Přístupový systém

Merit Access

Dveřní jednotka

DoorUnit v.3.5

Firmware verze 032

26.1.2026

CZ

INTEGRAČNÍ MANUÁL C4 v1.0

Důležité upozornění

Z bezpečnostních důvodů by měl být systém projektován a instalován kvalifikovaným technikem, znalým elektrotechnických předpisů a norem.

Před vlastní montáží si prosím pozorně přečtěte tento manuál, abyste předešli chybám, které mohou vést k nefunkčnosti nebo dokonce k poškození zařízení.

Všechna elektrická propojení provádějte pouze při odpojeném napájecím zdroji.

Jakékoliv zásahy do konstrukce a opravy jsou zakázané a zaniká tak právo na reklamaci výrobku.

Cílem společnosti MERIT GROUP a.s. je neustále zlepšovat kvalitu produktů, což může vést k rozdílným technickým specifikacím a firmwaru. Aktuální informace o výrobku a změnách jsou dostupné na webových stránkách.

http://meritaccess.cz

Prohlášení os shodě najdete na www.meritaccess.cz/ce

C4 Driver for Merit Access Control System

Overview

The **C4 Driver** integrates the Merit Access Control system with the Gamanet C4 platform.

Current Status:

First release

Requirements

Mandatory

- **MeritAccess** version with C4 support (`merit_access_priv` branch `c4`)
- **C4 Server** version `2026.0.0.501` or later
- **Developer Console** and **Client Hub** installed
- **C4 Driver** — this repository, `main` branch
- **Visual Studio** with Gamanet NuGet packages (video tutorial)
- Gamanet Developer and Administrator training (education portal) - since 2026 it is mandatory to have this training and licence is acquired by successful completion
- Note: first register Admin licence and then Dev licence

Setup Instructions

1. MeritAccess

- Verify correct version (look for [ROUTES REGISTERED] in logs)

```
meritaccess@MDUD83ADDB52702:~/merit_access_priv $ py main.py
Connection 'Wired connection 1' successfully deactivated (D-Bus active path: /org/freedesktop/NetworkM
anager/ActiveConnection/3)
Connection successfully activated (D-Bus active path: /org/freedesktop/NetworkManager/ActiveConnection
/4)
<20>Aug 15 12:13:03: DHCP enabled successfully on Wired connection 1.
<10>Aug 15 12:13:03: [ROUTES REGISTERED]:
/static/<path:filename> → static
/api/ → /api.index
/api/keepalive → /api.keepalive
/api/restart → /api.restart
/api/config → /api.config_get
/api/config → /api.config_set
/api/events → /api.events
/api/door/setoutput → door.setoutput
/api/door/setupdoor → door.setupdoor
```

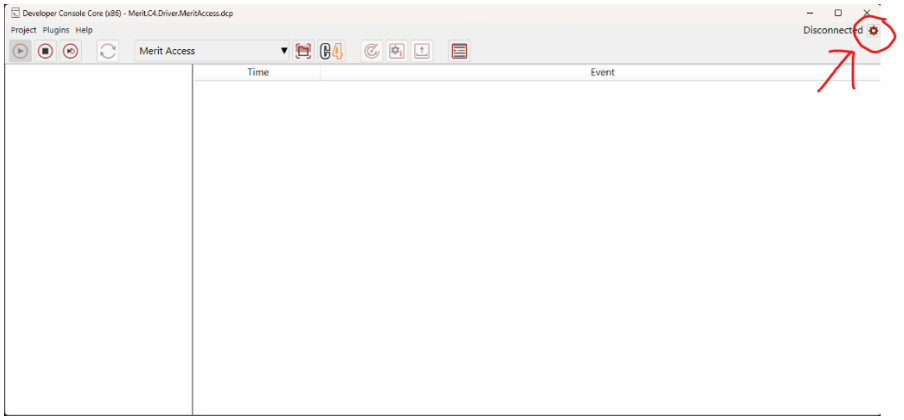
- Obtain the MeritAccess unit's IP address via **config mode** or **SSH**

2. C4 Server

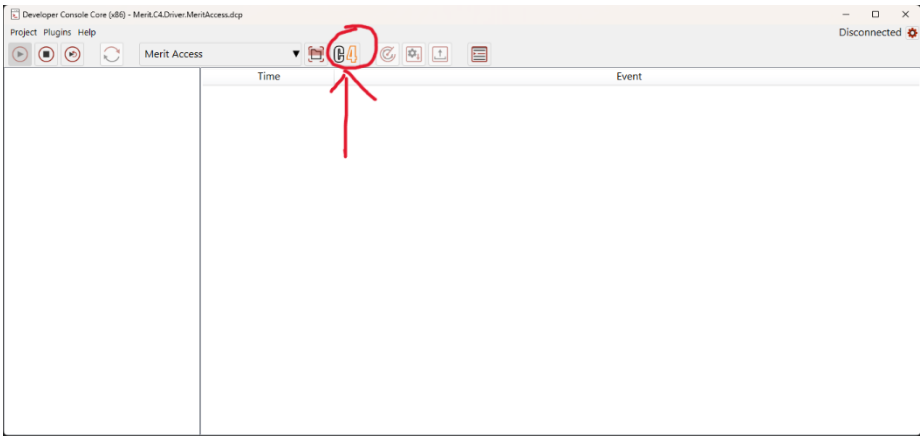
- Ensure firewall configuration allows Client Hub access*(If C4 Server is unreachable from Client Hub, firewall is the likely cause)*
- If C4 server is installed on VMware Workstation and is not discoverable by client hub, check VMware network settings and select correct interface (default is auto)

3. C4 Driver

1. Open the driver solution in **Visual Studio**
2. Build the project
3. Open Merit.C4.Driver.MeritAccess.dcp — this launches the Developer Console
4. Connect Developer Console to the C4 Server



5. Register the driver (dev licence is required)



4. C4 Client

1. Connect to C4 Server via **Client Hub**
2. Log in:

Default account:

- Username: support
- Password: support

Or create a new account (see Gamanet Administrator tutorial)

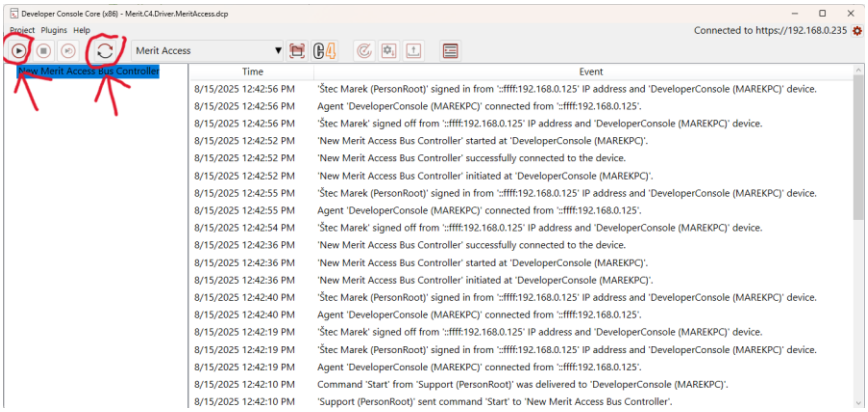
3. Validate driver registration:
    - Go to **Settings → Packages**
    - Ensure *Merit Access* is listed *(If missing, re-register via Developer Console)*
4. Add device:
    - Go to **Professional → Devices**
    - Right-click *Root → Add → MeritAccess Bus Controller*
    - Set **Default Agent** to *Developer Console*
    - Set:

        IP Address: <MeritAccess Unit IP>

        Port: 10443

        Timeout: 00:00:10

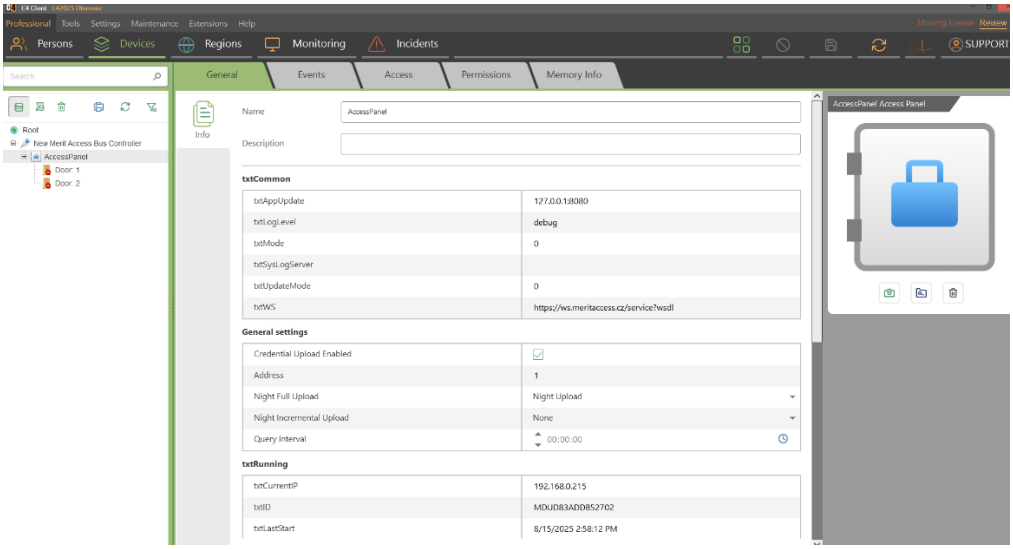
        Username: same as in MeritAccess web interface

        Password: same as in MeritAccess web interface
    - If only "Name" and "Description" fields appear, log out and log in again (UI bug)
5. Save configuration (**Ctrl+S** or Save button)
6. In Developer Console:
    - Refresh device tree
    - **Start driver**
    - 

7. Load configuration:
    - Right-click Root → New Merit Access Bus Controller → Commands → Load Configuration
    - This sends api call to /login endpoint and creates API key for secure communication
    - All other endpoints use HMAC auth
    - New key is created every time load configuration is called

- This pulls configuration from the MeritAccess unit

8. After successful load, you should see:



9. **Note:** After the first Load Configuration, stop and restart the driver in Developer Console if door commands do not work (known bug)

Implemented Commands

Bus Controller

Load Configuration

- Generates new API key for HMAC
- Retrieves current configuration (AccessPanel and Door) from MeritAccess unit

Send Configuration

- Pushes new configuration to the MeritAccess unit (set in *General* tab)
- Restarts the MeritAccess unit after update

Door

Door Unlock

- Unlocks door for a specified time

Door Unlock Permanently

- Unlocks door indefinitely (silent open)

Door Lock

- Locks a permanently opened door

Events

Event logs are available in the **Events** tab.

Supported Events:

- AccessGranted
- AccessDeniedUnknownCredential
- Tamper

- TamperRecovered
- DoorOpenedTooLong
- DoorOpenedForcibly
- DoorOpenedRemotely

Development Notes

Git Versioning

Prevent semantic versioning errors in Developer Console (caused by Git hash in project version) by adding the following to the first <PropertyGroup> in:

- Merit.C4.Driver.MeritAccess.csproj
- PackageInfo.csproj

<IncludeSourceRevisionInInformationalVersion>false</IncludeSourceRevisionInInformationalVersion>

VSCODE support

change <DebugType> from **full** to **portable** in Merit.C4.Driver.MeritAccess.csproj