



THE IMPROVEMENT OF MOBILE CODE DISSEMINATION PROGRAM



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INTRODUCTION

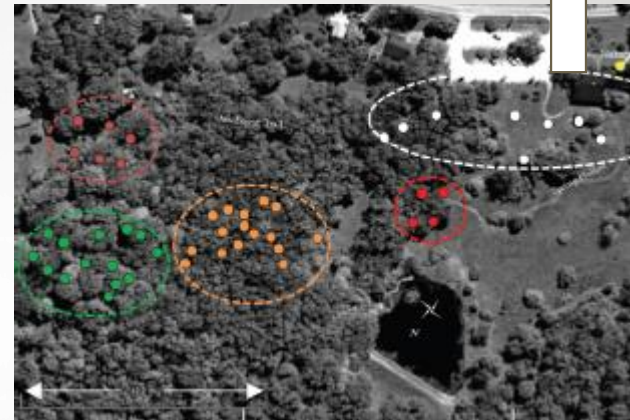
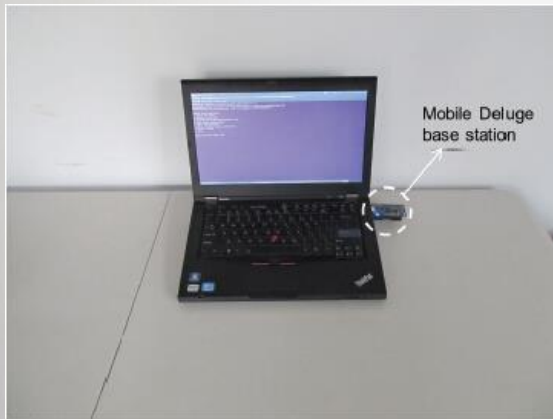
Wireless sensor network has gained increasing attention and been used more and more in environmental monitoring applications.

In this research, a program call **MobileDeluge (for updating wireless sensors)** will be improved

Sensor's work: detect health condition of a park

(Such as temperature, humidity, dryness)

INTRODUCTION



- ❖ The key idea of this program is **to establish an instant connection** between the **MobileDeluge base station** and its **target sensor nodes**. And then disseminates and updates new image to target sensor nodes.

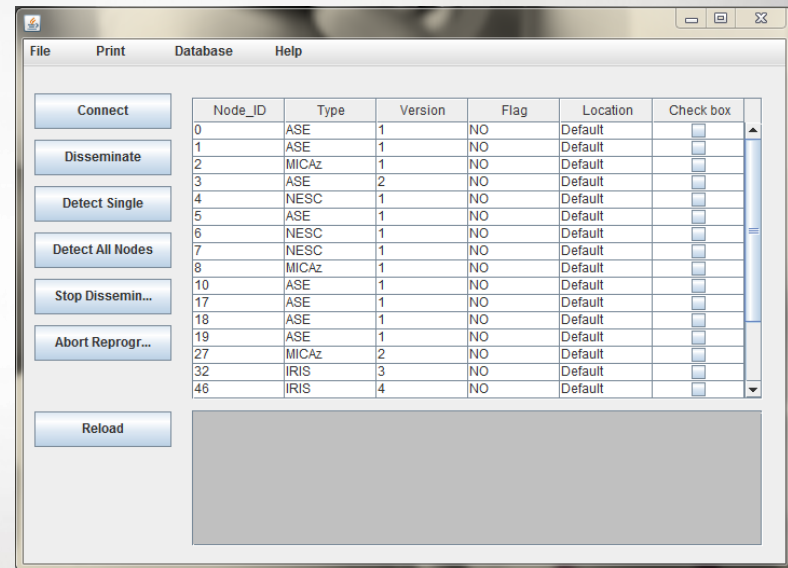
PROJECT DESIGN

```
* Please Select Operation:
* 1. Inject New Image
* 2. Connect Target Node
* 3. Disseminate Image and Reprogram notes
* 4. Stop Image Dissemination
* 5. Abort Reprogramming
* 6. Print the Base Station Information
* 7. Erase a Volume
* 8. Exit

* Input Operation Number: 2
Input Target Node ID List: 0xbb 204 0xdd
serial@/dev/ttyUSB1:57600: resynchronising

Sending command to: 187 204 221

Node 221 is READY      Type: MICAz      Version: 4
Node 187 is READY      Type: IRIS       Version: 5
Node 204 is READY      Type: TelosB     Version: 5
```



The screenshot shows a software application window with a menu bar (File, Print, Database, Help) and a toolbar. On the left, there are buttons for 'Connect', 'Disseminate', 'Detect Single', 'Detect All Nodes', 'Stop Dissemin...', 'Abort Reprogr...', and 'Reload'. The main area contains a table with the following data:

Node_ID	Type	Version	Flag	Location	Check box
0	ASE	1	NO	Default	<input type="checkbox"/>
1	ASE	1	NO	Default	<input type="checkbox"/>
2	MICAz	1	NO	Default	<input type="checkbox"/>
3	ASE	2	NO	Default	<input type="checkbox"/>
4	NESC	1	NO	Default	<input type="checkbox"/>
5	ASE	1	NO	Default	<input type="checkbox"/>
6	NESC	1	NO	Default	<input type="checkbox"/>
7	NESC	1	NO	Default	<input type="checkbox"/>
8	MICAz	1	NO	Default	<input type="checkbox"/>
10	ASE	1	NO	Default	<input type="checkbox"/>
17	ASE	1	NO	Default	<input type="checkbox"/>
18	ASE	1	NO	Default	<input type="checkbox"/>
19	ASE	1	NO	Default	<input type="checkbox"/>
27	MICAz	2	NO	Default	<input type="checkbox"/>
32	IRIS	3	NO	Default	<input type="checkbox"/>
46	IRIS	4	NO	Default	<input type="checkbox"/>

NEW FEATURES

The main application window displays a table of nodes with the following data:

Node_ID	Type	Version	Flag	Location	Check box
0	ASE	1	NO	Default	<input type="checkbox"/>
1	ASE	1	NO	Default	<input type="checkbox"/>
2	MICAZ	1	NO	Default	<input type="checkbox"/>
3	ASE	2	NO	Default	<input type="checkbox"/>
4	NESC	1	NO	Default	<input type="checkbox"/>
5	ASE	1	NO	Default	<input type="checkbox"/>
6	NESC	1	NO	Default	<input type="checkbox"/>
7	NESC	1	NO	Default	<input type="checkbox"/>
8	MICAZ	1	NO	Default	<input type="checkbox"/>
10	ASE	1	NO	Default	<input type="checkbox"/>
17	ASE	1	NO	Default	<input type="checkbox"/>
18	ASE	1	NO	Default	<input type="checkbox"/>
19	ASE	1	NO	Default	<input type="checkbox"/>
27	MICAZ	2	NO	Default	<input type="checkbox"/>
32	IRIS	3	NO	Default	<input type="checkbox"/>
46	IRIS	4	NO	Default	<input type="checkbox"/>

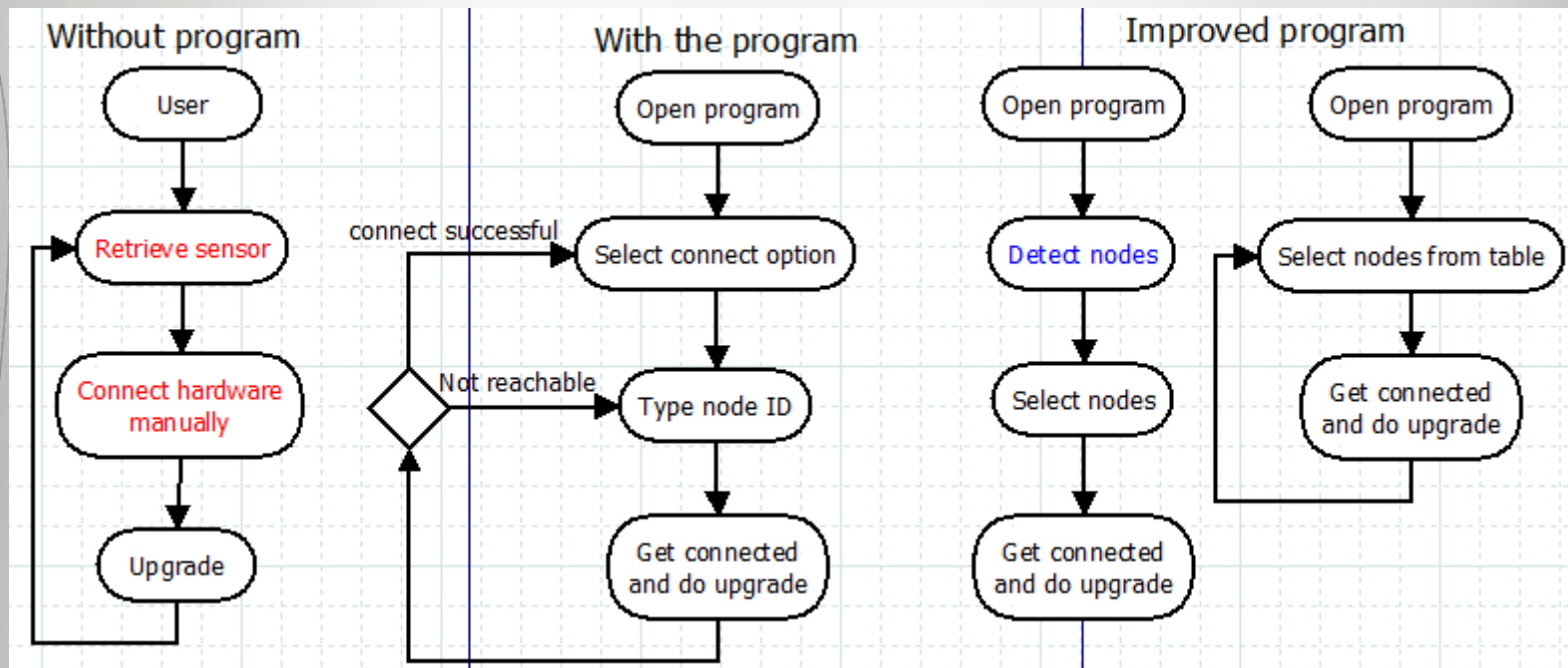
On the left sidebar, there are buttons for: Connect, Disseminate, Detect Single, Detect All Nodes, Stop Dissemin..., and Abort Reprogr... At the bottom is a Reload button.

A modal dialog window is shown, containing a table of nodes with the following data:

Node_ID	Type	Version	Flag	Location	Check box
0	ASE	1	NO	Default	<input type="checkbox"/>
1	ASE	1	NO	Default	<input type="checkbox"/>
2	MICAZ	1	NO	Default	<input type="checkbox"/>
3	ASE	2	NO	Default	<input type="checkbox"/>
4	NESC	1	NO	Default	<input type="checkbox"/>
5	ASE	1	NO	Default	<input type="checkbox"/>
6	NESC	1	NO	Default	<input type="checkbox"/>
7	NESC	1	NO	Default	<input type="checkbox"/>
8	MICAZ	1	NO	Default	<input type="checkbox"/>
10	ASE	1	NO	Default	<input type="checkbox"/>
17	ASE	1	NO	Default	<input type="checkbox"/>
18	ASE	1	NO	Default	<input type="checkbox"/>
19	ASE	1	NO	Default	<input type="checkbox"/>
27	MICAZ	2	NO	Default	<input type="checkbox"/>
32	IRIS	3	NO	Default	<input type="checkbox"/>
46	IRIS	4	NO	Default	<input type="checkbox"/>

At the bottom of the dialog are four buttons: Update, Add, Delete, and Reload.

COMPARISON





THANK YOU
