

# QOC plugin reference sheet

**Name of plugin:** QOC – Questions, Options, Criteria with Decision Support

**Status:** stable, public

**Plugin purpose:**

Capturing of Design Rationale with the QOC method; may be used for documentation purposes or for decision making.

**Functionality together with other plugins:**

None known

## Short guide for plugin usage

**Nodes description:**

Question nodes contain a textfield, where the question to be answered with the QOC method is filled in.

Option nodes contain a textfield for a description of the alternative represented by the node. The option with the highest score (see below) is highlighted by the designation „Preferred“.

Criteria nodes contain a textfield for description of the criterion and a textfield for the degree of relevance the criterion will play in the decision support: For that end the content of the textfield is assumed to be a numerical integral value between 0 (low relevance) and 100 (high relevance); if the value is not a valid value, the content is emphasized in red colour.

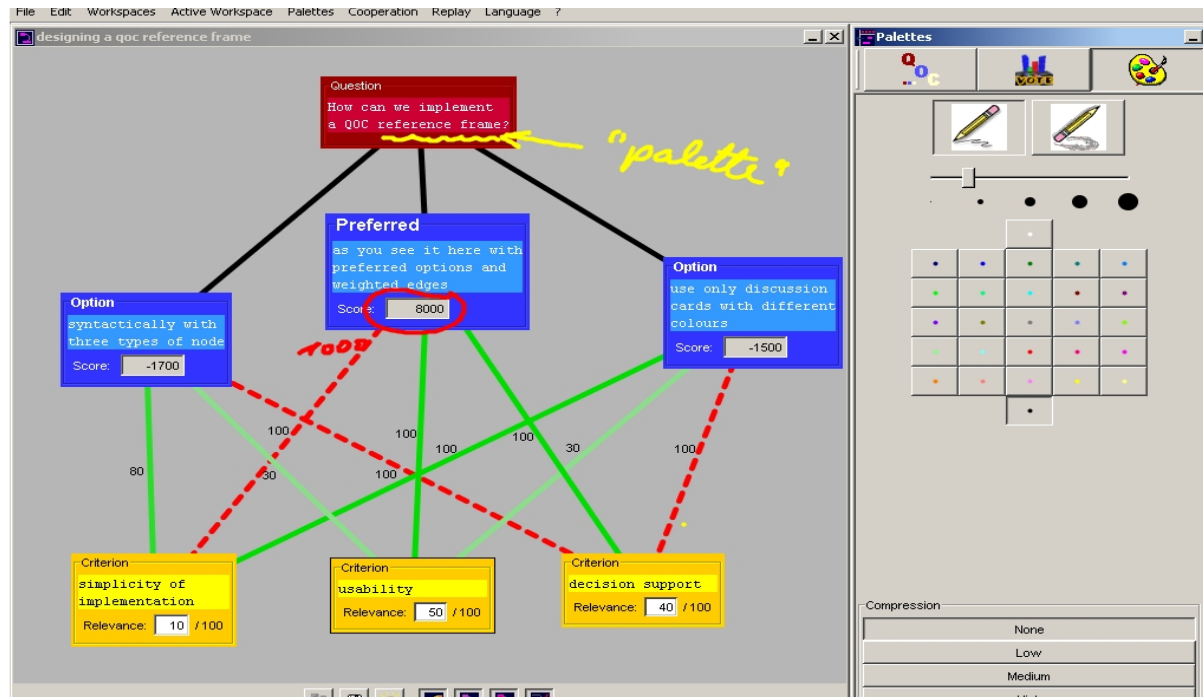
**Edges description:**

Question-Option edges should connect a question node with an option node. They do not have any edge attributes.

Evaluation edges (positive and negative) should connect an option node with a criterion node.

Positive edges express an option to have a positive assessment with respect to the criterion it is connected to. The degree of positive relation can be varied by editing the integral number (0 for neutral, 100 for completely fulfilling the criterion) attached to the edge. The colour of the edge is automatically adapted to the value (white for 0, bright green for 100).

Negative edges (visualized dotted) express an option to have a negative assessment with respect to the criterion it is connected to. The degree of negative relation can be varied by editing the integral number (0 for neutral, 100 for completely violating the criterion) attached to the edge. The colour of the edge is automatically adapted to the value (white for 0, red for 100).



### Edge Rules provided:

If Edge Rules are used, the following restrictions are imposed:

- Question-Option edges are allowed between a question node and an option node
- Evaluation edges are allowed between an option node and a criterion node
- all other connections are disallowed

### Plugin features (e.g. Simulation,..): Automated Decision Support

The plugin computes for syntatically correct QOC models the preferred option: This is done by summing all products of connected criterias' relevance and the connecting evaluation edges' number (negative edges counted as negative values). The option with the highest score is highlighted as „Preferred“ (in case of a tie all the options with the same score are highlighted). This decision support functionality is an extension of the original QOC method.

### Common procedure using plugin:

Pose a question, find the alternative solutions for the question and specify the criteria that have an impact on choosing one of the options. Then fintune the numbers for relevance and evaluation to document/find the preferred option.

**Shortcut explanations:** No shortcuts

### Documents belonging to plugin usage

#### Example

See dtd\_vs\_schema.xml

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