

# Weak Component Clustering

## Description

This algorithm extracts the  $n$  largest (by number of nodes) weakly connected components in the network. If  $n$  is given as zero, it extracts all weakly connected component. A weakly connected component is any set of nodes where every node with a path to any of the nodes in the component is also in the component, and no node is in the component that does not have a path to every other node in the component.

## Pros & Cons

This is a simple algorithm, but it splits the network on an obvious and unambiguous boundary. Of course, often these boundaries do not exist.

## Applications

Splitting up any network with weakly connected components for analysis and/or visualization.

## Implementation Details

The JUNG weak component clustering algorithm is wrapped by this algorithm

## Usage Hints

It is often useful to run this after an analysis that removes edges, such as high degree node deletion or pathfinder network scaling. This algorithm can help get a feel for the effect of the other algorithm, and create more easily visualizable chunks from larger networks.

## Links

- [Source Code](#)

## See Also



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