



User Manual

Share ECU

Version 1.0

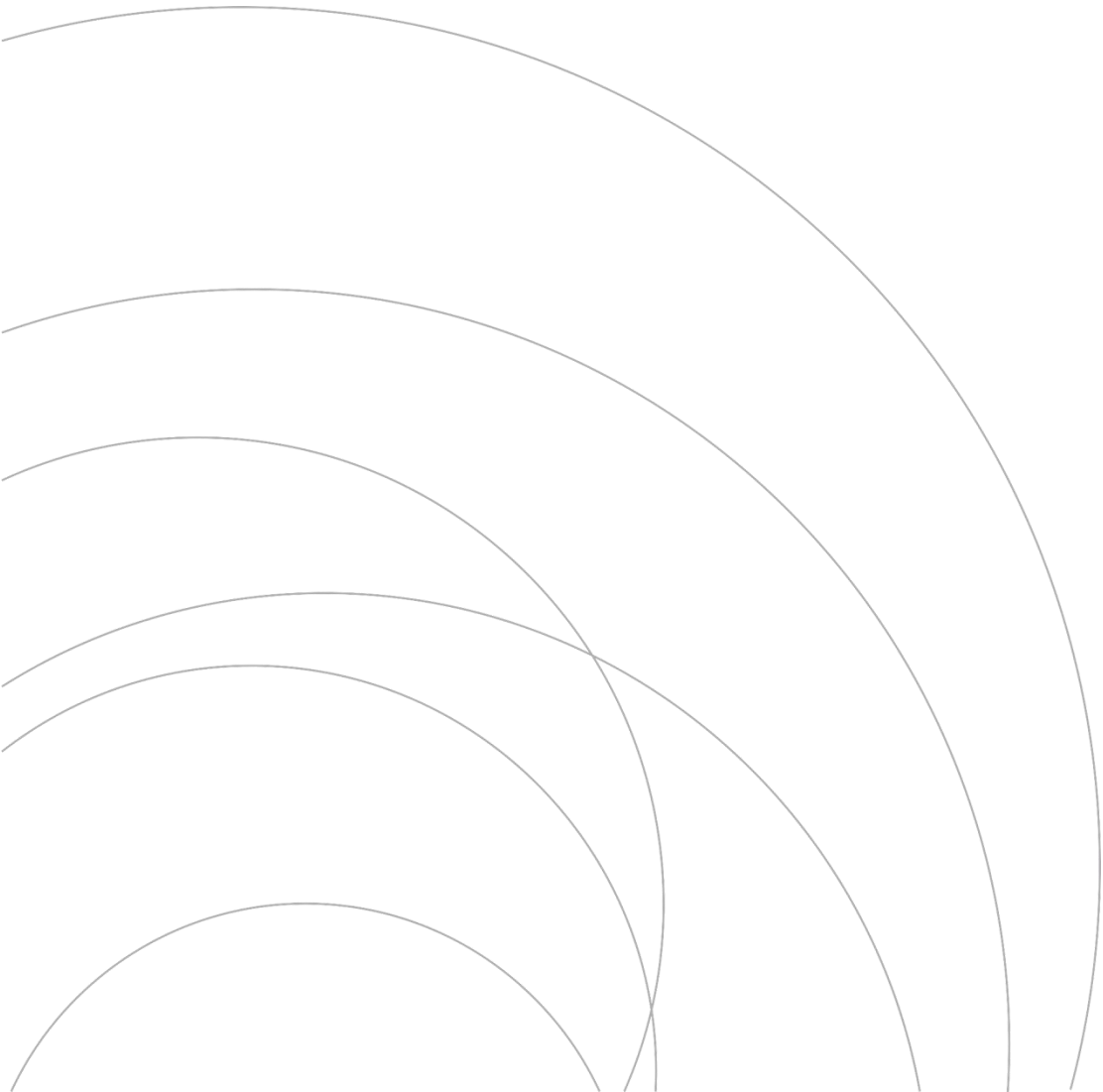


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Basic conception and usage restriction

Introduction

Share ECU is a solution that the adjacent families sharing a wireless communication ECU to upload the data of Inverters, but every family has an individual EMA account. This article brings this new solution and give a quick guide to use.

The two different customers of Share ECU Introduction of the two different customers

Share ECU Sub User : ECU could create accounts for different families who use a same ECU device to monitor the output data of their Inverters. There is no interference between the different accounts which use a same ECU device. Each customer could look over the data of his/her Inverters independently.

Share ECU Master User :

For easy management, installers are allowed to register an additional account to monitor the output power of all the Inverters which are using a same ECU device.

The screenshot shows the APsystems user registration interface. The top navigation bar includes the APsystems logo, 'USER LIST', 'REGISTRATION' (highlighted), and 'SETTING'. The right side shows 'English | Settings | Sign out' and user information: 'APSGen2installer Gen4, Jiuxiang,Zhejiang,China'. The main content area is titled 'NEW USER' and is divided into five steps: 'STEP 1 : PERSONAL INFO', 'STEP 2 : ECU INFO', 'STEP 3 : INVERTER INFO', 'STEP 4 : GROUP VIEW INFO', and 'STEP 5 : UPLOAD DRAWING'. The 'NEW USER' section is highlighted with a red box and contains the following fields:

- User Type: Share ECU Sub User Share ECU Master User
- Username:
- Password:
- Confirm Password:
- FirstName:
- LastName:
- Installer:
- Country:
- State/Province:
- City:
- Address:

Basic conception and usage restriction

Registration management

There is a single entry for Share ECU registration and the registration steps are different.

Sub User :

The registration steps are similar to the normal accounts' registration. Notice inputting the devices' ID numbers belong to the customer while adding inverters.

Master User:

Only need to register customer information and ECU ID number. EMA will automatically associate this account with other Share ECU sub users who use the same ECU device. Notice that the account is optional.

The permission of installers :

Installers could not register the Share ECU account by default. If need to grant this permission, please connect with APSystems.

Systems data monitoring

The output power data has something difference from the normal customers' .

Sub User : Could only look over the data belongs to their own device.

Master User : Could look over the summarized data of Share ECU.

The restrictions of Share ECU

- Only for Zig-bee communication.
- Make sure the distance less than 300m. Keep the different parts of inverters and ECU connection before sharing.

Registration Management

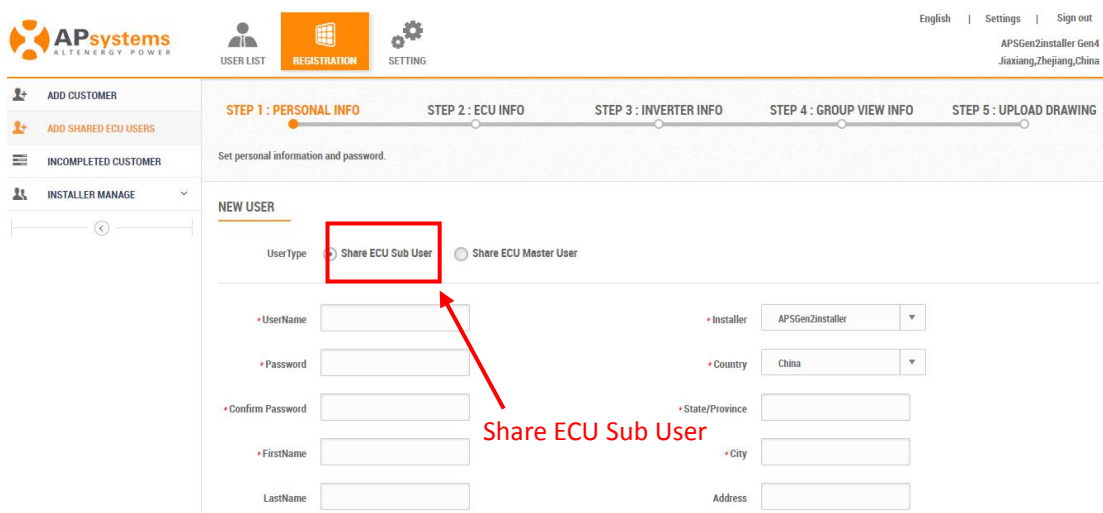
Share ECU Sub User Registration

The registration procedure is same as the normal users'

Including personal information, registration ECU information, registration inverter information, create system view information (optional), upload drawings (optional).

Registration entry

Select "Registration ", "Add Share ECU Users". This menu is only visible to the administrator account that has been activated for " Add Share ECU Users".



The screenshot displays the APsystems registration interface. The top navigation bar includes the APsystems logo, 'USER LIST', 'REGISTRATION', and 'SETTING' tabs. The right side shows language options (English), settings, and sign out options, along with user information: 'APSGen2installer Gen4, Jiaxiang,Zhejiang,China'. The main content area is titled 'NEW USER' and features a progress bar with five steps: 'STEP 1: PERSONAL INFO', 'STEP 2: ECU INFO', 'STEP 3: INVERTER INFO', 'STEP 4: GROUP VIEW INFO', and 'STEP 5: UPLOAD DRAWING'. Below the progress bar, the instruction 'Set personal information and password.' is shown. The 'UserType' section has two radio buttons: 'Share ECU Sub User' (which is selected and highlighted with a red box) and 'Share ECU Master User'. A red arrow points from the text 'Share ECU Sub User' to the selected radio button. Below this, there are input fields for 'UserName', 'Password', 'Confirm Password', 'FirstName', and 'LastName'. On the right side, there are dropdown menus for 'Installer' (set to 'APSGen2installer'), 'Country' (set to 'China'), and 'State/Province', along with input fields for 'City' and 'Address'.

Personal Information

Need to select "Share ECU Sub User". Other information is the same as registering a normal account.

Registration Management

ECU Information Registration

Similar to the registration procedure for normal users. But please notice that modifying or replacing the ECU: The changed ECU ID only affects the current Share ECU sub user account but doesn't affect the ECU ID of the associated Share ECU master user.

If the Share ECU sub user's ECU ID is different from the Share ECU master user's. It will not make any sense of Share ECU.

Inverter Registration

There are two ways registering the inverters in EMA, including "Import from ECU" and "Manual Add ". Either way, adding an inverter only need to add the inverter ID number that belongs to the Share ECU sub user.

The screenshot shows the APsystems EMA registration interface. The top navigation bar includes the APsystems logo, 'USER LIST', 'REGISTRATION', and 'SETTING' tabs. The right side of the top bar shows 'English | Settings | Sign out' and 'APSGen2installer Gen4 Jiaxiang,Zhejiang,China'. The left sidebar contains 'ADD CUSTOMER', 'ADD SHARED ECU USERS', 'INCOMPLETED CUSTOMER', and 'INSTALLER MANAGE'. The main content area has a progress bar with five steps: 'STEP 1: PERSONAL INFO', 'STEP 2: ECU INFO', 'STEP 3: INVERTER INFO', 'STEP 4: GROUP VIEW INFO', and 'STEP 5: UPLOAD DRAWING'. Below the progress bar, there is a text box stating: 'There are two ways to add inverters, manually or automatically. The most important is EMA only could auto add the inverters reported remotely to EMA by ECU, if you find some one are not included, you could add them manually.' The 'INPUT IDS' section has two buttons: 'Import From ECU' and 'Manual Add'. A red arrow points from the text 'Input From ECU' to the 'Import From ECU' button. Another red arrow points from the text 'Manual Add' to the 'Manual Add' button. Below the buttons is an 'ECU ID' input field with the value '204000954354' and an 'Insert ID to list' button. The 'INVERTER TEMPORARY INFORMATION LIST' section has a table with columns: 'ID', 'ECU ID', 'Inverter ID', 'Type', 'Channel', and 'Action'. At the bottom right of the main content area are 'Back' and 'Submit' buttons.

View Information Adding

Optional step. The register method is divided into "Automatic Adding" and "Manually Adding ", which is same as normal users' .

Registration Management

Drawings Uploading

Use to save uploaded installation drawings or photos of the system. It is an optional step for registration. The procedure is the same as normal users' .

Share ECU Master User Registration

Share ECU Master User registration includes personal information and ECU registration information.

The registration procedure is similar to the normal users' . But notice that selecting the Share ECU master user as the user type.

The screenshot shows the APsystems registration interface. The top navigation bar includes the APsystems logo, 'USER LIST', 'REGISTRATION' (highlighted), and 'SETTING'. On the right, there are links for 'English', 'Settings', and 'Sign out', along with the text 'APSGen2Installer Gen4 Jiaxiang,Zhejiang,China'. The main content area is titled 'NEW USER' and shows a progress bar with 'STEP 1 : PERSONAL INFO' and 'STEP 2 : ECU INFO'. Below the progress bar, it says 'Set personal information and password.' The 'UserType' section has two radio buttons: 'Share ECU Sub User' and 'Share ECU Master User'. The 'Share ECU Master User' option is selected and highlighted with a red box, with a red arrow pointing to it from the text 'Share ECU Master User'. Below this, there are several input fields: 'UserName', 'Password', 'Confirm Password', 'FirstName', 'LastName', 'Installer' (dropdown menu), 'Country' (dropdown menu), 'State/Province', 'City', and 'Address'.

After the registration procedure has been completed, EMA will automatically find all Share ECU sub user accounts corresponding to the ECU ID number according to the ECU ID number and associate the registered inverters, views information, installation drawings and other information to this account.

Registration Management

Incompleted Customer

Registration procedure may be interrupted due to special reasons. EMA will retain the unfinished registration information for the customers who can continue registering after completing other works.

The procedure is the same as normal users'. In the "Registration", search the unfinished registration customers in "Incompleted Customer" list and follow the reminders to continue the registration.

The screenshot shows the APsystems software interface. The top navigation bar includes the APsystems logo, 'USER LIST', 'REGISTRATION', and 'SETTING' tabs. The 'REGISTRATION' tab is active. On the right, there are links for 'English', 'Settings', and 'Sign out', along with the user information 'APSGen2installer Gen4' and 'Jiaxiang,Zhejiang,China'. The left sidebar contains menu items: 'ADD CUSTOMER', 'ADD SHARED ECU USERS', 'INCOMPLETED CUSTOMER' (highlighted with a red arrow), and 'INSTALLER MANAGE'. The main content area displays a 'CUSTOMER LIST' table with search filters for 'First Name', 'Customer Account', and 'ECU ID'. The table contains two rows of data:

| ID | Customer Account | Customer Name | Country | State | City | System Size(KW) | Register Date | Action |
|----|------------------|---------------|---------|----------|---------|-----------------|---------------|--------|
| 1 | sissitest003 | Sissi | China | zhejiang | Jiaxing | | 2018-01-12 | Delete |
| 2 | ys5000test | 123456 | China | 123456 | 123456 | 123 | 2017-05-03 | Delete |

Incompleted Customer

System Data Monitoring

The data monitoring content of the share ECU is basically same as normal users' . The following tables list the differences between them.

Different types Of user Login Monitor Content

| Objects | Sub User | Matser User | Normal User |
|---|--|---|--|
| System energy | Only display the power generation data of the inverter which belongs to current Share ECU sub user account | Display the power generation data of all the inverters under this ECU. When there are several ECUs, it is the summary value of all ECUs | Displaythe power generation data of all the inverters under this ECU. When there are several ECUs, it is the summary value of all ECUs |
| Module | Only display the layout of the current Share ECU sub user account view and the power generation data of corresponding component | Display the inverter layout view for all Share ECU Sub User and the power generation data of corresponding component | Display the current user layout view and the power generation data of corresponding component |
| Report (including system overview, ECU level data, power generation data report download) | Only display the current Share ECU Sub User's inverter power generation data and the corresponding environmental benefits | Display the all Share ECU Sub User's inverter power generation data and the corresponding environmental benefits | Display all the inverter under the ECU power generation data and the corresponding environmental benefits, when there are several ECUs, it is the summary of the value |
| Setting (including system information, system information maintenance) | Only the current Share ECU Sub User account basic information is displayed Only the historical data of the current Share ECU Sub User system is displayed | Display the Share ECU Master User account information Display the Share ECU Master User 's ECU history and all Share ECU Sub User 's inverter history data | Display user basic information Display system history |

System Data Monitoring

Installer Management Share ECU Users

| Object | Share ECU Sub User | Share ECU Master User | Normal User |
|--|---|--|---|
| User generation information: Such as system energy, component power, system reports, etc. | See "3.1 Different Types Of User Login Monitoring Content Difference" | | |
| History (ECU history data, inverter history data) | Only displays the current Share ECU Sub User's ECU and inverter history | Display the Share ECU Master User 's ECU history and all Share ECU Sub User 's inverter history data | Display system ECU and inverter history |
| Remote control | Both user actions operate on the entire ECU range | | Acting on the entire ECU range |
| Diagnose | Only show Share ECU Sub User's information and working condition of registered inverter | Display the Share ECU Master User information, working condition of Share ECU Sub User's inverter has been registered and the report of the unregistered but have reported data inverter | Display system user information, the working condition of the inverter has been registered and the inverter has not been registered but reported data |