

enteliWEB 4.2 Release Notes



Contents

- Welcome
- New Features in enteliWEB 4.2
 - BACnet Device Filter
 - GCL+ Programming
 - Navigator Object List Filter
 - Object Pages
 - CopperCube
- System Requirements
 - IT Deployment Planning Guide
 - Host Server
 - Client
- enteliWEB Ordering and Subscription Renewals
- Important Licensing Information
- Installing enteliWEB for the First Time
 - Install the Software and Activate the License
 - Change Password Strength Settings
 - Review User Lockout Settings
- Upgrading enteliWEB from Earlier Versions
 - Back Up enteliWEB Prior to Upgrade
 - Upgrade enteliWEB
 - Activate enteliVIZ HTML5
 - Update Application Modules
 - Change Password Strength Settings
 - Review User Lockout Settings
- System Limitations
- Known Issues
 - Known issues specific to version 4.2
 - Known issues carried forward from previous versions
- Resolved Issues from 4.1
- Document Control

Welcome

Delta Controls is pleased to release enteliWEB Version 4.2.

enteliWEB 4.2 adds a BACnet device filter, an improved Navigator Object List filter, more object pages and support for sub-properties in GCL+ programming. For details, see [New Features in Version 4.2](#).

This release notes document communicates important technical information about **build 4.2.129** of enteliWEB.

New Features in enteliWEB 4.2

BACnet Device Filter

enteliWEB licensing is based on the number of I/O objects that it finds on the network. In some situations this can cause problems with the price of enteliWEB.

The BACnet Device Filter solves the following common problems:

- **Small Projects** - Partners are often required to provide a front end for a small Delta project that is attached to a much larger 3rd party BACnet network. In these cases customers are (rightfully) unwilling to pay for an Enterprise license that they expect will only manage a handful of controllers, not the entire BACnet network.
- **3rd Party Device I/O** - Many 3rd party manufacturers use generic BACnet firmware that comes with pre-loaded I/O points, which are often either not used, or used as programming variables. Counting these I/O against the license puts partners at a pricing disadvantage, as they must purchase a much larger license than should be required.
- **Network and Site Organization** - In some cases it may be beneficial, whether for organizational or other reasons, to "virtually divide" a network into different sites. For example, one large network, consisting of many buildings, could be necessary for IT reasons, even though it isn't the ideal way to organize Navigator. However, with the BACnet Device Filter, you can take the device ranges for each building and add them to it's own individual site, turning one site with many buildings, into many sites with one building each.

With the BACnet Device Filter you can filter entire devices or I/O ranges, so that enteliWEB does not "see" them. The BACnet Device Filter allows you to determine which points are included in the enteliWEB I/O count in the following ways:

- by **vendor ID**
- by **site**
- by **device range**
- by **I/O ranges** on one device or on a range of devices
- by **object type**, for the following standard object types: AI, AO, BI, BO, MI, MO and LO

You specify what the BACnet Device Filter does via a text file that contains filtering rules, in CSV format. For details on how to create this text file, refer to the Help page on the Support page in the Administration section.

GCL+ Programming

- **Sub Property Support.** All object subproperties are now supported in the enteliWEB GCL+ Editor.
- **Object Reference Mode.** The Mode button acts as a toggle to allow you to view the program with object references or with object names. This is useful to quickly troubleshoot programs or to search and replace specific instances.

Navigator Object List Filter

The Object List Filter has been enhanced to support the following terms to narrow down the search results:

- **Logical AND, OR, NOT.** Logical operators allow you to quickly narrow down search results.
- **Parentheses.** Parentheses enforce order of operations.
- **Wildcard.** The * symbol allows you to add wildcard part or all of an object name.
- **Quotes.** Single or double quotes indicate that an object name is being used.
- **Object Ranges.** Use - to specify an object range.

Object Pages

The following object pages have been added:

- **BMD** - BACnet Broadcast Management Device List
- **BDE** - Bulk Data Exchange
- **IOM** - Input Output Mapping

CopperCube

- The communications interface between enteliWEB and the CopperCube has been upgraded to improve performance and reliability.

System Requirements

IT Deployment Planning Guide

The host server spec's below are considered the minimum requirement for enteliWEB. In order to select a server that will provide optimal performance and user experience for your site, please refer to the Deployment Planning Guide for enteliWEB, found on the [enteliWEB product page](#).

Host Server

Operating System

- Microsoft Windows Server 2016 Essentials, Standard, and Datacenter editions are supported.
- Microsoft Windows Server 2012 Foundation, Essentials and Standard editions are supported.
- Microsoft Windows Server 2008 is supported.

For small sites or tech/development machines, Microsoft Windows 7 / 8 / 10 may be used.

Not Supported

- Microsoft Windows XP, Vista is **NOT** supported.
- Microsoft Windows Server 2003 is **NOT** supported.

Minimum Hardware Requirements

- Intel/AMD multi-core CPU @ 2GHz, 4GB RAM, 100 GB HDD space + 60 MB per year of meter data.
- enteliWEB's energy management system makes a local copy of the archived Historian/CopperCube data for each data point added to a meter, at a fixed 5 minute interval. Each data point consumes 30 MB of hard disk space per year of archived data, regardless of the number of samples in the archived data. For example, 5 meters having a demand and consumption data point (10 data points in total) with 5 years of historical data will consume nearly 1.5 GB of hard disk space (5 meters * 2 data points/meter * 30 MB/year * 5 years = 1500 MB = 1.46 GB).

Internet Information Services (IIS)

- Internet Information Services (IIS) is required for enteliWEB and the installer will automatically install it if not already installed.

MySQL

- enteliWEB installs its own instance of MySQL to store internal data which does not conflict with any existing MySQL installation. The enteliWEB installer will prompt to create the root user password. You must retain this password.
- enteliWEB's integrated MySQL service runs on port **49250** and will appear as **Local instance Delta MySQL Service** in MySQL Workbench.

Coexisting with ORCA software

- enteliWEB is independent of ORCA software and can be installed together with ORCAview and ORCAweb. enteliWEB and ORCA software can both connect to the same remote BACnet network (BBMD) as a foreign device, but they cannot share an Ethernet or BACnet Regular IP connection.

CopperCube or Historian Database Support

- enteliWEB relies on a CopperCube or Historian database that resides on a separate server to supply trend log data for energy reporting and historical trends.
- enteliWEB supports MySQL and Microsoft SQL Historian databases. The Historian server, database and remote connections must be set up prior to configuring Historian's relationship with enteliWEB. Refer to Historian documentation. See [KBA2016](#) for the procedure to enable the SQL database to allow remote TCP/IP connections as required by enteliWEB to retrieve energy data.
- enteliWEB utilizes web services to retrieve CopperCube data.
- **Use CopperCube 1.21.1603 or higher**

Client

Operating System

- Microsoft Windows 7 / 8 / 10 / Server 2008 / Server 2012 / Server 2016
- Apple Mac OS 10.4+

Browsers

- Chrome 20+
- Edge
- Firefox 20+
- Internet Explorer 9+
- Safari 6+

Browsers supported by enteliVIZ HTML5

- Chrome 21+
- Firefox 22+
- Internet Explorer 11+
- Safari 6.1+

Not Supported

- Safari on Windows

Screen Resolution

- enteliWEB is designed to be viewed at a minimum screen resolution of 1280 x 1024

Tablet/Mobile Device Compatibility

- enteliWEB is compatible with browsers that have HTML5 capability, including those on tablets.
- Enterprise, Personal, and Energy dashboards, and the BACnet object pages are optimized for phone and tablet viewing.
- Some views may not take full advantage of tablet form factor but they are all fully functional.
- enteliVIZ HTML5 and ORCA SVG based graphics work on tablets and phones.
- enteliVIZ graphics that are Flash based (previous to enteliWEB 4.1 release) will require a mobile browser that supports Flash (such as Photon) in order to be viewed.

enteliWEB Ordering and Subscription Renewals

Please go to the enteliWEB Configurator page on licensing.deltacontrols.com, to build and price your enteliWEB. For a description of license options and subscriptions please refer to the [enteliWEB Licensing and Subscription Guide](#).

Important Licensing Information

enteliWEB requires a software license to run. The serial number is sent to your company when the order is placed. The serial number is required during installation.

You can activate the license over an Internet connection or by using email.

Every enteliWEB option works on a **Virtual Machine (VM)** installation, however, it requires the server to have a **permanent Internet connection**, so that enteliWEB can communicate with Delta's licensing servers.

It is recommended that you order the "Offline Virtual Machine" option for ALL virtual machine installations, to avoid the possibility of IT network/firewall changes to cause enteliWEB to report a license issue and stop running.

Order the **-VM**, with the appropriate base enteliWEB. Refer to config.deltacontrols.com to price and order this option.

Summary:

- Offline VM = -VM add-on is required
- Online VM = -VM add-on is recommended

Note - *To help expedite your order, please specify the Site Name and Site Address when placing your order. The Site Name will be displayed in the header bar of enteliWEB.*

enteliWEB includes a one year software maintenance subscription. For information about software maintenance, see [enteliWEB Licensing and Subscription Guide](#) on George.

To prevent data loss in the event of upgrade problems, enteliWEB data should be backed up before the upgrade is performed. Instructions in the [Upgrade](#) section.

To use, view, or design enteliVIZ graphics, you must first purchase or upgrade your license to a version that enables this feature. Please contact RMA for upgrades.

Installing enteliWEB for the First Time

For detailed instructions on installing enteliWEB see the [enteliWEB Installation Guide](#).

Install the Software and Activate the License

1. Make sure the server meets the requirements specified in the Host Server section of these release notes.
2. Run enteliWEBSetup.exe in the installer folder. It guides you through the installation process and automatically installs the required components including IIS, Delta Software License Manager utility, BACnet Server, MySQL and enteliWEB. You will be prompted to define a password for the enteliWEB Admin user and for MySQL root user. Remember these passwords!

Notes

- enteliWEB utilizes Internet Information Services (IIS). enteliWEB installs IIS for you.
 - enteliWEB installs its own instance of MySQL to store internal data. It does not conflict with an existing MySQL installation.
3. Activate the enteliWEB license with the 30-character license serial number you received from Delta Controls. The Delta Controls License Manager opens and allows you to activate the license. See the Software License Manager User Guide in the installer folder for additional information.

Change Password Strength Settings

It is recommended that you improve the password strength settings that apply to the passwords for all users, including the Admin user, as follows:

1. Click



2. Click Password Settings.
3. Adjust the settings to meet your needs.
4. Click Save.

Review User Lockout Settings

It is recommended that you review the user lockout settings to ensure they are suitable for your installation, as follows:

1. Click



2. Click User Lockout Settings.
3. Adjust the settings to meet your needs.
4. Click Save.

Automatic user unlock is by default enabled with a time period of 60 minutes to alleviate users accidentally locking themselves out.

It is recommended that you create at least one alternate Admin user in case of accidental Lockout.

Upgrading enteliWEB from Earlier Versions

When upgrading enteliWEB from an earlier version, it is important to follow these procedures. Plan your upgrade in such a way as to minimize service disruption. Give yourself plenty of time, ideally during Delta Tech Support operating hours in case of an unexpected problem. If the site is sensitive to service disruption, Delta can advise you on multi-server arrangements that allow you test the upgrade on one server, while leaving the main server in operation.

Back Up enteliWEB Prior to Upgrade

To prevent data loss in the event of upgrade problems, perform a backup of enteliWEB as described below before starting an upgrade.

1. Log on as the Admin user.
2. Navigate to Administration > Support.
3. Click Back Up to begin the enteliWEB configuration back up process.
4. When the enteliWEB configuration back up is completed, consider whether you need to back up the following additional items:
 - a. Application module configuration data. When an application module stores configuration data in its module folder that resides inside website/application/modules, then that data is backed up by the enteliWEB back up function. Otherwise your application module configuration data must be backed up separately by a tool or process that is outside of enteliWEB.
 - b. Log and event data. The enteliWEB back up function skips log and event database tables due to their potential size. If this data must be retained, follow the procedures in [Kba1953](#) to manually backup these tables.

Upgrade enteliWEB

Run enteliWEBSetup.exe in the enteliWEB installer folder. It guides you through the installation process and automatically installs and upgrades the required components.

Activate enteliVIZ HTML5

On upgrade to enteliWEB 4.1 or later from enteliWEB 4.0, you will need to Update the enteliWEB license using the Delta License Manager before enteliVIZ HTML5 will work.

Update Application Modules

Application modules may need to be updated after upgrading to a new version of enteliWEB. If an application module implements functionality that is no longer available, enteliWEB may fail to load.

If your module was created by Delta's PAS department, please consult with them prior to any version upgrade. It is possible for modules to stop working after upgrade.

Permissions:

- Upgrading to enteliWEB 4.1 or later from 4.0 or earlier, permissions have undergone drastic changes and any modules that reference Delta_Enums_Right_xxx classes will need to be updated. For example, a module may have implemented the following in previous versions of enteliWEB:

```
if (Delta_User::currentUser()->hasRight(Delta_Enums_Right_Group::RIGHT_ACCESS_ALARMS))
```

This now needs to be:

```
if (Delta_User::currentUser()->hasPermission(Delta_Enums_Permission_System::ACCESS_ALARMS))
```

ExtJS Framework:

- ExtJS has been updated to version 6, and any customizations which use ExtJS in enteliWEB will need to be reviewed and updated for this new framework.

Change Password Strength Settings

It is recommended that you improve the password strength settings that apply to the passwords for all users, including the Admin user, as follows:

1. Click



2. Click Password Settings.
3. Adjust the settings to meet your needs.
4. Click Save.

Review User Lockout Settings

It is recommended that you review the user lockout settings to ensure they are suitable for your installation, as follows:

1. Click



2. Click User Lockout Settings.
3. Adjust the settings to meet your needs.
4. Click Save.

Automatic user unlock is by default enabled with a time period of 60 minutes to alleviate users accidentally locking themselves out.

It is recommended that you create at least one alternate Admin user in case of accidental Lockout.

System Limitations

The following limitations apply to this release. Note this is simply a list of frequently asked about features. Please consult with Delta Controls if you need clarification on other possible features/system limitations.

- Multiple Historians on 1 site - Currently only 1 Historian machine can be configured for use per site.
- enteliWEB supports a maximum of 2500 meters. When connecting hundreds of meters be sure to use a very capable server. See [System Requirements](#).
- Although there are no restrictions as to the number of sites that can be created and connections that can be added, nor are there any restrictions to the number of devices and descriptors that can be connected, performance issues may occur if exceeding the following limits (depending on the server):
 - Sites: 100
 - Total connections: 100
 - Total devices: 10,000
 - Total descriptors: 1.7 million
- **enteliVIZ Flash files (.dgmI) cannot be automatically converted to HTML5 (.dg5). The Flash based graphics will continue to work, and you will be able to edit them using the Flash based designer.**

Known Issues

The following is a list of significant known issues with this release.

Known issues specific to version 4.2

- **Custom Reports** - enteliWEB has upgraded BIRT reports from version 3.7.2 to 4.4.2. It is recommended to use BIRT Report Designer 4.4.2 for designing new reports in enteliWEB 4.2. Old reports will continue to run in 4.2, no upgrade process for existing reports (pdf/doc/...) and existing templates, and existing designs.
- **Energy Reports** - No chart is generated in the Consumption by Time report, if one of the meters does not contain the full range of data. (EWEB-18436)
- **Energy Reports** - Columns are not formatted correctly in the Excel report output (EWEB-18758)
- **GCL Editor**
 - Using Mode button while using "Find" or "Find and Replace" function may break references in functions (EWEB-18937)
 - Code is modified incorrectly if Mode button is double clicked (EWEB-18952)
 - Call statement reference incorrectly colored and not recognized as references when page reloaded (EWEB-18945)
 - Object Reference/Name Toggle button does not toggle references to PG objects (EWEB-18803)
 - GCL Diff Window displays incorrect program in controller when code toggled to reference mode by Object Reference/Name Toggle button (EWEB-18604)
 - Saving/changing GCL code stops auto refresh (EWEB-18319)

Known issues carried forward from previous versions

- **Older Historian Database** - Generating reports with a 3.33 or older historian database, an additional index needs to be added to the TLData table. See [KbA1900](#) for instructions.
- **Datapoints Archived by Multiple Trends** - For reporting to work reliably, each data point must be archived by a single trend log only. (EWEB-1499)
- **Authentication Prompt** - An Authentication prompt may appear after logging out or session timeout while a request is in progress. (EWEB-976)
- **Upgrade Timeout** - Upgrading is slow with a large enteliWEB database (i.e. hundreds of meters, thousands of log entries, etc) and may time out and show a "Database upgrade incomplete" error. If this occurs, proceed through the installer; the upgrade will continue in the background (loading enteliWEB in a browser will show the message 'DB Upgrade In Progress'). Once the upgrade is complete, loading enteliWEB in a browser shows the enteliWEB login page. If the 'DB Upgrade In Progress' message is encountered for more than 60 minutes, the server may require a manual upgrade - please contact Customer Solutions for additional info to resolve the problem. (EWEB-12733)
- **PowerPoint Report File** - Unable to open a PowerPoint report file using Office 2010 if the [Office 2010 Compatibility Pack](#) is not installed. (EWEB-2940)
- **IE Stops Responding** - Internet Explorer may stop responding when loading a dashboard containing lots of widgets. (EWEB-5124)
- **File Upload Limit** - File upload is limited to 1GB (e.g. Graphics).
- **TL / MT Time Differences** - Data is shown based on the operator's browser time - devices out of sync, or in different time zones may not show all data samples correctly. (EWEB-5355)
- **TL Data / Graph Refresh** - The datagrid and graph section do not automatically update on the refresh cycle like all other properties. The page must be manually refreshed to update the datagrid and graph. (EWEB-5357)
- **Widgets Fail to Load** - When navigating from dashboard to dashboard, widgets may not load properly. (EWEB-6093)
- **Meter Data Slow to Import** - Meter data will be imported slowly if in the process of removing a large amount of meter data. For instance, after deleting several meters and then adding new meters or resetting existing meters. Once the old meter data has been removed, it will be back to normal.
- **Meter Data Lost** - In some cases, if the historian connection is lost, the imported meter data may be lost. When the Historian connection is restored, the data will be re-imported again. (EWEB-5523)
- **Report System Status Meter List** - Occasionally the meter list does not load in the Report System Status page if there are lots of meters (i.e. more than 500). (EWEB-8338)
- **Report System Status Progress** - The report system status page may not display the import status as 100% even though data is fully imported when importing data from CopperCube and there are buffer purged/time change TL data. (EWEB-12549)
- **Meter data** - In some cases, CopperCube API cannot return enough results, Energy Data import does not import data from CopperCube 1.6/1.11 version (EWEB-12193, EWEB-13530)
- **Permissions Not Enforced in Log** - Permissions are not enforced when viewing the log. Anyone that has access to the log is able to view all log entries. (EWEB-3506)
- **Permissions Not Enforced in Energy Widgets** - Consumption Chart and Daily Average Profile Chart widgets display data regardless if the user has permission to the objects of the corresponding meters. (EWEB-4166)
- **MT** - Fails to load complete data from CopperCube if we are requesting 5000/10000 samples. (EWEB-11821)
- **Save Database** - Unable to save databases from BACstat or DFM400P devices. (EWEB-13592, EWEB-16483)
- **Copy/Paste** - Pasting objects between different device firmware versions may not copy all properties properly.

- **Database Upgrade** - A database from one device can't be loaded into a different device when the ModelName, AppSwVersion, or Firmware Versions of the database and target device are different.
- **Windows Upgrade** - After upgrading Windows with enteliWEB previously installed, loading enteliWEB will encounter an HTTP 503. To resolve this, have to repair the IIS URL Rewrite Module. **(EWEB-14866)**
- **SCH** - Schedule Object cannot back out changes they are saved immediately **(EWEB-12817)**
- **Navigator** - Controllers will occasionally be removed from Navigator. Query will restore it. **(EWEB-12399)**
- **Refresh** - F5 refresh does not keep the user on the same page. **(EWEB-12056)**
- **GCL Editor Program Timers Restart** - Saving a PG using enteliWEB will cause all time-dependent functions within that PG to restart or re-execute. This is different behaviour from ORCAview which will only restart or re-execute these functions if you change that particular line. Essentially when enteliWEB edits an existing program, the controller "sees" this as an entirely new program, and all contents of the program are "reset". **(EWEB-12620)**

The following functions are affected:

- DoEvery will restart its timer.
- OnFor/OffFor will restart its timer.
- IfOnce will re-evaluate its condition and if true will execute its statements.
- Changed will return true if the value doesn't match the default value for the particular type of value (e.g. if the value is 5, Changed will return true because it doesn't match the default 0).

Also, variables will be re-declared causing them to revert to their initial value (e.g. 0), so make sure they are initialized accordingly.

- **QERR Message Translations** - Various error messages (QERR) require user-friendly translations. **(EWEB-10740)**
- **Configuration Backup** - Configuration backup will fail if the enteliWEB is installed in default path (c:\prog ...x86) and the path exceeds 189 characters. **(EWEB-17576)**
- **eVIZ HTML5** - enteliVIZ Flash files (.dgm1) can't be automatically converted to HTML5 (.dg5). The Flash based graphics will continue to work, and you will be able to edit them using the Flash based designer.
- **Update License** - On upgrade to enteliWEB 4.1 or later, from 4.0 or earlier, you will need to update the enteliWEB license using the Delta License Manager before enteliVIZ HTML5 will work.
- **Upgrade / User Lockout** - In some rare cases all enteliWEB users will get locked out after upgrade for 1 hour. After 1 hour the users will be unlocked. **(EWEB-17995)**
- **eVIZ HTML5 Hosts** - Do not enter more than 10 hosts for the enteliWEB license. enteliVIZ HTML5 will reject any requests for more than 10 hosts.
 - The Hosts section in the license is only for enteliVIZ. enteliWEB itself does not look at the host section at all.
 - The Hosts section is only used for the URL to access enteliVIZ. It has nothing to do with BACnet connectivity. The following hosts should cover the majority of cases:
 - Localhost example: <http://localhost/enteliweb>
 - 127.0.0.1 example: <http://127.0.0.1/enteliweb>
 - MyMachineName example: <http://MyMachineName/enteliweb>
 - The only time that the Hosts section needs expanding is if you access your enteliWEB/enteliVIZ remotely AND use an IP address instead of a hostname:
 - <http://10.10.1.8/enteliweb>
 - <http://10.11.1.9/enteliweb>
 - <http://10.8.0.1/enteliweb>
 - etc
 - To avoid having to enter new host IP addresses as you switch networks, we recommend accessing enteliWEB by a hostname, such as <http://MyMachineName/enteliweb>
- **eVIZ HTML5** - If project name contains brackets "(" or ")", images do not show up on stage **(EWEB-17052)**
- **eVIZ HTML5** - Uploading .ttf font to 'fonts' folder results in error, "Invalid file type" **(EWEB-17165)**
- **eVIZ HTML5** - Unable to import images using same name as existing image in assets folder **(EWEB-17166)**
- **eVIZ HTML5** - Dataflow block "loadHistories" property "dataInterval" does not affect data interval **(EWEB-17319)**
- **eVIZ HTML5** - "loadHistories" dataflow block does not load output table if 'timeRange' is set to 'today' **(EWEB-17321)**
- **eVIZ HTML5** - Copying and pasting dataflow blocks with bindings does not work **(EWEB-17396)**
- **eVIZ HTML5** - All enteliVIZ5 graphic designers should have full UI Graphics Permissions, or the designer won't be able to save or edit projects **(EWEB-17577)**
- **eVIZ HTML5** - Uploading .ttf .otf and .woff font to 'fonts' folder results in error, "Invalid file type" **(EWEB-17492, EWEB, 17495, EWEB-17165)**
- **eVIZ HTML5** - Allow user that creates palette category to allow other users to only view and NOT edit them **(EWEB-16788)**

Resolved Issues from 4.1

Issues noted in the Known Issues section of the enteliWEB 4.1 Release Notes that are fixed in enteliWEB 4.2

- **GCL Editor and Sub-Properties** - The GCL+ editor does not recognize all sub-property references. When viewing GCL+ that contains unrecognized sub-property references, the references will not be displayed correctly nor will there be any indication that it contains unrecognized references. As a result, re-saving a program that contains sub-properties can result in saving incorrect code. (**EWEB-16380**)
- **Alarm E-mail** - Alarms (EV) are emailing out even though they did not transition (**EWEB-13463**)
- **LDAP** - Large LDAP directory causes issues when attempting to load the user list. (**EWEB-14127**)
- **eVIZ HTML5** - Chrome:Images show up on stage even when deleted from assets folder (**EWEB-17023**)
- **eVIZ HTML5** - If you hover over an analog spin box while the graphic is loading, it will cause the value of 100 to be written to the analog object in the controller. This issue must be patched, see [KBA2292](#) for patch and details. (**EWEB-18093**)

Document Control

Revision	Date	Changes
1	Nov 2, 2016	Created document to accompany build 4.2.129