Algorithm Visualization

The Ford-Fulkerson Augmenting Path Algorithm for the Maximum Flow Problem
Ford-Fulkerson Max Flow

This is the original network, plus reversals of the arcs.
This is the original network, and the original residual network.
Ford-Fulkerson Max Flow

Find any s-t path in G(x)
Ford-Fulkerson Max Flow

Determine the capacity $\Delta$ of the path.

Send $\Delta$ units of flow in the path.
Update residual capacities.
Ford-Fulkerson Max Flow

Find any s-t path
Ford-Fulkerson Max Flow

Determine the capacity $\Delta$ of the path.

Send $\Delta$ units of flow in the path. Update residual capacities.
Ford-Fulkerson Max Flow

Find any s-t path
Determine the capacity $\Delta$ of the path.

Send $\Delta$ units of flow in the path. Update residual capacities.
Find any s-t path
Determine the capacity \( \Delta \) of the path.

Send \( \Delta \) units of flow in the path. Update residual capacities.
Find any s-t path
Ford-Fulkerson Max Flow

Determine the capacity $\Delta$ of the path.

Send $\Delta$ units of flow in the path.
Update residual capacities.
There is no s-t path in the residual network. This flow is optimal.
These are the nodes that are reachable from node s.
Here is the optimal flow