# RFCODE

# Asset Manager Release Notes

# Asset Manager 4.0 (February 2015)

This release of Asset Manager has the following updates:

- Expected Location is now a selectable attribute when configuring Locations
- Added support for "barcode" (non-beaconing) tag
- Fixed issue where multiple alert emails were being sent if the SMTP server connection timed-out
- Fixed issue where large tag counts caused the server startup to timeout
- Fixed issue where "Asset Tag" was missing from the list of available attributes to filter on for a search
- Fixed exception when attempting to export a report in SQLite format
- Fixed issue where initial connection to PostgreSQL failed
- Fixed issue where AM service did not start under non-admin Windows account
- Fixed exception when exporting SQLite interactive report
- Fixed issue where scheduled reports did not produce BIRT output
- Fixed BIRT report issue where data source was not found if using flat files
- Fixed issue where scheduled reports were not running after being modified
- Fixed issue where setting trigger delay caused trigger to be re-fired upon server startup
- Fixed issue where report job ran unexpectedly after modification
- Fixed issue where unit conversion did not display properly for Volumetric Air Flow Rate
- Interactive reports now default to Last Hour

# Asset Manager 3.1 (August 2014)

- Integrate ServerTech's Sentry Power Manager (SPM) into Asset Manager (license-key-enabled function)
- Add Statistical Computation Engine and Adaptive Thresholding (license-key-enabled function)
- Add graphing performance improvements on large data sets
- Add support for Treatment Code 05 and 06 (need M250 firmware 1.4 or higher)
- Add Tar.gz-based Linux installer
- Enhanced import feature to accept a "0" for FALSE and a "1" for TRUE
- Added support for location rule parameter to ignore location update delay
- Fixed issue where non-admin users were getting occasionally logged out
- Fixed performance issue with calculated fields and large asset populations
- Fixed UpConnect issue with Zone Manager
- Fixed possible SQL exception during server startup
- Fixed SQL exception on upgrade with a large population of LDAP users

- Fixed BACnet exception
- This version of Asset Manager has the following known issue:
  - When inputting values that are not native to Asset Manager, such as saving a temperature value in Fahrenheit that is then converted to Celsius in the Asset Manager database, values may be changed because of rounding error.

# Asset Manager 3.0 (May 2014)

This release of Asset Manager has the following updates:

- Add Asset Links feature (administrator-controlled filtered Asset Views)
- Update BIRT engine. BIRT is now part of the base Asset Manager product and does not require a separate license key
- Add ability to define parameters for BIRT templates
- Add ability to report on when an attribute value was set
- Add additional allowable attributes for Admin reports
- Add ability to export report output to SQLite
- Enhance Asset Manager user-interface to allow easier navigation of PDU assets
- Mass imports now utilize configured default values for blank values
- Allow macros to be used on email address fields
- Enhanced alert filtering for Alerts View and Open Alerts Widget on the dashboard
- Improved global search where multiple parameters can be entered at one time
- Enhanced color controls on LED light widget
- Add audit trail entries for imports
- Quick access history view that included what attributes have been changed by a user
- Add ability to view child assets from the map view
- Add ability to view unassigned tags in the dashboard grid widget
- Fixed issue where Rack Cooling Index was inappropriately applied to rows of racks
- Fixed issue where graph images were not being emailed from AM servers running Linux
- Fixed issue where tag count was not being displayed correctly on Tag Summary screen
- This version of Asset Manager has the following known issue:
  - In some versions of Firefox, exporting graphs, right-clicking, and selecting "save" may not work properly. The workaround is to use a different browser.

# Asset Manager 2.9.1 (January 2014)

- Support for 4-20mA Sensor Tag
- Add ability to right click in Dashboard to view Tag Details
- Fixed issue where Retire/Unretire buttons weren't enabled properly after assets were Retired/Unretired
- Fixed intermittent Alert Viewer Javascript Error
- Fixed issue with blank dashboard after copy

• Fixed issue where an Asset Template caused the console to become unresponsive

# Asset Manager 2.9 (November 2013)

This release of Asset Manager has the following updates:

- Server-side support for Mobile App
- Various graphing enhancements
- Added ability for administrators to add custom text to logon screen
- Added ability to alert on retired assets
- Fixed issue with scheduling weekly reports
- Fixed issue where calculated field was not updating correctly

# Asset Manager 2.8.2 (August 2013)

This release of Asset Manager has the following updates:

- Ability to set the operator for the Expected Location field. Admins can now associate the Expected Location Operator to any asset type for those assets for which the default behavior of "in" then becomes superseded.
- The asset screen has been enhanced so that assets can be forced or "pinned" to a specific location. Once pinned to a specific location, the asset remains pinned until a significant location move "automatically" unpins the asset; this new option for the behavior of determining an asset's location reduces the amount of false location changes.
- Support for new IR rule for floor separation
- Enhancement to handle greater than 9999 unique IR ID's
- Fixed an issue where expected locations were not working properly
- Fixed an issue that prevented multi-select within an asset grid widget in the Dashboards
- Fixed an issue where leaving the Map View up (single-page view) consumed all system memory
- Fixed an issue where import halted on error
- Fixed a Dashboard issue where clicking on empty space did not deselect anything

# Asset Manager 2.8.1 (July 2013)

This release of Asset Manager has the following updates:

• LDAP integration now supports Novell and other LDAP servers in addition to Active Directory.

# Asset Manager 2.8 (June 2013)

- Microsoft Windows Server 2012 and Microsoft SQL Server 2012 are now supported.
- You can now configure the Location field so that an Asset's Location will report the last known valid location if it goes offline or is not detected with location rules.

- Asset imports now run as background jobs and any failures in the import process are reported as exceptions in an Asset Import error log.
- LDAP integration now supports authentication and authorization for both individuals and groups.
- Exports can now be viewed in a "pretty" format, in addition to the standard CSV and JSON export file type options.
- New IR-based rules for asset location can now be configured to "trump" SSI rules so that assets are not "removed" from IR-defined locations.
- The M240 Closet Reader is now supported.
- Asset Templates can now be modified to show or hide specific Attribute fields.
- System notifications via SMTP can now be configured to use the STARTTLS communication protocol and SMTP is now more aggressive with retries after send failures.
- The Zone Manager "state" attribute can now be included in reports and alerts.
- A host of improvements have been made to Maps, Dashboards, and Reports/Graphs:
  - You can now change the size of map hotspot text.
  - You can now set the background color of map hotspots.
  - You can now set column sort defaults for grid objects.
  - You can now run Reports and Graphs for "Last Month," "Last Week," and/or "Last Day."
- The Location and Expected Location fields for assets can now be filtered and the most recent setting is remembered the next time it is viewed or accessed.
- Microsoft Windows 2003, SQL Server 2005, and Internet Explorer 7 are no longer supported.

# Asset Manager 2.7 (November 2012)

- Full support for IBM DB2 database version 9.7 (in addition to Microsoft SQL Server and PostgreSQL).
- A host of improvements to mapping:
  - You can now lock a map to a view.
  - You can now add and view different types of sensors on a map at the same time.
  - You can now have different attribute formatting on a single map for the same attribute.
  - Attribute icons on maps are now displayed if the User Type is set to Asset Viewer.
- When searching, you can now press the [Enter] key to repeat your search (as opposed to having to move the cursor to the Go button and to click the mouse button).
- In the Schema editor, you can now sort string lists in either ascending or descending order. Administrators can also use mouse right-clicks to add, delete, and view sample input forms.
- LDAP users who change profiles are no longer presented with a password field to complete.
- If you're viewing the single page app and your session times out, after you log back in you are now sent back to the single page app page you were previously viewing (instead of being sent to the full user interface).
- Fixed an issue where saving a map as an image returned an error.
- Fixed an issue where some exports and reports returned no output.

• Fixed an issue where some API calls for CSV formatted data were wrongly returning JSON formatted data.

# Asset Manager 2.6.1 (September 2012)

This release of Asset Manager has the following updates:

- This release fixes an issue where, in a rare sequence of events, due to database connectivity and/or corruption issues, Asset Manager restarted as an automated recovery action. If, after the restarting, the database server issue(s) were still present, Asset Manager thought it was initializing for the first time, which could have dropped database tables resulting in a loss of data.
- If you create then select a folder in the Dashboard tab (in either the Admin or the User Console) and then click New, Asset Manager now properly presents you with the form to create a new Dashboard.

# Asset Manager 2.6 (August 2012)

This release of Asset Manager has the following updates:

- CSV imports now accommodate the "quoting" of data, which helps to differentiate string from numerical data.
- This release of Asset Manager includes updated firmware (v1.2.1) for the M250 reader.
- If you are viewing the single page app in Asset Manager (i.e., viewing Asset Manager in single-page mode) and your session times out, you will be forwarded to the standard login page. Then, after logging in again, you will be sent back to the single page app page you were initially viewing (as opposed to being forwarded into the full user interface).
- Historical data is now partitioned into a new table at the start of each month. This will speed up the generation of reports and certain maintenance operations that were slowed down by fragmented indices on the history table. Adjustment to the existing database maintenance plan(s) is highly recommended. Please contact RF Code Support for more information.
- Alerts now continue to function if you delete an asset, even if there are open alerts requiring you to acknowledge them for that specific asset.

# Asset Manager 2.5 (June 2012)

- Support for 32-bit operating systems has been removed. Starting with version 2.5, Asset Manager must be installed on a 64-bit version of one of the supported operating systems. Hardware and operating system requirements can be found in the Administrator's Guide, which can be opened from the Help link within the web console or downloaded from <a href="http://support.rfcode.com">http://support.rfcode.com</a>.
- Added support for Red Hat Enterprise Linux and Oracle Linux 5.5+ and 6.x+.
- Microsoft SQL Server Express has been updated from version 2003 to 2008.
- Added ability to delete running reports.
- Added ability to move readers to another Zone Manager instance.
- Added database connection hook to restart server on database connection exception.

This release of the Asset Manager has the following known issues:

- If a template is configured with a value for a custom attribute type in the template definition, then any attributes inherited from the custom type value will appear in the template definition. However, those same attribute fields will not appear when the template is used to create an asset in the UI.
- When locations are added to, or updated in Asset Manager, those locations will not be visible to users of Asset Manager's user interface until their browser is refreshed. This includes locations added from imported files as well as locations added in the user interface or through the SDK.

# Asset Manager 2.4.5 (April 2012)

This release of the Asset Manager has the following updates:

- Fixed an issue where a tag goes offline due to the fact that tag age-out time is exceeded (Asset Manager sets Online Status = No) and comes back online at the exact same time. The Asset Manager only updates Asset Location.
- Fixed an issue where there was no warning when a Modbus Slave Device Definition was about to be updated.
- Fixed an issue where HTTP Post Alert Action failed when sending non-null typeref-list values.
- Fixed an issue where session cookie mismatch can cause Asset Manager to receive only a portion of tag events.
- Fixed an issue where SNMP Action OIDs are incomplete.
- Fixed an issue where Asset Manager MIB did not include event-specific traps OID; updated RFCODE- MIB file with Event Trap definition.
- Fixed an issue where Alert Actions would not stop if alerts were acknowledged before it was resolved.
- Fixed an issue that was causing Asset Manager to not restart after a JVM crash.

This release of the Asset Manager has the following enhancements:

• IR rules can now be scoped to a Zone Manager.

# Asset Manager 2.4.4 (February 2012)

- Fixed potential issue where an update to modify the location path of an asset could be queued and potentially missed on server shutdown.
- Fixed issue after upgrading from pre-2.4 version where reader channels were not available in pick list when creating rules.
- Fixed potential concurrent access issues during server initialization.
- Fixed deadlock condition when server requesting interactive report or dashboard, causing report to never complete.
- Some reports created in Asset Manager 2.3.x will not run after upgrading to Asset Manager 2.4.x.

This release of the Asset Manager has the following known issues:

- In the Configuration > Database task in the Admin Console, the checkbox for "Windows Authentication Mode" cannot be selected. To work around this, first select PostgreSQL as the Database Type, and then select Microsoft SQL Server. The checkbox will then be selectable.
- SNMP action OIDs do not contain trap-specific IDs. This ID references the alert state and is missing from the OID; however, it is included as a bound variable in the SNMP trap.
- The Rule configuration panel in the web console sometimes fails to load Reader channels that have been selected in the Reader Channels List. However, locations and rules still continue to function properly.

# Asset Manager 2.4.3 (January 2012)

This release of the Asset Manager has the following updates:

- Improved logic for handling incorrect tag payloads in a multi-reader environment.
- Fixed an issue in which the location paths of scoped assets were not being updated correctly when an asset moved locations.
- Fixed an issue in which Alert Thresholds would malfunction if the Execution User Account for a threshold had been deleted. In 2.4.3 if an Execution User Account for a threshold is deleted, the threshold will be disabled until an existing user is assigned.
- Fixed an issue that may occur after migrating from 2.3.x to 2.4.x. A reader attribute could be incorrectly migrated and this caused a JavaScript error when creating new rules for a reader.
- Entity IDs can now contain a dash ("-").
- Improved performance for IR-based location rules.
- Fixed an issue in which a readers.csv file exported from Zone Manager could not be imported into Asset Manager.

# Asset Manager 2.4 (October 2011)

- User configurable dashboards: Asset Manager version 2.4 includes significantly updated Dashboards feature. Previous versions had a simple default dashboard view displayed under the Dashboards task. This view will no longer appear by default on new installations or after an upgrade to version 2.4. For version 2.4 and higher, the Dashboard task is now fully user customizable using dashboard widgets for displaying a wider range of dashboard information.
- Event notification system: The events feature is different from the alert feature in that they do not have a life cycle (i.e. open, closed, resolved, etc.). Useful for 3rd-party integration.
- GPS integration support for the M250 Reader: The M250 Readers now support a Garmin GPS device (USB based) that provides real-time GPS data to the reader. When coupled with a GSM, G3 or G4 data device, the M250 reader with the GPS device can be installed on mobile locations such trucks, fork-lifts, ships, etc. and report precise geospatial location information in real-time.
- Mobile location support: Asset Manager now supports the concept of mobile locations. You can now utilize location rules to dynamically change the location of the "location". Thresholds, alerts and reports can all key off of this mobile location data. Mobile locations can be nested (a truck on a ship, etc.).

- Attribute color coding on Maps: Asset Manager now has the ability to color code maps by any attribute. An example is a "heat map" based on maximum rack intake temperature.
- Quick global search: Asset Manager now has the ability to quickly search all string attributes associated to assets & sensors. Search results are displayed in the "Mange Assets" table view.
- Object grouping: Asset Manager now has the ability to group configuration objects into folders on both the Administrator Console and the User Console.
- Parent-child asset navigation: Many assets defined in Asset Manager have child assets or "sub" assets. Parent-Child Navigation allows users to easily access any child assets by simply right clicking on the asset that works in the table and map views. The result of using "View Children" is to display all child assets in the table view.
- Enhanced default schema: Asset Manager now has an improved sensor asset hierarchy and improved summary location asset hierarchy. Now, when adding summary assets, configuration choices allow customization and only expose desired optional attributes.
- RCI & RTI metric support: Asset Manager now allows for RCI (a measure of compliance with ASHRAE or NEBS data center thermal guidelines expressed as a percentage) and RTI (a measure of net by-pass or net recirculation air expressed as a percentage) metrics incorporation.
- Asset Builder application: Asset Manager now support RF Code's Asset Builder (tag-to-asset association) application to aid in the deployment of RF Code asset tags. Asset Builder runs on Android- based handhelds and was specifically designed to run on the BIP-6000-D from SDG Systems, Inc.

This release of the Asset Manager has the following enhancement:

• All date/time values that are replaced via macros or sent out in alert actions have a new format. The new format is "yyyy-MM-dd HH:mm:ss.SSSZ". This both changes the current date/time portions of the format and also adds milliseconds and time zone offset information to these date/time values. This will also be the format for report job actions and macro values as well as event actions and macro values.

This release of the Asset Manager has the known issue:

• There is a known issue with Custom Type Reference attributes for V4.1\_Sensor\_Tags\_Only\_Schema.

# Asset Manager 2.3.3 (June 2011)

This release of the Asset Manager has the following updates:

- Fixed an issue which caused asset data to stop being recorded in the connected database when a status attribute definition was updated in the Status Attributes sub-task.
- Enhanced system input and output operations for handling loads.

# Asset Manager 2.3.2 (April 2011)

- Added support for the R170 PDU Sensor Tag for Emerson.
- Added support for the R170 PDU Sensor Tag for Chatsworth Products Inc.

- Added support for the A160 Air Pressure Tag.
- Added support for IPV6.
- Added support for USB serial device connection.

This release of the Asset Manager has the following known issue:

• 'Active' Data Connection method is not supported if FTP Alert or Report Action is used with an IPv6 FTP server

# Asset Manager 2.3.1 (February 2011)

This release of the Asset Manager has the following updates and enhancements:

- Added support for the R170 CDU Sensor Tag for Server Technology.
- Added support for the R170 PDU Sensor Tag for Geist.
- Fixed issue where user-configurable "Rows" incorrectly reverts to 'Fit' when paging toolbar is used.
- Fixed HTTP post action to include the query string in the URL.
- Enhanced upgrade from version 2.x level to check existing alert threshold configurations.

# Asset Manager 2.3 (November 2010)

This release of the Asset Manager has the following updates and enhancements:

- Added support for the RF Code M250 Reader.
- Added support for RF Code R170 PDU Sensor Tag.
- Added the ability to integrate Asset Manager into building management systems via the BACNET/IP and Modbus TCP/IP protocol.
- Added the ability to associate multiple tags to an asset.
- Added a comprehensive Version 3 IT Data Schema.
- Added a "Page Link" feature that allows the user to link to a specific task pane without the inclusion of the navigation tree.
- Added a new User level called Reporter + Alerts.
- Added a built-in asset attribute, 'Last Update Time' and 'Last Update User' which are automatically updated if an asset's attribute(s) are modified by a user account.
- Added an SNMP configurable attribute 'Community String' and 'Agent IP'.
- Added various calculated functions (previous function to get previous value of an attribute and a few string-related functions).
- Added new Units for integer and floating point attributes.

- Added "Family Map" for asset location hotspot settings.
- Added 'Last 30 Days' option to interactive history in Manage Assets sub-task.
- Added FTP/SFTP/HTTP Post Report Actions for Report and Graph Actions sub-tasks.
- Added FTP/SFTP Alert Actions sub-task.

This release of the Asset Manager removed support for the following:

• Tweet alert action

# Asset Manager 2.2 (May 2010)

This release of the Asset Manager has the following updates and enhancements:

- Enhanced reporting capabilities with the inclusion of Eclipse BIRT Designer software and integration of BIRT reports in Asset Manager. Note: separately purchasable license key required.
- Added the ability to upgrade reader firmware on readers connected to Asset Manager.
- A self-signed SSL certificate is automatically installed upon new installation or upgrade. If an SSL certificate is not present, HTTPS connections will be available without Administrators having to create and install certificates manually.
- Added a "Remove All" button in the Tag Management task allowing a user to remove all unassigned tags from the Asset Manager system.
- Added descriptions of built-in data schemas to allow Administrators to preview data schemas before importing them into the Asset Manager system.
- Added filter operator "Does not Contain" for String Attributes.
- Added the ability to export and import binary data, such as asset image files.
- Added a Bookmarks feature that gives the user the ability to link a particular set of filtered assets to a specific view.
- Added "update" function in Calculated Asset Attributes that drives additional business logic by setting a value for any other attribute when user specified criteria is met.
- Added "in" and "containsElement" functions in Calculated Asset Attributes for comparing string, string- list, asset reference, custom type reference, and custom type list reference attributes
- Added conditional formatting of text background and text foreground colors for asset attributes, status attributes, and calculated attributes ability.
- Added the ability to copy an existing View to create a new one in the Views task.
- Added the ability to configure the number of rows that appear on a table view. In this release, the setting is user account based and persistent in Manage Assets, Access Control, and Alert Viewer panels.
- Enhanced filter of alerts that allows for specific date range periods.
- Added the ability to copy an existing Threshold to create a new one is available in the Thesholds sub- task.
- Added interactive graphing support where a user can construct a graph interactively without having to create a graph definition.
- Added a "Consolidated Reports" report option that allows for multiple reports to be executed simultaneously and outputs into one file.

• Added a new "text" hotspot in the Map Configuration task which will display any free form text entered by an Administrator and is not linked to any asset or location.

This release of the Asset Manager has the following known issue:

- When using the Mozilla Firefox browser to load the Asset Manager Help file, the browser sometimes hangs when loading the file. To fix this fail, you must clear your network offline storage cache:
  - 1. In Firefox, go to Tools > Options.
  - 2. Click Advanced.
  - 3. Select the Network tab.
  - 4. Click "Clear Now" to clear the offline storage.
  - 5. Add more space to the offline storage cache.

# Asset Manager 2.1.1 (January 2010)

This release of the Asset Manager has the following updates:

- Fixed issue with duplicate open alerts when Server security is enabled and Server is restarted.
- Fixed multiple issues where restricted items are displayed when Server security is enabled.
- Fixed issue where PDF output incorrectly embedded license insufficiency warning when Server security is enabled.

# Asset Manager 2.1 (October 2009)

This release of the Asset Manager has the following updates and enhancements:

- Capability of User Data Security which allows the segmentation of the user data space allowing users to only view the appropriate information for which they have been granted proper access to a user group.
- Allows standard management applications such as Tivoli Monitoring or HP OpenView the ability to monitor assets and sensors that are defined in side Asset Manager as well as the Asset Manager application and infrastructure (readers and zone managers). Note: separately purchasable license key required.
- Allows the integration of the RF Code wire-free sensors with the APC NetBotz solution. Utilizes theNetBotz Pod Sharing capabilities native to Version 2 & Version 3 NetBotz appliances.
- Ability to publish asset, sensor tag, reader status and Zone Manager status information via JMX (Java Management Extensions). Note: separately purchasable license key required.
- New alert action that will send a command to the serial port on selected readers to activate a device via the serial port such as a siren or indicator light.
- New Asset Alert Report template for creating reports about asset alerts.
- Ability to display alert status (as a column) for each asset in the asset table view.
- Ability to navigate to open alerts directly from asset table view or maps view.

This release of the Asset Manager has the following known issue:

• On the Asset Panel when there are is more than one pages of assets and the panel is in Pause mode the panel pauses correctly. When the panel is switched to another page the panel no longer pauses the updates.

#### Asset Manager 2.0.1 (July 2009)

This release of the Asset Manager has the following updates and enhancements:

- Enhanced tag read stability handled by Zone Manager.
- Enhanced handling login/logout with connected database.
- Fixed asset creation issue where asset type has any unique attribute.
- Fixed Index feature display of online help.
- Calculated asset attribute "Asset Count" in the built-in Version 2 schema file is updated to use the new operator "in". For example, the updated expression for this attribute, "count(\*.type,"in","INVENTORY\_ASSET")", will count the number of assets in asset type "Inventory Asset", including the number of assets in its sub-type(s), if there are any.

- When upgrading Asset Manager from version 1.x to version 2.0.x, the service wrapper for Asset Manager v1.x is not removed. To ensure Asset Manager v2.0.x will restart properly (i.e. when the server reconnects to its database), instead of running Asset Manager v2.0.x installer on top of Asset Manager v1.x, please first remove version 1.x before running Asset Manager v2.0.x installer. Removing Asset Manager v1.x will not lose its existing configurations (i.e. data schema, system configurations, and assets). The configurations are stored in the connected database. If Asset Manager has been upgraded to version 2.0.x without un-installing the previous version, you must un-install and re-install Asset Manager v2.0.x.
- Updating attributes for User Console > Customization > Views > Alert View also updates attributes displayed in Administrator Console > Alert Management > Alert View.
- When viewing a Report, Graph, or Threshold with Asset Reference Type attribute in the filter, you will be prompted to save changes when navigating away from the current view. Choose 'No' if the configuration has not changed.
- The Value of a Custom Type List Reference attribute in a filter of a Report, Graph, or Threshold can be set but will not load when viewing the configuration.
- The value of a String List attribute cannot be set in the filter in a Report, Graph, or Threshold. The filter in Manage Assets view shifts downwards if this type of attribute is selected.
- In the Administrator Console, Online Status of a reader in a Report or Graph appears not to be available in "Attributes". Administrators may use Reader Status, providing a more granular state of readers instead.

# Asset Manager 2.0 (June 2009)

This release of the Asset Manager has the following updates and enhancements:

- Remote Zone Managers now have UpConnect capability. The Remote Zone Manager is configured with the IP address of the Asset Manager and the Remote Zone Manager initiates the connection to the Asset Manager. Also, the Remote Zone Manager now has a Store & Forward capability to store (on local hard drive) tag events when the connection to the Asset Manager is interrupted and then forward the stored events (sync) when the connection is restored.
- Calculated Attributes provide the ability to compute or derive data for additional attributes derived from data held by other attributes.
- Asset Manager has a new Maps feature that can provide visual or graphical navigation of location tree and can provide summary asset information for each map.
- New data types are included in default schema and the default schemas have been updated.
- A new User Console report template, Location Change Report, is now available. Also, new Administrator Console report templates (User Access Report and Persistent User Views) are now available.
- A global setting for units of measure (English vs. Metric) in the Asset Manager software is now available.
- A new Administrator Alert Threshold (Reader Tag Capacity Threshold) is included.

- Pertaining to MS SQL server, during an upgrade to 2.0 or during a fresh install, Asset Manager turns READ\_COMMITTED\_SNAPSHOT on. This command may hang if there are other open connections to the database which is used by Asset Manager. Users must ensure all active connections to the database are shut down before proceeding with the upgrade or install.
- If an Asset Manager has over 1,000 readers on a single Zone Manager then a modification must be made to avoid an SQL error that will cause tag event reporting to stall. Please contact support for assistance in this modification or add additional Zone Manager components.
- In User Console > Dashboard, the assets filter configured via the Configure button may not be set if the user logs out or closes the browser immediately.
- Users must use a semicolon separated list to e-mail reports, graphs, and alerts to multiple recipients.
- When viewing a System Configuration CSV export file in Microsoft Excel, the program converts the attribute \$aRangerLastHistTime (i.e. 1244567074723) to exponential format (i.e. 1.24E+12). This causes the system configuration import using the export file to fail. A way to work around this is to click the column for the attribute, go to Data menu, then Text to Columns, and select Text as column data format on the last screen.
- In the Calculated Asset Attributes configuration panel, sometimes a macro selected from Attribute, Function, Asset Attribute, or Time may not be inserted to the Attribute Expression box when creating a new attribute. This is usually seen when selecting the first macro for the expression and is exhibited in IE 7 & IE 8 browser only.

• In the Administrator Console, ID fields in various configuration tasks, such as Data Schema or Locations, are automatically filled based on Name fields. In this release, the user interface restricts IDs starting with a digit so that a Calculated Asset Attribute's expression referencing any of these entities (i.e. an asset attribute) can be properly evaluated. In this case, users should overwrite IDs when prompted about such restriction. Name fields are not affected by this restriction.

# Asset Manager 1.2 (March 2009)

This release of the Asset Manager has the following updates and enhancements:

- Bug fix for Asset Manager memory leak.
- Added support for joined channels rule.
- Added an Expected Locations rule. With this rule a list of tag IDs with expected locations are passed to Zone Manager from Asset Manager. When Zone Manager calculates confidence rules that match an expected location, an additional confidence factor is added to the rule. The amount of confidence added when the rule is used is user configurable. This addition is reflected in the Administrator Console of the Zone Manager Configuration sub-task where the user will need to add values to the rules that match expected locations to enable this feature.
- Bug fix for an incorrect tag status reporting issue where Asset Manager was incorrectly reporting tag online/offline status when a Zone Manager was offline.

# Asset Manager 1.1 (January 2009)

This release of the Asset Manager has the following updates and enhancements:

- Application Programming Interfaces (APIs).
- Graphs Task Asset Manager now has graphing capabilities that allow for quickly and simply visualize sensor readings from tag sensor such as motion, tamper, panic, low battery, temperature, humidity, pressure and door switch tags as well as custom graphs for the User Console. For the Administrator Console, the graphs task allows for the creation of graphs of features such as reader noise, readers online/offline, Zone Managers online/offline, as well as custom graphs.
- HTTP Post Alert Action Output alert information to a web server via simple attribute and value pairs. Supports HTTP authentication on the HTTP Post.
- Custom Branding Support A Branding License Key can be obtained from RF Code by contacting RF Code Sales at (512) 439-6020 or sales@rfcode.com. The more specific branding details will be given upon speaking with a sales representative.
- SSL Support The ability to configure an SSL connection between the Asset Manager server, the remote Zone Manager systems, and the browser console is now available. Also, the ability to change the default port number that Asset Manager uses is now available.
- A600 Tag Controller Configuration Sub-Task An addition of a new Configuration sub-task, Tag Controller is now a feature of Asset Manager. This allows for Asset Manager to display information related to RF Code A600 Tag Controllers and Tag Controller-enabled tags. Asset Manager will record and display the state of these tags (beacon now, sleep, wake up).
- IBM Premises Integration Support The ability to configure Zone Managers for use with IBM Premises capabilities through Asset Manager is now available as part of the Zone Manager Configuration sub- task.

- User Specific Configuration State Save & Retrieval User specified preferences for column widths, table sorting, dashboard configuration and selected views are automatically saved for each user.
- Reporting Task for Administrator Console The Administrator Console now has a Reports Task as a feature of Asset Manager similar to what was previously limited to the User Console. Reports available include Reader Noise, Reader Offline, Zone Manager Offline, Zone Manager Online, User Access and Custom report capabilities.
- Ability to upload Asset Photos in the Asset Type Schema of the Administrator Console The administrator now has the ability to include a photo for an asset which is defined in the Asset Type sub- task of the Data Schema task.
- Reporter User Role A new User Role has been created called Reporter. This User Role has permission levels that allow for all of the capabilities of the Viewer Role as well as the additional abilities to create, edit, or run reports and to delete report outputs.
- Enhanced Filtering for Report Output To better manage larger number of reports Asset Manager now allows for filtering of reports by Report Name rather than Report Type and also allows for the filtering of reports by relative time frames such as "Today's" reports or "Last Month's" reports.
- Fast Path to Asset Attribute History The ability to quickly view the history of an asset attribute from the Manage Assets sub-task without requiring the user to build and run a report is now included.
- Ability to Specify Alert Message Text for Custom Alerts The user now has the capability to specify a unique message to be included as part of a custom alert created in the Alert Management task.
- Ability to Configure Asset Manager to interact with Up-connect Readers This capability reflects a change in RF Code Reader technology allowing readers to "up-connect" or initiate the connection to a Zone Manager eliminating the need for firewall manipulation. Both the Asset Manager software and reader firmware have been updated to allow for readers to initiate network connections. The configuration of Asset Manager for use with these readers is performed in the Reader Configuration sub-task of the Administrator Console.

This release of the Asset Manager has the following known issues:

- When updating an asset image for an asset, using Clear button ("x") before locating new image file ("+") results in new image file not being saved. To workaround this issue, do not use Clear button when updating asset image.
- Tag Controller configuration currently is not included in the system configuration export. If there is reference to tag controllers in Data Schema or Assets, to import system configuration to a new Asset Manager, tag controllers need to be manually re-created in the new Asset Manager before importing Data Schema or Assets.
- Microsoft Internet Explorer 7 or 8 users may experience an issue where, after authenticating with a remote Asset Manager on the login page the Asset Manager console does not finish loading. This is caused by the browser failing to prompt users for a security option. This issue is especially prominent with Internet Explorer running in Windows Server 2008. It can be easily resolved by manually adding the remote Asset Manager URL to Internet Options >Security >Trusted sites in the browser preferences.

# Asset Manager 1.0 (September 2008)

This release of the Asset Manager has the following known issues:

- Sometimes in the Administrative Dashboard>System Summary section, the number of Zone Managers or Readers that are online displays "undefined". Reloading Administrative Dashboard will correct the issue.
- Asset Manager import configuration files should be imported in the order listed below.
  - 1. Import Custom Schema.
  - 2. Import Asset Manager Configuration.
  - 3. Import Asset Tags from list.
  - 4. Import Assets.

NOTE: If any of the files are not required for the update they can be omitted from these steps.

- Users logged into the Asset Manager console through a browser should remain logged in until a user clicks the logoff button or closes their browser. Since Asset Manager uses Javascript extensively, other web pages running within the same browser may affect the performance and behavior of the Asset Manager web user interface. Other web pages running within the same browser may cause the Asset Manager console to logout a user if their Javascript code incurs an exception condition.
- Ability to Configure Asset Manager to interact with Readers via Up Connect- This capability reflects a change in RF Code Reader technology allowing readers to "up-connect" or initiate the connection to a Zone Manager eliminating the need for firewall manipulation. Both the Asset Manager software and reader firmware have been updated to allow for readers to initiate network connections. The configuration of Asset Manager for use with these readers is performed in the Reader Configuration sub-task of the Administrator Console.

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