



RadBlue System Tester

Version 19

[Released: 07 DEC 2011]

Questions?

Log on to the RadBlue Forum: <http://radblue.mywowbb.com/>

Release Notes

Release Summary

For this release, we added a new installation requirement (**Java SE 6 Update 29**), added a separate RST instance during installation, added a new set of SmartEGM configuration files and corrected several issues. In addition, IGT and Informed Player extensions have been added to the standard version of RST.

For more information on the features and modifications discussed in this document, see the [RST User Guide](#).

Usage Note

When you update the EGM ID, Host ID and/or Host URL, the update(s) are stored in the **-updated.xml** file. If the **Use original SmartEGM configuration file on startup** option (**Tools > Configure > Desktop Options**) is *not* selected, the new values are used when RST is restarted. If the **Use original SmartEGM configuration file on startup** option is selected, RST uses the original (non-modified) values.

Installation Modifications

- RST now requires **Java SE 6 Update 29**. If you do not have this version of Java on the computer, the installer will automatically retrieve and install it. If you are using **64-bit Linux**, [contact RadBlue](#).

If you are installing on a secure network, see [Bulletin 06 - Installing on a Secure Network](#).

- The installer now installs two separate instances of RST to allow you to simulate two EGMs quickly and easily. The first RST instance is associated with the desktop icon, but can also be accessed through the RadBlue installation directory's **bin** subdirectory (**RST.exe**). The second instance can be launched from the **EGM-2.exe** file, also located in the **bin** subdirectory or through the Windows Start menu (**All Programs > RadBlue System Tester**).

In addition, the second RST instance has its own set of SmartEGM configuration files. The following SmartEGM configuration files are now installed with RST:

- ♦ **smartegm-config-gsa.xml/smartegm-config-gsa-egm-2.xml** - Use this file to communicate with RGS. This is the master configuration file. All other configuration files are variations of one.
- ♦ **smartegm-config-gsa-central.xml/smartegm-config-gsa-central-egm-2.xml** - Use this file for central game play. This file includes two central game play devices that correspond to game play devices on the EGM.
- ♦ **smartegm-config-gsa-ip.xml/smartegm-config-gsa-ip-egm-2.xml** - Use this file for informed player extensions.

- ♦ **smartegm-config-gsa-old.xml/smartegm-config-gsa-old-egm-2.xml** - This file contains the previous (pre-19) SmartEGM configuration settings. Use this file if you do not want version 19+ changes and enhancements.
- ♦ **smartegm-config-gsa-rpa.xml/smartegm-config-gsa-rpa-egm-2.xml** - Use this file to communicate with RPA.
- ♦ **smartegm-config-gsa-student-edition.xml/smartegm-config-gsa-student-edition-egm-2.xml** - For use with student licenses *only*. Use this file to communicate with RGS.
- ♦ **smartegm-config-gsa-student-edition-rpa.xml/smartegm-config-gsa-student-edition-rpa-egm-2.xml** - For use with student licenses *only*. Use this file to communicate with RPA.

Functional Modifications

- The standard version of RST now supports IGT and Informed Player extensions. A standard license is all that is required to view these extensions in RST.
- To allow for easier viewing, the **-update.xml** file is now formatted (pretty printed) when it is written to disk.
- A new **Filter by Meter Type** option on the Snapshot Comparison report, generated when you compare two snapshots in the Data Model Viewer, lets you filter data by class, currency, device, game denomination, wager or unknown meter. In addition, a **Meters** column has been added to Snapshot Comparison report, allowing you to easily view the type of meter associated with each change.

Engine Modifications

- There are now six gamePlay devices, the first four of which use payable (except for **-central**):
 - 1 - Reels with gameOutcome + secondary game
 - 2 - Poker with gameOutcome, no secondary game
 - 3 - Poker with gameOutcome + secondary game
 - 4 - Keno with gameOutcome, no secondary game
 - 5 - No game Outcome with secondary game
 - 6 - No game Outcome, no secondary game
- An issue in which errors that occurred during the loading of the SmartEGM configuration file were not being reported has been corrected. Loading errors are now reported in the Debug Log.
- An issue in which meter subscriptions were not being persisted has been corrected.
- An issue in which handpays were not being keyed off correctly has been corrected. Jackpots can now be keyed off to the credit meter *or* to a handpay.

User Interface Modifications

- The `setBonusMessage` and `setBonusMessage` via Multicast commands now display the message in the Player Display.
- A new **G2S Schema** field on the Main tab shows you the G2S schema version currently used by RST.
- The **Player Verbs** tab has been reorganized with a static bar of the most frequently used player verbs. Underneath, you can toggle between general player verbs and WAT information.





RadBlue System Tester Version 18

[Released: 03 OCT 2011]

Questions?

Log on to the RadBlue Forum: <http://radblue.mywowbb.com/>

Release Notes

Release Summary

In this release, we added support for Game Outcome, added Desktop options to the saved backup created during the uninstall process and corrected minor issues.

For more information on the features and modifications discussed in this document, see the [RST User Guide](#).

Installation Modifications

- Desktop options, including the Transcript and Log Messages Displayed values, are now saved when the the tool is uninstalled.

Functional Modifications

- RST now supports the Game Outcome extension to the G2S protocol. For a complete description of Game Outcome in RLT, see RST Help or the *RST User Guide*.

Engine Modifications

- An issue in which an incorrect status for an SCEP certificate request was displayed on the screen (for example, a failed request showing a successful completion) has been corrected.
- An issue that prevented the student edition of the tools from communicating has been corrected.



RadBlue System Tester Version 17

[Released: 01 AUG 2011]

Questions?

Log on to the RadBlue Forum: <http://radblue.mywowbb.com/>

Release Notes

Release Summary

In this release, we added a new Keystore option to let you to more easily manage the tool's security, improved the usability of the configuration options, increased the transcript record size limit and corrected a minor issue. In addition, the SmartEGM configuration file has been updated for G2S protocol version 1.1 and offline ID validation support

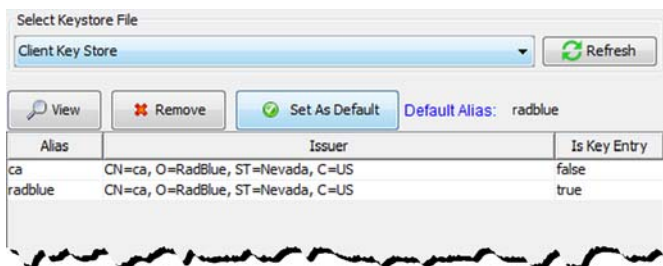
For more information on the features and modifications discussed in this document, see the [RST User Guide](#).

Installation Modifications

- If you have a previous version of the tool installed in the target directory, you are now prompted to remove it before installing the new version. Click **Next** to uninstall the previous version before continuing with the new installation, or click **Back** to install the new version in a different directory.

Functional Modifications

- A new **Keystore** tab on the Security Options configuration screen lets you select the type of keystore file you want to use and manage installed keystore files.



- A new **Meter Rollover Value** option (**Tools > Configure > Engine Options > Meter**) lets you define the reset value for all Amount (Amt) and Count (Cnt) meters in RST. The default rollover value is **999,999,999,999,999**.

Engine Modifications

- The SmartEGM configuration file has been updated for version 1.1 of the G2S protocol:
 - ♦ The host location has been changed to **localhost**.
 - ♦ The the default *hostRegistered* attribute in `commHostItems` is now **true**.
- **Offline ID validation** has been added to the SmartEGM configuration file.

You can configure offline ID validation support through the SmartEGM configuration file to test offline ID validation handling in the host system, specifically, `G2S_IDE105` (Unable to Validate ID Offline) and `G2S_IDE104` (ID Validated Offline).

To change offline ID validation behavior, add offline-patterns to the `idReader` device (see sample below) and modify the `idReader` profile attributes, `G2S_waitTimeOut` and `G2S_offLineValid`. The `G2S_waitTimeOut` attribute indicates the amount of time RST waits for a response to the `getValidationId` command before it times out. The `G2S_offLineValid` attribute indicates whether RST allows offline ID validation.

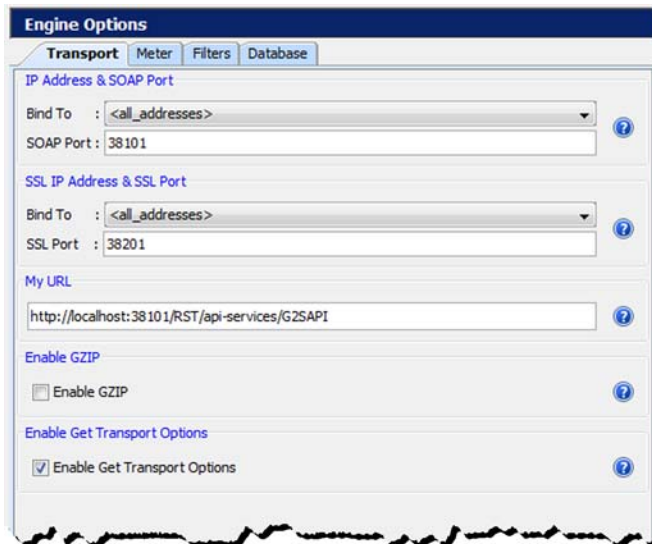
Sample offline-patterns Element

A sample `offline-patterns` element has been added to the SmartEGM configuration file.

```
<edm:offline-patterns>
  <edm:offline-pattern edm:id-type="G2S_player"
    edm:pattern="[0-9]{8}" />
</edm:offline-patterns>
```

User Interface Modifications

- Options on the configuration screens (**Tools > Configure**) have been re-organized into tabs for improved usability. For example:



Transcript Modifications

- The size limit of each Message transcript record has been increased to **4MB**. Messages larger than this limit are not stored in the transcript database and an informational message displays in the debug log.
- The size limit of each SOAP transcript record has been increased to **4MB**. Messages larger than this limit are not stored in the transcript database and an informational message displays in the debug log.
- The size limit of each Multicast transcript record has been increased to **4MB**. Messages larger than this limit are not stored in the transcript database and an informational message displays in the debug log.
- A new **Database** tab on the Engine Options screen (**Tools > Configure**) lets you define database settings as they affect transcripts, including a new **Save Transcript Messages to Database** option.

Select this option to save the defined number of messages in the Message, SOAP and Multicast transcripts to the transcript database. Transcript records only need to be saved in the database if you want them to be persisted between runs of the tool or after you clear the transcript display.

Saving a large number of transcript messages will impact performance. By default, this option is disabled.

- An issue in which changes to the Message transcript's **Event Filter** option were not reflected on the Event Filter screen when it was closed and re-opened has been corrected.



RadBlue System Tester Version 16

[Released: 06 JUN 2011]

Questions?

Log on to the RadBlue Forum: <http://radblue.mywowbb.com/>

Release Notes

Release Summary

For release 16, we added support for four event handler events, added two attributes to the smartegm-config.xml file and corrected some minor issues. In addition, we re-organized the menu bar options.

For more information on the features and modifications discussed in this document, see the [RST User Guide](#).

Installation Modifications

- Beginning in release 16, when RST is uninstalled, a backup folder is created in the RST directory that saves the installation's security and configuration parameters. When a subsequent RST version is installed, the installer uses the backed up data to populate security and configuration settings, so you do not need to re-key the information into the new installation.

The backup folder is located in the RST installation directory. The following files are saved in the backup folder:

- ♦ All Java Keystore Files (JKS)
- ♦ EGM1 scep_config.xml
- ♦ EGM1 security_manager.xml
- ♦ EGM1 webserver.xml
- ♦ EGM1 Derby Port
- ♦ EGM1 SOAP IP
- ♦ EGM1 SOAP Port
- ♦ EGM1 SSL IP
- ♦ EGM1 SSL Port
- ♦ EGM2 scep_config.xml
- ♦ EGM2 security_manager.xml
- ♦ EGM2 webserver.xml
- ♦ EGM2 Derby Port
- ♦ EGM2 SOAP IP
- ♦ EGM2 SOAP Port

- ◆ EGM2 SSL IP
- ◆ EGM2 SSL Port

Engine Modifications

- RST now supports HTTPS on `download.addPackage` command transfers.
- An issue in which attributes in the `communications.commsOnline` command were not handled properly has been corrected.
- An issue with the player ID being included in events occurred because RST mishandled `setIdValidation` requests from the host has been corrected. Now, when a `setIdValidation` request is received, both the ID reader device and the current player log entry (if it exists) are updated.
- The `smartegm-config.xml` file now honors the `queueBehavior` attribute in the `eventHandlerProfile` command as specified in the G2S protocol.
- To accommodate section 1.18 of the G2S protocol - if an event is sent to multiple hosts, the same event ID is to be used for all hosts - RST now allocates event IDs before it satisfies the host subscriptions. This means that not all event IDs will be reflected in the `eventHandler.eventReport` commands. Previously, all event IDs could be tracked from the SmartEGM.
- RST now supports the following event handler events:
 - ◆ G2S_EHE001 - Device Disabled by EGM
 - ◆ G2S_EHE002 - Device Not Disabled by EGM
 - ◆ G2S_EHE102 - Event Handler Queue Overflow
 - ◆ G2S_EHE103 - Event Handler Queue Overflow Cleared
- The `eventHandlerOverflow` attribute in the `eventHandlerStatus` command is now updated when the queue is full.
- When a command is created, RST now uses the `timeToLive` value from the profile of the associated device (rather than a 30 second default). If the device does not have a `timeToLive` value in its profile (or the device does not have a profile), 30 seconds is used.
- RST now has schema support for G2S 1.1.0.

- The following attributes were added to the smartegm-config.xml file:
 - ♦ **comms-recycle-delay** (under the CommsConfig section) - A configurable delay used when the SmartEGM restarts its communication channel after applying a `setCommState` command.
 - ♦ **no-response-timer** (under the Communications section) - Allows you to define how long the EGM should wait before determining that communications with the host have been lost.
- An issue in which the *overrideId* attribute value in the `getCountdownOverride` command did not reflect the value set through the Player Database (**Databases > Player Database > Edit Player > Player Rating Information**) or the id-database.xml file has been corrected. The *overrideId* attribute is now set correctly.

User Interface Modifications

- The RST menu bar options have been re-grouped under the following headings:
 - ♦ **File** - New Desktop, Open Desktop, Save Desktop, Add Layout, Remove Layout, Export Debug, Exit
 - ♦ **Tools** - Configure, Toggle Floor Tabs
 - ♦ **Help** - RST Help, Contact Us, About System Tester



RadBlue System Tester Version 15

[Released: 04 APR 2011]

Questions?

Log on to the RadBlue Forum: <http://radblue.mywowbb.com/>

Release Notes

Release Summary

For release 15, we added additional information to the Edit Host option, added support for the storage class G2S extension and corrected some minor issues.

For more information on the features and modifications discussed in this document, see the [RST User Guide](#).

Functional Modifications

- The **Edit Host** option now lets you edit the host system identifier, description and URL defined in the currently loaded SmartEGM configuration file. To access the Edit Host option, click the Hosts tab on the SmartEGM layout's Main subtab.

Note that changing a host ID also updates all devices owned or configured by that host. In addition, it changes the device ID of all host-oriented devices.

- You can now **manage schema validation** in the RST. By default, the RST validates all received G2S

Host Index	Host ID	Host Registered?	Enabled?	Description	Host URL
0	0	false	true	The default Host 0	UNREGISTERED
1	1	true	true	The RGS	http://localhost:31101/RGS/api-services/G2SAPI
2	0	false	true	EMPTY	UNREGISTERED
3	0	false	true	EMPTY	UNREGISTERED
4	0	false	true	EMPTY	UNREGISTERED

commands. However, there may be times, especially during the testing process, that you want the tool to reject or accept specific commands - whether they are valid or not

Schema validation management is useful when you want to ignore specific commands, but continue with testing, or when you want to perform regression testing.

To modify how specific commands are handled, you must first save the sample G2S validation manager XML file, which resides in the **../schemas/g2s/1.0.3 sub-directory** of the tool's installation directory, as a new **g2s-validation-manager.xml** file. This allows the file to be saved when the tool is uninstalled. Then, simply add the commands you want RST to accept or reject without validation.

Engine Modifications

- An issue in which the error text and error code were reversed on the **G2S_CMX006 (Multicast Service Not Establish)** has been corrected.
- An issue in which the RST was pre-pending a forward slash (/) to keystore locations has been corrected.
- RST now supports the **storage class GS2 extension**.



RadBlue System Tester

Version 14

[Released: 07 FEB 2011]

Questions?

Log on to the RadBlue Forum: <http://radblue.mywowbb.com/>

Release Notes

Release Summary

For release 14, we added the ability to force an MSX003 as well as support for operating hours. In addition, we modified WAT handling and corrected some minor issues.

For more information on the features and modifications discussed in this document, see the [RST User Guide](#).

Functional Modifications

- You can now send an MSX003 - Communications Not Online error to the host at any time. When you click **Force MSX003** on the Main tab, the communications channel between RST and the host is marked as "lost," causing RST to respond with an MSX003 error to all messages from the host. To clear this state in RST, click Stop SmartEGM, which, in this case, will clear the lost condition, but will not send a `commsClosing` command.

This method of terminating communications is different from clicking the Stop SmartEGM button because, when you click the Stop SmartEGM button, RST sends a `communications.commsClosing` command to the host. The communications channel is transitioned from closing to closed.

Engine Modifications

- Additional error handling has been added to the WAT device command handler.
 - ♦ If a G2S_APX007 - Class Not Supported error is received in response to any WAT command, that WAT device will be disabled.
 - ♦ If a G2S_APX008 - Command Not Supported error is received in response to the `watgetKeyPair` command, that WAT device will be disabled.
 - ♦ When the WAT device is disabled, the previously unsupported event, G2S_WTE001, is sent to notify the host that the device was disabled by the EGM. If the device is required for play then the EGM will be disabled.
 - ♦ The G2S_WTE001 - WAT Disabled by EGM and G2S_WTE002 - WAT Enabled By EGM events are now supported in RLT.
- The voucher command handler has been modified to correctly set the `egmAction` to G2S_redeemed or G2S_rejected.
- The voucher command handler has been modified to set the `egmException` attribute to 3 as defined by the G2S protocol.
- An issue with processing large `meter.MeterInfo` commands has been corrected.

- Support for the **Operating Hours G2S** extension has been added to RST. You can modify operating hours through the **smartegm-config.xml** file:

```
<edm:operating-hours>
  <edm:operating-hours-entry edm:day-of-week="Sunday" edm:time="0" edm:state="enable" />
  <edm:operating-hours-entry edm:day-of-week="Monday" edm:time="0" edm:state="enable" />
  <edm:operating-hours-entry edm:day-of-week="Tuesday" edm:time="0" edm:state="enable" />
  <edm:operating-hours-entry edm:day-of-week="Wednesday" edm:time="0" edm:state="enable" />
  <edm:operating-hours-entry edm:day-of-week="Thursday" edm:time="0" edm:state="enable" />
  <edm:operating-hours-entry edm:day-of-week="Friday" edm:time="0" edm:state="enable" />
  <edm:operating-hours-entry edm:day-of-week="Saturday" edm:time="0" edm:state="enable" />
</edm:operating-hours>
```

Transcript Modifications

Message Transcript

- Transcript records now display in ascending order (newest to oldest) by default. You can see records in descending order by clicking the Date Received column heading.

SOAP Transcript

- Additional detail is now available on the SOAP Transcript detail view, which you can access by double-clicking any record in the transcript. You can now view the XML message content without the SOAP wrapper.

