

Query Designer Schema File Format

Using the GUI is not the only way to create / edit a *schema*. As specified [earlier](#) a schema is saved to a file with *.uql extension. This chapter describes the format of the file and explains how you can create / edit a schema file using a text editor.

The best way to learn schema file format is to study an existent *.uql file. For example, let's take the sample schema file described in the [example](#). Open the file in a text editor. On the image below you can see the file opened in the MS WordPad.

```
#!UGENE_QUERY
#Open Reading Frame surrounded by repeat units

query ORF-Repeats {
    Repeat { type: repeats; min-length: 10; }
    ORF { type: orf; }

    Repeat.left--ORF.unit { type: distance; distance_type: end-to-end; }
    ORF.unit--Repeat.right { type: distance; distance_type: end-to-end; }

    .meta{
        visual{
            Repeat.left { geometry: 35,30,229,120,120; }
            Repeat.right { geometry: 504,30,238,120,120; }
            ORF.unit { geometry: 302,150,166,160,160; }
        }
    }
}
```

Annotations in the image:

- Header**: Points to the header comment lines.
- Title of the schema**: Points to the query name `ORF-Repeats`.
- Algorithm elements**: Points to the `Repeat` and `ORF` elements.
- Constraint elements**: Points to the distance constraints between elements.
- Metainformation**: Points to the `.meta` section.

The file consists of the header and the body. Check the description of each part below.

- [Header Query Designer Element](#)
- [Body Query Designer Element](#)
 - [Element Description](#)
 - [Algorithm Element Description](#)
 - [Constraint Element Description](#)
 - [Metainformation Query Designer Element](#)