Node Degree

Description

The *degree* of a node is the number of edges that are adjacent to the node. The algorithm determines the degree of all nodes (degree sequence), which will be listed in the output file.

Pros & Cons

The network to analyze must be undirected, otherwise there are no special constraints.

Applications

Basic analysis tool, not particular for special disciplines or problems.

Implementation Details

The algorithm requires only one input, the file where the edges of the network are listed. A first read-in of the inputfile will set the values of the number of nodes and edges of the network. In the second read-in the degrees of all nodes will be calculated. The program runs in a time O(m), m being the number of edges of the network.

Usage Hints

A simple application of this algorithm could be to calculate the degree sequence of networks created by the modeling algorithms of the NWB. For instance, the inputfile can be created through the Barabasi-Albert model.

Links

- Source Code

Acknowledgements

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References

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See Also