

## OSCmessageEncoder

### General

OSC messages are used to encode (serialize) a single OSC message and send it to a Buffer child for transmission with UDPwriter or by other means. Supported OSC data types are Integer, Float, and Text. In OSC terminology, this is an OSC client. The Quest3D partner channel for decoding OSC messages is OSCmessageDecoder.

### Children

1. OUT OSC Message (Buffer)
2. IN OSC Address Pattern (Text)
3. IN OSC Argument (Vector, Value, Text) -- growing link
4. OUT OSC Type Tags (Text) -- optional

### Description

The Address Pattern is read from child 2, in OSC convention starting with a "/". The OSC Arguments are collected from a growing child list starting at link position 3. Any combination of Text, Value and Vector is supported. The OSC type tag string is generated automatically. An empty list of parameter is OK.

Mapping of Quest3D data types to OSC: Vectors are converted to three OSC floats. Quest3D does not differentiate between floats and integers: An OSC integer is produced, if the name of the value channel starts with "I" or "i", otherwise an OSC float is generated. The sequence of chosen OSC data types can be verified by inspecting the OSC Type Tags channel content.

The channel behaves as a value channel, return values are:

- >0 success, the number of OSC arguments +1 is returned
- 0 ready
- 1 improper child assignment
- 2 license restrictions apply

Volume, runtime duration, and expiration restrictions are enforced with trial and lite licenses. The applicable restrictions are listed in the editor debug window.

### Tips

- Call this channel only if new content is available.
- Multiple OSCreader channels in one application are OK. Make sure the message buffer is read by the UDPwriter each time. A simple solution is to chain the requests, so only at most one is executed each frame.
- Or use channel switches to send different messages. The argument count remains constant, which may be undesirable.

- Evaluate the return value the check for proper operation.
- OSC protocol specification 1.0: [http://opensoundcontrol.org/spec-1\\_0](http://opensoundcontrol.org/spec-1_0)
- OSC bundles are not supported
- Use OSCDUMP.exe for test purposes.

**Acknowledgements:** This channel uses oscpack -- Open Sound Control packet manipulation library -- <http://www.audiomulch.com/~rossb/oscpack>

**Legal note:** Permission granted for evaluation and educational purposes only (trial version), commercial use requires an explicit license agreement.

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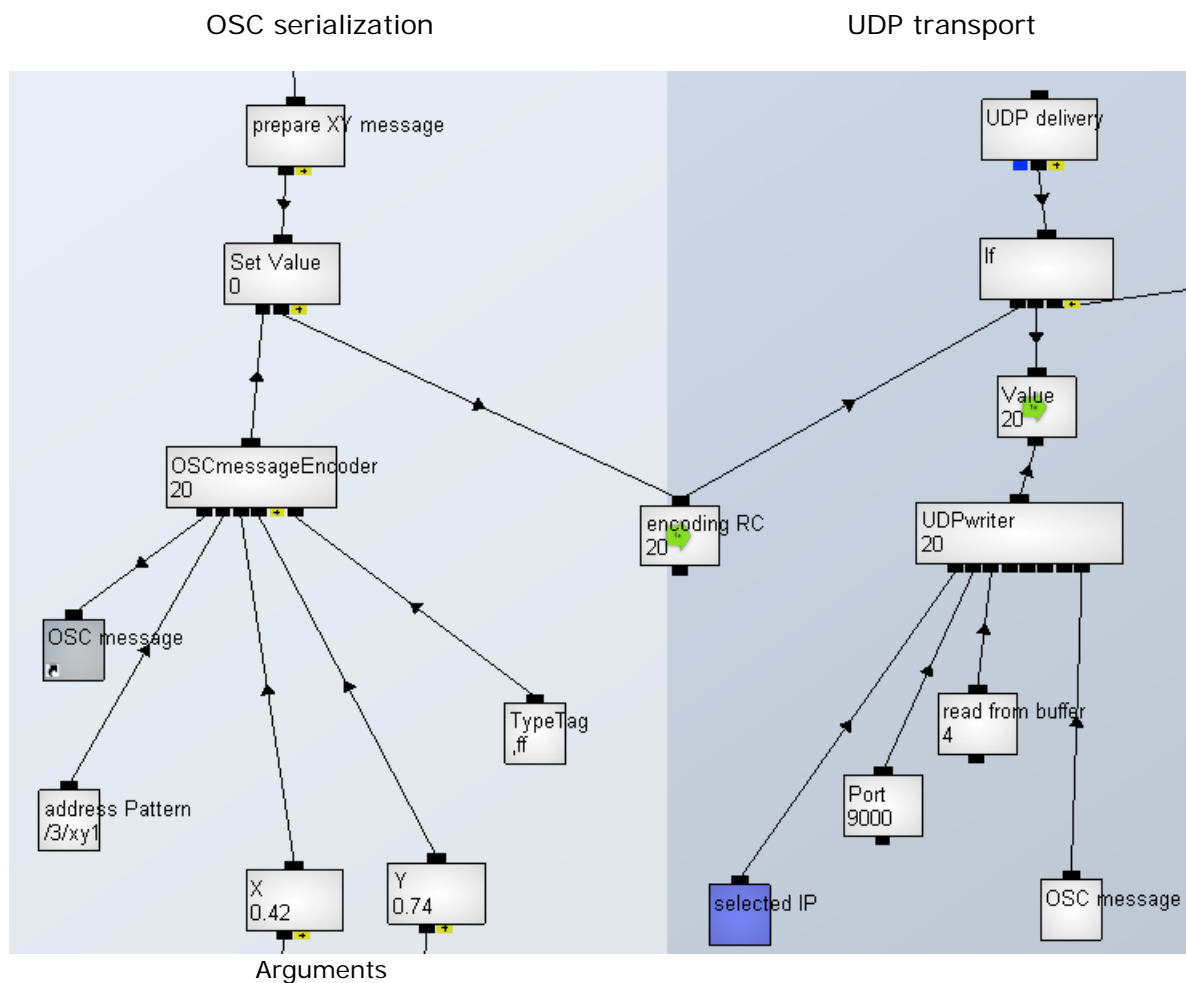
**Known Problems:**

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**Revision History:**

20110530 initial version

**Example scenario:**



OSCmessageEncoder is called and delivers an OSCmessage in a buffer. The message is encoded using "/3/xy1" as Address Pattern and two float arguments. The TypeTag output ".ff" verifies this assignment. If the operation was successful, UDPwriter is invoked. It reads the buffer content and executes the physical network transfer towards the selected IP address and port 9000.

**See also:**

OSCmessageDecoder

**Sample application:**

1. Mouse Reader