will operate on its internal battery, we do not expect the battery to last long. Keep the kiosk plugged into power at all times to create a reliable setup.

You must have a license for the Microsoft Dynamics Retail Management System (RMS). The kiosk will communicate with the RMS system via a wireless network. This means that the RMS store computer where the RMS data base resides must be connected to a local area network. And, the local area network must be connected to a wireless router or access point. The wireless network must be

configured to use security to maintain your control over the network. Internet access is NOT necessary.

## Initial Installation

- A. You must setup software on the computer where the RMS data base is located; do this only once regardless of the number of kiosk devices that you have.**
- a. You must download the installation zip file. Use your favorite FTP client: server is <ftp.cacorp.com>. User and password are supplied with your license. Place the file on the desktop of the PC containing the RMS data base.
  - b. On the PC that contains the RMS data base, unzip the installation zip file into a folder on the PC desktop; this will be deleted later.
  - c. Verify that the PC has Java 6 or higher installed. Click on the java icon in the control panel; on the general tab, click on About. For your convenience, a copy of Java install program is included in the installation zip file (i.e. JavaSetup7u25.exe). Or, you can go to the java site to obtain the newest version: <http://java.com/en/download/>
  - d. Run the included Apache Tomcat installer by double clicking on apache-tomcat-7.0.41.exe. The actual file version number might be different.
    - i. Select the "Full" install on the "Choose Components" page.
    - ii. Default options are recommended for the remaining of the install process.
  - e. Tomcat will need to be allowed through the Windows Firewall.
    - i. From the unzipped installation folder, in the root directory, right click on the "firewall.bat" file, run as an administrator. A DOS window will display showing if the process is successful or not.
  - f. Once Tomcat is installed, copy the "kiosk" folder from the installation zip file into the Tomcat webapps folder. This is at C:\Program Files\Apache Software Foundation\Tomcat 7.0\webapps.
  - g. Run (double click on the file name) the "pictures.bat" file in the "kiosk" folder to link the server to the path of the RMS product pictures.
  - h. Set the values for RMS Communication. One sets all communication values for all kiosk devices to communicate with RMS on the computer where the RMS data base is located. On the RMS data base computer, open up a browser and go to this address: <http://localhost:8080/kiosk/setup.jsp>

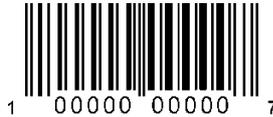
On the screen, you will enter the server name, the user name, the password, and the data base name. [These are the same values you use on your RMS POS computers.] Save the values. Click Test Data Base Connection to determine that

communication is working. If not, one of the parameters has been entered incorrectly.

- i. When done, you can delete the zip file and folder from your desktop.

**B. Setup each kiosk device.**

- a. Plug in the kiosk's charger to a wall outlet; if the battery is drained, you may need to keep it plugged in for a short time before you get your response.
- b. Scan the Admin barcode to get into Admin Mode. Admin Mode will display the Admin menu.



- c. From the Admin Menu, scroll the display down and select "Wi-Fi Settings". You will need to connect to your wireless by selecting your SSID and entering your security password.
- d. From the Admin Menu, scroll the display up and select "Server Name". Enter the computer name (or IP address) of the PC where the RMS data base is located. Enter either the name or IP address and press "save".
- e. Exit Admin Mode by pressing the Android back icon at the bottom of the screen.

**C. Test the system.**

- a. Default signage will be displayed.
- b. Try scanning a UPC barcode of any item registered in RMS.

**D. Perform any customization that you desire.**

## Update Existing Kiosk Software on the RMS Data Base Computer

One can update the Kiosk software on the RMS data base computer.

1. Start by downloading the installation zip file. Using your browser from a PC with Internet access, key in this URL: <http://www.cacorp.com/kiosk/CAKioskForRMS.zip>; depending on your browser, you will be prompted for a location to save the file. Place the file on the desktop of the PC containing the RMS data base.
2. Find the Kiosk folder in the zip file. Copy it. Then, paste into the the Tomcat webapps folder. This is at C:\Program Files\Apache Software Foundation\Tomcat 7.0\webapps. Note: do not delete the existing Kiosk directory, but simply paste. Requests to "merge" directories should be answered with a YES. Requests to replace existing files should be answered with a YES.
3. When done, you can delete the zip file and folder from your desktop.

## Updating each Kiosk Tablet with new Software Versions

Once the RMS data base computer is updated with new software, each Kiosk device will be able to sense that a new version of the kiosk software could be installed. Put each kiosk into Admin mode by scanning the admin barcode. The “Version” area on the screen will show that a new version is available and allow for an update.



## Software Customization

Optionally edit the "config.properties" file using Windows NotePad. If this file is not found in the "kiosk/WEB-INF" folder, all defaults will be used. Initially to override any set of defaults, copy a formatted copy of this file from the “kiosk/WEB-INF/defaults” folder into the “kiosk/WEB-INF” folder. Make your changes to the config.properties file in the "kiosk/WEB-INF" folder.

See the following table for the options that could be used to customize all kiosk devices. Each value should be entered immediately after the equal sign without any intervening spaces.

	config.properties settings	
Property key value	Value to be entered	Notes
signage.duration=	Duration each Digital Signage image displays on the screen, in milliseconds.	Default is 15000 ms.
code.upce.expandToUPCA=	Option to expand UPC_E codes to UPC_A. Set to true or false. Note: if set to true, the options for dropping first/last digits will use the values for UPC_A for both UPC_E and UPC_A.	Default is false
code.upce.dropFirstDigit=	Option to drop the first digit of the UPC_E code before performing the data base lookup. Set to true or false.	Default is false
code.upce.dropLastDigit=	Option to drop the last digit of the UPC_E code before performing the data base lookup. Set to true or false.	Default is false
code.upca.dropFirstDigit=	Option to drop the first digit of the UPC_A code before performing the data base lookup. Set to true or false.	Default is false
code.upca.dropLastDigit=	Option to drop the last digit of the UPC_A code before performing the data base lookup. Set to true or false.	Default is false

field.SubDescription1=	Label text/caption. Leave blank to suppress from the display.	
field.SubDescription2=	Label text/caption. Leave blank to suppress from the display.	
field.SubDescription3=	Label text/caption. Leave blank to suppress from the display.	
field.PriceA=	Label text/caption. Leave blank to suppress from the display.	
field.PriceB=	Label text/caption. Leave blank to suppress from the display.	
field.PriceC=	Label text/caption. Leave blank to suppress from the display.	
field.Quantity=	Label text/caption for the stock quantity. Leave blank to suppress from the display.	Default is Available Quantity
field.Quantity.zero=	Text to display for the stock quantity when zero.	Default is Out of stock
field.FoodStampable=	Display for food stamp eligible. Leave blank to suppress from the display.	Default is SNAP Eligible
field.FoodStampable.image=	Image name. Image is displayed if the item is Food Stampable. For example, the supplied SNAP image is SNAP.svg Image located in the \kiosk\images\ directory.	Default is SNAP.svg
field.BinLocation=	Label text/caption for the bin location field as this field is often used for user defined purposes. Leave blank to suppress from the display.	Not displayed
Field.BinLocation.image	Image file name. Image is displayed if the Bin Location field is populated. For example, if you are using this field to specify that an item is eligible for WIC, you could enter the WIC image name, such as WIC.jpg. Bin Location can be used for other purposes as well. Image is located in the \kiosk\images\ directory.	
field.ItemLookupCode=	Field label for the item lookup code. Leave blank to suppress from the display.	
notfound.title	Text to display when no item match is found.	Default is <b>Not found</b>

notfound.message	Text for message when no item match is found.	Default is Try scanning the barcode again
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## Barcode Symbology Support

The CA-Kiosk for RMS reads barcodes by using its camera to image the barcode and decode it. The user will place the item in front of the camera; the tablet will show the camera's view on the screen so that the user can tell if the barcode is seen by the camera. Once a successful read is completed, the tablet will beep.

Instructions displayed on the tablet are as follows:

Hold the item about 12 inches from the kiosk so that the barcode appears in the rectangle. Slowly move the item inward. Usually, six to eight inches is the about the right distance.

The following barcode types are supported: UPC\_A, UPC\_E, EAN\_8, EAN\_13, RSS\_14, and RSS\_EXPANDED.

## Administrative Options

Centralized administration is a feature of the CA-Kiosk for RMS. This means that most of the administration is done on a central computer (we strongly recommend using the computer where the RMS data base resides); this minimizes configuration of each of multiple kiosk devices.

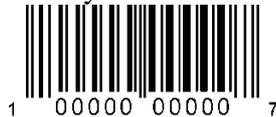
Since the CA-Kiosk for RMS displays information from the RMS data base, when you update information in the RMS, it will automatically be used by all kiosk devices immediately.

## Tablet's Admin Mode

Most administration is performed on the computer where the RMS data base resides, but some setup is required on each tablet. Once setup, the tablet device's admin mode is seldom used.

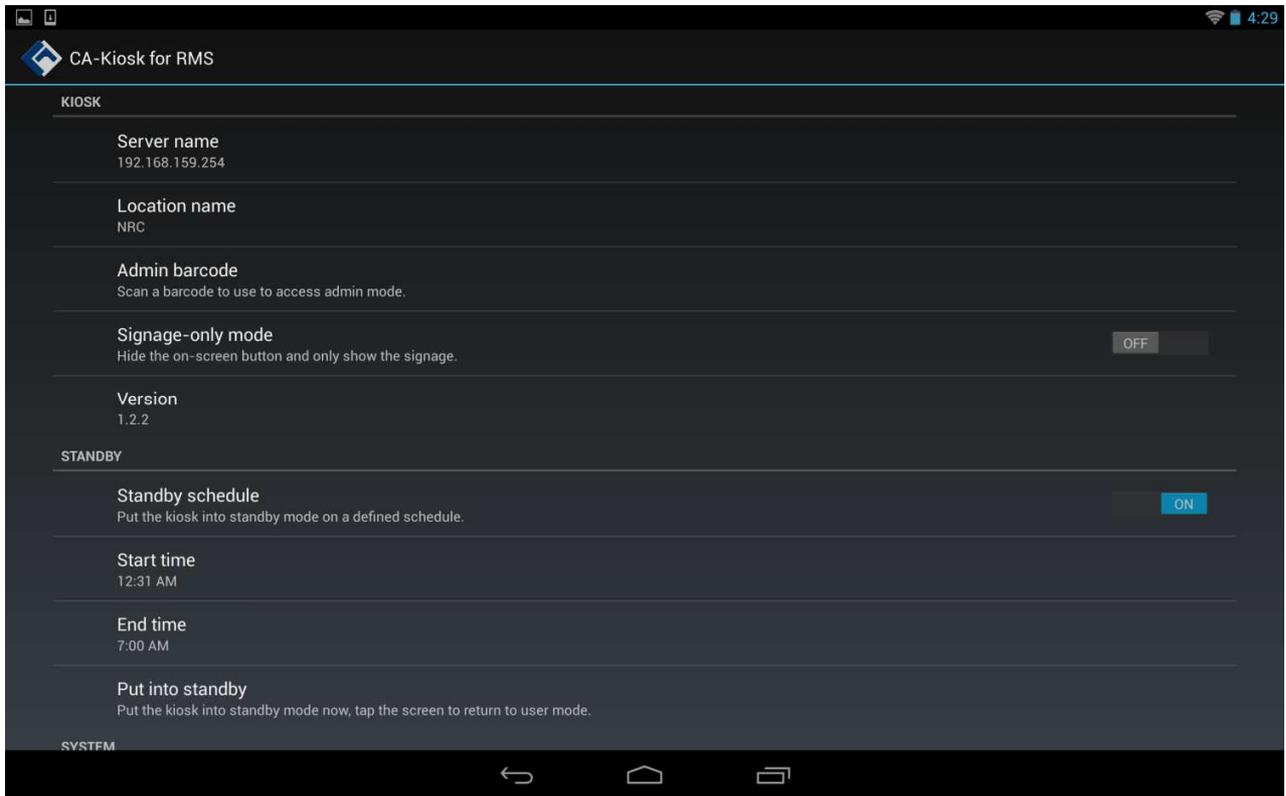
To place the tablet into Admin Mode, you will do one of two things:

- a) Scan the admin barcode. The default barcode follows. You can change the default barcode if you deem it is necessary.



- b) Or, hold the volume-down button down for several seconds (note: the tablet must be removed from the mounting enclosure to perform this function).

When Admin Mode is activated, the Admin Menu will be displayed.



The menu items are:

<b>Kiosk</b>	
Server name	This is the name or IP address of the PC where the RMS data base is located.
Server port	The normal port is 8080. The HTTP port number used to access the RMS data base computer. Only change this when instructed to by Computer Analytics or your RMS supplier.
Location name	Optional: The location name should correspond to a sub-folder in the signage folder on the RMS computer (discussed elsewhere in these instructions) to identify the advertising signage to be used by this device.
Admin barcode	Optional: This is any UPC barcode, but should never be any item that is sold in the store or would otherwise be used by a customer. A default is provided; changing the default to another barcode is not generally recommended.
Kiosk mode	Normal mode is “on”. Set to “off” for diagnostic and troubleshooting so certain features are selectable by the kiosk user. Do not set to “off” in normal operating situations.
Signage only mode	Set to On to remove the price checker text from the screen. However, touching the screen will allow price checking as usual.

Version	The installed version of the CA-Kiosk for RMS app. Press to check for a new version.
<b>Standby</b>	
Standby schedule	Standby will blank out the display during the standby schedule, such as during the middle of the night. Slide the slider to either On or Off. Default is On.
Start Time	Start of the standby schedule. Default is midnight.
End Time	End of the standby schedule. Default is 6am
Put into standby	Touch to put into Standby mode immediately. Touching the standby mode's blank screen will return the tablet to its normal mode.
<b>System</b>	
Wi-Fi Settings	Displays the tablet's wireless settings.
Display Settings	Controls brightness
Clear web cache	Use for troubleshooting.
Reset Preferences	Do not use.
Power Off	Powers the tablet off. To turn back on again, remove the power adapter from its outlet and then return to the power outlet.
Reboot	Use for troubleshooting

## Understanding Digital Signage displays and advertising

The CA-Kiosk for RMS supports both graphic images and/or product information in any quantity and sequence. The kiosk will display a signage screen for 15 seconds (duration can be changed by user) and then move onto the next signage screen, and so on. Multiple kiosk devices can be setup to use different sets of digital signage, either individually or in groups.

The CA-Kiosk for RMS supports a variety of graphic image formats including JPG, PNG, etc. The images are best displayed using a resolution of 1280 x 800 pixels. Almost any image or graphics software can create such images. This includes photographs and graphic images. Images will scale to the screen, so aspect ratio is more important than resolution. It is recommended to use the resolution and aspect ratio of 1280 x 800.

Digital signage can also display information about selected products from the RMS data base. This is the same screen that would be displayed by the Price Checker.

## Setting Digital Signage

All Digital Signage files are stored on the computer where you have the RMS data base installed.

Using your browser, go to <http://localhost:8080/kiosk/signageSetup.jsp>.

CA-Kiosk for RMS - Signage Setup

Default location  Add

Boston City Flow.jpg Duration(ms):  Remove

Costa Rican Frog.jpg Duration(ms):  Remove

Pensive Parakeet.jpg Duration(ms):  Remove

Add a product... Add a product set...

Add an image...  Browse...

Save Remove All

**Default Location:** This is the directory where the signage setup information is kept. It is also the location name that is used on the kiosk device's Admin Menu. Use different location names to setup multiple sets of signage definitions to be used by different kiosk devices.

A blank location name is the default; all kiosks use a blank location name when shipped.

Use the Add box to add a new location/directory name for a new signage definition.

Tip: setup at least one image in any location/directory BEFORE setting the location property on a kiosk device. This will eliminate any errors where a location is not found.

**Add a product:** Use the drop down to select a product to be included in the signage definition. The item will be moved into the list above.

**Add a product set:** use the drop down to select a set of products. For example, all SALE items.

**Add an image:** Use the drop down to select an image that you had previously uploaded.

**Browse:** Click on the button to open a browse dialog to find and upload an image.

**Remove All:** Click on Remove All to remove all items from your list. This does not remove the item from the data base.

**Save:** Saves the new definition as it is displayed above.

**Sequencing:** Change the sequence of the items in the list. Drag and drop any item to anywhere else in the list. Be sure to SAVE the list when done.

**Duration:** You can override the default signage display duration on any one or more items in the list. The default is 15 seconds, but the default can be changed in the Config.Properties file described elsewhere in these instructions.

## Security Considerations

Each device connects to a wireless network which should be secured with a password. Given this, the wireless is sufficiently secure. Internet access is NOT required.

The device itself is designed for a retail operation, although excessive force can cause damage. Anti-theft screws to secure the faceplate to the main housing are standard. The CA-Kiosk for RMS is intended to be used in semi-permanent or supervised permanent installations.

Even though the kiosk is extremely light, it is very sturdy due to its wide base, low center of gravity and rigid aluminum construction. As with anything, the display stand could be tipped with excessive force. Reasonable precautions should be taken to ensure the display stand doesn't get pushed excessively when being used.

## CA-Kiosk for RMS Device Assembly

The CA-Kiosk for RMS is packaged with a) a tablet, b) a Secure Enclosure, and c) a Fit Kit. The tablet is specially configured; they can only be obtained from Computer Analytics. The tablet goes into the Fit Kit and the Fit Kit will be enclosed into the Secure Enclosure. Note: if you use one of the other mounting options, the Fit Kit will fit into your chosen mounting hardware. Follow installation instruction. However, we suggest that the tablet should be installed into the mounting hardware upside down so that the camera is at the bottom; we have determined that this is the best approach for customers use.

**Important:** when placing the tablet into the Fit Kit, be sure to position the tablet so that the it's camera is lined up with the Fit Kit hole for the camera.

The assembled CA-Kiosk for RMS can be attached to a wall using standard 75mm VESA mount brackets (not included). The CA-Kiosk for RMS can also be used with a freestanding floor stand, a desktop stand, and a surface mount. For more information, see our supplier's site: <http://armodilo.com/solutions/retail/>. Note: the Fit Kit for the CA-Kiosk for RMS is custom made so you should order through Computer Analytics to assure a correct fit. We honor all pricing published on the Armodilo Display Solutions website. See our email and mailing address in the Technical Support section.

**Important note:** use the charger and the USB cable that was delivered with your kiosk. The charger must have a 2Amp power rating; most third party charges only have 1Amp. The USB cable uses a

heavy duty power wire of 24AWG/2C which is unusual for USB cables. Both of these specifications are required to keep the kiosk charged and working properly.

## Customization

Computer Analytics can provide customization services. Such customization may include changes in the display of information. For example, there is no specific field in the RMS if a food item is WIC eligible. So, it is commonly specified in the Bin Location field. But, if your business logic is specific to you, minor customization might be necessary.

All customizations will be performed only after you are provided with a cost quotation and you accept the quote in writing (an email will suffice).

## Technical Support

Technical Support is available via email. Send your detailed questions and you will receive an answer in short order. The email address is [CA-Kiosk@cacorp.com](mailto:CA-Kiosk@cacorp.com). Or write to:

CA-Kiosk for RMS Support  
Computer Analytics  
999 E. Touhy Ave. Ste 130  
Des Plaines, IL 60018

## Legal

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The term RMS in this document refers to Microsoft Dynamics Retail Management System (RMS). This is an offering of the Microsoft Corporation. It offers small and midsize retailers a complete point of sale (POS) solution that can be adapted to meet unique requirements. This powerful software package automates POS processes and store operations, provides centralized control for multi-store retailers, and integrates with Microsoft Office system programs, Microsoft Dynamics GP, and other popular applications.