RadBlue G2S Scope
Version 25

[Released: 05 DEC 2012]

Questions?
Log on to the RadBlue Forum: **http://radblue.mywowbb.com/**

Release Notes

Release Summary

For this release, we added schema support for G2S version 2.1, we added a way for you to view Message Transcript data in the tool of your choice, updated the Java requirement for RGS, and made several corrections and improvements.

For more information on the features and modifications discussed in this document, see the RGS User Guide.

New Features

- For this release, we added schema support for G2S version 2.1, which means that this product will now use the G2S 2.1 schema by default. Since the G2S 2.1 schema is backwards compatible with G2S 1.1, this should be a non-issue for most people, but it lets us start adding in the new classes and functionality that are available in this new version of the protocol. You'll see these new G2S 2.1 features noted in the release notes with a ***New for 2.1!*** prefix.

- The **audit meters** and **communications** classes have been implemented in accordance with the 2.1 protocol. Additional classes will be implemented in subsequent releases.

- A list of all third-party software used by RadBlue and links to their licensing agreements has been added to the Products page of the RadBlue website.

- A **Public Facing Transcript** has been added to RGS. When the **Enable Public Facing Transcript** option (**Tools > Configure > Engine Options > General**) is selected, RGS generates a file of Message Transcript data in the **logs** directory. This file, **public-facing-transcript.pft**, can then be imported into a program of your choice for further analysis. Note that the format of this file is the same as the one that will be used in the Compliance Verification Tool (CVT). By default, this option is **disabled**.

Installation Modifications

- All RadBlue products now require **Java SE 7u7** or higher. If the installer cannot find this version on your computer, you are prompted to download and run the Java installer, or navigate to the correct Java version. Oracle moved to Java 7 nearly a year ago, so it is now stable enough that we are moving there as well. This should have minimal effect on your environment, but keeps our products on modern versions of the underlying technology.

Engine Modifications

- RGS now complies with section 4.2.4 of the *GSA Point To Point SOAP/HTTPS Transport and Security Specification 1.2* by adding support for Triple-DES (Data Encryption Standard).

- RGS has been updated to support TLS (Transport Layer Security) 1.2.

- RGS has been modified to send the `namespaceList` command in response to the `communications.getNamespaceList` command from the EGM.

- An issue in which the `download.scriptStatus` command generated errors during testing has been corrected.

- The following improvements have been made to the meters command in the startup algorithm:

  - The `meters.clearMetersSub` command has been added to the startup algorithm editor.

  - When selected, the `meters.setMetersSub` command is now sent for each active meter subscription type.

  - The startup algorithm commands have been re-ordered alphabetically.

- *New for 2.1!* The `G2S_MSX999` transport error has been removed and replaced with the **G2S_APX019 - Command Not Processed, Communications Device in Sync State** error. RGS sends this error if an illegal command is sent during the sync state.
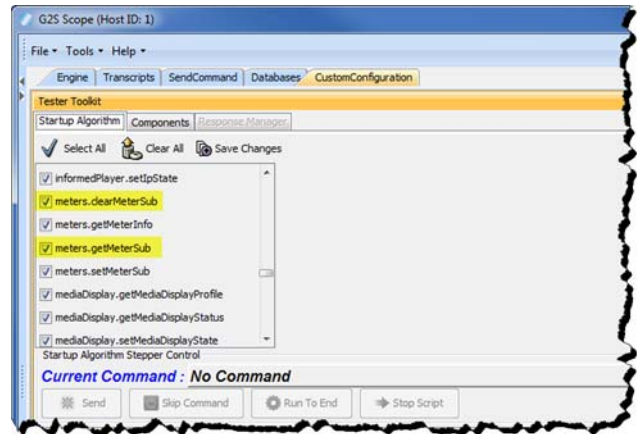
## User Interface Modifications

- *New for 2.1!* **G2S_communications** > **closeComms** has been added to the Send Command layout.

- *New for 2.1!* An **Audit** meter sub type option has been added to the **meters.getMeterSub** screen (**Send Command** > **G2S_meters** > **getMeterSub**).
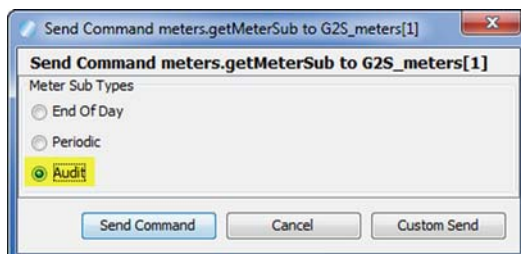
- *New for 2.1!* An **Audit** meter sub type option has been added to the **meters.clearMeterSub** screen (**Send Command** > **G2S_meters** > **clearMeterSub**).
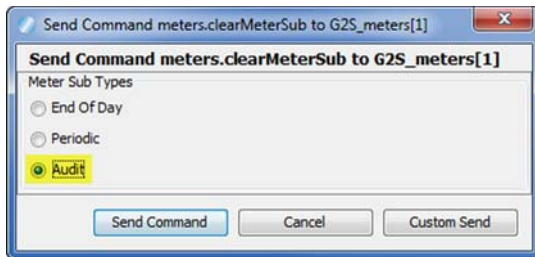
- *New for 2.1!* **Audit Meters** been added to the **Meter Subscriptions** component on the **Custom Configuration** layout. You can now send the *G2S_onAudit* attribute with currency, device, game denom and wager selected.
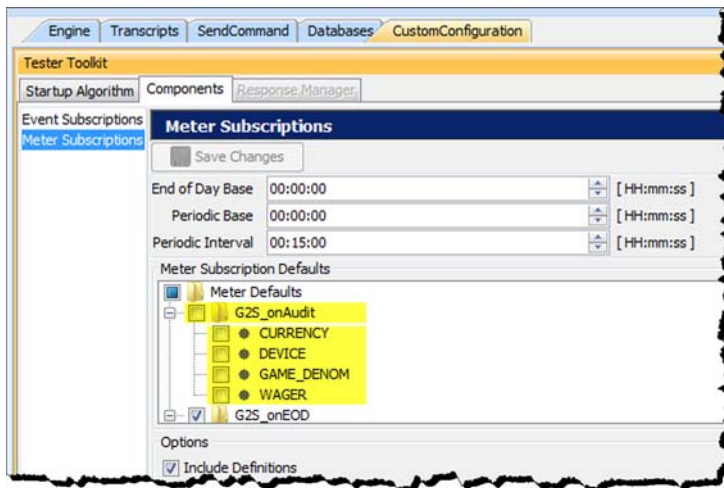

- An issue in which the *delayValue* and *delayTime* attributes on the **View XML** tab of the **bonus.setGameDelay** screen were displaying incorrect values has been corrected.

- An issue in which the *lockTimeOut* attribute on the **View XML** tab of the **bonus.setBonusLockOut** screen were displaying incorrect values has been corrected.

## Tester Toolkit Modifications

- A `communications.namespaceList` command is inserted by default after `communications.commsOnLineAck` for each new startup algorithm. If you do not want to send this response to a `communications.getNamespaceList` command, enable the step-through option on the **Startup Algorithms** tab, re-start the EGM, and click **Skip Command** when prompted.

- Two new commands - `download.addPackage` and `download.deletePackage` - have been added to **Custom Scripting**. These commands are included in a new default script (**Package Regression Test #1**), which adds, authenticates and then deletes a package. This script can be run on a loop for regression testing of download functionality.

- A new **Enable All Host Disabled Devices** script verb has been added to **Custom Scripting** as well as **Startup Algorithms**. This verb allows you to enable multiple host-disabled devices at once. The host must be the owner of the device in order to enable devices.
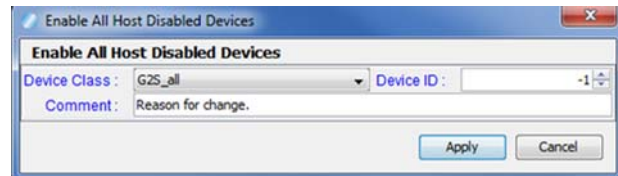
  You can choose to enable all host-disabled devices or only host-disabled devices from a specific device class.

- You can now include certain script verbs when adding or editing a startup algorithm. The **Enable All Host Disabled Devices** script verb is now available for inclusion in startup algorithms.
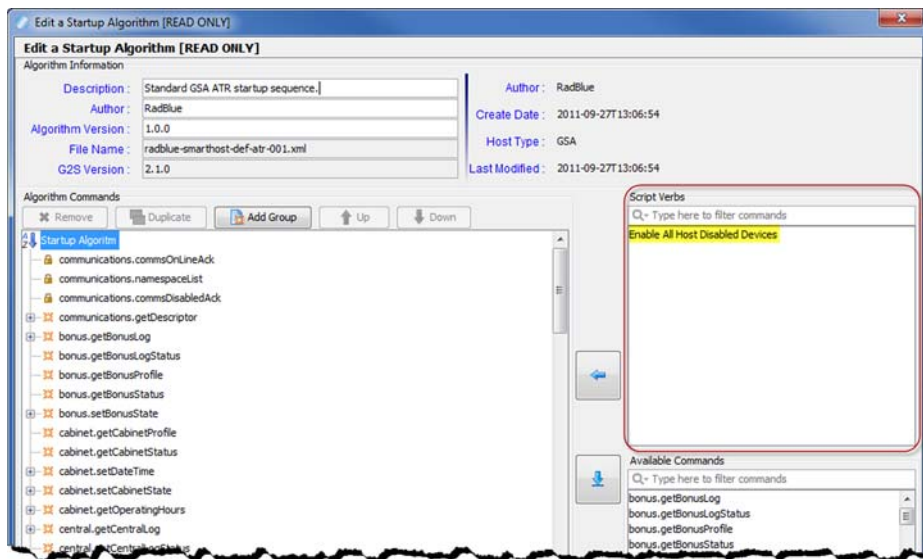
- *New for 2.1!* An **Audit Meter Subscription** has been added to the **Meter Subscriptions** component on the **Tester Toolkit** layout.

  By default, this subscription sends the *G2S_onAudit* attribute with currency, device, game denom and wager selected.

  You can use the **Audit Meter Subscription** when creating a custom script:
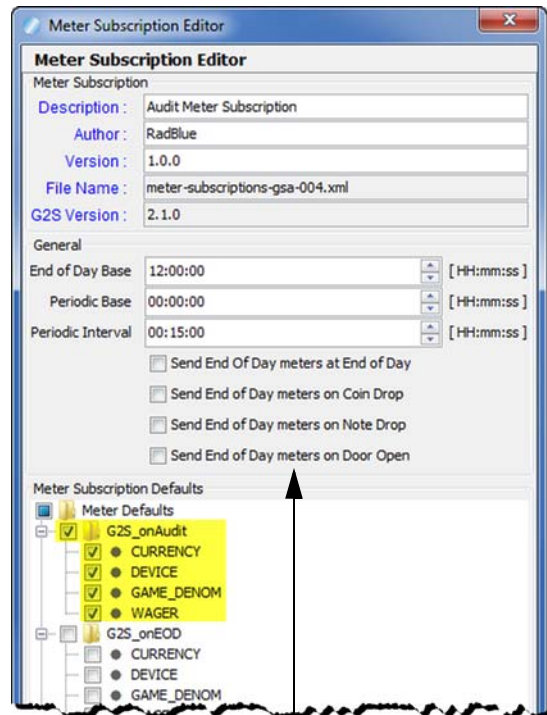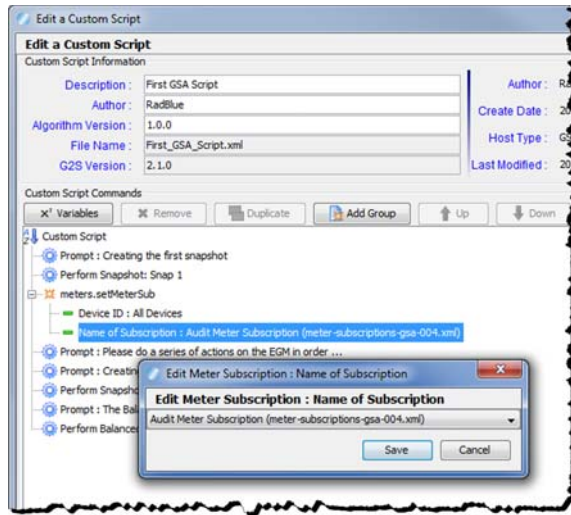
You can also specify four end-of-day trigger options. Note that the EGM will only support one *onEOD* meter subscription, which can be sent on any of these events.

Transcript Modifications

- A **Validation Errors** tab that displays semantically incorrect `optionConfig.optionList` responses has been added to the `optionConfig.optionList` details screen in the Message Transcript. You can access the details screen by double-clicking the row in the Message Transcript for the message you want to view.
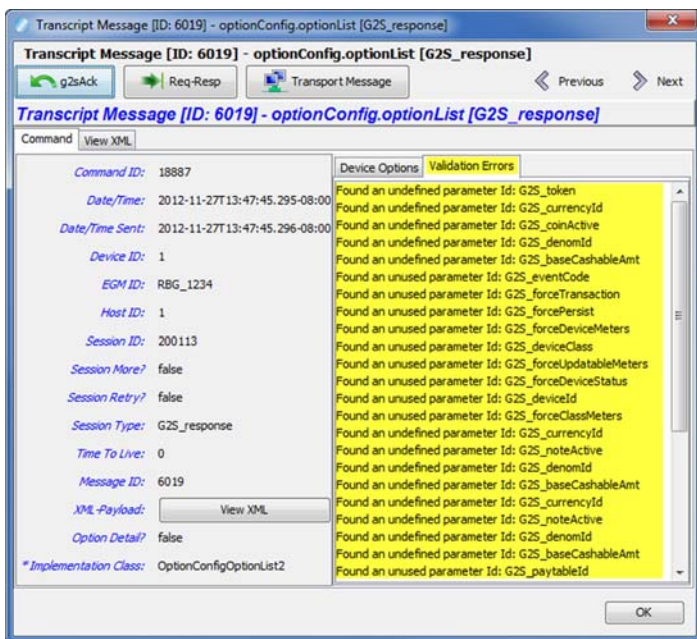
RadBlue G2S Scope
Version 24

Release Notes

Release Summary

For this release, we updated the required Java version for RGS, made improvements to the Advanced Transcript Analyzer and updated the `commConfig.setCommChange` command for G2S 1.1. We also made some user interface changes and corrected minor issues.

For more information on the features and modifications discussed in this document, see the RGS User Guide.

Installation Modifications

- **Java 1.6.0_33** is now required to run RadBlue products. If your computer does not have this version installed, you are prompted to download and run the Java installer, or to navigate to the correct Java version.


Engine Modifications

- An issue in which wager category items in the **Data Model Viewer (DMV)** were split into two levels if the category name contained a period has been corrected. RGS now treats wager category items as one item if there is a period in the category name.

- When RGS automatically creates a player account because it received an `idReader.getIdValidation` command with an unknown *idNumber* attribute value and `idReaderType` data type value, it now sets the *idType* to **G2S_player**. Previously, this attribute was set to G2S_none.

User Interface Modifications

- The RGS **host identifier** is now located at the top of the RGS screen.
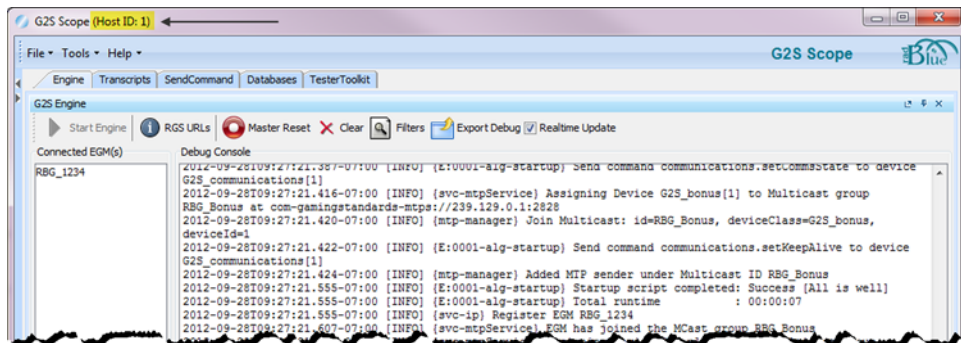
- The RGS **version number** is now located at the bottom of the RGS screen.
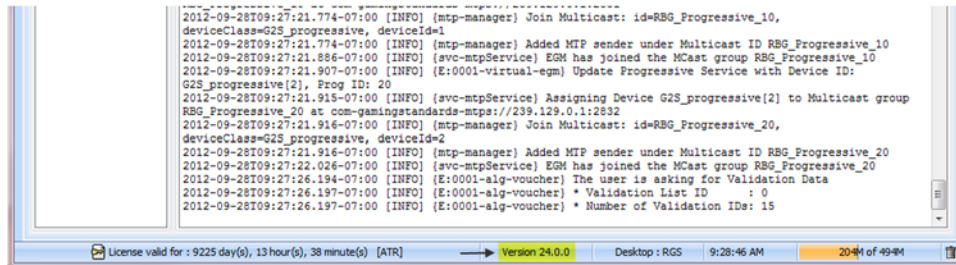
- The following changes have been made to the **commConfig.setCommChange** command on the Send Command layout to comply with version 1.1 of the G2S protocol:

    - When a new host is added using the **commConfig.setCommChange** interface, RGS **will not** automatically include a communications and eventHandler device for that host.

    - You can now add host devices (communications, eventHandler, meters, optionConfig, and gat) to the device list through the **commConfig.setCommChange** interface.

    - When the host is removed from the hosts tab, all the host devices and references to them are deleted as well.

Transcript Modifications

- The **Source** and **Destination** columns in the **SOAP Transcript** have been reversed, so the Source column now appears first when reading from left to right.

- The **Debug Log** has been renamed to **Debug Console**.

- The **Supported Events** list in the detail command view of the `eventHandler.supportedEvents` command is now sorted alphabetically by Device Class, Device ID and then Event Code.
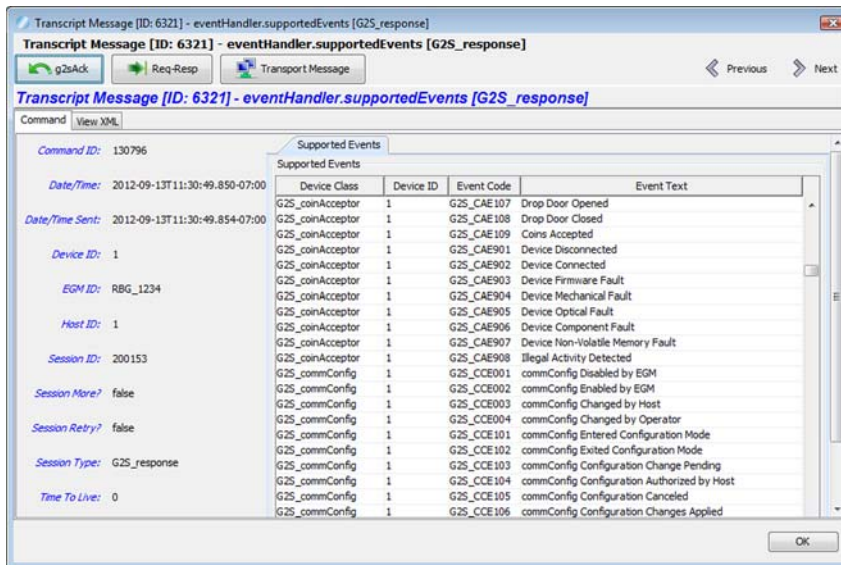
- Events and their associated data in the **Advanced Transcript Analyzer** have been updated for G2S 1.1.

  The following G2S extensions had all events added to the Advanced Transcript Analyzer:

  ◆ 1a2

  ◆ 1e

  ◆ 1g1

  ◆ 1k1

  The following events have been removed:

  ◆ G2S_CBE321

  ◆ G2S_CCE001

  ◆ G2S_CCE002

  ◆ G2S_OCE001

  ◆ G2S_OCE002

The following events have had their associated data updated:

Event	Modification
G2S_CBE005 - Host Changed Cabinet Config	Status added.
G2S_CBE006 - Operator Changed Cabinet Config	Status added.
G2S_CBE315 - Date/Time Changed	Status removed.
G2S_CBE317 - Power Off - Logic Door Open	Meters removed.
G2S_CBE318 - Power Off - Auxiliary Door Open	Meters removed.
G2S_CBE319 - Power Off - Cabinet Door Open	Meters removed.
G2S_CBE321 - Life-to-Date Meters Reset	Meters and Logs removed.
G2S_CBE322 - NVM Cleared	Meters, Logs and Status removed.
G2S_CCE003 - commConfig Changed by Host	Status added.
G2S_CCE004 - commConfig Changed by Operator	Status added.
G2S_OCE003 - optionConfig Configuration Changed by Host	Status added.
G2S_OCE004 - optionConfig Configuration Changed by Operator	Status added.
G2S_DLE005 - Device Configuration Changed by Host	Status added.
G2S_DLE006 - Device Configuration Changed at EGM	Status added.
G2S_JPE005 - Handpay Configuration Changed by Host	Status added.
G2S_JPE006 - Handpay Configuration Changed by Operator	Status added.
G2S_JPE103 - Remote Key-Off Initiated	Logs added.
G2S_CAE005 - Device Configuration Changed by Host	Status added.
G2S_CAE006 - Device Configuration Changed by Operator	Status added.
G2S_NAE005 - Device Configuration Changed by Host	Status added.
G2S_NAE006 - Device Configuration Changed by Operator	Status added.
G2S_NAE103 - Stacker Removed	Meters added; Status removed.
G2S_HPE005 - Device Configuration Changed by Host	Status added.
G2S_HPE006 - Device Configuration Changed by Operator	Status added.
G2S_NDE005 - Device Configuration Changed by Host	Status added.
G2S_NDE006 - Device Configuration Changed by Operator	Status added.
G2S_PTE005 - Printer Configuration Changed by Host	Status added.
G2S_PTE006 - Printer Configuration Changed by Operator	Status added.
G2S_PGE102 - Progressive Hit	Status removed.

Event	Modification
G2S_PGE104 - Progressive Committed	Meters added; Status removed.
G2S_IDE005 - Device Configuration Changed by Host	Status added.
G2S_IDE006 - Device Configuration Changed by Operator	Status added.
G2S_IDE107 - ID Validation Expired (ID Abandoned)	Status added.
G2S_BNE005 - Device Configuration Changed by Host	Status added.
G2S_BNE006 - Device Configuration Changed by Operator	Status added.
G2S_PRE005 - Player Device Configuration Changed by Host	Logs removed.
G2S_PRE006 - Player Device Configuration Changed by Operator	Logs removed.
G2S_PRE101 - Interval Rating	Logs added.
G2S_PRE111 - Player Carryover Set	Status removed.
G2S_PRE112 - Player Point Balance Set	Logs removed.
G2S_VCE005 - Voucher Configuration Changed by Host	Status added.
G2S_VCE006 - Voucher Configuration Changed by Operator	Status added.
G2S_WTE005 - WAT Configuration Changed by Host	Status added.
G2S_WTE006 - WAT Configuration Changed by Operator	Status added.
G2S_WTE101 - WAT Cash-Out to Host Disabled	Status added.
G2S_WTE102 - WAT Cash-Out to Host Enabled	Status added.
G2S_WTE109 - New Key Pair Established	Status added.
G2S_CLE005 - Central Device Configuration Changed by Host	Status added.
G2S_CLE006 - Central Device Configuration Changed by Operator	Status added.

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Version 23

[Released: 08 AUG 2012]

Questions?
Log on to the RadBlue Forum: **http://radblue.mywowbb.com/**

Release Notes

Release Summary

For this release, we added configuration options, improved the Advanced Transcript Analyzer as well as the Advanced Transcript Analysis Report, corrected minor issues and added new commands, including mediaDisplay, to the Custom Scripting feature of the optional Tester Toolkit module.

For more information on the features and modifications discussed in this document, see the RGS User Guide.

Configuration Modifications

- Two new configuration options have been added to the **Tools** > **Configure** > **Engine Options** > **General** screen.
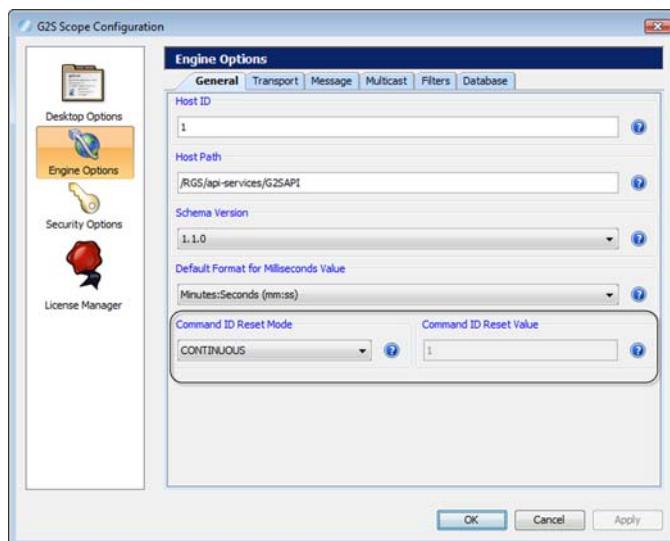
- ◆ **Command ID Reset Mode** - Controls the command ID sequence when the commsOnLine command is received. This option lets you simulate real-world conditions. **Continuous** starts at 1 and never repeats. **Reset** starts with the **Command ID Reset Value** and goes up. This value is updated each time RGS receives a commsOnLine command.

- ◆ **Command ID Reset Value** - Command ID starts with this value and goes up when the **Command ID Reset Mode** is set to **Reset**. The command ID is set to this value each time RGS receives a commsOnLine command.

- The **Clear Transcript Messages on Startup** option, which cleared the transcript database each time RGS was launched, has been removed from the **Databases** tab on the Engine Options configuration screen (**Tools** > **Configure** > **Engine Options**). The tool adds a message ID to each message for sequences, so the database must always be cleared on startup.

Engine Modifications

- In previous versions, wager category items in the **Data Model Viewer (DMV)** were split into two levels if the catetory name contained a period. RGS now treats wager category items as one item if there is a period in the category name.

- The RGS now automatically supplies values for `bonusId` and `loadContent.mdAccessToken` to ensure they are unique.

Tester Toolkit Modifications

- A new **Comment** verb in Custom Scripting lets you add one or more comments to a custom script. You can add a comment anywhere within a script. The comment displays in the script viewer when you run the script.
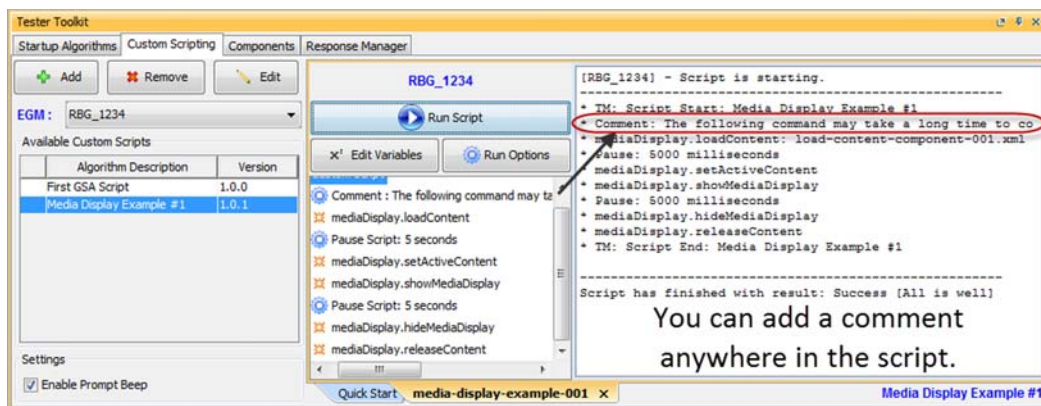

- The following commands have been added to Custom Scripting:

  - `bonus.setBonusAward`

  - `mediaDisplay.hideMediaDisplay`

  - `mediaDisplay.loadContent`

  - `mediaDisplay.loadContentComponent`

  - `mediaDisplay.releaseContent`

  - `mediaDisplay.setActiveContent`

  - `mediaDisplay.showMediaDisplay`

Transcript Modifications

- For `G2S_GPE112 (Game Ended)` events, the outcome of game play (the *playResult* attribute) is now shown in the Summary column, in brackets (for example, **eventReport:G2S_GPE112 - Game Ended [Lost]**), in the Message Transcript.

- A **Message ID** column has been added to the Message Transcript, displaying the unique identifier associated with each message.

- An issue in which you could not scroll up when navigating the **XML View** of the message details screen in the Message Transcript has been corrected. You can now scroll smoothly in either direction.

- The following changes have been made to the **Advanced Transcript Analysis Report**:

  - An issue in which the **Host ID** was always zero (0), has been corrected. The report now reflects the correct host identifier.

  - An issue in which only the first page of the report was generated has been corrected.

  - The report time span field no longer contains milliseconds.

  - You can now choose to generate a report with all errors, including duplicates (Complete), or with all errors, excluding duplicates (Summary). You can also define the the filename and output location for the PDF file.
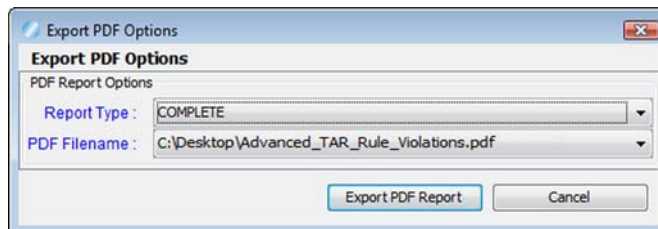
- When you click to highlight a Comms Session on the **Advanced Transcript Analyzer**, a summary of that Comms Session now displays under Exceptions.
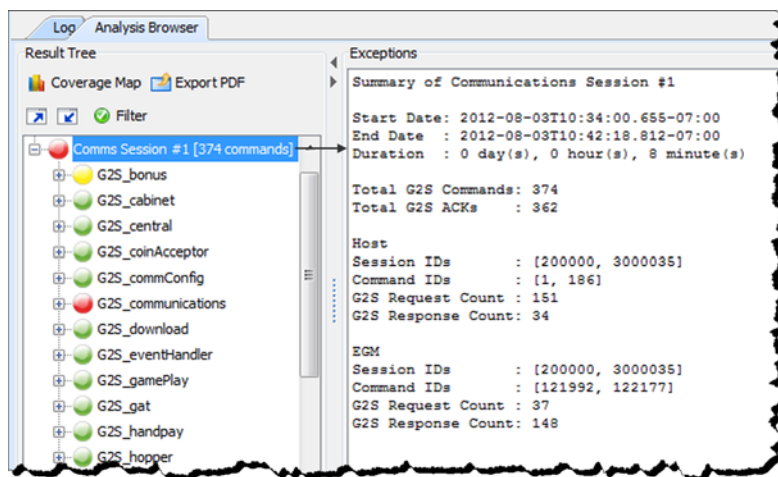
- You can now maximize and minimize the **Advanced Transcript Analyzer** window for improved viewing.

User Interface Modifications

- For mediaDisplay, RGS now keeps track of the active component ID/transaction ID pairs for each mediaDisplay device. So, in the Send Command layout, if you select a component ID, the transaction ID is automatically supplied.

- The event subscription template is now only applied to selected devices in the `eventHandler.setEventSub` command screen (accessed through on the Send Command layout) and in the event subscription components.

RadBlue G2S Scope

Version 22

[Released: 04 JUN 2012]

Questions?
Log on to the RadBlue Forum: **http://radblue.mywowbb.com/**

Release Notes

Release Summary

For this release, we made enhancements to the Message Transcript, added wager category information to the data model viewer, modified the Security Options screen and corrected issues.

For more information on the features and modifications discussed in this document, see the RGS User Guide.
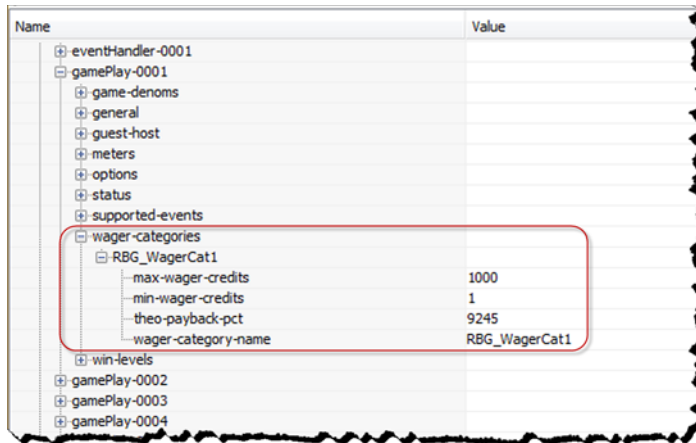
Engine Modifications

- An issue in which host-initiated WAT transfers that requested non-cashable credits to be transferred were mishandled by RGS has been corrected.

User Interface Modifications

- The fields in the `gat.getVerificationStatus` command, available through the Send Command, now default to the values from the last `gat.doVerification` command received by RGS.

- The following changes have been made to the **Security Options** screen. You can access this screen by going to **Tools** > **Configure** > **Security Options**.

  - A new **Certificates** tab contains all certificate configuration options. When you select a certificate option, that certificate type's information displays in the panel below the Certificate Method Request.

- The **Accept All Certificates** option has been moved from the **General** tab to the **Self-Signing** panel on the **Certificates** tab.

- The Third-Party certificate option has been renamed to **Manual**.

- You can now view wager category information for each gamePlay device in the data model viewer.

Tester Toolkit Modifications

- An issue in which the SBX startup algorithm did not run has been corrected.

- An issue in which the `setEventHandlerState` command is sent after the startup algorithm completes has been corrected.

Transcript Modifications

- A new **Export to Excel File** right-click option in the **Message Transcript** lets you quickly export the content of a G2S command to a Microsoft Excel spreadsheet. The following G2S commands can be exported to Excel:

  - `communications.descriptorList`

  - `eventHandler.eventSubList`

  - `eventHandler.setEventSub`

  - `eventHandler.supportedEvents`

  - `meters.meterInfo`

  - `optionConfig.optionList`

- A **Compare** option has been added to the **Event Report** in the **Message Transcript** that lets you compare two event messages. In addition, a Message ID column and a Date Received column have been added to the Event Report.

- A **Device** column has been added to the **Message Transcript** that displays the class and identifier of the device that the message is being sent to or from.

- An issue in which the **EGM Transcript Analysis Report** is not generating results has been corrected. This report can be accessed through the Message Transcript by selecting **Analyze** *or* **Analyze** > **General**, if you are using the Advanced Transcript Analyzer.

- **Host ID** and **Message ID** have been added to the **Advanced Transcript Analysis Report**.

RadBlue G2S Scope

Version 21

Questions?
Log on to the RadBlue Forum: **http://radblue.mywowbb.com/**

Release Notes

Release Summary

For this release, we updated the required Java version, improved the setEventSub command screen, made changes to the available communications options and improved the performance of the Advanced Transcript Analyzer.

For more information on the features and modifications discussed in this document, see the RGS User Guide.

Installation Modifications

- RGS now requires **Java 1.6.0_31**. You are prompted to have the RGS installer automatically install this version of Java if it is not already running on your computer.

Functional Modifications

- SSL functionality, including the Security Options screen (**Tools** > **Configure**), is no longer configurable in the Student Edition of the tool, as it is required.

- The following changes have been made to the **Communications** sub-tab (available under **Tools** > **Configure** > **Engine Options** > **Messages**):

  - The Keep Alive Interval option is now only used by RGS versions without the Tester Toolkit module.

  - The Lost Comms Interval option has been removed. The RGS Lost Communication Timer is now automatically set to three times (3x) the `keepAlive` interval.

User Interface Modifications

- An issue in which RGS started communications before the user interface was launched, causing abnormal interface behavior, has been corrected.

- The `meter.setMeterSub` command, available through the Send Command layout, has a new interface that lets you subscribe to a single device, class-level meters or all devices, using the **-1** wildcard.
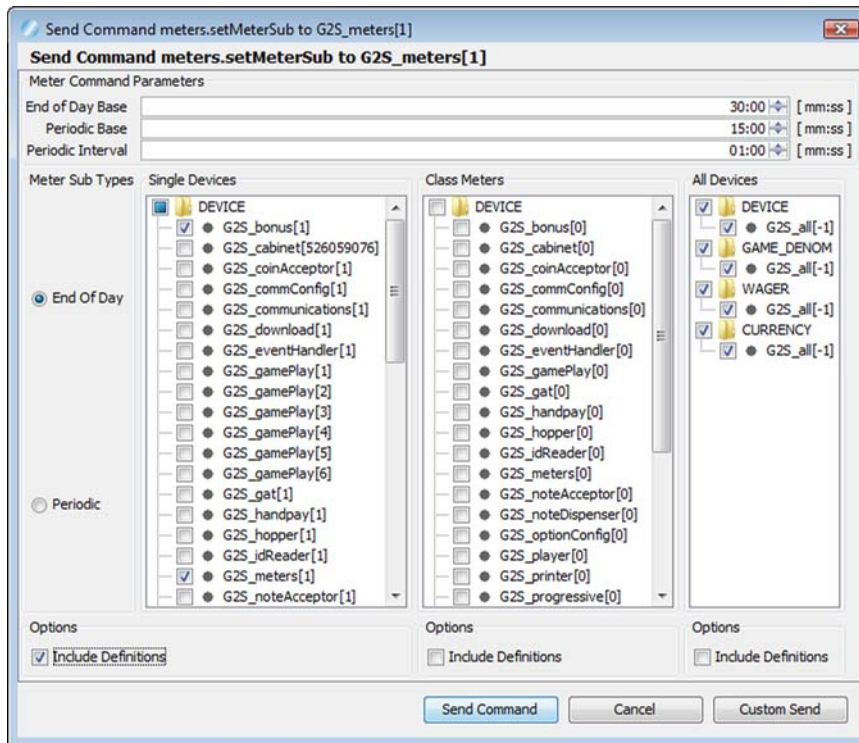
Tester Toolkit Modifications

- The `commConfig.authCommChange` and `optionConfig.authOptionChange` commands have been added to the Custom Scripting feature of the optional Tester Toolkit module.

- The following commands have been added to Custom Scripting:
  - `authorizeOptionChange`
  - `authorizeCommChange`

Transcript Modifications

- The following changes have been made to the Advanced Transcript Analyzer:
  - Processing has been improved to generate the Advanced Transcript Analyzer more quickly.
  - An error in which the Advance Transcript Analyzer mishandled the `MSX004 – Malformed XML` event has been corrected.
  - An issue that occurred when generating a PDF has been corrected.

RadBlue G2S Scope
Version 20

[Released: 06 FEB 2012]

Questions?
Log on to the RadBlue Forum: **http://radblue.mywowbb.com/**

Release Notes

Release Summary

For this release, we added a host identifier to the bottom of the RGS screen, added a new Set Option Change option to the Tester Toolkit's Components feature and made several enhancements and corrections.

For more information on the features and modifications discussed in this document, see the RGS User Guide.

Installation Modifications

- The two SWF files used with the mediaDisplay class are now available locally in a webserver in RGS rather than remotely. The file names are:

  ◆ **PPmain_test-2.swf** - A sample SWF file that demonstrates a simple player interface.

  ◆ **Asteroid_blaster.swf** - An asteroid game.

  These files are used with the `mediaDisplay.loadContent` command.

Functional Modifications

- All command attributes that can currently be saved as well as the Time To Live value on the Send Command layout are now saved for the *currently selected* EGM. Previously, saved values applied to *all* EGMs.

- A new option, **Set Option Change**, has been added to the Components feature of the optional Tester Toolkit module. This option lets you export `optionConfig.setOptionChange` commands from the Transcript into the Set Option Change component, which then become available for use in the Custom Scripting feature. You also have the option of editing the `setOptionChange` command's XML once it has been imported into the Set Option Change component.

- Previously, changes to the sync timer (**Tools** > **Configure** > **Engine Options** > **Message** > **Communications - Sync Timer**) required a restart of RGS. Now, any change to the sync timer take effect the next time a `commsOnline` command or a `commsDisabled` command is received by RGS.

Engine Modifications

- An issue in which EGM IDs that used periods (for example, "RBG_A.B.C.D") were not being handled properly and caused the DMV to display data incorrectly, has been corrected.

- In the RGS 19.0, the Set Option Change screen (either through Custom Scripting, the Startup Algorithm or the Send Command) required the previously received `optionList` command to contain the parameter definitions as well as the parameters themselves. If the definitions were missing, the Set Option Change screen would not allow the user to access the associated optionList. Now, missing definitions are silently ignored and the Set Option Change screen functions correctly regardless of whether parameter definitions are received.

- An issue in which RGS was not handling UTF-8 encoding properly has been corrected.

- An issue in which errors were were generated when the `gat.doVerification` command is sent if there was no GAT device has been corrected.

- An issue in which an error occurred when authorizing large `setOptionChange` commands has been corrected.

- A performance issue that appeared in RGS 19 when under heavy load has been resolved. If you notice additional performance issues, please contact RadBlue.

User Interface Modifications

- You can now add multiple components to the `gat.doVerification` command through the user interface (**Send Command** > **G2S_gat** > **doVerification** > **Verify Components** > **Add**). Previously, if you wanted to add multiple components, you had to use the Custom Send feature.

- Previously, the **persist** and **sendClassMeters** were not included in the event subscriptions for the startup algorithm by default. Now, the **persist** and **sendClassMeters** are selected, by default, for all events.

- An issue in which the `cabinet.setCabinetLockOut` command failed when the **Lock Time Out** field was set to zero(0) because the message failed validation and was not sent by RGS has been corrected. Now, the **Lock Time Out** field cannot be set to a value less than one (1).

- The **Custom Send** option on the Send Command layout now uses the **Time To Live** value, located on the Send Command layout (above the Available Commands list).

- Two erroneously placed check boxes have been removed from the `eventHandler.getEventSub` screen.

- The current RGS host identifier is now located on the status bar at the bottom of the interface.
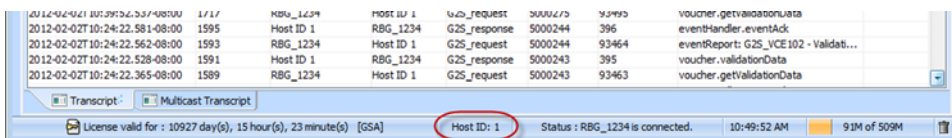
Tester Toolkit Modifications

- RGS now only sends events in the `setEventSub` command (configured in the Event Subscription component; sent through Custom Scripting) that are supported by the EGM, including custom events. If the EGM does *not* support a particular event, it is discarded before the `setEventSub` command is sent.

- You can now run one Custom Script at a time *only*.

- The `getOptionList` command in Custom Scripting now supports all of the attributes that are supported in the getOptionList command available on the Send Command layout.

Transcript Modifications

- In the Transcript command view, the **G2S_avgPaybackPct** meter now displays as a percentage rather than as a whole number.