UECP Encoder & Sender

Version 1.4.2.0

09/03/2019

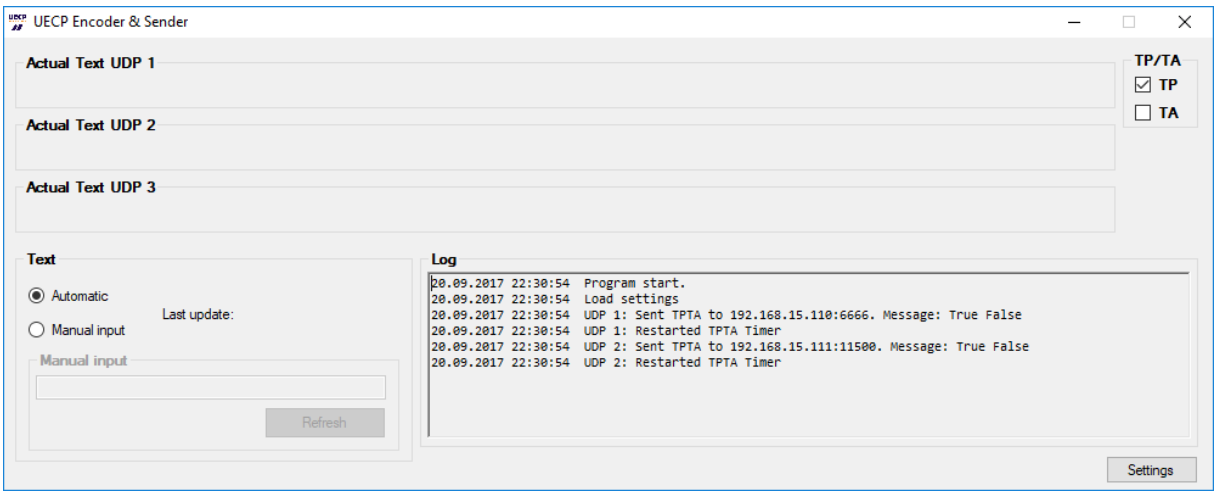
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General

This software reads data from different sources (local file or http), converts the first read line into the UECP format and sends it as UDP packet to a given IP and port. Three different destinations can be specified.

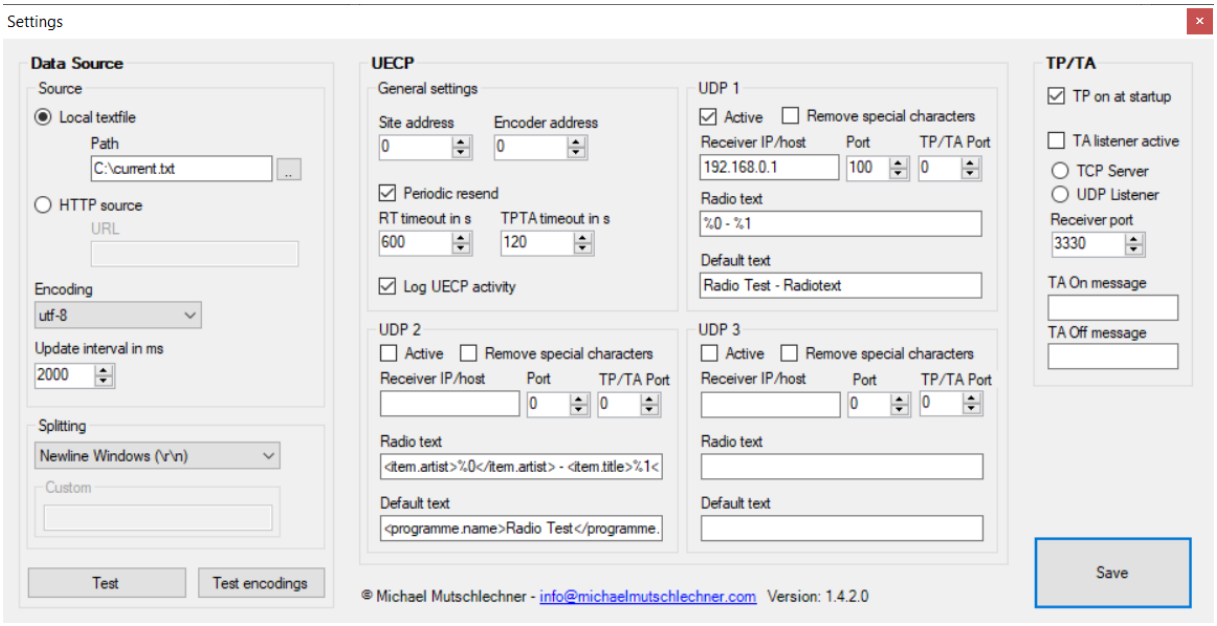
Graphical User Interface

Main window



The window displays the actual text for the three destinations and a log with all the events.
In the section “Text” the user can choose the data source: automatic (as defined in the settings) or manual input.
In the TP/TA section the TP and TA flags are controlled manually.

Settings window



The window “settings” makes it possible to change all the settings without editing the file “settings.ini” in the application directory.

The first section is for choosing the data source. Local files and http sources are supported. If a splitting mode is selected, the data source is split and the single parts are named %0, %1, etc. These parts can be used in the definition of the radio text for the single sources.

The data source is checked according to the update interval and if there are changes, the texts are updated.

The “Test” button tests tries to retrieve data from the selected source. A message with the content and the time needed to retrieve is displayed.

The “Test encoding” button reads the selected data source with different encodings and displays them.

The timeout-values in the UECP-section specify how often a UECP message is resent even if the data source remains the same. With these timeouts on the content server/RDS can be avoided.

The three destinations can be activated independently. Also the radio text and default radio text can be different. Example: Use UDP1 for RDS, UDP2 for DAB+, etc.

TP/TA

Starting from version 1.4.0.0 the UECP encoder is able to activate and deactivate the TA-flag. This option is controlled over tcp or udp. The encoder starts a tcp or udp server and listens for on and off packets on the specified port. It immediately sends the TA-flag over UECP.

Settings-File

Section [INPUT]		
Parameter	**Datatype**	**Function**
encoding	String (Text)	Defines the used charset for the source data.
updateInterval	Integer (Number)	Defines how often the source data is retrieved.
inputType	Integer (Number)	The source type. 0 – local textfile 1 – http source
inputTXTfile	String (Text)	Path of for source type 0. Without function otherwise.
inputHTTPurl	String (Text)	URL of for source type 1. Without function otherwise.
splitting	String (Text)	Defines which splitting-string is used for the input.
Section [UECP]		
Parameter	**Datatype**	**Function**
receiverIP1 receiverIP2 receiverIP3	String (Text)	The destination ip-address of the uecp data.
receiverPort1 receiverPort2 receiverPort3	Integer (Number)	The destination port.
radioText1 radioText2 radioText3	String (Text)	Defines the content of the radio text. Placeholders like %0, %1, etc. can be used. These are filled with the content of the data source.
defaultText1 defaultText2 defaultText3	String (Text)	Default radio text. Used on unavailable data source or error on reading data source or error on replacing placeholders of the radio text.
removeSpecialChars1 removeSpecialChars2 removeSpecialChars3	Boolean (True/False)	When activated, special characters within the radio text are replaced with common ascii-characters and the total length of the text is limited to 64 characters. This option is needed for some RDS encoders.
siteAddress	Integer (Number) 0-255	ID of the transmitter site. All encoders at a transmitter site have the same site address. Default is 0.
encoderAddress	Integer (Number) 0-63	Encoder ID of address. Default is 0.
udp1Active udp2Active udp3Active	Boolean (True/False)	Activate/deactivate the udp-send function for both IPs.
periodicResend	Boolean (True/False)	With this flag the application can be adjusted to resend the last TA/TP and RT data periodically. This is useful, if there is a timeout for the data on the destination site.
RTtimeout	Integer (Number)	Specifies the timeout in seconds for the periodic resend of the radio text data.
TAtimeout	Integer (Number)	Specifies the timeout in seconds for the periodic resend of the TPTA data.
logActive	Boolean (True/False)	Activate/deactivate log of uecp packets.

Section [TPTA]		
Parameter	**Datatype**	**Function**
startupTP	Boolean (True/False)	Defines the status of the TP flag at application start.
TAlistener	Boolean (True/False)	Activate/deactivate the listener (on tcp or udp, see below) for TA-control.
listenerPort	Integer (Number) 1-65.535	Port for the TA-Listener.
TAonMessage	String (Text)	Specifies which command activates a traffic announcement.
TAoffMessage	String (Text)	Specifies which command deactivates a traffic announcement.
TCPserver	Boolean (True/False)	Activates the listener using udp.
UDPlistener	Boolean (True/False)	Activates the listener using tcp.

Files

Application files

- UECPencoder.exe – Main application file, executable
- crc.exe – Crc-Calculator, executable
- settings.ini – Settings file

Log files

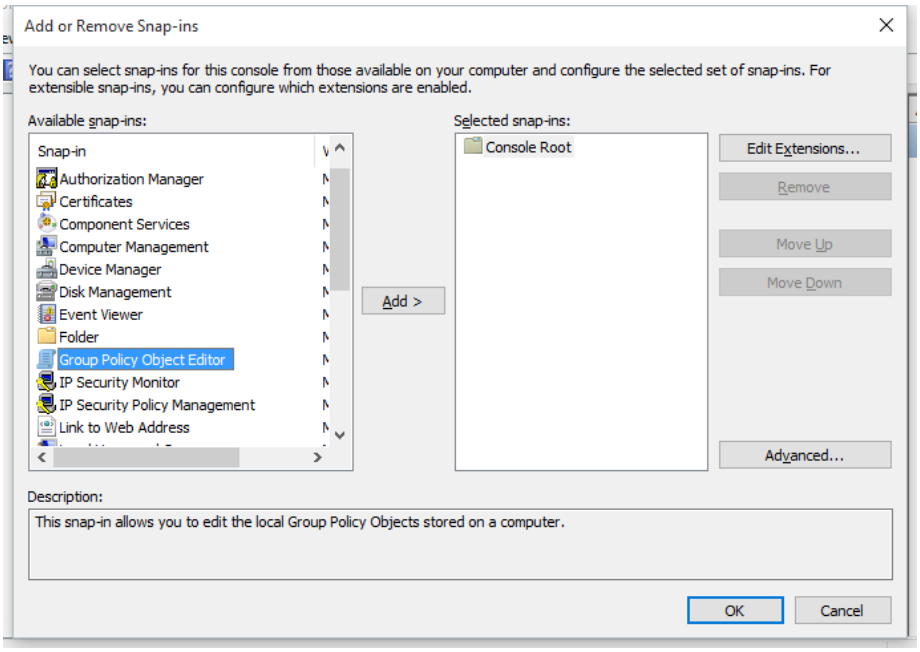
- log.log – General log
- error.log – Error log

The max filesize of the logs is 3MB. If this size is exceeded, the log is renamed to *.log.1 and restarts with an empty file.

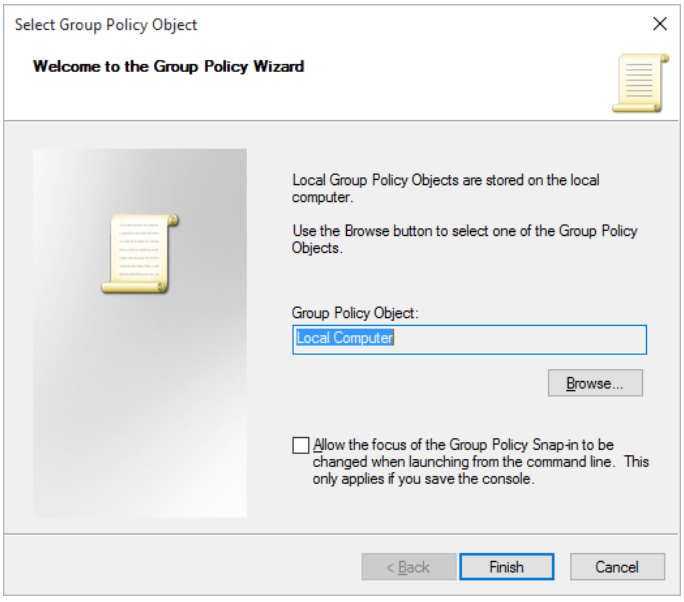
Set QoS for the UDP packets

It makes sense to set a higher quality of service priority for the uecp udp packets. This can be done in Windows by the following steps.

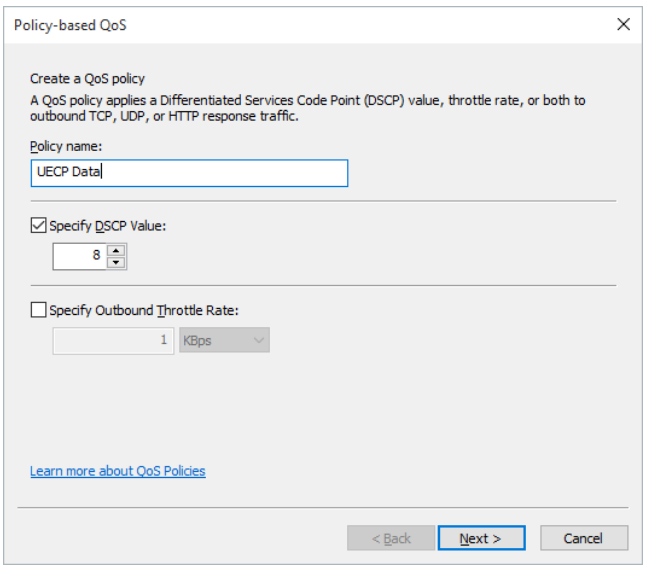
1. Open a management console by typing WIN+R, mmc, OK
2. Add the Snap-in “Group Policy Object Editor” (File –Add/Remove Snap-in)



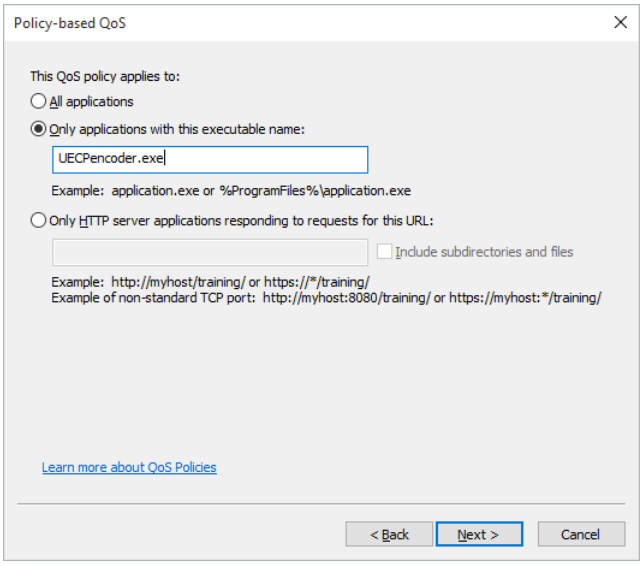
3. Group Policy Object is “Local Computer”



4. Navigate to “Computer Configuration” – “Windows Settings” – “Policy-based QoS”.
5. Right click on “Policy-based QoS” and choose “Create new policy”.
6. Add the new policy. Choose a policy name. DSCP Value should be 8.



7. You can make the policy general or special only for UECPencoder.exe



8. Important: Don’t forget to set the protocol to UDP.

