

Files with input data:

The nodes are indexed from 0

ee.net – file with network topology

File format:

Number of nodes

Number of links

Matrix $n \times n$ with lengths of network links (in kilometers). 0 – link does not exist.

xx.dem – file with unicast demands, where xx is a file name

File format:

Number of demands

Source_node Destination_node Volume(h_d)

...

ee30.pat – file with candidate paths, where $k=30$ is a number of candidate paths between each pair of network nodes

For a network with m link (numbered according to the order from network file), each path is coded as a sequence of m binary values (1 – the link belongs to the path, 0 – the link does not belong to the path).

File format:

Number of all paths

Path number 1 for pair of nodes (0,0)

Path number 2 for pair of nodes (0,0)

...

Path number k for pair of nodes (0,0)

Path number 1 for pair of nodes (0,1)

Path number 2 for pair of nodes (0,1)

...

Path number k for pair of nodes (0,1)

...

...

ee30.spec – file with spectrum requirements for demands

The file is analogous to the ee30.pat. Both files should be read jointly (they have the same number of lines). First line contains the number of all paths in the network (as in ee30.pat). Then, next lines describe spectrum requirements for corresponding paths from ee30.pat. For instance, i -th line of ee30.spec describes spectrum requirements for path saved in the i -th line of line ee30.pat.

Each row in ee30.spec consists of 20 columns. First column describes number of slices required for demands up to 50 Gbps. Second column describes number of slices for demands between 51 Gbps and 100 Gbps. ... The last column (20-th) describes number of slices for demands between 951 Gbps and 1000 Gbps.

There are 10 sets of random traffic demands (01.dem, 02.dem, ..., 10.dem). They can be considered for different values of k and K . Some example results are attached to the project documentation (in the file Euro16_SSA.xlsx).