

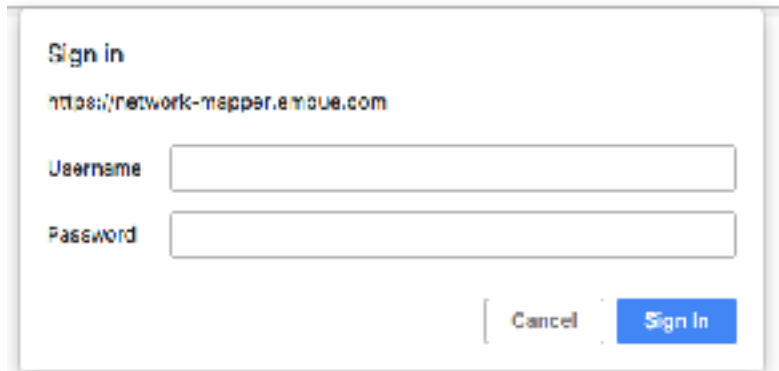


### **Network Analysis Tool Overview**

This tool allows the user to view network configuration and RSSI signal strengths over time. The tool allows users to manually collect recent data, as well as to automatically collect data on a specified time interval.

## Logging In

Upon navigating to [network-mapper.embue.com](https://network-mapper.embue.com), the user will be prompted to log in:



Sign in

<https://network-mapper.embue.com>

Username

Password

The user will be logged out upon quitting the browser.

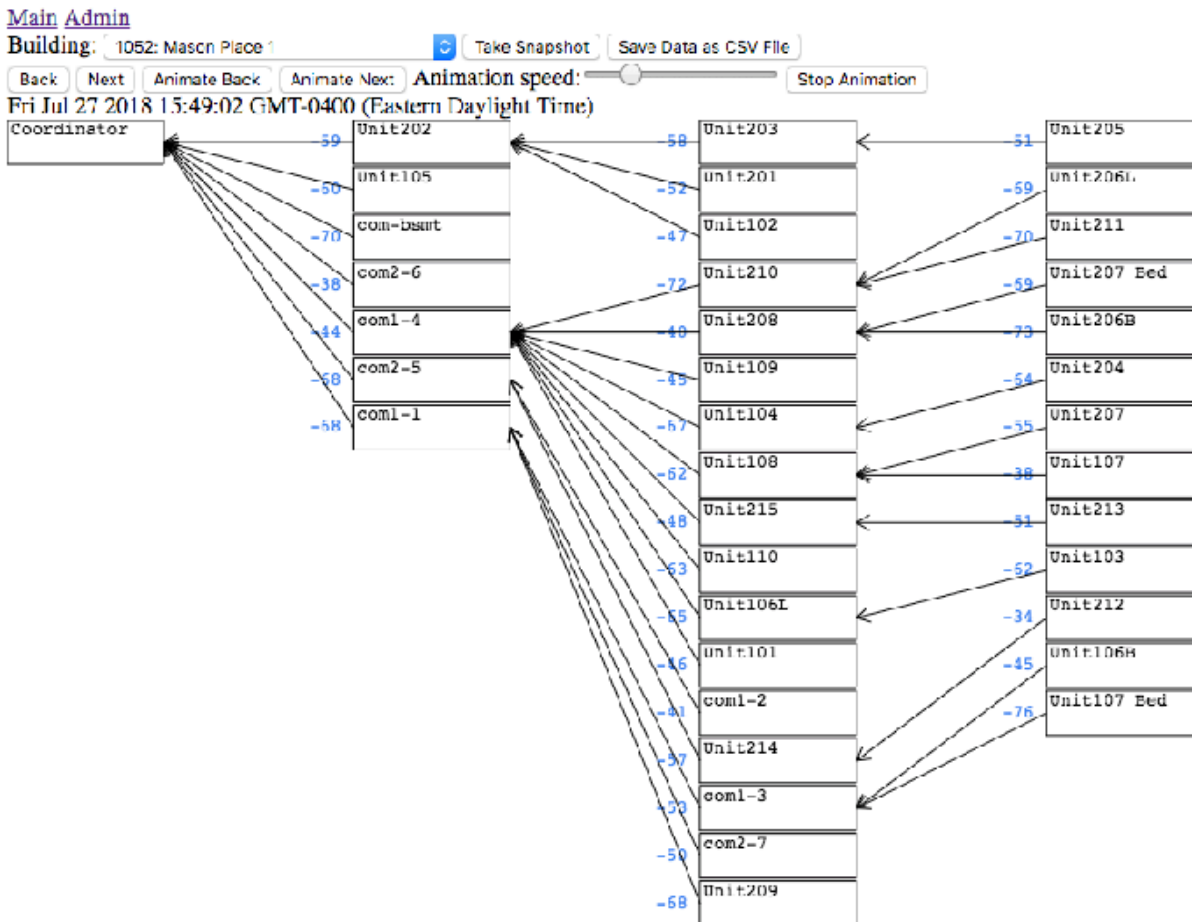
## Overview

[Main](#) [Admin](#)

There are two tabs:

- “Main” tab: view a graph of current and past network layouts for various buildings, animate layout changes over time. Take a snapshot at the current moment
- “Admin” tab: Add new buildings, or change the properties of existing buildings. Set up automatic data collection on a regular interval

## Main Tab



The main tab graphically displays the network configuration. The boxes contain the unit name, and the blue text indicates RSSI values of the corresponding connections. The user can click on a unit's box to view additional information about that unit.

- "Back" and "Next" allow the user to view different network configurations over time.

The user can also use the "Animate" buttons to automatically go backwards or forwards in time. The user can adjust the animation speed or stop the animation

- “Take Snapshot” button will collect current data from the building’s EMAs. The user sees a separate screen, which indicates loading progress. The tool loads three tables, in the following order: route tables, LQI tables, RSSI tables

Loading ema 1052, please wait

1 of 37 route tables loaded.  
2 of 37 route tables loaded.  
3 of 37 route tables loaded.

- Clicking the “Save Data as CSV” button will download two CSV files containing data about the current building: “routerProps” and “historicalData”

routerProps CSV file:

name	shortId	type	isEndpoint	resetNum
Unit101	1b6b	Thermostat	0	19
Unit210	1cf5	Thermostat	0	11
Unit207 Bed	1edf	Thermostat	0	26
Unit206B	2146	Thermostat	0	16

Shows the most up-to-date information about all routers and endpoints in the network.

The “resetNum” field indicates the number of times that the device has been reset.

historicalData CSV file:

date	name	shortId	status	depth	parent	rssiToParent	children	numChildren
Fri Jul 05 201	coordinator	0	Online	0			5d38 53ae 8	10
Fri Jul 05 201	Unit204	646	Online	2	53ae			0
Fri Jul 06 201	Unit206B	2146	Online	3	bb92			0
Fri Jul 06 201	com2-C	2438	Online	2	5d38		a603	1
Fri Jul 05 201	Unit201	4351	Online	1	U			0
Fri Jul 05 201	Unit105	6015	Online	3	53ae			0

Includes all network data ever collected for the current building. For each date, there will be one row for each router, which includes properties about that router on that date.

The “children” field is a space-separated list of the short IDs of its children.

## Admin Tab

[Main Admin](#)

### Add or Update Building

Building name:  EMA num:  IP addr:  [Add or Update Bldg](#)

### Update Sampling Frequency

[1020: 102-108 Highland Street Fort Hill](#)  Frequency (mins):  [Submit](#)

The “Add or Update Building” section allows the user to add new buildings, or update existing ones. Each building is uniquely identified by its EMA number. The building name should be a human-readable string, such as “Mason Place” (without quotes). The IP address should be the core’s IP address, such as “10.100.0.52” (without quotes).

The “Update Sampling Frequency” section allows the user to set up automatic data collection on a regular interval. Only integer values greater than or equal to 4 are allowed. To stop automatic collection, change the frequency to 0.