

## Memo

### To

Participants of the Danubius-RI modelling hackaton

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### Our reference

001

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### Subject

Some explanation of the layout of the UGRID example files

## 1 Introduction

In the following two sections the layout and numbering of node, edge and faces is presented of the meshes which are generated by the python-scripts:

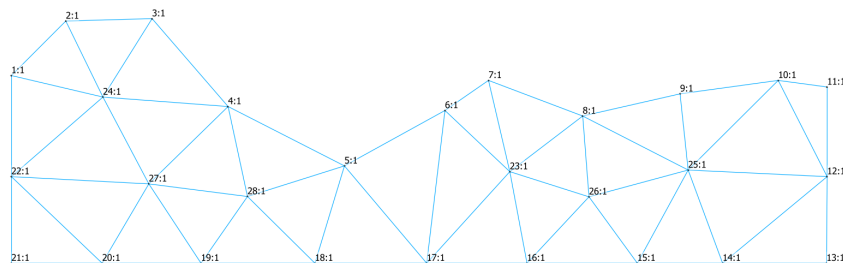
- 1 `ugrid_2d_map_triangles.py` and
- 2 `ugrid_2d_map_quadrangles.py`

The python script `ugrid_2d_map_triangles.py` will generate a UGRID netCDF file with a mesh as shown in [section 2](#). This mesh contains only triangles.

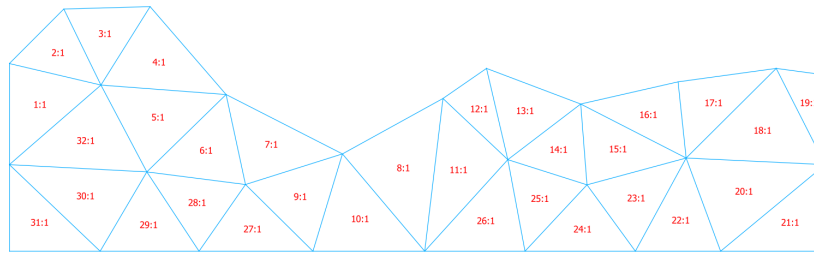
The python script `ugrid_2d_map_quadrangles.py` will generate a UGRID netCDF file with a mesh as shown in [section 3](#). This mesh contains triangles as well as quadrangles. The variable names in this example python script are replaced anonymous names, called `name*`.

The numbering in the pictures is 1-based. Which is indicated by the suffix ":1" behind the count number.

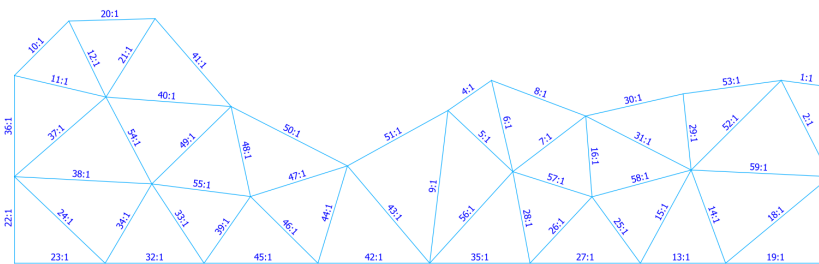
## 2 Mesh consisting of only triangles



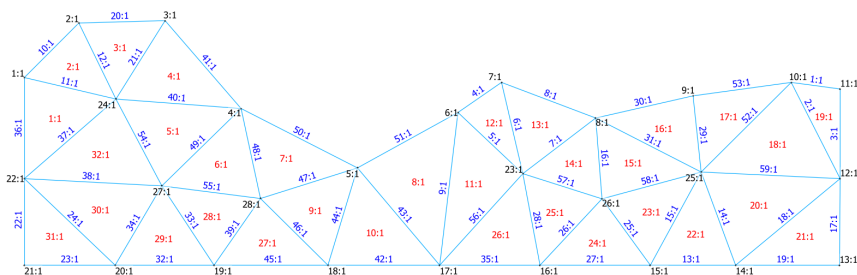
**Figure 1:** Node numbers (1-based) of mesh consisting of only triangles



**Figure 2:** Face numbers (1-based) of mesh consisting of only triangles

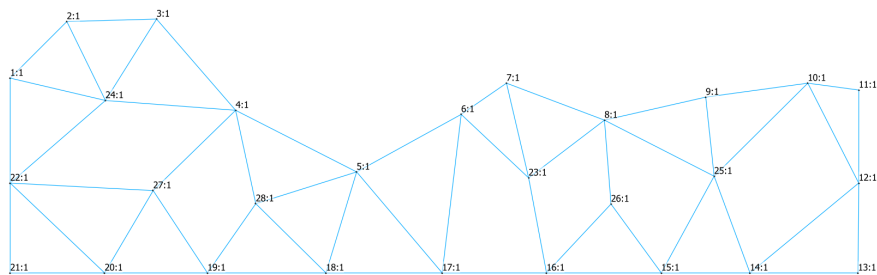


**Figure 3:** Edge numbers (1-based) of mesh consisting of only triangles

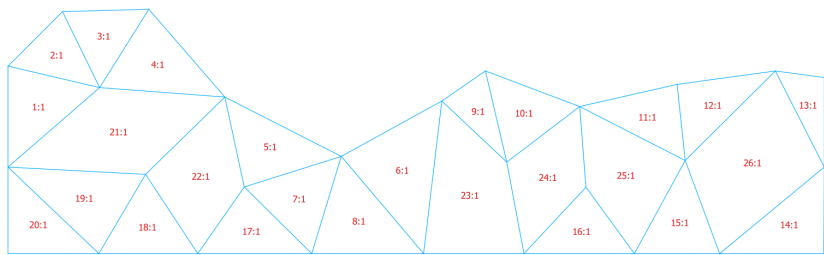


**Figure 4:** Node, edge and face numbers (1-based) of mesh consisting of only triangles

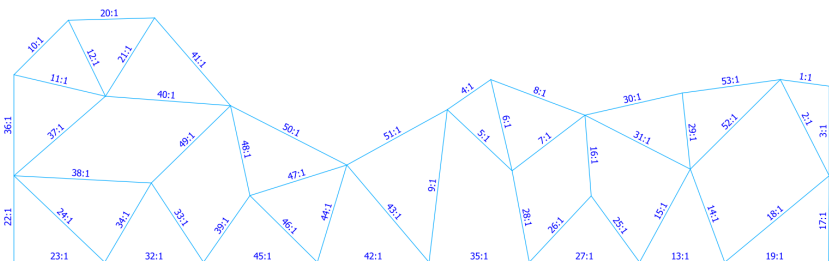
### 3 Mesh consisting of triangles and quadrangles



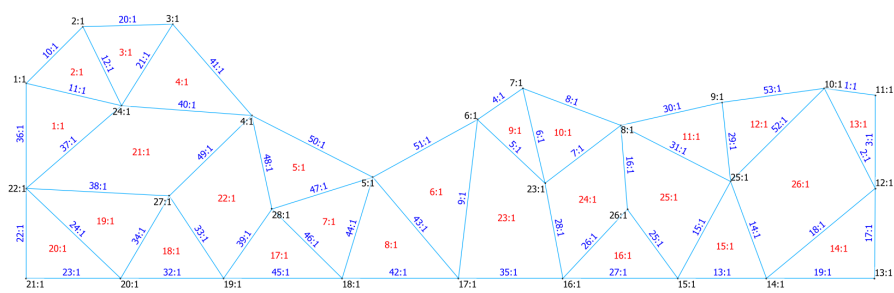
**Figure 5:** Node numbers (1-based) of mesh consisting of triangles and quadrangles



**Figure 6:** Face numbers (1-based) of mesh consisting of triangles and quadrangles



**Figure 7:** Edge numbers (1-based) of mesh consisting of triangles and quadrangles



**Figure 8:** Node, edge and face numbers (1-based) of mesh consisting of triangles and quadrangles