USERGUIDE

ACM WebACM



Table of Contents

1. OVERVIEW	3
1.1. Basic concepts	3
2. NETWORK SETTINGS FOR WebACM	4
3. SETTING THE ADDRESS FOR ACM MODULE	5
4. INSTALLATION	6
4.1. Installing the software	6
4.2. Creating user names	6
5. SETUP	8
5.1. Hardware Tab	8
5.2. Configuration Tab	10
5.3. CBU parameters and Scheduled Luminaire Tests	12
5.4. Luminaire types and notes for luminaires and circuits	14
5.5. Structure Tab	15
5.6. User View – Setting Buildings and Areas	16
5.7. CBUs and Luminaire into Areas	19
5.8. Software settings and Email reporting	20
6. USING THE SOFTWARE	21
6.1. Locatina faulty CBU/Luminaire	21

1. OVERVIEW

Teknoware Advanced Central Monitoring and Web Advanced Central Monitoring softwares are intended for controlling and monitoring Central Battery Units (CBUs) and emergency luminaires remotely. ACM allows monitoring up to 30 CBUs at the same time or up to 150 CBUs if repeaters are used to amplify the network traffic, and WebACM supports the monitoring of 150 CBUs as standard. Easy integration with BACNET allows transferring information about the CBUs to a remote BACNET controller (30 CBUs / Controller):

The software allows the user to:

- run luminaire tests
- run battery tests
- monitor battery voltages of the system
- monitor external and internal errors
- set layout maps and place CBUs and luminaires on the map

The software also provides information about faulty luminaries, executed tests, faults and so on. All the information from the system is automatically saved to a log file. Using the software is easy and intuitive, and does not require special skills.

1.1. Basic concepts

Emergency luminaire – a non-maintained luminaire meant for maintaining a required level of illumination during an emergency (such as a power failure).

Exit luminaire – a maintained luminaire meant for illuminating exit signs during an emergency (such as a power failure) as well as normal operation.

Categories - Buildings and Areas (see below).

Building – A category in the software data tree, representing an entire building. A Building can contain several Areas. A building image can be set for each Building.

Area – A category in the software data tree representing a certain area of a building, such as a single floor. An area image, such as a layout plan, can be set for each Area.

2. Network Settings for WebACM

The communication boards are pre-configured with default factory settings. When installing the system, these settings need to be reconfigured. The default IP address is 10.0.0.2, and the net mask is 255.255.255.0. To define the network settings, connect http://10.0.0.2/index.html with a web browser. Please note that your computer's IP address has to be from same network segment (contact your network administrator if needed).

NOTE!

Make sure that IP address 10.0.0.2 is available in your local network. If the system includes more than one TST8102 communication board, connect the boards to the network one by one and define an unique IP address for each board before connecting the next one to the system. This is done to avoid overlapping IP addresses.

Connect address http://your_module_address/index.html (for example 10.0.0.2/index. html) with a web browser. The Index page is displayed, with the name of the CBU and login fields. Enter username and password to login.

Default settings are: username "admin", password "admin".

After logging in, the system opens the Status page. The other pages of the user interface can be accessed by clicking the corresponding page from the navigation bar (Figure 3: Status page). The content of the navigation bar depends on the user level.

Network Settings subpage

The Network settings can be configured from this subpage. It is possible to use a DHCP configuration or a static IP configuration. New network configuration requires restarting the module to take effect.

NOTE!

Ask for the appropriate network configuration details from your network administrator. Typically the network settings are not changed after installation.

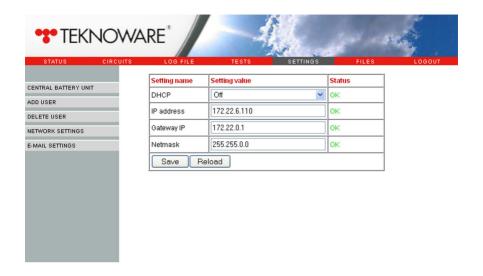


Figure 1. Network settings subpage

3. Setting the Address for ACM Module

Before installing the ACM software, make sure that each ACM module has an unique address.

To set the address

- Locate the red DIP switch on the TST8110 module. Please note that the CBU
 can only be opened by a qualified electrician. Also, read the User Manual for
 the CBU before proceeding with the installation.
- 2. Set the address between 1–150 using the DIP switch. The addresses are binary, i.e. the first DIP = 1, second DIP = 2, third DIP = 4 etc. The address charts can be found at the end of this document (Appendix 1).

4. INSTALLATION

Requirements:

The software is compatible with Windows XP and Windows 7 32/64 bit operating systems. Please note that while the system originally requires only a few megabytes of hard drive space for installation, the actual required drive space depends on the amount of luminaires, images and amount of logs. It is recommended that at least a few hundred megabytes of hard drive space is reserved for the software. Make sure to check occasionally that enough free space is available.

4.1. Installing the software:

- 1. Log into your computer as administrator.
- 2. Disable all rest and power saving modes before installing (Web)ACM.
- Connect the (Web)ACM USB drive to a USB port and open the USB drive root folder.
- **4.** Run the installation wizard (ACMx.exe). The program will guide you through the installation process. If you have a firewall in use, allow the network communication of the (Web)ACM system.

4.2. Creating user names:

 Log in to your computer as administrator. Start the (Web)ACM. Log in to the software with the username "Administrator".

NOTE!

When starting up the software for the first time, you must enter a new password for the user "Administrator". To do this, simply select a new password, and log in with it. Make sure you remember the password! The system will automatically save the selected password for "Administrator".

2. Go to SETTINGS sub window by clicking the SETTINGS icon on the right side of the Main window (see image below).



Figure 2. Main Window: SETTINGS

- 3. While in the SETTINGS window, go to the USER tab. To add users to the system, click the NEW USER button. ADD NEW USER window will open. Enter the user name and password, add an optional note about the user, and select the user level. The user levels are:
 - Basic user: SETTINGS is disabled. Also, a Basic user is not allowed to: edit luminaire data (Notes), start/stop battery tests or write CBU settings. A Basic user IS allowed to: view luminaire data, use the User views, and view test history.
 - Medium user can (in addition to everything a Basic user can do) write CBU settings and start/stop tests.
 - Admin user has unlimited rights to the system. This access level is used for setting up the system or editing settings.

NOTE!

Make sure that your admin password is not lost.

If the password is lost, contact Teknoware's After Sales.

4. When closing the software, first log out, then close the software normally. After this, the (Web)ACM process will remain running. To start the software again, double-click the software icon from the system tray (next to the clock and date in Windows taskbar). To close the software, right-click the icon and select Exit.

5. SETUP

Process description:

- 1. Add CBUs (Hardware Tab, see Chapter 5.1).
- 2. Get the luminaire configuration from the CBU, or create luminaire configuration manually (Hardware Tab, see Chapter 5.1).
- Make modifications to luminaire configurations (if required) (Configuration Tab, see Chapter 5.2).
- 4. Set CBU settings (see Chapter 5.3).
- **5.** Set Luminaire Types and add Notes to Luminaires (Reports Window, see Chapter 5.4).
- **6.** Create a Data Tree Structure, and add images for Data Categories (Structure Tab, see Chapter 5.5).
- 7. Set up Buildings and Areas to the User View (see Chapter 5.6).
- **8.** Divide CBUs and luminaires to Data Categories, and place the Luminaires to Layout maps (Dividing Luminaires in to Categories, see Chapter 5.7).
- Adjust email reporting settings (Software settings Tab, see Chapter 5.8).

5.1. Hardware Tab

From the Hardware Tab you can add CBUs to the ACM system, get the luminaire configuration for the CBUs, and Import/Export the ACM database. To open the Hardware Tab:

- Log in to the software as Administrator, and go to the SETTINGS window as described earlier.
- 2. While in the SETTINGS sub window, go to the HARDWARE tab.

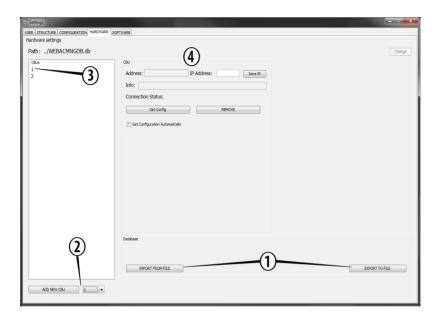


Figure 3. SETTINGS window, HARDWARE tab

Adding CBUs

NOTE!

If you have a ready-made database, skip this chapter and see the next chapter Importing/Exporting Database.

- (No. 2 in the Figure 3) Select the address of the CBU from the drop-down list, and click ADD NEW CBU.
- 2. Select the CBU from the CBUs-list (No. 3 in the Figure 3).
- 3. Check the Get Configuration Automatically -box in the CBU settings (No. 4 in the Figure 3) if you want the system to attempt to get the luminaire info and configuration data automatically after each luminaire test.
- 4. Type in the IP address in the CBU settings and click Save IP.

- Click the Get Config button to get the luminaire information from the selected CBU.
- **6.** To remove a CBU, simply select a CBU from the CBU list, and click the REMOVE button from the CBU settings.

NOTE!

It is recommended to make a backup of the luminaire settings before using the REMOVE function.

Importing/Exporting database

To export the database into a file, simply click the EXPORT TO FILE -button (No. 1 in the Figure 3) and follow the instructions on the screen. To import a database, click IMPORT FROM FILE.

5.2. Configuration Tab

From the Configuration Tab you can make luminaire configurations manually. To open the Configuration Tab:

- Log in to the software as Administrator, and go to the SETTINGS window as described earlier.
- 2. While in the SETTINGS sub window, go to the CONFIGURATION tab.



Figure 4. SETTINGS window, CONFIGURATION tab

Using the Configuration Tab

- Select the CBU for which you wish to modify the Luminaire information (No. 1 in the Figure 4).
- 2. Select a circuit board (No. 2 in the Figure 4).
- **3.** In the luminaire table (No. **3** in the Figure 4) you can now see the luminaires that are present, and those that are not. Clicking a present luminaire (green dot) will mark it as not present, and vice versa. Set the luminaire data, and repeat process to all required CBUs and Boards.
- **4.** If there are CBSs that do not have all 7 boards, you can disable the absent boards by selecting the first absent board on a CBU, and selecting Disable from the toolbar (No. **4** in the Figure 4).
- 5. To enable group control, select the Group Controlled -box from the Toolbar.
- Clicking Clear from the toolbar will change all luminaires from the displayed Board to Not Present.

- 7. If there are parallel connections in the system, you can change the number of Circuits on a Board from the Circuits on the Board -drop down menu in the Toolbar
- When the settings are done, click the Save button (No. 5 in the Figure 4) to save the data.
- 5.3. Changing CBU parameters and setting Scheduled Luminaire Tests

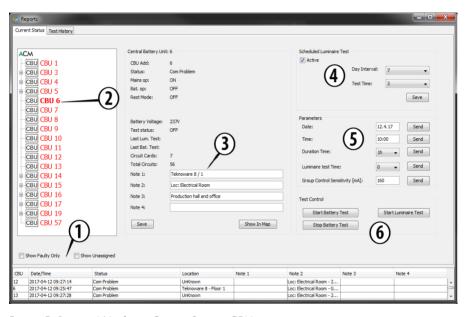


Figure 5. Reports Window - Current Status - CBUs

- Log in as Administrator, and go to the REPORTS VIEW sub window (center on the Main Window).
- You can now filter the CBU list (No. 2 in Figure 5) to show only the faulty CBUs, or to include the unassigned CBUs by checkin the corresponding boxes (No. 1 in the Figure 5).
- Select a CBU from the CBU list. The CBU status is now displayed on the main view of the window.

- **4.** You can now add Notes for the selected CBU, by simply typing in the notes, and clicking the SAVE button (No. **3** in the Figure 5).
- 5. To set a schedule for the luminaire tests, check the Active box in the Scheduled Luminaire Test options (No. 4 in the Figure 5). Then, select how often the tests are to be run by choosing a Day Interval from the drop down menu (e.g. choosing 7 means the tests are run once a week, choosing 1 means the tests are run daily). Then choose a time from 1 (= 1AM) to 23 (= 11PM) when the tests are run from the Test Time drop down list.
- **6.** To change CBU parameters, simply change the parameter from the Parameters options (No. **5** in the Figure 5) and click SEND.

NOTE!

Do not change these settings unless you are sure what you are doing!

5.4. Setting the luminaire types and notes for the luminaires and circuits

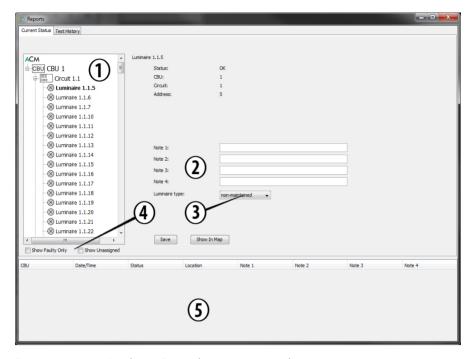


Figure 6. Reports Window – Setting luminaire type and notes

To set luminaire type and notes

- Log in as Administrator, and go to the REPORTS VIEW sub window (center on the Main Window).
- 2. Select the Luminaire to which you wish to add type and/or notes from the data tree (No. 1 in the Figure 6). You can filter the list by displaying faulty and/or unassigned luminaires by selecting the corresponding options from the filters (No. 4 in the Figure 6).
- 3. Add notes (No. 2 in the Figure 6) simply by typing them into the text fields, and select the luminaire type from the drop down list (No. 3 in the Figure 6). To save these changes, click Save. By clicking the Show on Map button, the

- software will open the Users View window, and display the selected luminaire on the map view (if said luminaire is set on a layout map).
- **4.** To add notes to circuits, simply choose a circuit from the data tree instead of a luminaire, and add notes as described above.

5.5. Structure Tab

From the Structure Tab you can create a categorized data structure, and add images and layout maps to the data categories. This way you can divide the CBUs and luminaires to several Buildings, and furthermore to specific Areas in the Buildings (see Chapter 5.6 Dividing luminaires / CBUs into categories).

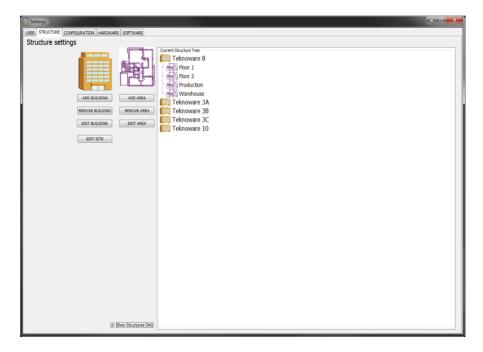


Figure 7. SETTINGS window, STRUCTURE tab

To create a Data Structure:

- While logged in as Administrator, go to the SETTINGS window as described earlier. Select the STRUCTURE tab.
- 2. Click EDIT SITE, and choose a Site image for the Site, e.g. an aerial photo.
- **3.** Buildings are the main category, so create them first by clicking the corresponding button. Then, create the Area categories, and define the Buildings under which the Areas are located.
- **4.** An image can be added for each category (buttons: Building Image and Area Plan). Supported image formats are .jpg, .png, .gif and .tiff.

NOTE!

While not mandatory, it is highly recommended that a layout image is added to each AREA.

- 5. The images and other information can be removed or updated by clicking the EDIT button under the categories.
- **6.** The created categories can be removed by clicking the REMOVE button under each category. Removing a root category will remove all subcategories!
- 7. In the Figure 7 there is an example of the Teknoware factory in Lahti, Finland, divided into simple categories. The entire Site is divided into 5 buildings. The Teknoware 8 building, which is clicked open in the image, is divided into 4 Areas: 2 floors of the main building, and 2 sections of the production hall (production, warehouse). See the next chapter to learn, how these categories can be set for easy access to any CBU or luminaire in the User View.

5.6. Setting up the User View – Setting Buildings and Areas

Before dividing the CBUs and Luminaires into the Areas, you should set up the Categories for easier access. By carefully setting the Buildings and Areas on the category images you can make the WebACM easy, fast and intuitive to use.

 First, make sure that you have added all category images you wish to use in the User View. The more images are used, the easier the system is to use in the future.



Figure 8. USER VIEWS - Setting up categories - Buildings

- 2. Start by checking the "Show location tree" (No. 1 in the Figure 7). Make sure you are on the Site-level of the categories (No. 2 in the Figure 8).
- 3. The Site image is displayed on the main display. To set the Buildings in the Site, right click a Building name on list in the left side of the window (No. 3 in the Figure 8), and choose Add on Map. Then, left click the Site image on the spot you wish to add the Building icon to. In the Figure 8, there is an aerial view of the Teknoware factory site, to which all the Buildings are set accordingly to their physical location.

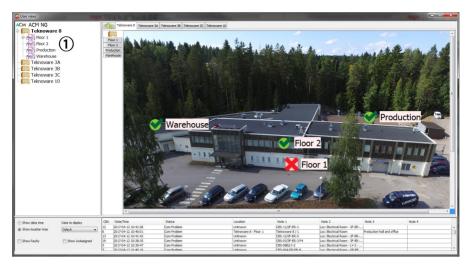


Figure 9. USER VIEWS - Setting up categories - Areas

- 4. Now, choose a Building (by clicking the Building icon on the image or from the tabs above the image). In the Figure 9, building "Teknoware 8" is selected. Then, from the leftside data tree (No. 1 in the Figure 9), right click the Area you wish to add to the Building Image, and select Add to map. Then left click the image on the spot, you wish to add the Area to. In the Figure 9 above, building "Teknoware 8" is divided into four Areas, which are set on the Building Image according to their physical location.
- 5. Repeat the process untill all Buildings and Areas are set correctly.

5.7. Setting the CBUs and Luminaire into Areas



Figure 10. USER VIEWS window

- 1. Make sure that the Show data tree is selected from the display options (No. 1 in the Figure 10). Start by selecting the correct Building under which the correct Area is. Then, select the correct Area. The Area Plan image is displayed.
- 2. Select the luminaire or CBU you wish to add to the layout map from the data tree (No. 2 in the Figure 10), right-click the luminaire/CBU, and select Add to Map. Then, left click the layout map on the spot you wish to add this CBU or luminaire to. The CBU/luminaire icon is now displayed on the map. If you wish to move the CBU/luminaire, activate the Commission mode on the map options (No. 3 in Figure 10), click the icon you wish to move, and click a new location). Repeat the procedure untill all the CBUs and Luminaires are in their right places.
- 3. Selecting Show Unassigned from the display options will hide all assigned luminaires.
- 4. Note that you can select the information field to be displayed for each luminaire from the display options. There's also a selection to display faulty luminaires.

5.8. Setting up Software settings and Email reporting

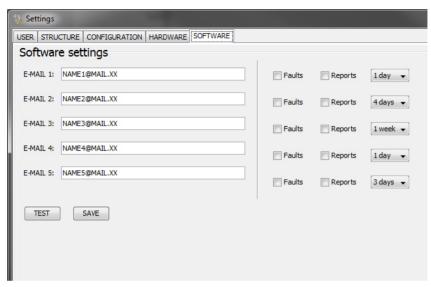


Figure 11. Email settings

- While logged in as Administrator, go to the SETTINGS and select the SOFTWARE tab.
- 2. Add 1–5 email addresses to which you want the system to send reports to. To send a test email report for the set addresses, click the TEST button.
- 3. Select the options for the email reporting:
 - Faults: sends an email report if there are faults present in the system
- Reports: sends a full report according to the time interval
- Time interval: defines how often the defined report is sent.
- 4. Click SAVE to save the settings.

6. Using the Software

6.1. Locating faulty CBU/Luminaire

If any warnings are present in the (Web)ACM system, the system will report them according to previously made settings. A warning will also generate a warning symbol (a red X) on the Main Display of the software for easy visual inspection. If an error is present, locating the CBU/Luminaire in question is easy via the User View. To check the warning:

1. Click User Views.



Figure 12. USER VIEWS - Warning present

2. In the Figure 12 above, there is a faulty luminaire or CBU in Building Teknoware 8. The Building is marked with a red X. Simply click the icon to open the Building. Then, check which Area has the red X on the icon, and click that. On the Area view, any faulty Luminaire or CBU will be marked accordingly with red icon.

Appendix 1: ACM Module TST8110 Address Charts

	DIP										
Address	10	9	8	7	6	5	4	3	2	1	
1	0	0	0	0	0	0	0	0	0	1	
2	0	0	0	0	0	0	0	0	1	0	
3	0	0	0	0	0	0	0	0	1	1	
4	0	0	0	0	0	0	0	1	0	0	
5	0	0	0	0	0	0	0	1	0	1	
6	0	0	0	0	0	0	0	1	1	0	
7	0	0	0	0	0	0	0	1	1	1	
8	0	0	0	0	0	0	1	0	0	0	
9	0	0	0	0	0	0	1	0	0	1	
10	0	0	0	0	0	0	1	0	1	0	
11	0	0	0	0	0	0	1	0	1	1	
12	0	0	0	0	0	0	1	1	0	0	
13	0	0	0	0	0	0	1	1	0	1	
14	0	0	0	0	0	0	1	1	1	0	
15	0	0	0	0	0	0	1	1	1	1	
16	0	0	0	0	0	1	0	0	0	0	
1 <i>7</i>	0	0	0	0	0	1	0	0	0	1	
18	0	0	0	0	0	1	0	0	1	0	
19	0	0	0	0	0	1	0	0	1	1	
20	0	0	0	0	0	1	0	1	0	0	
21	0	0	0	0	0	1	0	1	0	1	
22	0	0	0	0	0	1	0	1	1	0	
23	0	0	0	0	0	1	0	1	1	1	
24	0	0	0	0	0	1	1	0	0	0	
25	0	0	0	0	0	1	1	0	0	1	
26	0	0	0	0	0	1	1	0	1	0	
27	0	0	0	0	0	1	1	0	1	1	
28	0	0	0	0	0	1	1	1	0	0	
29	0	0	0	0	0	1	1	1	0	1	
30	0	0	0	0	0	1	1	1	1	0	
31	0	0	0	0	0	1	1	1	1	1	
32	0	0	0	0	1	0	0	0	0	0	
33	0	0	0	0	1	0	0	0	0	1	
34	0	0	0	0	1	0	0	0	1	0	
35	0	0	0	0	1	0	0	0	1	1	
36	0	0	0	0	1	0	0	1	0	0	
37	0	0	0	0	1	0	0	1	0	1	

	DIP										
Address	10	9	8	7	6	5	4	3	2	1	
38	0	0	0	0	1	0	0	1	1	0	
39	0	0	0	0	1	0	0	1	1	1	
40	0	0	0	0	1	0	1	0	0	0	
41	0	0	0	0	1	0	1	0	0	1	
42	0	0	0	0	1	0	1	0	1	0	
43	0	0	0	0	1	0	1	0	1	1	
44	0	0	0	0	1	0	1	1	0	0	
45	0	0	0	0	1	0	1	1	0	1	
46	0	0	0	0	1	0	1	1	1	0	
47	0	0	0	0	1	0	1	1	1	1	
48	0	0	0	0	1	1	0	0	0	0	
49	0	0	0	0	1	1	0	0	0	1	
50	0	0	0	0	1	1	0	0	1	0	
51	0	0	0	0	1	1	0	0	1	1	
52	0	0	0	0	1	1	0	1	0	0	
53	0	0	0	0	1	1	0	1	0	1	
54	0	0	0	0	1	1	0	1	1	0	
55	0	0	0	0	1	1	0	1	1	1	
56	0	0	0	0	1	1	1	0	0	0	
57	0	0	0	0	1	1	1	0	0	1	
58	0	0	0	0	1	1	1	0	1	0	
59	0	0	0	0	1	1	1	0	1	1	
60	0	0	0	0	1	1	1	1	0	0	
61	0	0	0	0	1	1	1	1	0	1	
62	0	0	0	0	1	1	1	1	1	0	
63	0	0	0	0	1	1	1	1	1	1	
64	0	0	0	1	0	0	0	0	0	0	
65	0	0	0	1	0	0	0	0	0	1	
66	0	0	0	1	0	0	0	0	1	0	
67	0	0	0	1	0	0	0	0	1	1	
68	0	0	0	1	0	0	0	1	0	0	
69	0	0	0	1	0	0	0	1	0	1	
70	0	0	0	1	0	0	0	1	1	0	
71	0	0	0	1	0	0	0	1	1	1	
72	0	0	0	1	0	0	1	0	0	0	
73	0	0	0	1	0	0	1	0	0	1	
74	0	0	0	1	0	0	1	0	1	0	
75	0	0	0	1	0	0	1	0	1	1	

	DIP									
Address	10	9	8	7	6	5	4	3	2	1
76	0	0	0	1	0	0	1	1	0	0
77	0	0	0	1	0	0	1	1	0	1
78	0	0	0	1	0	0	1	1	1	0
79	0	0	0	1	0	0	1	1	1	1
80	0	0	0	1	0	1	0	0	0	0
81	0	0	0	1	0	1	0	0	0	1
82	0	0	0	1	0	1	0	0	1	0
83	0	0	0	1	0	1	0	0	1	1
84	0	0	0	1	0	1	0	1	0	0
85	0	0	0	1	0	1	0	-	0	-
86	0	0	0	1	0	1	0	1	1	0
87	0	0	0	1	0	1	0	1	1	1
88	0	0	0	1	0	1	1	0	0	0
89	0	0	0	1	0	1	1	0	0	1
90	0	0	0	1	0	1	1	0	-	0
91	0	0	0	1	0	1	1	0	1	1
92	0	0	0	1	0	1	1	1	0	0
93	0	0	0	1	0	1	1	1	0	1
94	0	0	0	1	0	1	1	1	1	0
95	0	0	0	1	0	1	1	1	1	1
96	0	0	0	1	1	0	0	0	0	0
97	0	0	0	1	1	0	0	0	0	1
98	0	0	0	1	1	0	0	0	1	0
99	0	0	0	1	1	0	0	0	1	1
100	0	0	0	1	1	0	0	1	0	0
101	0	0	0	1	1	0	0	1	0	1
102	0	0	0	1	1	0	0	1	1	0
103	0	0	0	1	1	0	0	1	1	1
104	0	0	0	1	1	0	1	0	0	0
105	0	0	0	1	1	0	1	0	0	1
106	0	0	0	1	1	0	1	0	1	0
107	0	0	0	1	1	0	1	0	1	1
108	0	0	0	1	1	0	1	1	0	0
109	0	0	0	1	1	0	1	1	0	1
110	0	0	0	1	1	0	1	1	1	0
111	0	0	0	1	1	0	1	1	1	1
112	0	0	0	1	1	1	0	0	0	0
113	0	0	0	1	1	1	0	0	0	1

	DIP									
Address	10	9	8	7	6	5	4	3	2	1
114	0	0	0	1	1	1	0	0	1	0
115	0	0	0	1	1	1	0	0	1	1
116	0	0	0	1	1	1	0	1	0	0
117	0	0	0	1	1	1	0	1	0	1
118	0	0	0	1	1	1	0	1	1	0
119	0	0	0	1	1	1	0	1	1	1
120	0	0	0	1	1	1	1	0	0	0
121	0	0	0	1	1	1	1	0	0	1
122	0	0	0	-	-	7	1	0	-	0
123	0	0	0	1	1	1	1	0	1	1
124	0	0	0	-	-	-	1	1	0	0
125	0	0	0	-	-	1	1	1	0	-
126	0	0	0	-	-	-	1	1	-	0
127	0	0	0	-	1	1	1	1	1	-
128	0	0	1	0	0	0	0	0	0	0
129	0	0	1	0	0	0	0	0	0	1
130	0	0	1	0	0	0	0	0	1	0
131	0	0	1	0	0	0	0	0	1	1
132	0	0	1	0	0	0	0	1	0	0
133	0	0	1	0	0	0	0	1	0	1
134	0	0	1	0	0	0	0	1	1	0
135	0	0	1	0	0	0	0	1	1	1
136	0	0	1	0	0	0	1	0	0	0
137	0	0	1	0	0	0	1	0	0	1
138	0	0	1	0	0	0	1	0	1	0
139	0	0	1	0	0	0	1	0	1	1
140	0	0	1	0	0	0	1	1	0	0
141	0	0	1	0	0	0	1	1	0	1
142	0	0	1	0	0	0	1	1	1	0
143	0	0	1	0	0	0	1	1	1	1
144	0	0	1	0	0	1	0	0	0	0
145	0	0	1	0	0	1	0	0	0	1
146	0	0	1	0	0	1	0	0	1	0
147	0	0	1	0	0	1	0	0	1	1
148	0	0	1	0	0	1	0	1	0	0
149	0	0	1	0	0	1	0	1	0	1
150	0	0	1	0	0	1	0	1	1	0

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