RadBlue System Tester
Version 25

[Released: 05 DEC 2012]

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

Release Notes

Release Summary

In release 25, we added schema support for G2S version 2.1, updated the Java requirement for RST, and made several corrections and improvements.

For more information on the features and modifications discussed in this document, see the RST 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.

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.
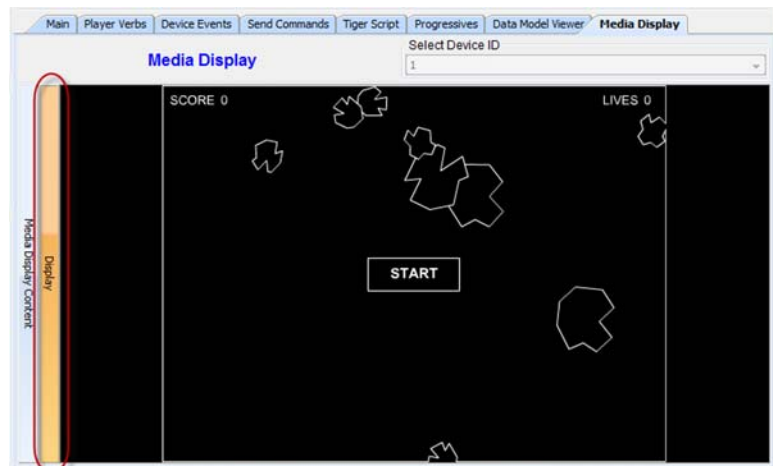
Engine Modifications

- ***New for 2.1!*** RST now supports the *underlyingTransportState* attribute in the `communications.commsStatus` command, and generates all associated events.

    Note   RST does **not** support the *derivedTransportState* attribute in the `communications.commsStatus` command because it requires the *noResponseTimer* value, and RST does not support that attribute. Instead, the *derivedTransportState* attribute will be set to **G2S_notReported**.

- *New for 2.1!* The following changes have been made to the `communications` implementation:

  ◆ RST now supports the `communications.getNamespaceList` command.

  ◆ RST now negotiates namespaces when the `communications.commsOnLineAck` command contains a *negotiateNamespace* attribute value of **true**.

  ◆ The **G2S_CMX011 - Namespace Negotiation Has Not Been Completed** error has been added to the communications device.

- RST 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).

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

- An issue in which the *egmAction* attribute was not updated in the `voucher.commitVoucher` command when a voucher was rejected has been corrected.

User Interface Modifications

- Data Model Viewer device meters now display the cumulative values in `meters.meterInfo`.

- The **Namespace Options** screen has been removed from the **RST Configuration** screen (**Tools** > **Configure**) because it is obsolete.

- The content on the **Media Display** tab now appears on two separate sliding screens. The **Media Display Content** screen displays available content, and the **Display** screen displays the currently loaded content.

SmartEGM Modifications

- *New for 2.1!* The SmartEGM now returns a `communications.close CommsAck` when it receives a `communications.closeComms` command. The SmartEGM waits five seconds before closing and re-opening the communication channel to the host.

- *New for 2.1!* The SmartEGM configuration file now supports the `edm:list-state-date-time` attribute for the `eventHandler`, `meters`, `commChange` and `optionConfig` devices. This attribute corresponds to the *listStateDateTime* attribute in the `communications.descriptorList` command.

- The SmartEGM has been modified to exclude devices when processing `communications.getDescriptor` and `communications.getClassDescriptor` commands that have:

  ◆ active devices when the *includeActive* attribute is **false**.

  ◆ inactive devices when the *includeInactive* attribute is **false**.

- *New for 2.1!* The SmartEGM configuration file now supports the `edm:config-date-time` and `edm:config-complete` attributes. These attributes correspond to the *configDateTime* and *configComplete* attributes that were added to the `commConfig.commConfigProfile` and `commConfig.commConfigStatus` commands.

  The `commConfig` delta compiler has been modified to set the *configDateTime* attribute for each device that is modified by the `commConfig` change.

- *New for 2.1!* A new **smartegm-config-gsa-am.xml** file that includes one active audit meters device has been added to RST.

  ```
  <!-- The Audit Meters Device -->
  <edm:audit-meters
  xmlns:edm="http://www.radblue.com/egm-data-model/schemas/v1.0.0/"
  edm:config-id="0" edm:configuration-id="0" edm:device-active="true"
  edm:device-id="1" edm:egm-enabled="false" edm:egm-locked="false"
  edm:host-enabled="true"

  edm:host-locked="false" edm:owner-id="1" edm:product-id="" edm:product-name=""
  edm:release-number="" edm:serial-number="" edm:vendor-id="" edm:vendor-name=""
  edm:minimal-audit-meters="false">

  <edm:comment xmlns:edm="http://www.radblue.com/egm-data-model/schemas/v1.0.0/" >

  <edm:guest-hosts
  xmlns:edm="http://www.radblue.com/egm-data-model/schemas/v1.0.0/" >

  </edm:audit-meters>
  ```
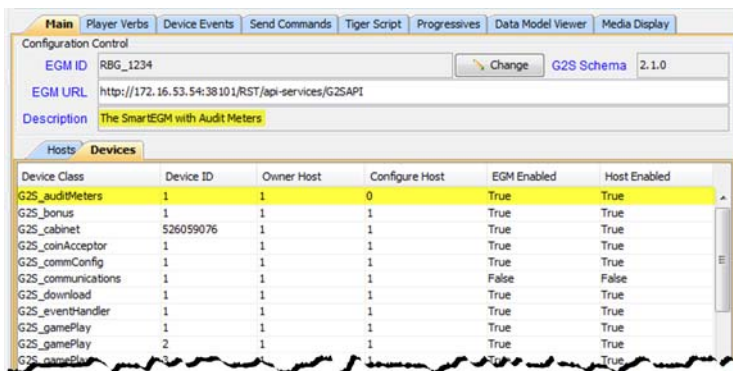
  If the *edm:minimal-audit-meters* attribute value in the audit meters is **true**, the host can subscribe to class-level meters for all classes plus device-level meters for all active devices within the `gamePlay` class. If the value is **false,** RST supports all meters.

  When the **smartegm-config-gsa-am.xml** file is loaded, the `auditMeters` device displays in the **Devices** list on the **Main** tab of the SmartEGM layout.

- *New for 2.1!* An `edm:communications-multicast-supported` attribute has been added to the SmartEGM configuration option `edm:communications-config` that determines the *multicastSupported* attribute for the `communications.commsProfile` command.

  Note that the SmartEGM configuration file will not load and an error will be generated if the `edm:communications-multicast-supported` attribute is set to **false** and any of the devices in the configuration file have `edm:supports-multicast` attributes set to **true**.

- *New for 2.1!* A new **smartegm-config-gsa-no-namespaces.xml** file disables namespace negotiation, assuming all namespaces are valid, which emulates G2S 1.1 behavior.

  If you want to disable namespace negotiation in another SmartEGM configuration file (for example, smartegm-config-ip), go to the `edm:communications` element and change the *edm:suppress-namespace-negotiation* attribute to **true**. This means that the *negotiateNamespaces* attribute is not set in `communications.commsOnLine` command.

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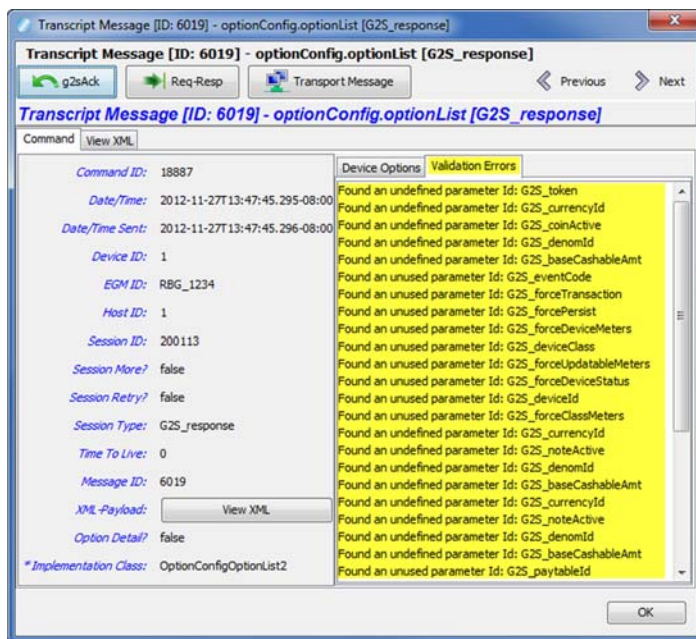
Questions?
Log on to the RadBlue Forum: **http://radblue.mywowbb.com/**

Release Notes

Release Summary

In release 24, we updated the Java requirement for RST, relocated, renamed and added information to the former Flash player, made changes to Tiger Scripting as well as Remote Control, and made some usability improvements and corrected minor issues.

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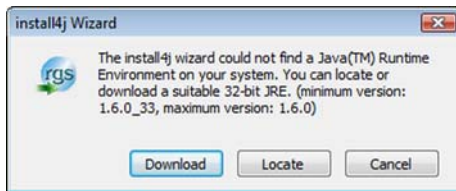
Engine Modifications

- An issue with RST not transitioning to the sync state after receiving the `communications.commsOnLineAck` command has been corrected.

- An issue in which RST did not save the device owner when the host ID was changed to zero (0), making the EGM the device owner, has been corrected.

- Previously, when creating a new host through the `commConfig.setCommsConfig` command, RST created all five default host devices. Now, the RST creates only two (communication and eventHandler) devices when processing the `commConfig.setCommConfig` command to comply with G2S 1.1.

User Interface Modifications

- The RST version number is now located at the bottom of the RST screen.
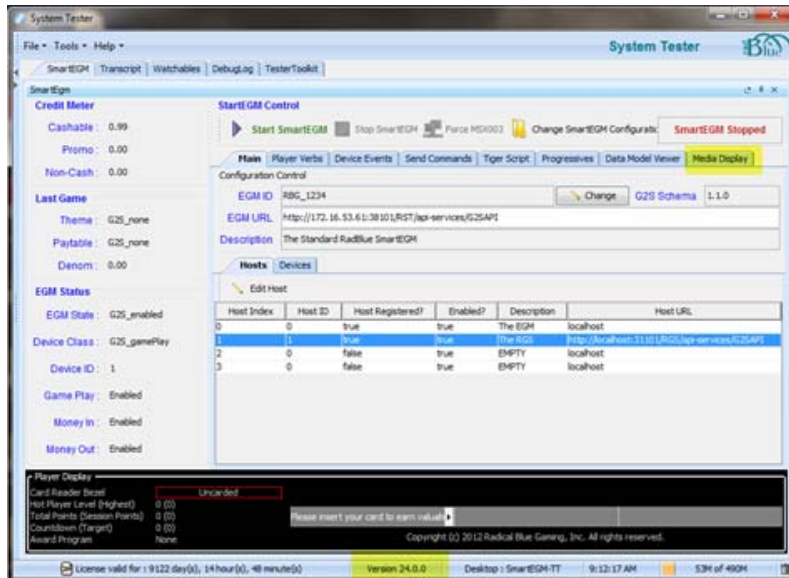
- The Flash Player tab has been renamed to **Media Display**, and the following changes have been made:
  - You can now select multiple Device IDs to see status information.
  - You can now display all game play information in one tab.

- Game play information sent from the host using the `loadedContent` command is now displayed in the Media Display tab.

- An issue in which loaded media content did not display in the Media Display Content area of the Flash Player tab has been corrected.

Tester Toolkit Modifications

• The Message Modification Definition field, **Message Identification**, has been removed from the user interface.
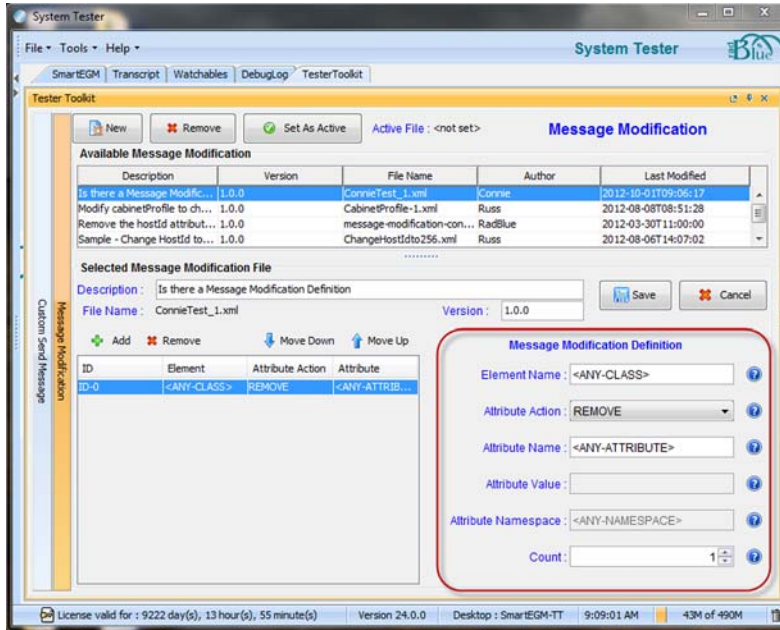
Tiger Scripting Modifications

• Previously, the Tiger verb `Human.createVoucherToDatabase` had no limit on disk space, memory or CPU. Now, the data for this verb is confined to 500 records.

• The `tiger:remote-key-off-timeout` attribute has been deprecated and replaced with the `tiger:key-off-timeout` attribute in the following Tiger verbs:

  ◆ `tiger:Human.playSimpleGame`

  ◆ `tiger:Human.playSimpleCentralGame`

  ◆ `tiger:Human.playPaytableGame`

  The `tiger:remote-key-off-timeout` defines how long to wait for a `setRemoteKeyOff` command before timing out. If a time out occurs, the `handpay-action` value is used.

Remote Control Modifications

- The `remoteKeyOffTimeOut` attribute in the `playSimpleGame` method of the *RST REST Interface Programming Guide* has been deprecated and replaced with the `keyOffTimeOut` attribute.

  The `keyOffTimeOut` attribute defines the amount of time to wait for a `setRemoteKeyOff` command or a time out. If a time out occurs, the game win is paid according to the `handpayKeyOffType` attribute value.

  Note that the Scratch Pad has been updated to reflect this change.

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 `G2S_transferOutCnt` meter is now being included in the `JPE104` event on the Event Report, available through the Message Transcript.

- 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.
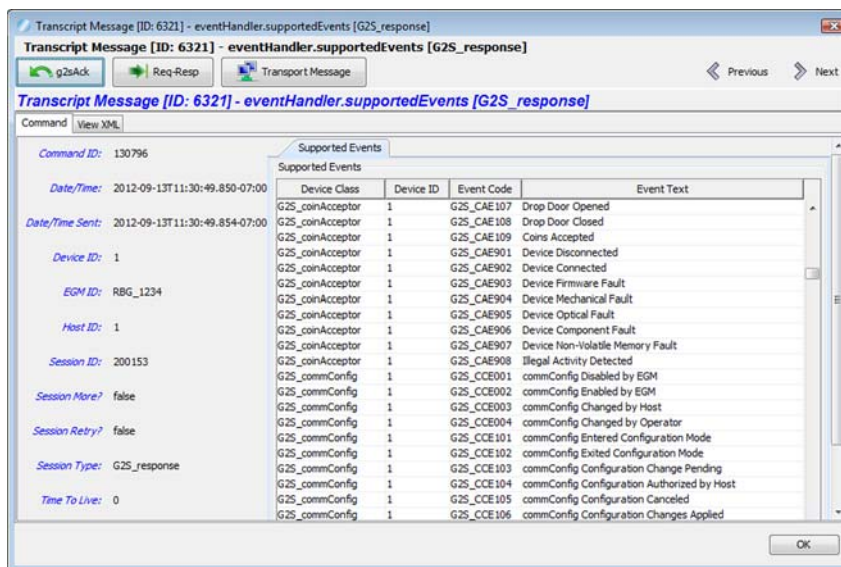
RadBlue System Tester
Version 23

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

Release Notes

Release Summary

In release 23, we're introducing a new optional module for RST - the Tester Toolkit.

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

New Optional Module: Tester Toolkit for RST

The Tester Toolkit lets you extend normal G2S testing by customizing messages as well as responses.

You can send a custom message to test the SOAP layer, as well as whether the host system can handle missing required values or illegal values, by verifying that the host generated the correct error in response.

Message modification lets you define a list of changes that RST will make to outgoing G2S messages. Message changes can include changing an attribute, deleting an attribute or adding a new attribute.

Additional methods have been added to the RST REST interface to support the Tester Toolkit:

- `fetchAllModifications`
- `modificationsAddList`
- `modificationsClearAll`
- `modificationsDeleteList`
- `sendMessage`

See the *RST REST Interface Programming Guide* for more information.

Configuration Modifications

- The **Clear Transcript Messages on Startup** option, which cleared the transcript database each time RST 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

- An issue in which errors were generated when the debug.zip file that was generated (through the **Export Debug** option on the Debug Log layout) included Tiger Scripts has been corrected.

- An issue with processing a `gat.doVerification` command that contained multiple components has been corrected.

- When the *hostCarryOver* attribute in the `playerSessionStartAck` command is non-zero, RST now updates the player log and sends the `G2S_PRE111 (Player Carryover Set)` event.

- Previously, RST was not sending event reports to a new host created through the `commConfig.setCommChange` command. Now, RST re-registers all of the device events, with all of the event handlers, after a `commConfig.setCommChange` command or a `download.setscript` command is received. In addition, new event queues are created for new hosts.

- The `mdAccessToken` must now be unique across all mediaDisplay devices.

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.

- A host selector has been added so you can filter the transcript to messages sent between RST and a single host.

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 RST User Guide.

Engine Modifications

- An issue in which RST did not handle the `communications.getDescriptor` command correctly has been corrected.

User Interface Modifications

- In previous versions, the user interface did not display to the user how to clear the condition that is initiated by the **Force MSX003** option (**SmartEGM > SmartEGM Control**). This condition can only be cleared by stopping and restarting RST. A pop-up box now displays after **Force MSX003** has been clicked to inform the user that RST must be restarted to clear the condition.

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

- 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**.

Transcript Modifications

- 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 System Tester
Version 21

[Released: 04 APR 2012]

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

Release Notes

Release Summary

For this release, we changed the Java requirement, added new commands to the Tiger scripting language, modified Engine Options and Watchables, and corrected several issues.

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

Installation Modifications

- RST now requires **Java 1.6.0_31**. You are prompted to have the RST 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 available in the Student Edition of the tool.

Engine Modifications

- RST has been updated to require the commConfig host to send a host index for every registered host index in the current EGM. If it does not, RST sends the following G2S_CCX018 error:

  ```
  The given setCommChange must reference all registered host indexes. Missing indexes =
  [0, 1, 2]
  ```

- RST will not load SmartEGM configuration files with a registered host that has an invalid host URL.

- In previous versions, if the voucher.profile.timeToLive value was zero (0), RST would immediately timeout waiting for the validationData command to arrive from the host. RST would then continue to repeat the loop.

 Now, if the *timeToLive* profile attribute is zero (0), RST defaults to a value of **30 seconds**.

- RST now honors the cabinet.setDateTime command. Note that this change affects all time values in RST *except* the date/time used in the Debug Log, which uses the CPU date/time. You can disable this setting by changing the **Dcom.radblue.g2s.egm.cabinet.honorSetDateTime** line in the **RST.vmoptions** file to **false**:

  ```
  Dcom.radblue.g2s.egm.cabinet.honorSetDateTime=false
  ```
 The **RST.vmoptions** file is located in [**installation directory**] > **bin**.

User Interface Modifications

- The following changes have been made to the Transport tab on the Engine Options screen (**Tools** > **Configure**):

  - The **<all-addresses>** option has been removed from the **Bind To** field.

  - The **SSL Bind To** field has been removed.

  - You can now select either the HTTP or HTTPS protocol.

  - The **My URL** field, which is *read-only*, is automatically set based on the Bind To, SOAP Port, SSL Port, and Protocol fields.
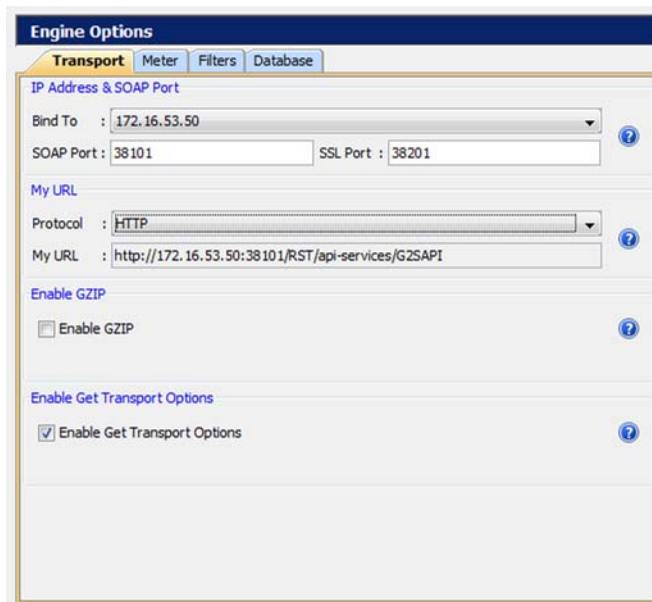
- A filter has been added to the **Watchable Selector** that lets you filter Watchable attributes quickly.
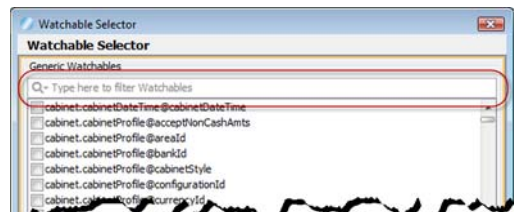
Tiger Scripting Modifications

- The **core:prompt** verb has been removed from Tiger scripting.

- The following verbs have been added to Tiger scripting:

  - **Egm.resetEgm** - Resets the EGM.

  - **tiger:break** - Breaks out of an enclosing repeat loop.

  - **tiger:continue** - Continues to the top of the enclosing repeat loop.

  - **tiger:if-cashable-credit-meter** - Allows you to add a condition based on the current value of the cashable credit meter.

- The *Tiger Scripting Reference* has been updated and overhauled to make it easier to use. It is now available through RST Help as well as in PDF format.

RadBlue System Tester
Version 20

[Released: 06 FEB 2012]

Release Notes

Release Summary

For this release, we enhanced the Transcript, added a device selector to the Send commHostList and Send optionConfigList options and corrected several issues.

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

Functional Modifications

- When you make a change to the SOAP port number (**Tools** > **Configure** > **Engine** > **Transport**), you must now restart RST.

- If the credit meter is zero (0), you can no longer cash out to a handpay (**Player Verbs** > **General** > **Cash Out to Handpay**). Instead, the following error displays:
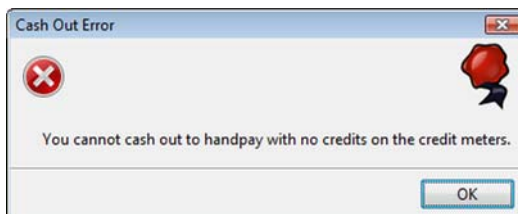
- You can now select the `commConfig` device before sending the commHostList command (**Send Commands** > **Send commHostList**).

- You can now select the `optionConfig` device before sending the `optionList` command (**Send Commands** > **Send Option List**).
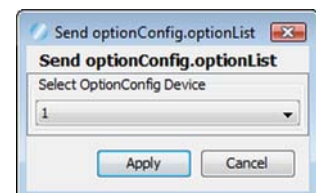
Engine Modifications

- The `cabinet.getOperatingHours` command now allows guest access.

- An issue in which the `progressiveCommit` command reported the *progPaidAmt* value incorrectly has been corrected.

Transcript Modifications

- An Event Report View has been added to the Message Transcript that lets you view all events sent and received by the tool. You can toggle between the Transcript view and the Event Report view by clicking Show/Hide Event Report.

- G2S errors in the Message Transcript are now displayed in red to help you locate issues quickly.

- The message details screen in the Message Transcript (accessed by double-clicking any message in the Transcript display) now lets you link to the g2sAck message, corresponding request-response pair command or to the associated SOAP message for the selected command.