

Script Commands

API Reference

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Script Features

- 👍 Simple script structure
- 👍 May contain single command as well as any number of commands
- 👍 Can be launched by several methods, incl. HTTP URL or Task Scheduler
- 👍 Only a few commands to learn
- 👍 Commands for changing the application settings
- 👍 Commands for sending data to the encoders (for example TA or text)
- 👍 Commands for individual control of Connections and Virtual Ports
- 👍 Commands for the Dynamic Text Loop control
- 👍 Commands for the audio recorder control

Based on feedback from the users, the script possibilities are continuously enhanced.

To Run a Script

The Magic RDS 4 provides several opportunities where its behaviour can be controlled by a user script:

- **Task Scheduler, Text Campaigns** – the script is launched upon specified events ^{*)}
- **Text Conditions** – the script is launched depending on a content of external text source ^{*)}
- **Execute Script window** – the script is launched any time by clicking on the Execute button.
- **HTTP URL Query** – the script is launched from URL, accessed via the Internal HTTP Web Server ^{*)}

^{*)} Note: The script length is limited to 2 KB in those fields.

Examples:

1. In main menu, select Tools – Execute Script.
2. Type this simple script:
set ToolBar.Visible:0
open "https://www.wikipedia.org/"
3. Click on the Execute button to see the visual effect.
4. To show the Toolbar again, select View – Toolbar in the main menu.

1. In main menu, select Options – Preferences, enable the Web Server and fill the **password**.
2. Type and confirm this URL into your web browser address bar:
http://localhost/execute/?script=set%20ToolBar.Visible%3A0&password=(*the password here*)
Such URL-encoded line forces the Magic RDS to launch following command: set ToolBar.Visible:0
See the next sections for complete list of commands available.
3. To show the Toolbar again, select View – Toolbar in the main menu.

Command Syntax

Following set of rules defines the combinations of statements and symbols that are considered to be correctly structured:

```
script_command [parameter1[:value1] [parameter2[:value2] ... [parameterN[:valueN]]] [hide]
```

script_command

The list of commands follows on next pages.

parameter

Optional. Specifies a parameter for the command call. Order of the parameters is arbitrary.

value

Optional. Assigns a value to the parameter. **No space is allowed between the parameter and value.**

hide

Optional. If specified, the command launches silently – without a notice in the Recent events. No value.

The script language is completely case insensitive. Each command must start on a new line or must be separated by ;

Examples:

script_command1
Script_Command2



script_command1; script_command2



script_command1 script_command2



Parameters are delimited by space characters. So if the **value** contains a **space** character, entire **value** must be **double-quoted**. In other cases the quotes are optional.

Examples:

send connection:MyRDS command:TA=1



send connection:"Connection 1" command:"TA=1"



send connection:Connection 1 command:PS=KISS FM



*Note: For entering double-quotes inside the text, use escaping sequence ""
For entering a line break (where applicable), use the sequence
*

URL-encoding table (This table applies only to scripts entered via the HTTP URL.)

(space)	%20
"	%22
%	%25
:	%3A
;	%3B
=	%3D

SEND

Description	To send a RDS encoder control command, string or a text, or a batch of commands, to specified connection(s).
Examples	send connection:"*" command:"TEXT=13:00 - Our Interview" send connection:"*" command:"TA=1" send connection:"Connection 1" adr:3 site:511 command:"PS=KISS FM" command:"PI=2231" send connection:"%current%" batchfile:"D:\rdsConfig\setup.enc" send group:"North, South" command:"TA=1" send connection:"*" exclude:"Connection 2" command:"TEXT=Our station promo" delay:default
Parameters	connection Connection name. May also contain %current% or a wildcard *. Default is * (all connections excl. Bridges). exclude Exclude connection name(s). Optional parameter. group Group name. Optional parameter. Sends data only to encoders sharing the group name(s) specified. command A control command from the RDS encoder's repertoire or a string, expressed in ASCII. More command parameters may be specified. Where applicable, each command is automatically translated to default communication protocol of each RDS encoder, for example to UECP. batchfile Path to the command batch file. In that file, each RDS control command occupies a separate line. site, adr Optional encoder Site number (0 to 1023) and/or encoder Address number (0 to 63). Applies to UECP compatible encoders and UECP protocol.

dsn, psn

Optional Data Set number (0 to 255) and/or Program Service number (0 to 255). Applies to UECP compatible encoders and UECP protocol.


delay

Optional delay in seconds or „default“. The command is placed into queue and it is sent after specified delay. The default delay is individual to each connection and can be set up in Overview – Extensions. If not specified, the delay is 0.

***Application
Notes***

For complete list of control commands, follow the RDS encoder’s documentation or go to Terminal and click on appropriate button on the left side. For checking real data sent to the RDS encoder, go to Overview – Communication Monitor.

SET

Description	To change the Magic RDS 4 configuration or to edit the Connection control form data.
Examples	set Output1.SrcSequenceItem2Checked:"0" set Output1.Enabled:"1" set Output2.Enabled:"0" set connection:"Connection 1" Extensions.DPSEn:"0" set connection:"*" General.TrapsEnabled:"1" set connection:"*" Extensions.SynchronizeClock:"1" set group:"East, North" Extensions.DistributionDelay:"20"
Parameters	connection Connection name (or group name) is required for all classes assigned to particular connection. The connection name can contain wildcard * (all connections excl. Bridges). group Group name. Optional parameter. Sets the property only on connection(s) sharing the group name(s) specified. <class>.<property> The property you want to change. The parameters are case-insensitive.
Application Notes	For complete list of properties, go to the Task Scheduler or another tool which contains script editor and click on appropriate button  on the left side.

EXIT

Description	To close the Magic RDS 4 application.
Examples	exit
Parameters	none

REBOOT

Description	To reboot the PC.
Examples	reboot
Parameters	none

SHUTDOWN

Description	To shutdown the PC.
Examples	shutdown
Parameters	none

ENABLE, DISABLE

Description	To enable or disable specified item in the Task Scheduler.
Examples	enable itemname:"Item2" disable itemname:"Item4"
Parameters	itemname Complete name of the item, as appears in the Task Scheduler, column 'Name'.
Application Notes	

REMOVE

Description	To remove current item from the Task Scheduler.
Examples	remove
Parameters	<i>none</i>
Application Notes	This command has effect only if the script was launched by the Task Scheduler. This command effectively enables the user to schedule a one-time task.

OPEN

Description	To open a document in associated application or to launch a new application.
Examples	open "C:\Program Files\MyApp\MyApp.exe" open "D:\text\program.docx" open "https://www.fox.com/news/"
Parameters	There's only one parameter which is directly the path to the file or object.
Application Notes	

DIALOG

Description	To show a modal dialogue box to the user.
Examples	dialog type:confirm text:"Select Yes to continue, select No to abort." dialog type:info text:"Done."
Parameters	type Can be either confirm or info. In the confirm type, clicking No will terminate the script. text The text showed to the user.
Application Notes	

PRESETS

Description	To add single click script shortcuts to the application tool bar.
Examples	presets clear presets add:"D:\My Scripts\Config 2.txt"
Parameters	clear Removes all presets from the tool bar. add Adds the preset – a shortcut to the script file specified.
Application Notes	In the application main menu, select Tools – ToolBar Presets. Finally confirm by Execute button. Resulting script file is named presets.txt and it is placed in the application data folder. It is launched on each application start-up and may contain any other commands.

SAVE

Description	To save the application settings.
Examples	save category:all
Parameters	category A portion of the configuration to save. Now only all is supported.
Application Notes	

CONNECTION

Description	To add, edit, delete or reconnect a connection.
Examples	connection action:add name:"Text 01" model:P164 type:2 nethost:192.168.1.88 netport:5000 connection action:edit name:"Connection 1" datamonitor:0 connection action:delete name:"Test *" connection action:reconnect name:"bw02"
Parameters	<p>action The action must always be specified. It can be either add, edit, delete or reconnect.</p> <p>name The connection name must always be specified. For the delete action, the * wildcard is supported.</p> <p>Following parameters apply only to the add and edit action:</p> <p>groupname Optional parameter. Several connections may share the same group name.</p> <p>kind Optional parameter. 0: all devices (default), 1: Bridge.</p> <p>model If kind is not 1, the model must be specified. For complete list of options, go to main menu: Connection – Add New Connection – Connection Kind: RDS Encoder etc. and expand the Device Model field.</p> <p>type A number which represents the connection type: 0: none (dummy), 1: Serial/USB, 2: TCP Client, 3: TCP Server, 4: UDP, 5: Internal channel.</p>

comport

For Serial/USB connection type only. COM port number. Default is 1 (COM1).

comspeed

For Serial/USB connection type only. Baudrate value: 1200, 2400, 4800, 9600 or 19200.

parity

For Serial/USB connection type only. Parity: 0: even, 1: odd, 2: none, 3: mark, 4: space. Default is 2 (none).

flowcontrol

For Serial/USB connection type only. Flow control: 0: none, 1: CTS, 2: DSR, 3: CTS+DSR, 4: Xon/Xoff. Default is 0 (none).

autobaud

For Serial/USB connection type only. Enables (1) or disables (0) speed autodetection. Must be supported by the device. The bidirectional option must be enabled as well. Default is 1 (enabled).

netport

Network port for TCP or UDP. Allowed range is 1 to 65535.

nethost

Remote host name or IP address for TCP or UDP.

localport

Optional local port for UDP. Allowed range is 1 to 65535.

bidirectional

Enables (1) or disables (0) bidirectional communication. Default is 1 (enabled) unless you set the connection type to 0 which yields in bidirectional disabled (0).

datamonitor

Enables (1) or disables (0) the Data Monitor. Default is 0 (disabled).

responsetimeout

Response timeout in milliseconds. Has no effect if bidirectional communication is disabled.

feedto

For Internal Channel connection type only. Equivalent to the Data Distribution field.

ipaccess

For TCP Server connection type only. Equivalent to the Access Control field. Default is "allow *".

maxclients

For TCP Server connection type only. Maximum number of clients connected. Default is 1.

keepalive

Reserved for future use. Do not mention nor specify.

connectiontimeout

Reserved for future use. Do not mention nor specify.

reconnectinterval

Reserved for future use. Do not mention nor specify.

***Application
Notes***

This command **cannot** be executed by Task Scheduler or Text Conditions.

VPORT

Description	To add, edit or delete a virtual port.
Examples	<pre>vport action:add connection:"Con 1" name:"Con 1 VP 1" type:2 nethost:192.168.1.88 netport:5000 vport action:edit connection:"Con 1" name:"Con 1 VP 1" filter:"deny *" vport action:edit connection:"Con 1" name:"Con 1 VP 1" filter:"allow *" vport action:delete connection:"Con 1" name:"Con 1 VP 1"</pre>
Parameters	<p>action The action to be taken, must always be specified. It can be either add, edit or delete.</p> <p>connection The connection name, must always be specified.</p> <p>name The virtual port name, must be specified.</p> <p>index The virtual port index, starting at 0. Optional, may be specified instead of the name for the edit and delete actions.</p> <p>Following parameters apply only to the add and edit action:</p> <p>type A number which represents the input interface type: 0: none (dummy), 1: Serial/USB, 2: TCP Client, 3: TCP Server, 4: UDP, 7: HTTP Server.</p> <p>comport For Serial/USB connection type only. COM port number. Default is 1 (COM1).</p>

comspeed

For Serial/USB interface type only. Baudrate value: 1200, 2400, 4800, 9600 or 19200.

parity

For Serial/USB interface type only. Parity: 0: even, 1: odd, 2: none, 3: mark, 4: space. Default is 2 (none).

flowcontrol

For Serial/USB interface type only. Flow control: 0: none, 1: CTS, 2: DSR, 3: CTS+DSR, 4: Xon/Xoff. Default is 0 (none).

netport

Network port for TCP or UDP. Allowed range is 1 to 65535.

nethost

Remote host name or IP address for TCP or UDP.

localport

Optional local port for UDP. Allowed range is 1 to 65535.

ipaccess

For TCP Server interface type only. Equivalent to the Access Control field. Default is "allow *".

maxclients

For TCP Server interface type only. Maximum number of clients connected. Default is 1.

queryset

For HTTP Server interface type only. Maximum number of clients connected. Default is 1.

codingfrom

Optional specification of input code page. 0: EBU Latin, 1: ANSI, 2: UTF-8, 3: CP-1250, 4: CP-1252, 5: CP-1254, 6: CP-1257. Default is equal to codingto, which means no conversion.

codingto

Optional code page conversion. 0: To EBU Latin, 1: To ANSI, 2: To UTF-8. Default is equal to codingfrom, which means no conversion.

separator

User defined line (datagram) separator for the input data. Default is none (not specified).

filter

Input command filter. Default is "allow *".

keepalive

Reserved for future use. Do not mention nor specify.

connectiontimeout

Reserved for future use. Do not mention nor specify.

reconnectinterval

Reserved for future use. Do not mention nor specify.

**Application
Notes**

EVENTS

Description

To add user text message to the 'Recent Events' log.

Examples

events add:"Operation performed"

Parameters**add**

The text message to add.

**Application
Notes**

TEXTLOOP

Description	To work with Dynamic Text Loop. Please follow the Help file extsrc.pdf for description of this feature.
Examples	<pre>textloop action:add source:"Source 1" name:"Line1" text:"My first line" textloop action:add source:"Source 1" name:"Line1" text:"My first line" minutestodelete:120 textloop action:add source:"Source 1" name:"Line2" text:"Call us: <phone.studio>123-456-789</phone.studio>" textloop action:delete source:"Source 1" name:"Line1" textloop action:clear source:"Source 1" textloop action:suspend source:"Source 1" name:"Line1" suspendforminutes:10 textloop action:resume source:"Source 1" name:"Line1"</pre>
Parameters	<p>action The action must always be specified. It can be either add, delete, clear, suspend or resume.</p> <p>action:add Adds new line (message) to the loop. The Source type is set to 'Internal channel' if not set yet.</p> <p>action:delete Removes the line from the text loop. The line to be deleted is identified by its name.</p> <p>action:clear Removes all lines from the text loop.</p> <p>action:suspend Temporarily disables (hides) the line, while it is still kept in the loop. The line is suspended until the specified minutes elapse or until performing the resume action.</p> <p>action:resume Enables (shows) the line which was previously suspended.</p>

source

The Source name to which the command belongs to. The matching is case sensitive.

name

The line name (if applicable). The matching is case sensitive. Optional parameter – without specifying the name, some operations on the line may not be possible. An attempt to add a new line with existing name will result in the line overwriting. Each source has its own namespace.

text

The line text. Applicable for the action:add only. Supports inline RT+ tags. An attempt to insert empty text will result in no operation.

minutestodelete

Optional parameter. Specifies the minutes to delete the line automatically. Applicable for the action:add only. Value of 0 means no delete.

suspendforminutes

Optional parameter. Specifies the minutes to suspend the line. Applicable for the action:add and action:suspend. Value of 0 means no suspend.

***Application
Notes***

To see current Dynamic Text Loop content, select View - Spreadsheets in the main menu.

RECORDER.RUN

Description	To control built-in MP3 audio recorder: To start new recording.
Examples	recorder.run name:"Recorder1" file:"D:\mp3rec\myrec.mp3" recorder.run name:"Recorder2" stopat:"23:00:00" device:"Line in (Realtek HD Audio)" bitrate:320 recorder.run name:"Recorder3" file:"D:\mp3rec\%DATETIME:yy-mm-dd hh-nn%.mp3" maxlen:"01:00:05" recorder.run name:"Recorder1" file:"D:\mp3rec\myrec.mp3" onstop:"copy %file D:\podcasts\latest.mp3"
Parameters	<p>name The recorder name can be any value but must be specified and must be unique. Since more recorders can be active at the same time, the purpose of the recorder name is to create a reference for further control of particular recorder. If a recorder with same name already runs, nothing happens, excl. paused recorder which is resumed.</p> <p>file The output audio file name, incl. absolute path. The path must exist. If the .mp3 extension is not specified, it is added automatically. If the file already exists, it is overwritten.</p> <p>device The recording device name, as present in the Windows audio system. If the device specified does not match any device installed in the PC, or if the device is not specified, a default recording device is used instead. For the list of devices, select Tools – Audio Recorder – List of Input Devices.</p> <p>agc Sets up the AGC (Automatic Gain Control). The AGC prevents audio level differences in the recorded files. The peak level is kept around -1 dBFS. The AGC release time (speed) is configurable, slowest value is 1. A value of 0 disables the AGC. Default value is 1.</p> <p>bitrate Sets up the MP3 bitrate in kbps. Default is 192. Following bitrates are supported: 32, 40, 48, 56, 64, 80, 96, 112, 128, 160, 192, 224, 256, 320.</p>

stopat

A time at which the recording stops automatically. Can be specified in format h:m:s or h:m. Default is none (infinite recording / until stop).

maxlen

Maximum time of recording. Can be specified in format h:m:s or m:s or s. Default is none (infinite recording / until stop).

The **stopat** and **maxlen** parameters can be both specified. In such case the recording stops at the earlier event.

fadein

Specifies the sound fade-in effect length in seconds. Default is 0 (disabled).

fadeout

Specifies the sound fade-out effect length in seconds. Default is 0 (immediate stop). If the fadeout is active, the recorder is still occupied until the fadeout time elapses.

delay

Specifies the recording start delay in seconds. Default is 0 (disabled).

onrun

Execute specified application or Windows batch command when start recording.

onstop

Execute specified application or Windows batch command after stop recording.

**Application
Notes**

The audio format is 16-bit stereo 44.1 kHz FBR. See the file [recorder.pdf](#) for details.

The parameters **name**, **file**, **onrun** and **onstop** support dynamic element DATETIME. See the file [extsrc.pdf](#) for details.

The parameter **file** supports dynamic element %name, which is replaced by associated value of the **name** parameter. In such case, the name must not contain illegal characters.

The parameters **onrun** and **onstop** support dynamic elements %file and %name, which are replaced by associated values of the **file** and **name** parameter.

RECORDER.STOP

Description	To control built-in MP3 audio recorder: To stop existing recording.
Examples	recorder.stop name:"Recorder1" recorder.stop name:"Recorder1" fadeout:2 recorder.stop name:"*"
Parameters	name A recorder name which you want to stop. Asterisk is supported which stops all active recorders. If the recorder does not exist or is already stopped, nothing happens. fadeout Specifies the sound fade-out effect length in seconds. Default is 0 (immediate stop). Overrides the parameter specified in the recorder.run command.

RECORDER.PAUSE, RECORDER.RESUME

Description	To control built-in MP3 audio recorder: To pause or resume existing recording.
Examples	recorder.pause name:"Recorder1" recorder.resume name:"Recorder1"
Parameters	name A recorder name which you want to pause or resume. If the recorder does not exist or is already stopped, nothing happens.

RECORDER.CLEANUP

Description	To delete records (files) which are outdated and no longer required. The files are firstly placed into the Windows Recycle Bin. Please handle with care to prevent unwanted loss of your data!
Examples	recorder.cleanup folder:"D:\mp3rec" maxdays:30
Parameters	<p>folder Specifies the folder (absolute path) where the cleanup occurs. The root folder is not allowed due to safety reasons. Subfolders are not included. Always make sure the specified folder does not contain music files, jingles etc. as these may be deleted!</p> <p>extension Extension of the files being deleted. Default is mp3. Wildcard is supported. If you're changing the extension, always check the folder content to prevent unwanted loss of your data!</p> <p>maxdays Maximum number of days the files can remain in the folder. Older files are deleted. One extra day is added for safety reasons.</p>
Application Notes	See the file recorder.pdf for details.

Some command is missing? Do you need to extend the command set? We accept feature requests at <https://pira.cz/forum/>