

Release Date: 10 DEC 2013

# **Release Summary**

In this release, we added support for the Smart Card class, added an option to import PKCS #12 files, added message disruption actions to the Tester Toolkit, corrected issues and made improvements to the SmartEGM configuration file.

# **New Features**

RST now supports the smart card class.

Since implementation of the smart card class requires the use of a proprietary Smart Card Application Protocol (SCAP), RadBlue has implemented the smart card class with its own version of a SCAP. This implementation demonstrates the smart card class between RST and RGS. Also, depending on your host or EGM implementation, there are three ways that you can use the RadBlue smart card:

- 1. If the EGM does not support SCAP, RGS can be the smart card device owner.
- 2. If EGM supports a proprietary SCAP implementation, RGS can be a guest of the smart card device.\*
- 3. If the host supports no SCAP, RST can be used as the EGM.

See the <u>RST User Guide</u> or **RST Help** for information on using the RadBlue smart card implementation.

Your proprietary SCAP can be implemented in the tools as a custom project. <u>Contact RadBlue</u> for more information.

If you do not have RGS or RST, you can <u>request a free student license</u>. These two products communicate with each other by default, so set up and configuration is minimal.

# **Installation Modifications**

- To eliminate confusion, the following redundant files have been removed from the **conf** directory in the RST installation folder:
  - client.jks
  - client-student.jks
  - trusted.jks
  - trusted-student.jks

The JKS files that RST uses continue to reside in the **egm-1** and **egm-2** folders, also located in the **conf** directory.

# **Configuration Modifications**

 You can now quickly view the URLs for the optional RST REST interface (Remote Control) and the Scratch Pad example interface by going to Tools > Configure > Engine Options > Transport > Remote Control URLs.

	Engine Options			
Barren	General Trans	sport Meter Fi	ilters	
S mm.	IP Address & SOAP P			_
Desktop Options	Bind To :	2.168.56.1	•	0
63	SOAP Port : 38	101	SSL Port : 38201	]
Engine Options	My URL			
5	Protocol : H	ТР		0
0	My URL :	tp://192.168.56.1;	38101/RST/api-services/G2SAPI	]
Security Options	Remote Control URLs			
	Remote Control : ht	tp://192.168.56.1:	38501/remote/	
	Scratch Pad : ht	tp://192.168.56.1:	38501/RST/pages/remotecontrol/ScratchPad.html	0

• A new **Import PKCS #12 File** option (**Tools** > **Configure** > **Security Options** > **Key Store**) lets you quickly import the certificates stored in a P12 or PFX file into the tool's **client.jks** and **trusted.jks**. All certificates in the PKCS #12 file are imported to client.jks. Only non-key-entry certificates are imported to trusted.jks. Once the certificates are successfully imported, they can be viewed from the Key Store tab.

	Security Options		
	General Certificates Key S	itore	
- X	Select Key Store File		
Desktop Options	Client Key Store	<del>.</del>	Refresh
	Default Alias: <not set=""></not>	🌒 Set As Default 🛛 🔎 Viev	w 🗱 Remove
Engine Options	Alias	Issuer	Is Key Entry
5	са	CN=ca, O=RadBlue, ST=Nevada, C=	US false
Ø	example	CN=radblue-CA, DC=radblue, DC=co	m true
7		nport a PKCS #12 file, the key added to the list of key store	
License Manager	You can tog files and Tru: Ke	igle between the list of Rey Store sted Key Store files by clicking <b>y Store File</b> drop-down arrow	Key Store the <b>Select</b>
License Manäger	You can tog files and Tru: Ke	gle between the list of Client sted Key Store files by clicking <b>y Store File</b> drop-down arrow	Key Store the <b>Select</b> /.
License Manäger	You can tog files and Tru: Ke	gle between the list of Client sted Key Store files by clicking <b>y Store File</b> drop-down arrow	Key Store the <b>Select</b> /.
License Manager	You can tog files and Tru: Ke	gle between the list of Client sted Key Store files by clicking <b>y Store File</b> drop-down arrow	Key Store the <b>Select</b> /.

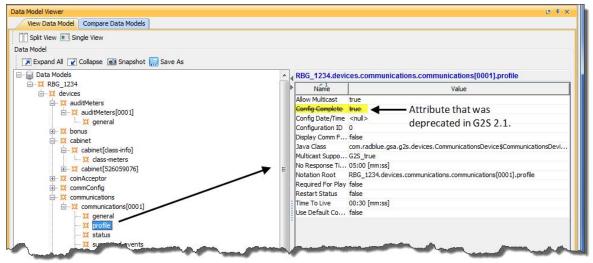
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#### **Transport and Security Modifications**

• An issue in which the path for the keystores, causing HTTPS errors, has been corrected. RST now loads content from HTTPS sites correctly.

#### **User Interface Modifications**

- Error messages that display in the **GSA Message Validator**, accessed through the Tools option on the menu bar, have been improved with clearer information when XML is invalid or the G2S message does not conform to the protocol.
- A new Key Off Timeout countdown displays on the EGM Status panel, under the Device Class field, when RST locks up, that counts down to the key off timeout. You can modify the timeout when you simulate gameplay (Play Simple Game, Play Paytable Game, Play Central Game or Play Progressive Game) by changing the value of the Key Off Time Out field value.
   Once the key off timeout reaches zero, the key off handpay lockup is cleared (EGM Status changes back to G2S\_enabled and the Device Class changes back to G2S\_gameplay).
- The performance of the Debug Console has been improved to display messages more efficiently, especially during long runs of the tool.
- Attributes that have been deprecated in G2S 2.1 now display in a strike-through font in the Data Model Viewer (DMV).



# **Tester Toolkit Modifications**

- The following actions have been added to the Actions field on the Message Disruption panel, (under Message Disruption Definition > Disruption Parameters):
  - **Resend send SOAP Fault but don't process message** Select this setting to cause the RST transport layer to generate a SOAP fault and to not respond to the request message.
  - G2S\_APX007 (Class Not Supported)
  - G2S\_APX008 (Command Not Supported)
  - G2S\_APX014 (Unknown Class Encountered)
  - G2S\_APX015 (Unknown Command Encountered)

**Note:** These APX errors are returned in the g2sAck response to a message.

# **SmartEGM Modifications**

- You can now run a gat verification on any of the components that are reported by RST.
- An issue in which the meter updates for cancel-credit handpay commands were being double-posted has been corrected.
- If the SmartEGM configuration file contains multiple WAT devices, a G2S\_WTX008 Unacknowledged Transaction in Log error is generated for each WAT device only. Previously, the SmartEGM checked all devices. Also, the entire WAT log is now checked for unacknowledged transactions for each device rather than the last log entry.

# **Transcript Modifications**

• Attributes that have been deprecated in G2S 2.1 now display in a strike-through font in the Message Transcript detail screen's Command view. The command details screen can be accessed by double-clicking any message in the Message Transcript.



• Comments associated with a message are now displayed next to the Command and View XML tabs when you view the message details as well as in the Message Transcript object.

and the me	ssage [ID: 508797] - progres	ssive.getProgressiveP	rofile [G2S_request]	
🕥 g2sAck	Req-Resp	sport Message	Revious	> Nex
anscript M	essage [ID: 508797] - prog	gressive.getProgres	ssiveProfile [G2S_re	quest]
Command	View XML		Comment: MTP Service	e Initializati
Command ID:	158		<b>▲</b>	
Date/Time:	2013-11-14T11:55:19.137-08:00		sociated with the mare as well as in the N	2778
Date/Time Sent:	2013-11-14T11:55:19.208-08:00		anscript object.	vicssag
Device ID:	2	_		

• An issue in which the **Clear Display** option in the Message Transcript cleared the transcript display as well as the EGM selector list has been corrected. The **Clear Display** option now clears the transcript messages from the table only. The **Clear Database** option removes all transcript records from the transcript database, clears transcript messages from the table and clears the EGM selector list.



Release Date: 01 OCT 2013

# **Release Summary**

In this release, we added support for G2S 2.1 vouchers, added a Use Existing License feature to the RLT installer, added a new configuration option and made enhancements to the SmartEGM.

#### Did you know....

You can filter certain frequently occurring commands from the Message Transcript through RST Configuration screen (**Tools** > **Configure** > **Engine Options** > **Filters**). Once selected, the filter persists until it is cleared. Note that you can filter any commands through the Filters option on the Message Transcript. That filter, however, does not persist through reinstall of the tool.

# **New Features**

• *New for 2.1!* RST now supports vouchers for G2S 2.1. Note that **RST does not support multiple voucher devices**. Therefore, RST does not support the *cashOutToVoucher* and *redeemPrefix* attributes in the voucher.voucherProfile command and the G2s\_voucherOptions3 option group.

# **Installation Modifications**

• For version 34 and higher, if you install a version of RST over an existing version, you now have the option of using the existing license. If you do not want to use the existing license, you can browse to a new license. Note that this option is only available when you install RST over a previous installation. All components of the previous installation are removed by the installer except the license file and any backup files.

You should have recently received a RGS licen: select the location of this license file so that it	
select the location of this license file so that it	
Use Existing RGS license	
O Use NEW RGS license	
C:\Users\Desktop\v34	Browse

# **Configuration Modifications**

- A new security option has been added that lets you fine-tune certificate requirements for the tool. Select **Require Client Certificate** if the other endpoint *must* have a certificate or it fails authentication. If this option is cleared, the other endpoint is not asked to send its client certificate. By default, this option is selected.
- An issue in which the Protocol type was not saved (Tools > Configure > Engine Options > Transport > My URL) has been corrected.

# **Engine Modifications**

- An issue in which records for the second instance (EGM-2) of RST were not being logged has been corrected. Now, all logs are appended with a number (1 or 2) to differentiate between the first and second instance of the tool.
- *New for 2.1!* The following commands now generate a G2S\_PRX002 Transaction No Longer Active error when the *transactionId* references a player ID that is not active:
  - player.setCarryOver
  - player.setHostPoints
  - player.setPointBalance
  - player.setPlayerOverride

# **User Interface Modifications**

• The **Get Progressive Host Info**. option has been removed from the Player Verbs tab on the SmartEGM layout. It has been replaced by a **Send getProgressiveHostInfo** option on the Send Command tab. This option sends a progressive.getProgressiveHostInfo command to the host, requesting information on the specified host.

# **SmartEGM Modifications**

- If the voucher.validationData list is empty, the SmartEGM EGM-disables the voucher device.
- The voucher.getValidationData command is only sent *if* there are no outstanding issue voucher log records *and* the voucher.validationData list is below the *voucherProfile.minLevelValIds.* or the voucher.validationData list needs to be refreshed.
- The SmartEGM has been modified to retry voucher.issueVoucher, voucher.redeemVoucher and voucher.commitVoucher commands. Note that this is the only place in the SmartEGM where commands are retried.

- The SmartEGM has been modified to retry voucher.issueVoucher and voucher.commitVoucher at *voucherProfile.timeToLive* frequency until the host acknowledges the commands.
- The SmartEGM has been modified to retry voucher.redeemVoucher commands at the *voucher.voucherProfile.timeToLive* frequency until the host acknowledges or the *voucher.voucherProfile.voucherHoldTime* has expired. If the SmartEGM stops retrying the voucher.redeemVoucher command, it rejects the voucher as a host time-out and attempts to commit the voucher.
- The SmartEGM now persists the voucher.validationData command. Included in the list is the date when the voucher.validationData list needs a refresh and when it expires.
- The SmartEGM cannot redeem a voucher if the voucher device is EGM-disabled.
- The SmartEGM has been modified to reuse the last voucher log entry if the last entry was for a failed committed redeem request.

# **Transcript Modifications**

• On the Command tab for the cabinet.setOperatingHours command and the cabinet.operatingHoursList command, accessed by double-clicking that command in the Message Transcript, a standard Time value is now displayed instead of a Time value in milliseconds.



Release Date: 06 AUG 2013

# **Release Summary**

In this release, we updated the required Java version, added support for the Hardware class, added a new directory for Tiger Scripting for storing ID and voucher databases, and corrected minor issues.

#### Did you know....

The Compare option in the Message Transcript lets you view the details of two messages, sideby-side. You can view the message content in three different formats: a user-friendly format, an XML format and an XML format with the differences between the two messages highlighted in **red**.

# **New Features**

- New for 2.1! RST now supports the Hardware class.
  - The Hardware class has been added to the SmartEGM configuration file. A sample hardware device has been created with sample data. You can view the hardware device information in RST on the **Devices** tab under **SmartEGM** > **Main**.

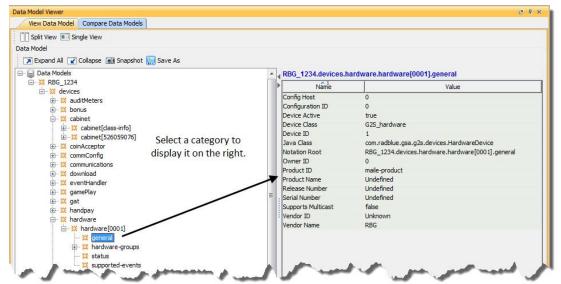
Device Class	Device ID	Owner Host	Configure Host	EGM Enabled	Host Enabled	
G2S_coinAcceptor	1	1	1	True	True	
G2S_commConfig	1	1	1	True	True	
G2S_communications	1	1	1	True	True	
G2S_download	1	1	1	True	True	
G2S_eventHandler	1	1	1	True	True	
G2S_gamePlay	1	1	1	True	True	
G2S_gamePlay	2	1	1	True	True	11
G2S_gamePlay	3	1	1	True	True	
G2S_gamePlay	4	1	1	True	True	
G2S_gamePlay	5	1	1	True	True	
G2S_gamePlay	6	1	1	True	True	
G2S_gat	1	1	1	True	True	
225_handpay	1	1	1	True	True	
G2S_hardware	1	0	0	True	True	
925_hopper	1	1		True	True	

You can change the hardware device information as needed by editing the **smartegm-config-gsa.xml** file. For information on how to edit a SmartEGM configuration file, see the <u>RST User</u> <u>Guide</u> or RST Help.

• You can view hardware command details in the Message Transcript.

	e [ID: 5353] - hardware.hardwareDe Req-Resp	viceList [62S_response]	Previous 📎 Nex
	ge [ID: 5353] - hardware.hardwa	reDeviceList [G2S_respons	se]
Command View XML		Hardware Groups	
Command ID:	41861	Name	Value
Date/Time:	2013-06-27T15:25:40.399-07:00	G2S accentLight-1	TURC
Posta Inner		-Vendor ID	RBG
Date/Time Sent:	2013-06-27T15:25:40.400-07:00	Product ID	mood light
		Release Number	3.0
Device ID:	1	-Vendor Name	
0000	DDC 1001	Product Name	
EGM ID;	RBG_1234	Serial Number	838
Host ID:	1	Hardware Description	
11001 201		-Device Class	G2S_none
Session ID:	200153	-Device ID	0
		Properties	
Session More:	false	G2S_accentLight-2	
and a second second		G2S_accentLight-3	
Session Retry:	false	Vendor ID	RBG
Cassian Tunat	G2S response	-Product ID	mood light
Session Type:	G25_response	-Release Number	3.0
Time To Live:	0	Vendor Name	
		Product Name	
Message ID:	5353	-Serial Number	890
		-Hardware Description	
		-Device Class	G2S_none
Command Name	bardware.bardwareDevicel.ist	Device ID	0
command Name;	haruware.naruwareDeviceList	Properties	
Last Hardware Change:	2013-05-23T15:58:00.000-07:00	RBG_color	
contraction of the contraction		RBG_funkv	

• The Hardware class has been added to the Data Model Viewer (DMV).



• A G2S\_hardware sub-tab has been added to the Device Events tab.

ain Player Verbs	Device Events	Send Commands	Tiger Script	Progressives	Data Model Viewer	Media Display	_	
Classes G2S_cabinet G2S_coinAcceptor G2S_hardware G2S_noteAcceptor G2S_printer	G2S_printer	G2S_printer × G2S_hardware ×						
	Hardware Events Device Configuration Changed Events Last Hardware Change			Hardware Device				
				Gene	rate Event			
	2013-05-23T15	2013-05-23T15:58:00.000-07:00			Update Hard	dware Device List		

#### Installation Modifications

• All RadBlue products now require **Java SE 7u25** 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. This update should have minimal effect on your environment, but keeps our products on modern versions of the underlying technology.

#### **Engine Modifications**

• An calculation issue that led to a discrepancy between the class-level and device-level meters for Average Payback Percentage (G2S\_avgPaybackPct), in the G2S\_GPE103 - Primary Game Started event has been corrected.

# **Tiger Scripting Modifications**

- A new tiger: DataModel.clearVoucherDatabase verb has been added. This verb removes all records from the specified voucher database.
- The examples for the *tiger:duration* attribute in the tiger:repeat verb have been corrected in the <u>Tiger Scripting Reference</u>.
- The location of the voucher database has been moved to **/user-data/voucher-<name>.xml**. The user-data directory **will be deleted** when RST is uninstalled. The voucher database is used with the following Tiger verbs:
  - DataModel.clearVoucherDatabase
  - Human.createVoucherToDatabase
  - Human.insertVoucherFromDatabase
  - if-voucher-available

#### **IMPORTANT NOTE!**

If you use your own voucher database file, you will now have to place the file in the **/user-data/voucher-<name>.xml** location. The user-data directory **will be deleted** when RST is uninstalled.

- The location of the ID database has been moved to **/user-data/id-<name>.xml**. The ID database is used with the following Tiger verbs:
  - Human.insertIDFromDatabase
  - Human.removeIDtoDatabase

#### **IMPORTANT NOTE!**

If you use your own ID database file, you will now have to place the file in the **/user-data/id-**<**name>.xml** location. The user-data directory **will be deleted** when RST is uninstalled.

# **Transcript Modifications**

• In the Message Transcript, the Time column value for the detail view of the cabinet.operatingHoursList command now displays in military time.

ranscript Me	ssage [ID: 791] - cabinet.o	operatingHoursList [G2S	_response]	Previous     Previous	> Ne
				N HENDUS	
	essage [ID: 791] - cabin	et.operatingHoursLis	st [G2S_response]		
mmand View XI	ML				
		Operating Hours			
Command ID:	45256	Operating Hours	0		
Date/Time:	2013-07-18T15:57:02.983-07:00	Weekday	Time	State	
Durcy rainer		GTK_sunday	16:00:00	GTK_enable	-
ate/Time Sent:	2013-07-18T15:57:02.984-07:00	GTK_monday	16:00:00	GTK_enable	
		GTK_tuesday	16:00:00	GTK_enable	
Device ID:	526059076	GTK_wednesday	16:00:00	GTK_enable	
		GTK_thursday	16:00:00	GTK_enable	
EGM ID:	RBG_1234	GTK_friday	16:00:00	GTK_enable	
		GTK_saturday	16:00:00	GTK_enable	_
Host ID:	1				
Session ID:	200159				
Session More:	false				
Session Retry:	false				
Session Type:	G2S_response				



Release Date: 04 JUN 2013

# **Release Summary**

In this release, we updated the required Java version, added a new Engine configuration option, added 2.1 support for all message-level error codes in g2sAck commands, added the ability to import and export the tool configuration and corrected minor issues.

Did you know....

4 GB is now the **minimum** Memory requirement for computers running RST.

# **Installation Modifications**

• All RadBlue products now require **Java SE 7u17** 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. This update should have minimal effect on your environment, but keeps our products on modern versions of the underlying technology.

# **Configuration Modifications**

• **Current RST Offset [HH:MM:SS.MMM]** - Set the RST time offset from the system clock, which is part of the *dateTime* calculation applied to all messages sent by RST. The calculation for the *dateTime* stamp is:

PC time + offset [Current RST Offset value] + setDateTime offset

Use this option if you want to test an incorrect *dateTime* value.

Note: This value is updated when a cabinet.setDateTime command is received from the host.

# **Engine Modifications**

• *New for 2.1!* All message-level error codes that can be returned in a g2sAck message are now supported.

#### **User Interface Modifications**

- The following changes have been made to the **Data Model Viewer**:
  - Coin Acceptor currency and device meters are now updated correctly.
  - Handpay meters are now updated correctly.
- Two new options, accessed through the File option on the menu bar, let you export all RST configuration options and import those options into another instance of RST. With these options, you can now quickly configure new instances of RST.
  - **Export Configuration...** Select to export all configuration settings for the tool, including security certificates. The resulting ZIP file can then be imported into another version of the same tool.
  - **Import Configuration...** Select to import all configuration settings for the tool, exported from another version of the same tool, including security certificates. This option is used when you want to quickly set up a specific configuration for the tool that is already set up in another version of the tool.

# **Tiger Scripting Modifications**

- An issue in which a debug log entry was made for each coin dispensed through the dispenseCoins verb has been corrected. Now, the total value of dispensed coins is calculated, and the debug log is updated with that value.
- An issue in which the following cabinetStatus command attributes were not being populated properly has been corrected:
  - generalFault
  - generalMemoryFault
  - nvStorageFault
  - videoDispalyFault

#### **SmartEGM Modifications**

• The student versions of the SmartEGM configuration file (-student-edition.xml, -student-edition-1.1.0-am.xml and -student-edition-rpa.xml) have been updated to support the most recent RST updates and enhancements.

#### **Transcript Modifications**

• If the tool receives a date/time with the seconds parsed greater than milliseconds, the time/date is truncated to milliseconds in the transcripts. For example:

```
The date/time 2013-04-30T08:03:46.1234567890-07:00
```

displays as **2013-04-30T08:03:46**. **123**-07:00 in the transcript.

You can view the longer date/time format on the **XML** tab of the command object. To access the command object, double-click any message in the transcript.

• An issue in which the Message Transcript was reporting application errors incorrectly in the Summary column (for example, when sending an invalid attribute value in a message) has been corrected. The error is now noted correctly, for example:

optionConfig.error [G2S\_OCX013, <mark>Invalid Value Selected For Option</mark> - G2S none is invalid for eventSubscriptions]



Release Date: 02 APR 2013

# **Release Summary**

In this release, we added support for G2S 1.1.0 with audit meters, added the ability to define the time zone and offset format for all messages sent from RST, updated the required Java version and made several usability improvements.

# **New Features**

- RST has been modified to support G2S 1.1.0 with audit meters (the project schema for Austria). A SmartEGM configuration file is now available that supports audit meter devices without namespace negotiation (G2S 1.1.0 functionality). The new configuration file is named smartegm-config-1.1.0-am. When this file is selected, RST will use a special G2S schema rather than the G2S 2.1 schema that it uses normally.
- RST now supports time zone configuration for testing with custom time zones. Once configured, RST sends all messages using the defined time zone and offset format. When the selected time zone is Coordinated Universal Time (UTC), Zulu or Greenwich Mean Time (GMT), a "Z" appears at the end of the date/time stamp in the Message Transcript. You can change the "Z" to an offset notation (+00:00) through the Configuration screen.

Transcript								
<all hosts=""> 👻 📳 Compare</all>	Filters	Search Co	ontent 🗙 C	ilear <del>-</del>				Show Event Report
Q								
Date Received	Message ID	From Location	To Location	Session Type	Session ID	Command ID	Device	Summary
013-03-26T15:50:26.388 <mark>-07:00</mark>	9267	Host ID 1	RBG_1234	G2S_response	4000025	672	episodicGaming[1]	episodicGaming.setEpisodicPara
013-03-26T15:50:26.354 <mark>-07:00</mark>	9265	RBG_1234	Host ID 1	G2S_request	4000025	28653	episodicGaming[1]	episodicGaming.getEpisodicPara
013-03-26T15:50:24.087 <mark>-07:00</mark>	9263	Host ID 1	RBG_1234	G2S_response	4000024	671	eventHandler[1]	eventHandler.eventAck
013-03-26T15:50:24.068 <mark>-07:00</mark>	9261	RBG_1234	Host ID 1	G2S_request	4000024	28652	eventHandler[1]	eventReport: G2S_VCE102 - Vali
013-03-26T15:50:24.011 <mark>-07:00</mark>	9259	Host ID 1	RBG_1234	G2S_response	4000023	670	voucher[1]	voucher.validationData
013-03-26T15:50:23.947 <mark>-07:00</mark>	9257	RBC			1000000			voucher.getValidationData
013-03-26T15:50:19.606 <mark>-07:00</mark>	9255	1	22	20				eventHandler.eventAck
013-03-26T15:50:19.595 <mark>-07:00</mark>	9253	Time/D	ate form	at with a	time zo	one -07:0	0 offset.	eventHandler.eventAck
013-03-26T15:50:19.584 <mark>-07:00</mark>	9251	A						eventHandler.eventAck
013-03-26T15:50:19.572 <mark>-07:00</mark>	9249	Host ID 1	RBG_1234	G2S_response	4000019	666	eventHandler[1]	eventHandler.eventAck
013-03-26T15:50:19.557 <mark>-07:00</mark>	9247	Host ID 1	RBG_1234	G2S_response	4000018	665	eventHandler[1]	eventHandler.eventAck
)13-03-26T15:50:19.544 <mark>-07:00</mark>	9245	Host ID 1	RBG_1234	G2S_response	4000017	664	eventHandler[1]	eventHandler.eventAck
)13-03-26T15:50:19.532 <mark>-07:00</mark>	9243	Host ID 1	RBG_1234	G2S_response	4000016	663	eventHandler[1]	eventHandler.eventAck
13-03-26T15:50:19.520 <mark>-07:00</mark>	9241	Host ID 1	RBG_1234	G2S_response	4000015	662	eventHandler[1]	eventHandler.eventAck
)13-03-26T15:50:19.509 <mark>-07:00</mark>	9239	Host ID 1	RBG_1234	G2S_response	4000014	661	eventHandler[1]	eventHandler.eventAck
)13-03-26T15:50:19.496 <mark>-07:00</mark>	9237	Host ID 1	RBG_1234	G2S_response	4000013	660	eventHandler[1]	eventHandler.eventAck
43- 06T15-50:19-194-07-00	9235	West ID 1	RBG 1234	Carroose.	400		most odler	eventHandler.eventAck

**Note: Date/Time** fields in the user interface are in local time. G2S messages use the configured time zone and offset format for all date/time information.

A new configuration option, **Default TimeZone** (**Tools > Configure > Engine Options > General**), allows you to change the time zone used by the tool.

	Engine Options	
Barran and Andreas	General Transport Meter Filters	
s	Default TimeZone	
Desktop Options	America/Los_Angeles	0:00 🕜
80		
and a		
Engine Options		

You can select the time zone in the following ways:

- **Scroll** through the list and select your country/city time zone *or* time preference (UTC / Zulu / GMT).
- **Type** the country/city time zone *or* time preference by clicking inside the **Default TimeZone** field and typing the first character(s) of the time zone or time preference you want. The field will auto-complete the entry. For example, if you want the time zone for Los Angeles, California, you can type: **America/L** and "Los Angeles" will be completed for you.
- Select Display Z as 00:00 if you do not want to see the default "Z" at the end of the message date/time stamp in the Message Transcript, which indicates that the time uses a zero offset (UTC, Zulu or GMT).

**Note:** You must restart the tool for changes to the **Default TimeZone** option to take effect.

# **Installation Modifications**

• All RadBlue products now require **Java SE 7u11** 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. This update should have minimal effect on your environment, but keeps our products on modern versions of the underlying technology.

#### **Engine Modifications**

- In an ongoing effort to ensure that RadBlue tools use the latest technologies, RST has been updated to Apache CXF version 2.7.2. This change should not affect tool performance or operation.
- The progressive hit command now happens *after* the in-game delay in the progressive sequence, so the money wagered on the current game can be applied before the winning value is sent to the EGM.
- The process for cleaning up the **logs** directory when the tool is started has been improved.

## User Interface Modifications

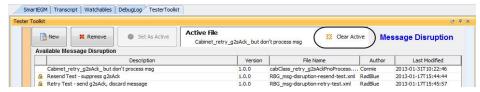
• The Media Display tab on the SmartEGM layout is now only enabled if there is a mediaDisplay device.

ïle ▼ Tools ▼ Help ▼		stem Tester	Biu
	hables DebugConsole TesterToolkit		
SmartEgm Credit Meter			12 F 3
Cashable : 0.00	StartEGM Control  StartEGM Terror StartEGM Stop SmartEGM Force MSX003 Change SmartEGM Configuration	SmartEGM	A Stopped
Promo: 0.00	Main Player Verbs Device Events Send Commands Tiger Script Progressives Data Model Viewer Media D Configuration Control	Asplay	
Non-Cash: 0.00	EGM ID RBG_1234:brz	G2S Schema 1.1	.0-brz

# **Tester Toolkit Modifications**

• The **Message Modification** and **Message Disruption** screens have been enhanced with a **Clear Active** button that removes the active file with the push of a button.

In the example below, the **Active File** field shows a test in the Message Disruption feature. When you click **Clear Active**, the test file is removed as the active file.



#### **SmartEGM Modifications**

- The following SmartEGM configuration files are now installed with RST:
  - **smartegm-config-1.1.0-am.xml** Project schema for Austria wide-area system, using a G2S 1.1.0 schema with an audit meter device and support for audit meters.
  - **smartegm-config-gsa** Standard G2S EGM, using the G2S 2.1 schema.
  - **smartegm-config-gsa-no-namespaces** Uses a G2S 2.1 schema, but namespace negotiation is suppressed.

# **Transcript Modifications**

• The detail screen in the Message Transcript has been streamlined from two **View XML** options to one. The View XML button on the Command tab has been removed. To see messages in XML, click the **View XML** tab.

5	script Message [ID: 7963] - voucher.validationData [G2S_response] g28Adx Req.Resp Transport Message & Previous New
rans	scri <u>pt Me</u> ssage [ID: 7963] - voucher.validationData [G2S_response]
Iomma	n View XML
G <sub>1</sub>	Text View 1 Hex View
-	
F	ind: O Find Next O Find Previous 🗮 Highlight 🕅 Match Case
0001	xml version="1.0" encoding="UTF-8" standalone="yes"?
0002	<g2s:g2smessage xmlns:g2s="http://www.gamingstandards.com/g2s/schemas/v1.0.3"></g2s:g2smessage>
003	<g2s:g2sbody <="" g2s:datetimesent="2013-03-25T13:23:12.064-07:00" g2s:egmid="RBG_1234" td=""></g2s:g2sbody>
004	g2s:hostId="1">
005	<g2s:voucher <br="" g2s:commandid="490" g2s:datetime="2013-03-25T13:23:12.061-07:00">g2s:deviceId="1"</g2s:voucher>
0005	g2s:deviceld="1" d2s:deviceld="1"
0008	d2s:errorText=""
0000	g2s:ertorlext- g2s:essionId="4000346"
010	d2:sessiondre="false"
011	g7s:sessionRetry="false"
2012	g2s:sessionType="G2S response"
013	q2s:timeToLive="0">
014	<g2s:validationdata g2s:deletecurrent="false" g2s:validationlistid="100087"></g2s:validationdata>
015	<pre><g2s:validationiditem 300001364233955052"="" <="" g2s:validationid="300001364233955051" g2s:validationseed="78455529897084180" p=""></g2s:validationiditem></pre>
0017	<g2s:validationiditem 300001364233955054"="" 300001364233955055"="" 300001364233955056"="" 300001364233955057"="" 300001364233955058"="" 300001364233955059"="" <="" g2s:validationid="300001364233955053" g2s:validationseed="36416595468874269" td=""></g2s:validationiditem>



# **RST Version 26 Release Notes**

Release Date: 05 FEB 2013

## **Release Summary**

For this release, we added support for more G2S 2.1 classes, added configuration options, and added a Message Disruption feature to the optional Tester Toolkit module, including Remote Control and Tiger Scripting.

# **New Features**

- *New for 2.1!* The following classes have been updated in accordance with the 2.1 protocol:
  - gat
  - optionConfig
  - eventHandler
  - meters

# **Installation Modifications**

• RST now requires a 2013 license. If you have not received a 2013 license, please contact RadBlue Support.

# **Configuration Modifications**

You can now configure the SOAP connection timeout value, using the mm:ss:sss format. The default is 30 seconds. This option is found under Tools > Configure > Engine Options > Transport.

Transport	Meter	Filters Dat	abase		
IP Address & SOA	AP Port				
Bind To : 192.	168.2.2			-	
SOAP Port: 3810	1		SSL Port : 38201		
My URL					
Protocol : HTTP v					
My URL : http://192.168.2.2:38101/RST/api-services/G2SAPI					
Enable GZIP				0	
Enable Get Trans					
Enable Get Tr	ansport O	otions		0	
HTTP Configuratio	00				
SOAP Timeout : 0			×	[mm:ss.SSS]	

• For a testing environment, you now have the option to enable minimum security. This option is found under **Tools > Configure > Security Options**.

2	General Certificates Keystore		
esktop Options	Enable SSL security control		
5	Security Environment		
ingine Options	Use Minimum Security Environment		
20	OCSP Options		
ecurity Options	Enable OCSP		
	OCSP Server Location :		
	Re-Authenticate Certificate Every (gsaOR) :	600 🔺	Minute
7	OCSP Server Considered Offline After (gsaOO) :	1 🔺	Minute
cense Manager	Accept Previously Good Certificate for (gsaOA) :	630 🔺	Minute

When you enable this option:

- The **Transport Layer Security (TLS) 1.0** is the *only* supported protocol for client-side TLS sessions. Note that host-side sessions are not restricted.
- The only supported cipher suite is SSL\_RSA\_WITH\_3DES\_EDE\_CBC\_SHA for both client- and host-side TLS sessions.
- An issue in which the default keystore alias was not being saved has been corrected. You can set the default keystore alias by going to Tools > Configure > Security Options > Keystore, and clicking Set As Default.
- A new *second-pass-validate* attribute in the **g2s-validation-manager-sample.xml** file ([**installation directory**] > **schemas** > **g2s** > [**schema directory**]) that is designed to give you a second validation pass to detect syntax errors that are not found in the first validation pass attribute. Set this attribute to **false** if the second validation pass takes too much CPU resources, or the EGM/host is in violation of the G2S schema and you are unable to fix your code. The default is **true**.

#### **Engine Modifications**

- *New for 2.1!* All message-level error codes (that can be returned in a g2sAck message) are now supported.
- An issue in which the tool referred to the wrong namespaces for Audit Meters (<u>http://www.gamingstandards.com/g2s/schemas/v1.0.3/g2sAM</u> instead of <u>http://www.gamingstandards.com/g2s/schemas/v1.0.3/ExtAM</u>) has been corrected.

RST now refers to the correct Audit Meters namespaces.

• Previously, on many events, RST sent more than one device status element in an event (for example, a mediaDisplay event would contain a cabinet status as well as a mediaDisplay status). With clarification from GSA, each event now contains the status of only one device.

#### **User Interface Modifications**

• On the **SmartEGM layout** tab > **Main** > **Devices** tab, the G2S\_gamePlay devices are now added to the Devices list when the RadBlue standard **package-4.zip** is downloaded and installed, appending new gamePlay devices defined in the package to the descriptor list.

Main P	layer Verbs	Device Events Se	nd Commands Tiger S	cript Progressives			
Configuration	and the construction of the	bence events   be		anpe mogressives			
EGM ID RBG_1234							
EGM URL	http://172.10	5.53.52:38101/RST/api-services/G2SAPI					
Description	The Standard	d RadBlue SmartEGM	1				
Hosts	Devices						
Device Class		Device ID	Owner Host	Configure Hos			
Device Class		Device ID	Owner Host	Configure Hos			
Device Class G2S_commCon	fig			-			
Device Class G2S_commCon G2S_communic	fig ations	1	1	1			
Device Class G2S_commCon G2S_communic G2S_download	fig ations	1	1	1 1			
	fig ations dler	1 1 1	1 1 1	1 1 1			
Device Class G2S_commCon G2S_communic G2S_download G2S_eventHan	fig ations dler	1 1 1 1 1	1 1 1	1 1 1			

## **Tester Toolkit Modifications**

- A new **Message Disruption** feature lets you modify the response to specific messages received from the host. You can:
  - add a message to the Available Message Disruption list.
  - select that message.
  - edit and save modifications to that message (instructing the RST what to search for and how to respond).

• view how the host responds to the message disruption through the Message Transcript. Once saved, the *Edit Selected Message Disruption File* screen area switches from an edit area (identifying the RST search parameters) to a *Dashboard* showing active message disruption definitions.

Тс	oolkit									L
	New X R	emove	🥝 Set As Active	Active File <not set=""></not>				Me	essage Disrupti	or
1	Available Message D	Disruption		1						
			Description		Version		Name	Author	Last Modified	
	<ul> <li>Send MSX008 in response to every request.</li> <li>The Default Configuration - no disruptions.</li> </ul>				1.0.0	message-disruptio		RadBlue RadBlue	2012-11-19T10:00:0 2012-11-19T10:00:0	
	_									
	Edit Selected Messa	-						2		
Description : Send MSX008 in response to every request.						Save	Save As	<b>X</b> Ca	ancel Dashbo	bard
•	File Name : 🔒 mes	ssage-disrupti	ion-config-002.xml	Version :	1.0.0					_
💠 Add 🗱 Remove 🛛 🦊 M				Move Down	Move Up	Me	ssage Disru	ption Defi	inition	
Element Attribute Action										
	g2sBody hostic	d	Send MSX008 (Inbound	d Message Too Larg	e) Sea	arch Parameters				
						Element Name :	g2sBody			
					Attrib	ute Namespace :	<any-namespa< td=""><td>ACE&gt;</td><td></td><td>1</td></any-namespa<>	ACE>		1
						Attribute Name :	hostid			1
							·			
						Attribute Value :				
					Dis	ruption Paramet	ers			
						Action : Ser	nd MSX008 (Inbou	und Message	e Too Large) 🔹 🔻	

# **Tiger Scripting Modifications**

- The following verbs have been added to Tiger Scripting:
  - tiger:MessageDisruptionDefinition.add
  - tiger:MessageDisruptionDefinition.clearAll

# **SmartEGM Modifications**

#### **General Modifications**

- An issue in which the *egmEnabled* attribute in communications.descriptorList command for the optionConfig device was always set to false, has been corrected. The *egmEnabled* attribute value is now reported correctly.
- The SmartEGM configuration file now includes a new edm: support-special-functions attribute in each gat device. This attribute controls the state of the new gatProfile.specialFunctions attribute. The default is **true**.
- Previously, on many events, RST sent more than one device status element in an event (for example, amediaDisplay event would contain a cabinet status as well as a mediaDisplay status). With clarification from GSA, each eventReport command now contains the status of only one device.
- An issue in which the *egmEnabled* attribute in communications.descriptorList command for the optionConfig device was always set to **false**, has been corrected. The *egmEnabled* attribute value is now reported correctly.
- *New for 2.1!* The *restartStatusMode* attribute has been added to the cabinet.cabinetProfile command.
- After receiving a communications.commsClosing request, the SmartEGM now closes the connection to the host even if it receives a G2S\_MSX003 (Communications Not Online) error response. Previously, it attempted to immediately restart communications with the host.

#### GAT Modifications for G2S 2.1

- RST now supports a GAT Special Functions Option group. The value of the G2S\_specialFunctions parameter is also set to the value of the gat device's edm:support-special-functions attribute in the SmartEGM configuration file..
- The following attributes have been added to the gat.gatProfile command:
  - configDateTime
  - configComplete
  - specialFunctions

**Note:** Although *configComplete* and *configCompleteDateTime* are normally in the device's status, in the gat class, they were added to the device profile.

#### optionConfig Modifications for G2S 2.1

- A new optionConfig.getOptionSeries command has been added that allows a host to request options for a specific device class, starting at a specific device number, with a maximum number of devices to report.
- A new *egmLocked* attribute has been added to the optionConfig.optionConfigModeStatus command. The *egmLocked* attribute is set to true when an EGM is disabled by either the optionConfig.enterOptionConfigMode command or the optionConfig.setOptionChange command.
- RST now supports the newoptionConfig.getOptionStatus command sent from the host. This command verifies that a log entry exists for the specified transaction ID, and that the configuration ID matches the configuration ID in the log. If neither are **true**, RST returns theG2S\_OCX005 (Invalid Transaction Identifier) error.
- Two new attributes, *configDateTime* and *configComplete*, have been added to device statuses (where appropriate) and are also now included in eventReports when a status is included.
- The setOptionChange command no longer rejects a *startDateTime* in the past.
- The G2S\_OCX001 (Invalid Device Class/Device Identifier) error is now generated when a optionConfig.getOptionList command cannot be processed.

#### meter Modifications for G2S 2.1

- RST now supports four types of end-of-day subscriptions:onEOD, onCoinDrop, onNoteDrop and onDoorOpen.
- The SmartEGM will now return a G2S\_APX009 (Command Contained at Least One Syntax/Semantic Error) error if the host sends an end-of-day meter request without specifying which meter it is requesting.
- A new *denomMeterType* attribute has been added to the gamePlay.gamePlayProfile command. This attribute indicates whether a gamePlay device denomination meter reports a total in a single denomination (g2s\_oneDenom) or for each denomination wagered (g2s\_eachDenom).

Note: The default value is g2s\_eachDenom.

#### **Remote Control Modifications**

- Support for the Tester Toolkit's Message Disruption feature has been added to Remote Control. The following functions are now available:
  - Add Message Modification
  - Clear All Message Modifications
  - Delete Message Modification
  - Get All Message Modifications