

Meshcom MeshBrowser User Guide

Abstract

This document describes how to use MeshBrowser – the mesh network visualization tool.

Copyright © 2004-2009 Meshcom Technologies, Inc. All rights reserved. Meshcom and Meshcom MeshDriver are registered trademarks of Meshcom Technologies Inc.

MeshDriver and MeshBrowser are available for downloading at EmbedOne website
<http://embedone.com>

Table of Contents

1. MeshBrowser Introduction	3
2. Requirements.....	3
3. Using MeshBrowser.....	3
3.1 Node Information.....	3
3.2 Snapshots.....	4
3.3 Controlling access lists.....	Error! Bookmark not defined.
4. Support and troubleshooting	4

1. MeshBrowser Introduction

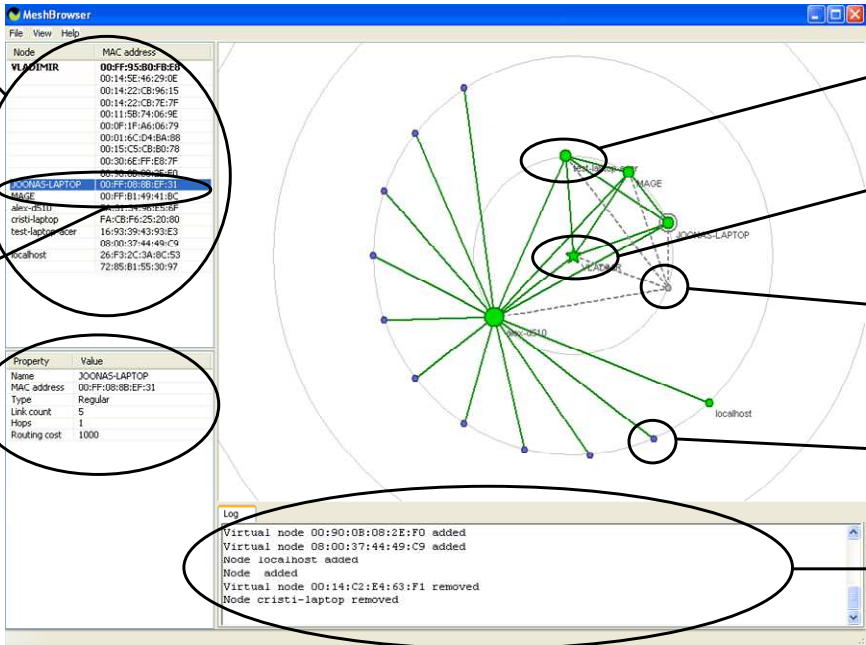
Meshcom MeshBrowser is a light weight visualization tool for Meshcom MeshDriver enabled networks.

2. Requirements

- Windows XP operating system, preferably with Service Pack 2
- Meshcom MeshDriver 1.0 (or its successor) installed.

3. Using MeshBrowser

After starting MeshBrowser, the mesh network around the current node is displayed.



The screenshot shows the MeshBrowser application window. On the left, there is a 'Node' list with columns for 'Node' and 'MAC address'. The 'JOONAG-LAPTOP' node is highlighted with a blue background. Below the list is a 'Property Value' table for the selected node. At the bottom left is a 'Log' window showing recent network events. The main area displays a network topology diagram with nodes represented by circles of varying sizes and colors (green, blue, gray) connected by lines. Annotations with arrows point to these elements.

List of known nodes in the mesh network

Node	MAC address
VLADIMIR	00:FF:93:80:F8:E8 00:14:5E:46:25:9E 00:14:22:CB:7E:7F
JOONAG-LAPTOP	00:FF:08:8B:EF:31
MAGE	00:FF:B1:49:41:6C
Alex-0510	08:00:37:44:49:C9
cristi-laptop	26:F3:2C:3A:9C:53
test-laptop-scw	16:93:39:43:93:E3
localhost	72:85:81:55:30:97

Property Value

Property	Value
Name	JOONAG-LAPTOP
MAC address	00:FF:08:8B:EF:31
Type	Regular
Link count	5
Hops	1
Routing cost	1000

Log

```

Virtual node 00:90:0B:08:2E:F0 added
Virtual node 08:00:37:44:49:C9 added
Node localhost added
Node added
Virtual node 00:14:C2:E4:63:F1 removed
Node cristi-laptop removed
  
```

Annotations:

- The other nodes are presented as circles with size relative to the number of neighbors. Clicking on a node will select it.
- Your own node is displayed as a star on the network topology view.
- Gray nodes are either running an incompatible version of MeshDriver, disconnected, or not authenticated.
- Blue circles represent non-mesh devices or IP stacks on mesh devices.
- Log output displays recent events in the network.

The diagram can be re-centered around another node by double-clicking on it. By default, any changes in the mesh network are monitored and updated in the diagram automatically. This feature can be turned off by selecting **File -> Freeze**, after which the diagram will not be updated until **Freeze** has been deselected.

3.1 Node Information

The panels on the left display a list of nodes and their MAC addresses, and some information about the selected node.

Node information includes the following:

Property	Value
Name	Name of the node
MAC address	MAC address of the node (Mesh MAC address for mesh nodes, NIC MAC address for virtual nodes)
Type	Type of the node. Definition of different types: [Regular] MeshDriver-enabled device [Virtual] Non-MeshDriver enabled device. E.g. standard laptop computer without Mesh Driver [Unknown] All the other devices
Link count	The number of nodes in the same mesh network that can be seen directly from the

	selected node
Hops	The number of direct links followed when the selected node is accessed from the current node. The value may sometimes be larger than what the network diagram would seem to suggest, since due to varying quality of links the shortest route may not always be the fastest.
Routing cost	The cost value associated with accessing the selected node from the current node. Nodes with higher cost values are slower to access than nodes with smaller cost values. If the cost is displayed as -1, it means that the node is currently inaccessible.

3.2 Snapshots

Snapshots of the mesh network can be saved for later examination with **File -> Save As...** and loaded with **File -> Load**. After loading a snapshot, the MeshBrowser is in frozen state so you need to deselect **File -> Freeze** to continue monitoring the current mesh network.

Names of the nodes are included in the diagram by default. This feature can be turned off by deselecting **View -> Show Labels** to reduce clutter in the diagram. **View -> Show Debug Panes** is a feature present in the Beta version that can be requested to be toggled on by our customer care in some MeshBrowser problem cases.

4. Support and troubleshooting

In problem situations, first visit EmbedOne website at <http://embedone.com> for updated documentation and support center. If your question isn't answered there, don't hesitate to post a support request at our community support forums!