iC SmartView Config

User Manual

Service

iSMA CONTROLLI S.p.A. - Via Carlo Levi 52, 16010 Sant'Olcese (GE) - Italy | support@ismacontrolli.com

Table of Contents

1 Introduction

The iC SmartView Config service for Niagara Framework is dedicated for iSMA CONTROLLI HMI Android panels equipped with the iC SmartView application. The iC SmartView Config service is a Niagara palette of components and extensions that allow for a secure remote configuration of certain elements on the panels. The palette also includes templates, which are specifically predesigned for the 2 series of Android panels: PA-LED and iSMA-D-PA.

The iC SmartView Config service allows to configure the following elements:

- kiosk mode (switching on and off, setting a new password),
- screen brightness (setting a new level of brightness),
- screensaver (switching the screensaver on and off, enabling or disabling screensaver graphics),

and applicable only for the PA-LED panels series:

- LED lighting (switching the LED lighting on and off, setting a new color of the lighting).

1.1 Revision History

Date	Manual rev.	Module ver.	Description
17 Mar 2026	1.1	1.1	• Lock Home Station function added in the KioskModeExt • New components: ◦ UISettingsExt ◦ AutoRestartExt
3 Dec 2024	1.0	1.0	First edition

2 System Requirements and License

The iC SmartView Config service requires the following environment for correct operation:

- a PC running a compatible version of the Niagara Framework 4.10 version and up,
- the iC SmartView application of at least 5.2 version installed on the iSMA CONTROLLI HMI panel.

No license is required to use the iC SmartView Config service.

3 Installation

The iC SmartView Config service is a part of the iC Workbench and iC Niagara Expansion Pack (from version 4.14). It can also be downloaded as a standalone module from the iC Connect platform. If it is downloaded as the standalone module, it must be placed it in an appropriate space of the Niagara instance in the modules folder.

To start using the iC SmartView Config service, go to the Palette window and select the Open Palette option.

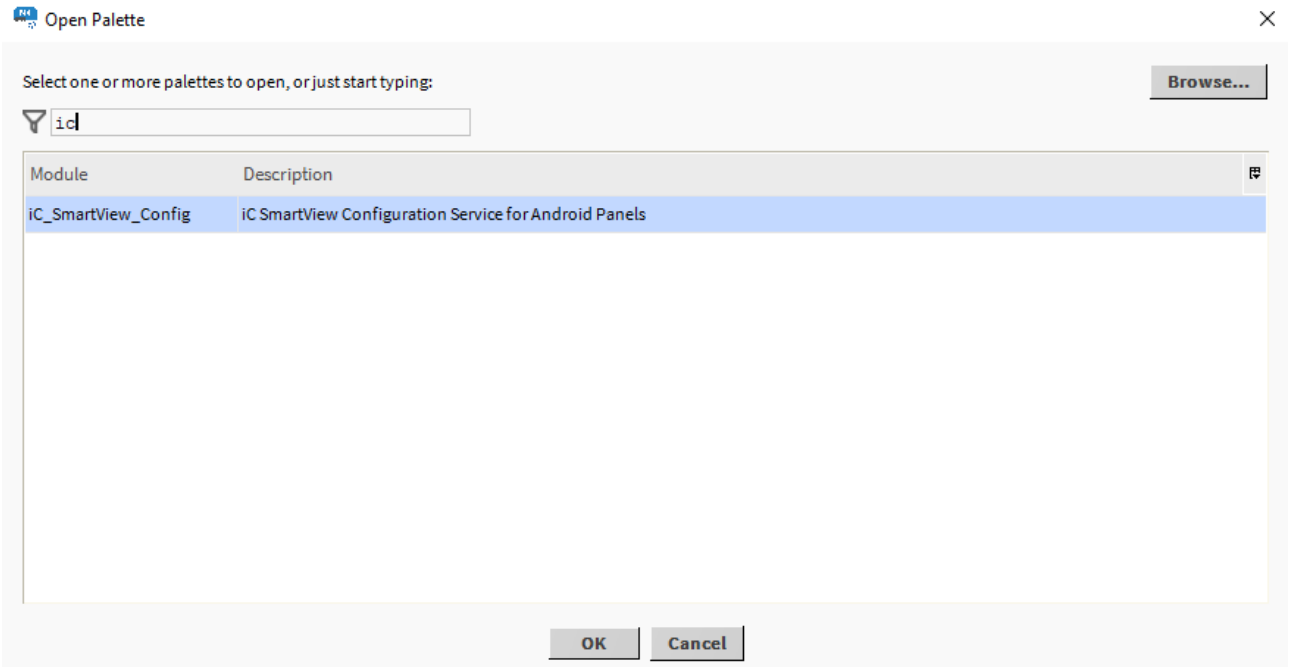

Figure 1. Opening palette

Confirm with OK, the palette is ready to use in the Palette window.

The only location where the service will operate properly is Config → Services.

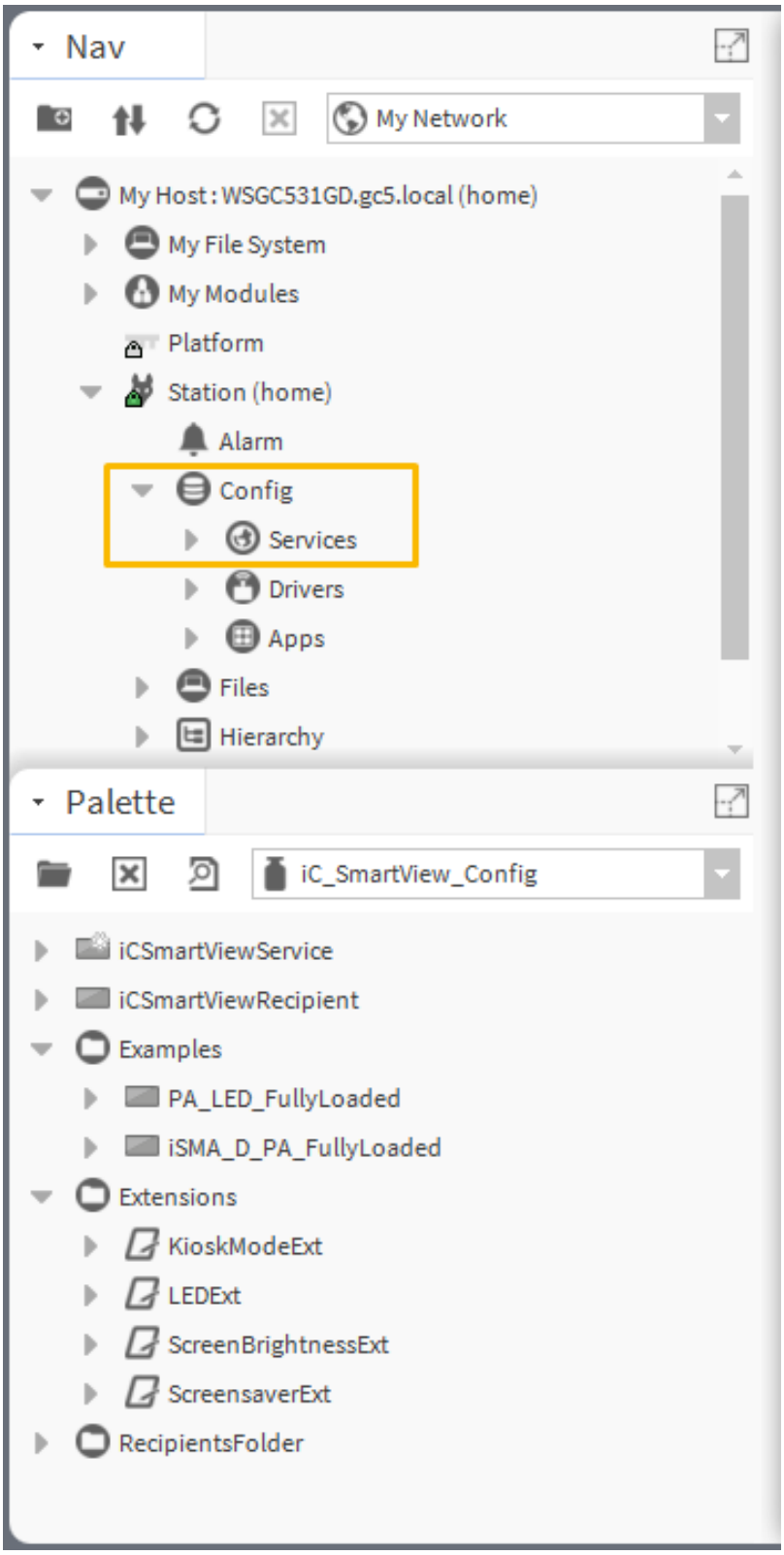

Figure 2. Services location

Drag and drop elements from the iC SmartView Config according to the following structure:

- Config
  - Services
    - iCSmartViewService (only one component allowed!)

- iCSmartViewRecipient (one component per panel to be configured, more than one allowed)
  - extensions.

Note
Use of folder components is voluntary. The RecipientsFolder component can be used to group the iCSmartViewRecipient components (for example, panels from common location).

Alternatively, drag and drop a fully loaded predesigned example for a relevant panel type.

Warning!
For a full functionality of the service, it is required to approve the Niagara public certificate.
In a first step, after dropping the iCSmartViewRecipient component under the iCSmartViewService, its status will be fault, showing the *SSLException: Recipient device certificate was not approved!* fault cause.

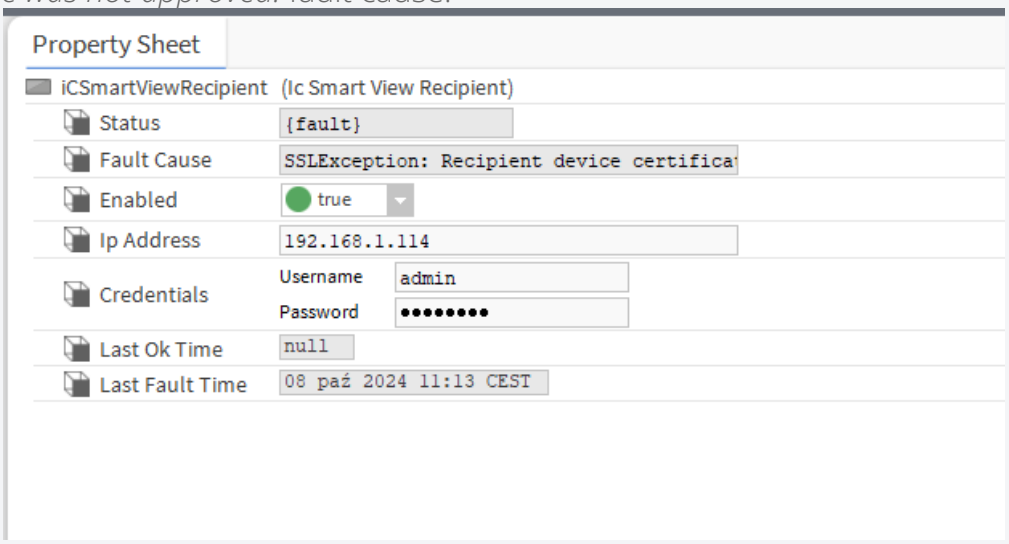

Figure 3. Fault status

To fix this, go to the AX Certificate Management → Allowed Hosts and approve the certificate.

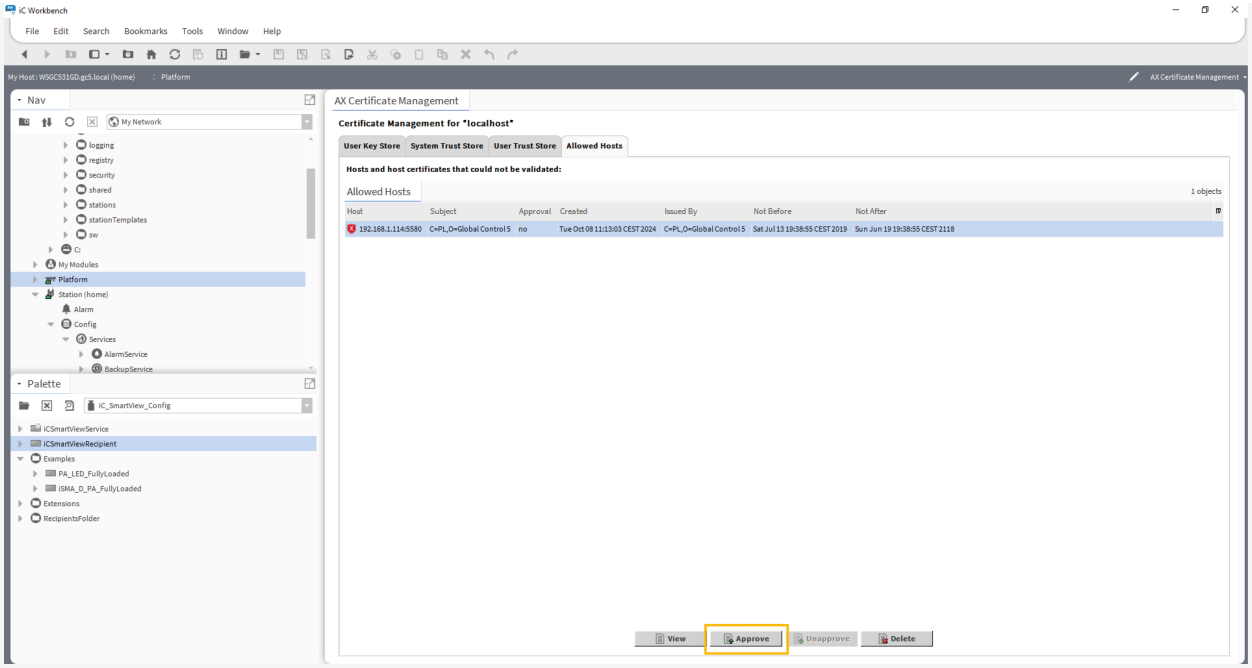

Figure 4. Approving the certificate

Go back to the iCSmartViewRecipient component, refresh it (or disable/enable). The component is now fully functional.

4 Palette

The iC SmartView Config palette includes components which allow to perform a configuration of iSMA HMI Android panels in the Niagara environment.

The palette includes the following components and extensions:

- iCSmartViewService
- iCSmartViewRecipient
- RecipientsFolder

The palette also includes examples of the pre-configured iCSmartViewRecipient component with relevant extensions added for the PA-LED and iSMA-D-PA series.

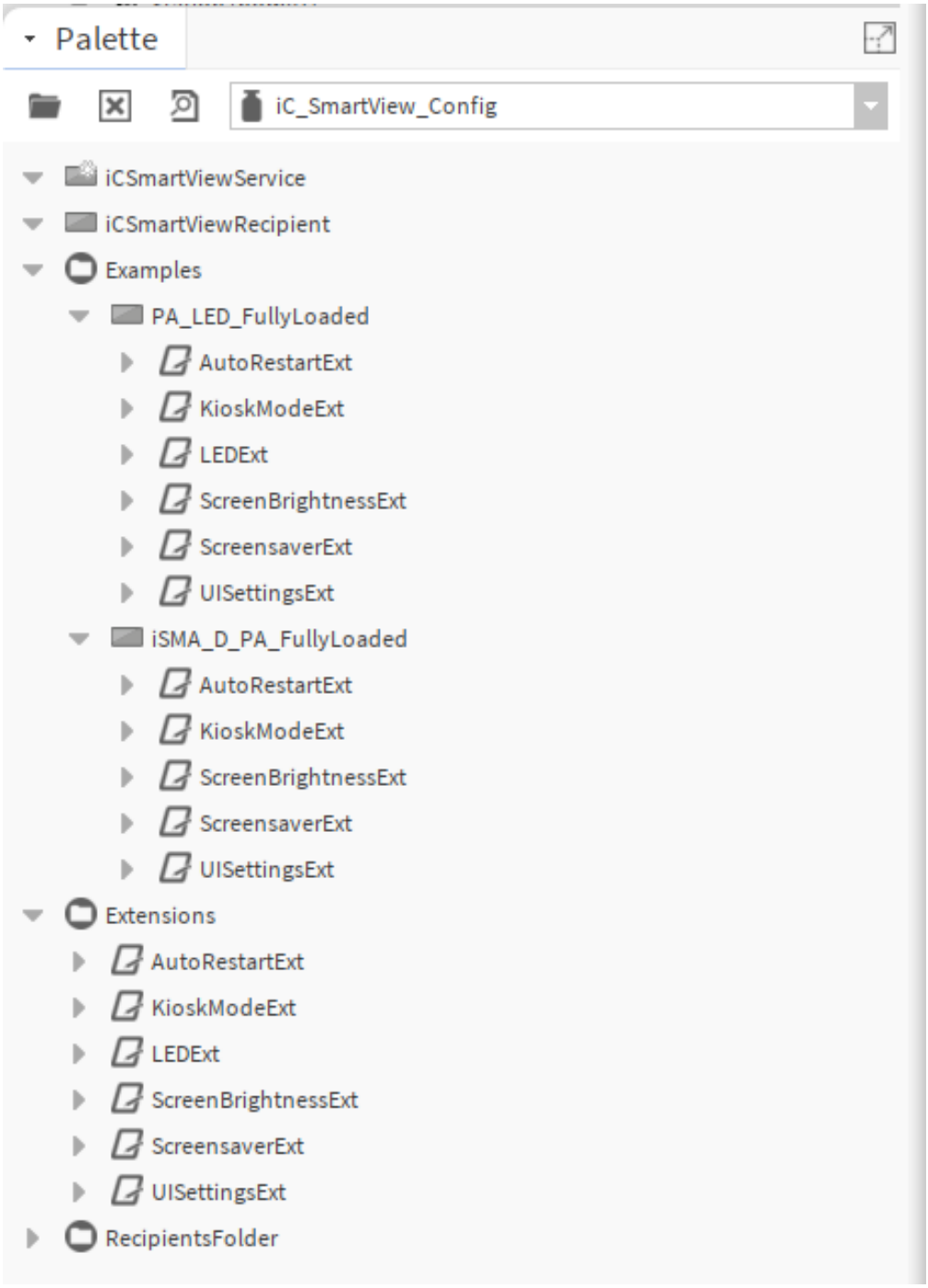

Figure 5. All contents of the iC SmartView Config palette

4.1 iCSmartViewService

The iCSmartViewService component is the main component of the palette which is responsible for enabling the service functioning and acts as a parent component for all components from the palette.

The component is the main container for the iCSmartViewRecipient (for PA-LED or iSMA-D-PA Adroid panels) and/or for grouping the RecipientsFolder components.

Warning!
The iCSmartViewService component **must be** located in the Config → Service. This is the only location in the station's components tree where the service will work properly. Also, **only one** iCSmartViewService can be added in the station.

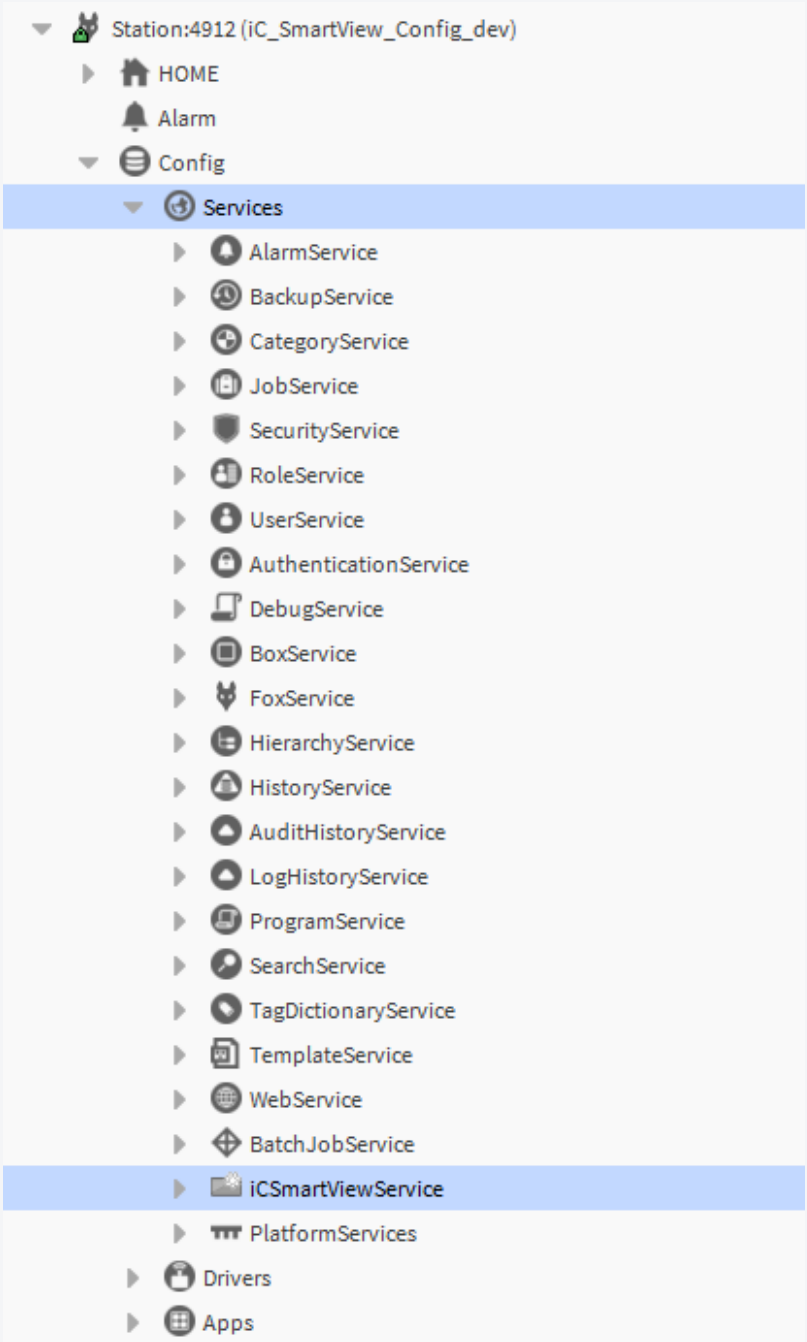

Figure 6. The iCSmartViewService correct location

The iCSmartViewService component has the following slots:

- **Status:** shows a current status of the component,
  - Available information: OK, fault, disabled, stale;

> Note
> If the component is in a fault of disabled status, all its children components are fault or disabled too.

- **FaultCause:** shows a cause for the fault status of the component,
  - Available information: Service is duplicated;
- **Enabled:** allows to switch the service on or off.

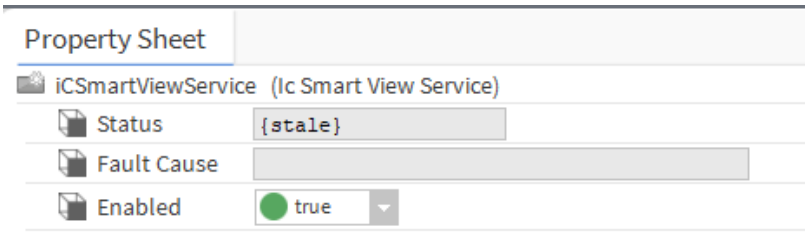

Figure 7. The iCSmartViewService slots

The iCSmartViewService has one action:

- **PingAllChildren:** pings all children components of the service.

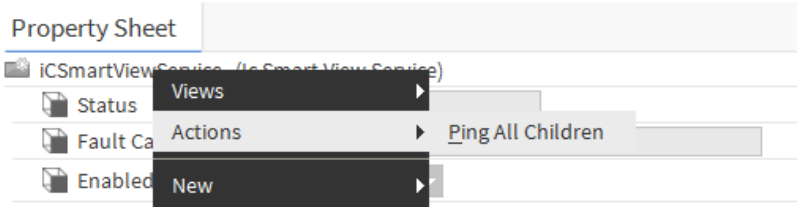

Figure 8. The iCSmartViewService action

4.2 iCSmartViewRecipient

The iCSmartViewRecipient component allows for a client host configuration of Android panels (PA-LED or iSMA-D-PA) with installed iC SmartView application. One iCSmartViewRecipient component can be used for one Android panel.

> Warning!
> For a full functionality of the service, it is required to approve the Niagara public certificate.
> In a first step, after dropping the iCSmartViewRecipient component under the iCSmartViewService, its status will be fault, showing the *SSLException: Recipient device certificate was not approved!* fault cause.

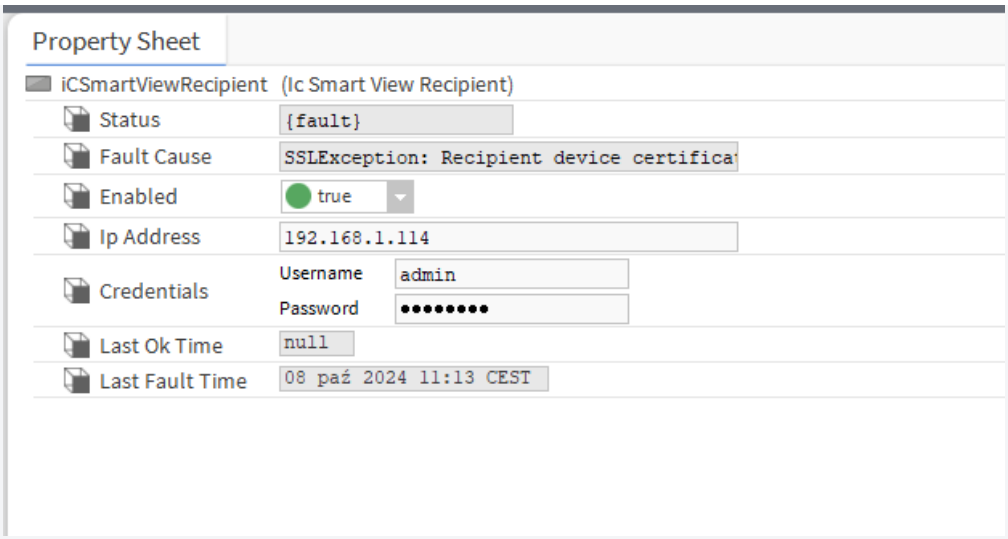

Figure 9. Fault status

To fix this, go to the AX Certificate Management → Allowed Hosts and approve the certificate.

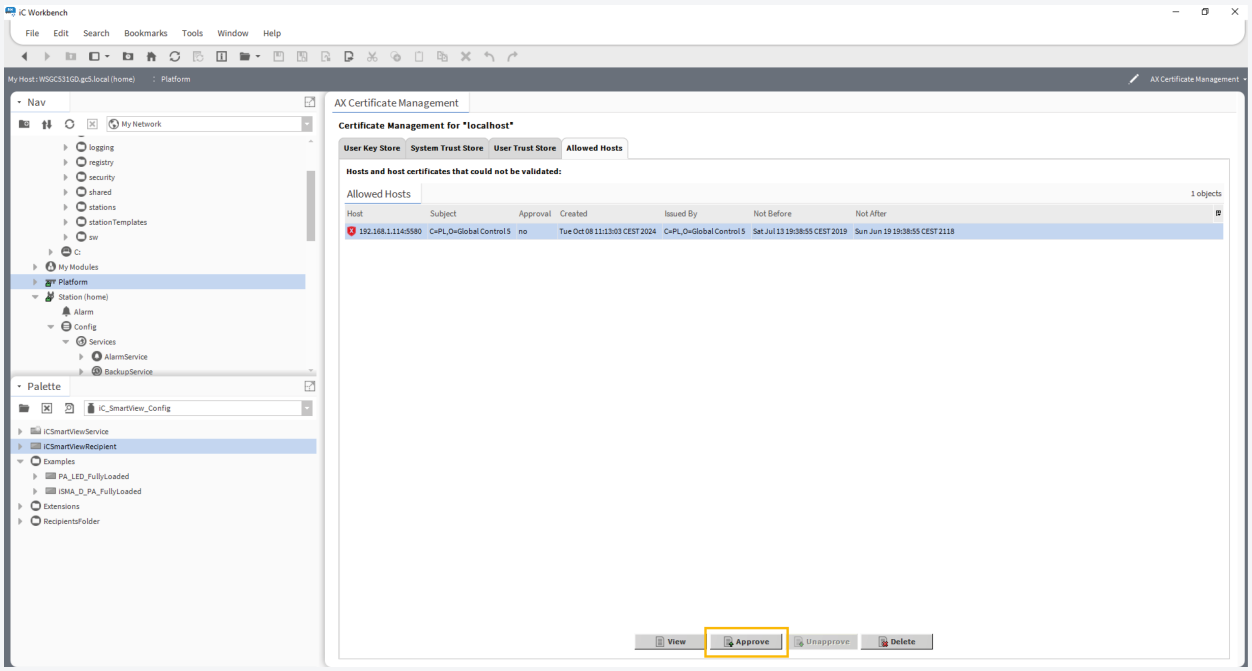

Figure 10. Approving the certificate

Go back to the iCSmartViewRecipient component, refresh it (or disable/enable). The component is now fully functional.

The iCSmartViewRecipient component is a container for dedicated extension components (e.g., LEDExt or ScreensaverExt).

Warning!
The iCSmartViewRecipient component **must be** located under the iCSmartViewService or RecipientsFolder component. This is the only location in the station's components tree where the component will work properly.

The iCSmartViewRecipient has the following slots:

- **Status:** shows a current status of the component,
  - Available information: OK, fault, disabled, stale;

Note
The source of the status of the iCSmartViewRecipient component may be the state of the component itself or it may be inherited from the iCSmartViewService component. If the status inherited from the iCSmartViewService component is disabled, it does not affect the value of the Enabled slot in the iCSmartViewRecipient component.

- **FaultCause:** shows a cause for the fault status of the component,
  - Available information:
    - API in remote Android Panel disabled! HTTP Status-Code 403: Forbidden Error!,
    - ConnectException: Could not create socket! Connection timeout! Please ensure if correct IP address has been entered or if remote device is powered up!
    - Not proper credentials in the request! HTTP Status-Code 401: Unauthorized!
    - General exception!
    - API method not found in remote Android Panel! Please ensure if correct version of iC_SmartView application has been installed on remote client host!
    - HttpsThread took to much time!
    - IllegalArgumentException!
    - IOException!
    - URL created using IP Address is malformed!
    - Failed to decode password!
    - SecurityException!
    - SSLException: Client device certificate was not approved!
    - SSLException: Client device replied using unsupported or unrecognized SSL message!
    - Parent service has a Fault status!
    - IpAddress slot is EMPTY or there is not proper IP address!
- **Enabled:** allows to switch the operation of the component on or off;
- **IPAddress:** allows to provide the IP address of the panel to be configured;
- **Credentials:** allows to provide the Android panel's username and password to access the iC SmartView application API;
- **LastOkTime:** saves and stores the time of a last proper reply received from the Android panel, even if the last request was sent by one of the extensions;
- **LastFaultTime:** saves and stores the time of a last not proper or no reply received from the Android panel, even if the last request was sent by one of the extensions.

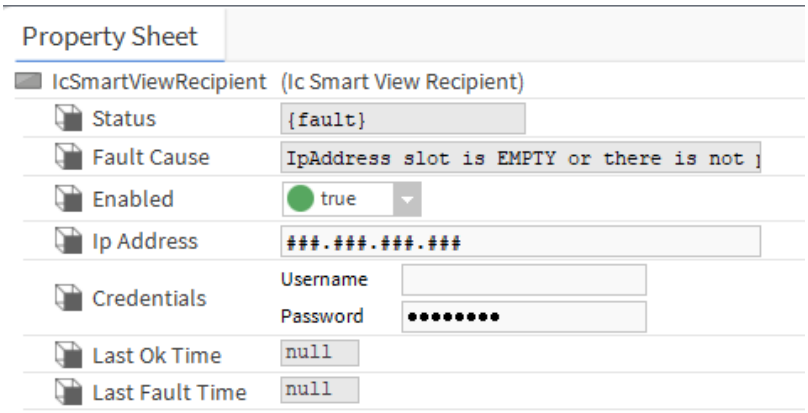

Figure 11. The iCSmartViewRecipient slots

The iCSmartViewRecipient component has the following actions:

Warning!
Actions of the iCSmartViewRecipient component are hidden by default. They can be revealed using the AX Slot Sheet view and Config Flags tool.

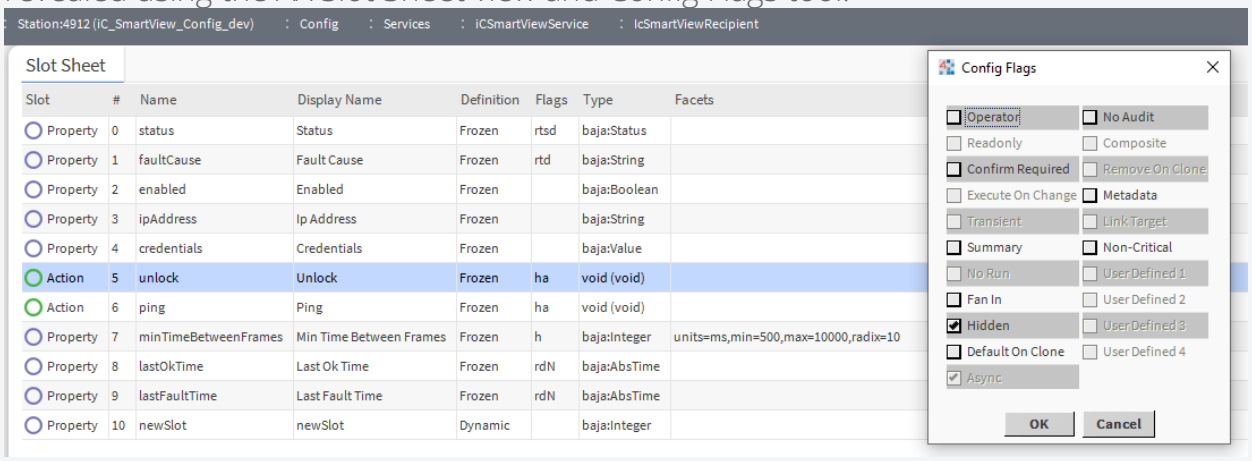

Figure 12. Revealing the action

- **Unlock:** sends an `/unlock` POST request to device with the IP address configured in the IP address slot;
- **Ping:** sends an `/autostart` GET request to device with the IP address configured in the IP address slot.

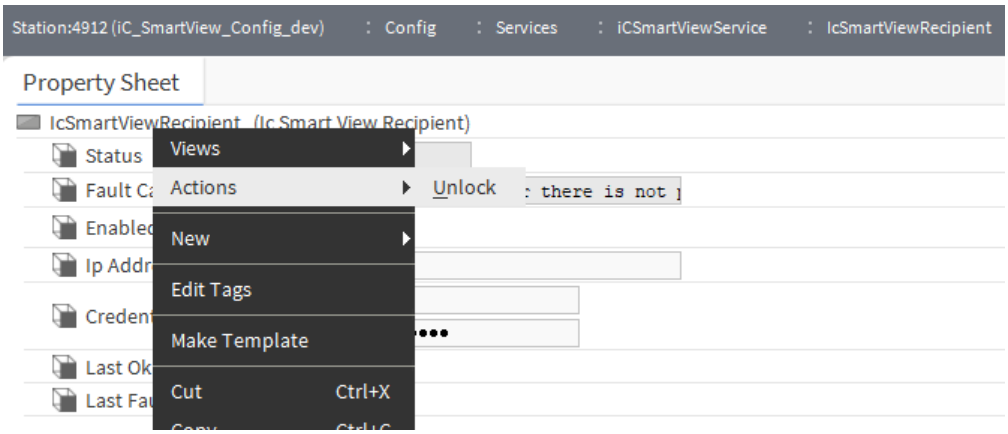

Figure 13. Unlock action revealed

4.2.1 KioskModeExt

The KioskModeExt is an extension component which allows to remotely enable or disable the kiosk mode on the panel in the configured Android panel and change the kiosk mode unlock password.

> Note
> The KioskModeExt component must be located under the iCSmartViewRecipient component.

The KioskModeExt extension has the following slots:

- **Kiosk Mode:** allows to enable or disable the kiosk mode on the panel, which is configured in the iCSmartViewRecipient;
- **Kiosk Unlock Password:** allows to set a new password on the panel, which is configured in the iCSmartViewRecipient; setting a new password requires entering a new password and confirming it in another field;
- **Lock Home Station:** allows to set a requirement to enter a password when leaving the home station (password is the same as the kiosk mode password).

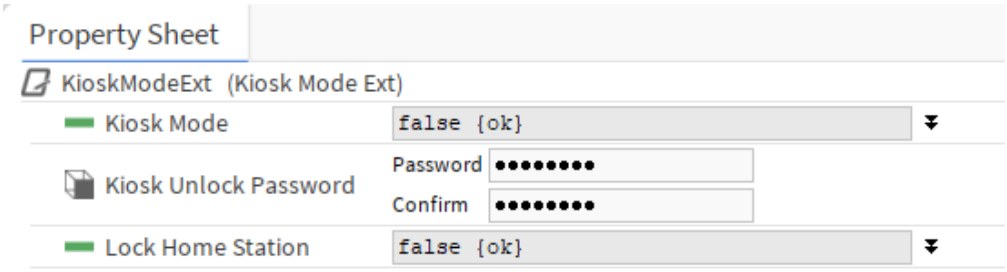

Figure 14. KioskModeExt slots

The KioskModeExt extension has the following actions:

> Note
> These actions can be invoked manually from the context menu or automatically on the change of value of the extension's slots (Kiosk Mode for either Write Unlock or Write Lock actions, Kiosk Unlock Password for the Write Kiosk Unlock Password action, and Lock Home Station for the Write Lock Home Station action).

- **Force Write:** sends requests to the panel configured in the parent iCSmartViewRecipient component using current values in slots;
- **Write Lock:** switches on the kiosk mode on the panel configured in the parent iCSmartViewRecipient component;
- **Write Unlock:** switches off the kiosk mode on the panel configured in the parent iCSmartViewRecipient component;
- **Write Kiosk Unlock Password:** sends the new password to unlock the kiosk mode to the panel configured in the parent iCSmartViewRecipient component;
- **Write Lock Home Station:** sends the requirement to enter the password when leaving the home station to the panel configured in the parent iCSmartViewRecipient component

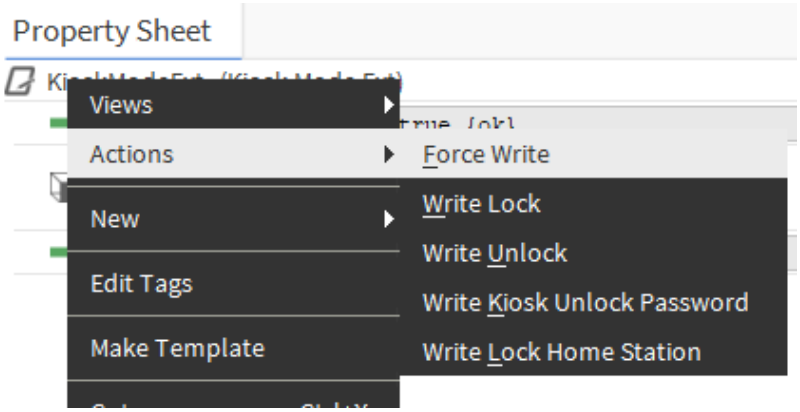

Figure 15. KioskModeExt slots

4.2.2 LEDExt

> Warning!
> The LEDExt extension is only applicable to the iSMA CONTROLLI HMI Android panels which have a LED lighting built-in (the PA-LED series).

The LEDExt is an extension component which allows to remotely switch on or off the LED lighting on the panel configured in the iCSmartViewRecipient component and change the LED lighting color.

> Note
> The LEDExt component must be located under the iCSmartViewRecipient component.

The LEDExt extension has the following slots:

- **Facets:** facets backup for integrators to know how to choose LedColor facets in other components;
- **Led:** allows to enable or disable the LED lighting on the panel, which is configured in the iCSmartViewRecipient;
- **Led Color:** allows to change a color of the LED lighting on the panel, which is configured in the iCSmartViewRecipient.

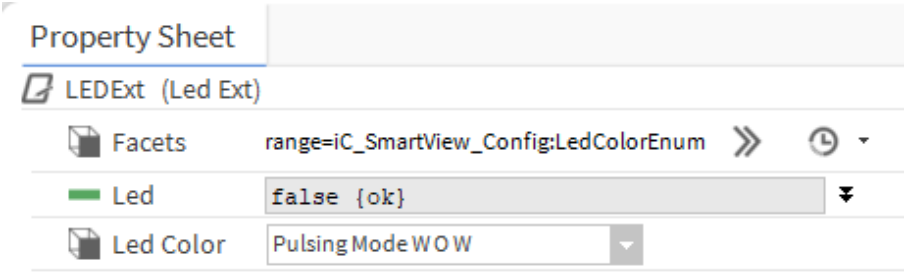

Figure 16. The LEDExt slots

The LEDExt extension has the following actions:

> Note
> These actions can be invoked manually from the context menu or automatically on the change of value of the extension's slots (Led for either Write Led Off or Write Led On actions, and Led Color for the Write Led Color action).

- **Force Write:** sends requests to the panel configured in the parent iCSmartViewRecipient component using current values in slots;
- **Write Led Off:** switches off the LED lighting on the panel configured in the parent iCSmartViewRecipient component;
- **Write Led On:** switches on the LED lighting on the panel configured in the parent iCSmartViewRecipient component;
- **Write Led Color:** allows to set and send the LED lighting color specification to the panel configured in the parent iCSmartViewRecipient component.

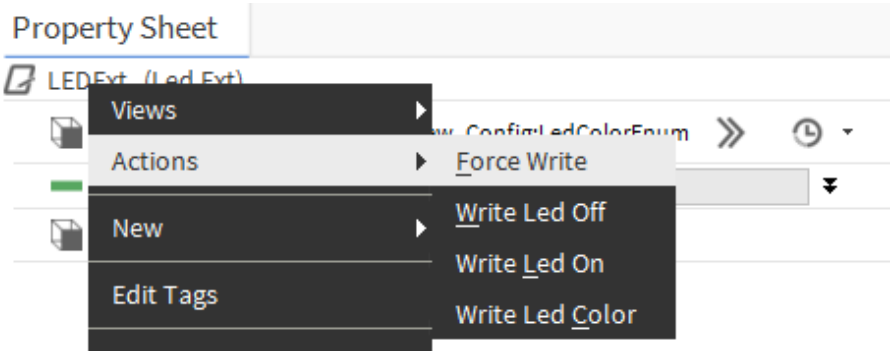

Figure 17. The LEDExt actions

4.2.3 ScreenBrightnessExt

The ScreenBrightnessExt is an extension component which allows to remotely set the brightness level on the panel in the configured Android panel.

> Note
> The ScreenBrightnessExt component must be located under the iCSmartViewRecipient component.

The ScreenBrightnessExt extension has the following slots:

- **Brightness Level:** allows to set a brightness level from 0-100 % on the panel configured in the parent iCSmartViewRecipient component;
- **Delay:** allows to set a time value, after which the action of setting new brightness level on the panel will actually be executed.

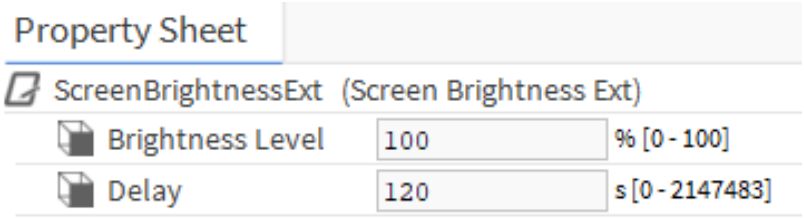

Figure 18. The ScreenBrightnessExt slots

The ScreenBrightnessExt extension has the following actions:

> Note
> These actions can be invoked manually from the context menu or automatically on the change of value of the extension's slots (Brightness Level for the Write Brightness Level action and Delay for the Write Delay action).

- **Force Write:** sends requests to the panel configured in the parent iCSmartViewRecipient component using current values in slots;

- **Write Brightness Level:** sends the Brightness Level slot value to the panel configured in the parent iCSmartViewRecipient component;
- **Write Delay:** send the Delay slot value to the panel configured in the parent iCSmartViewRecipient component.

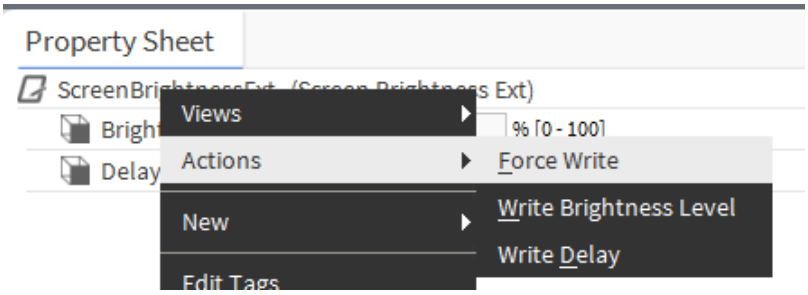

Figure 19. The ScreenBrightnessLevel actions

4.2.4 ScreensaverExt

The ScreensaverExt extension allows to switch on and off the screensaver and the screensaver's graphic on the panel configured in the iCSmartViewRecipient component.

> Note
> The ScreensaverExt component must be located under the iCSmartViewRecipient component.

The ScreensaverExt extension has the following slots:

- **Screensaver Enabled:** allows to enable or disable the screensaver on the panel configured in the iCSmartViewRecipient;
- **Screensaver Graphics Enabled:** allows to enable of disable displaying screensaver graphics on the panel configured in the iCSmartViewRecipient;
- **Delay:** allows to set a time value, after which any action invoke in the component will actually be executed on the panel.

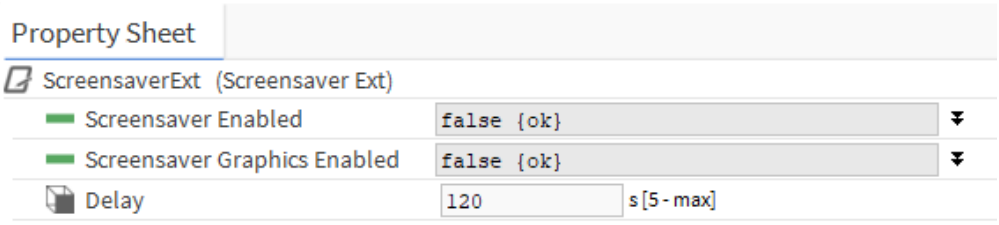

Figure 20. The ScreensaverExt slots

The ScreensaverExt extension has the following actions:

> Note
> These actions can be invoked manually from the context menu or automatically on the change of value of the extension's slots (Kiosk Mode for either Write Unlock or Write Lock actions, and Kiosk Unlock Password for the Write Kiosk Unlock Password action).

- **Force Write:** sends requests to the panel configured in the parent iCSmartViewRecipient component using current values in slots;
- **Write Screensaver Enabled:** sends the Screensaver Enabled slot value to the panel configured in the parent iCSmartViewRecipient component;

- **Write Screensaver Graphics Enabled:** sends the Screensaver Graphics Enabled slot value to the panel configured in the parent iCSmartViewRecipient component;
- **Write Delay:** send the Delay slot value to the panel configured in the parent iCSmartViewRecipient component.

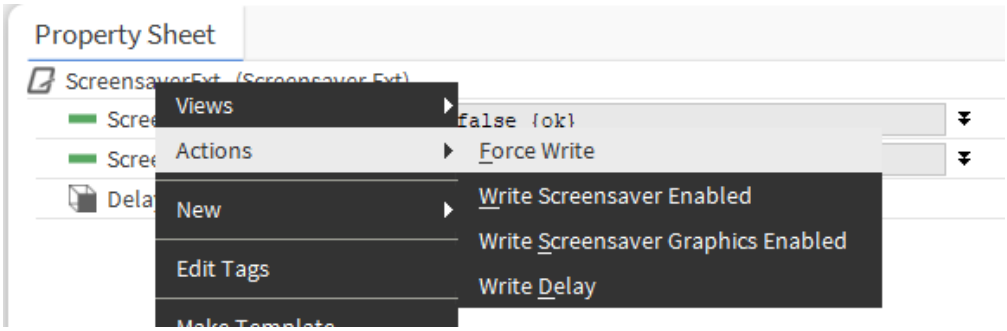

Figure 21. The ScreensaverExt actions

4.2.5 UISettingsExt

The UISettingsExt is an extension component which allows to remotely enable or disable the bring back to the foreground function.

> Note
> The UISettingsExt component must be located under the iCSmartViewRecipient component.

The UISettingsExt extension has the following slots:

- **Bring Back To Foreground Enabled:** allows to switch on or off the function of bringing back iC SmartView to the foreground after one minute of inactivity; this function protects against accidental and non-accidental closing of the application while in operation.

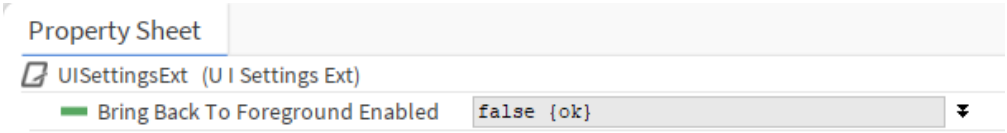

Figure 22. UISettingsExt slots

The UISettingsExt extension has the following actions:

> Note
> These actions can be invoked manually from the context menu or automatically on the change of value of the extension's slot.

- **Force Write:** sends requests to the panel configured in the parent iCSmartViewRecipient component using current values in slots;
- **Write Bring Back To Foreground Enabled:** switches on/off the bring back to the foreground function on the panel configured in the parent iCSmartViewRecipient component.

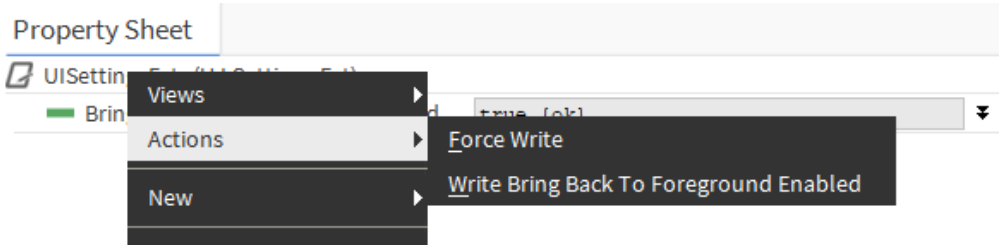

Figure 23. UISettings actions

4.2.6 AutoRestartExt

The AutoRestartExt is an extension component which allows to remotely enable or disable the device automatic restart on a daily basis, according to a set schedule.

This function is useful in case of apparent slowdown of the device and visualization. Some web applications store cache files locally and in the device's RAM. Running the auto-restart option clears this memory at startup.

> Note
> The AutoRestartExt component must be located under the iCSmartViewRecipient component.

The AutoRestartExt extension has the following slots:

- **Enable Auto Restart:** switches the auto restart option on and off;
- **Restart Time:** sets the time for auto restart.

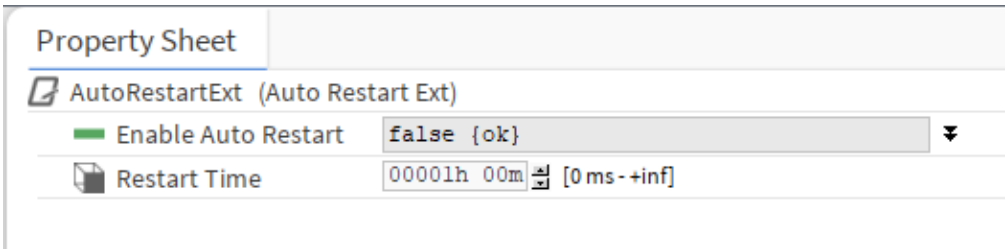

Figure 24. AutoRestartExt slots

The AutoRestartExt extension has the following actions:

> Note
> These actions can be invoked manually from the context menu or automatically on the change of value of the extension's slots (Enable Auto Restart for either Write Enable or Write Disable actions, and Restart Time for the Write Restart action).

- **Force Write:** sends requests to the panel configured in the parent iCSmartViewRecipient component using current values in slots;
- **Write Enable:** switches on the auto restart function on the panel configured in the parent iCSmartViewRecipient component;
- **Write Disable:** switches off the auto restart function on the panel configured in the parent iCSmartViewRecipient component;
- **Write Restart:** sends the new auto restart time to the panel configured in the parent iCSmartViewRecipient component.

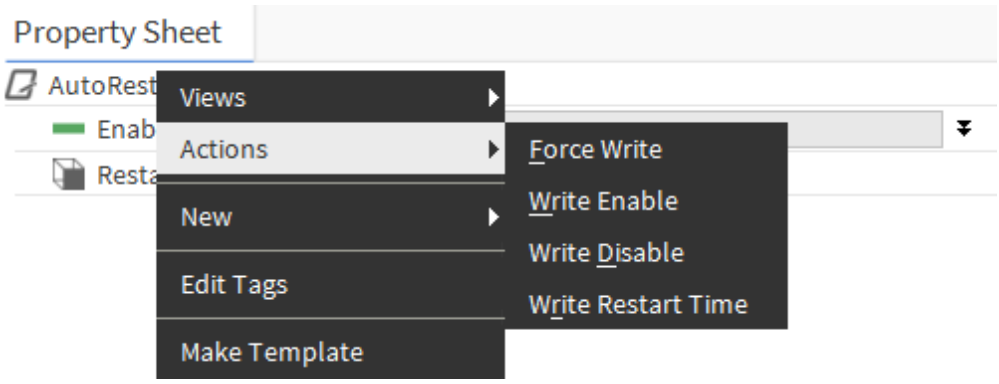

Figure 25. AutoRestartExt actions

4.3 RecipientsFolder

The RecipientsFolder component is a grouping container for iCSmartViewRecipient components. The RecipientsFolder component forwards the commands from the iCSmartViewService component to iCSmartViewRecipient and back. The RecipientsFolder component allows to group clients using subfolders.

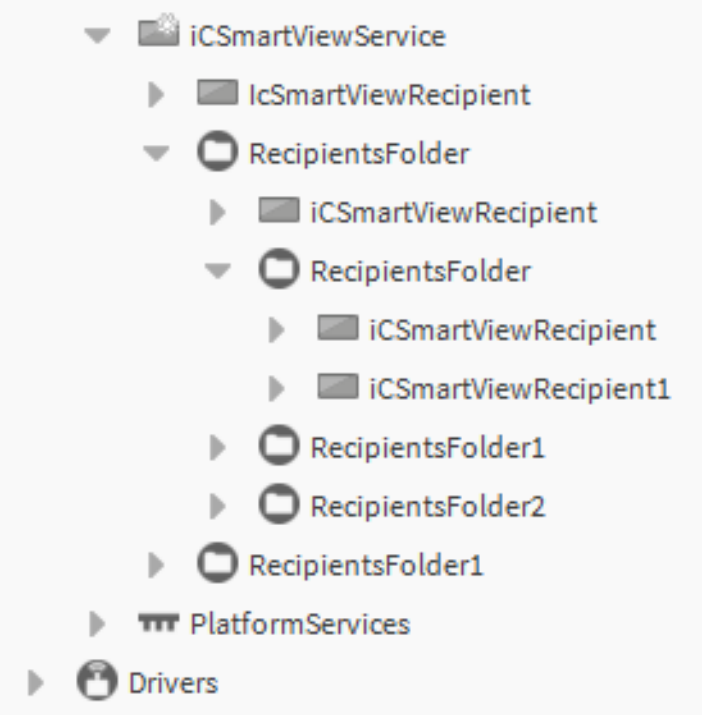

Figure 26. Components structure with the RecipientsFolder

5 Templates

The iC SmartView Config palette is prepared to even further simplify the configuration process of the iSMA CONTROLLI HMI Android panels with the use of predesigned templates dedicated for the PA-LED and iSMA-D-PA panels series.

The templates are structured as follows:

- iCSmartViewRecipient component,
    - extensions applicable to the panels' series.

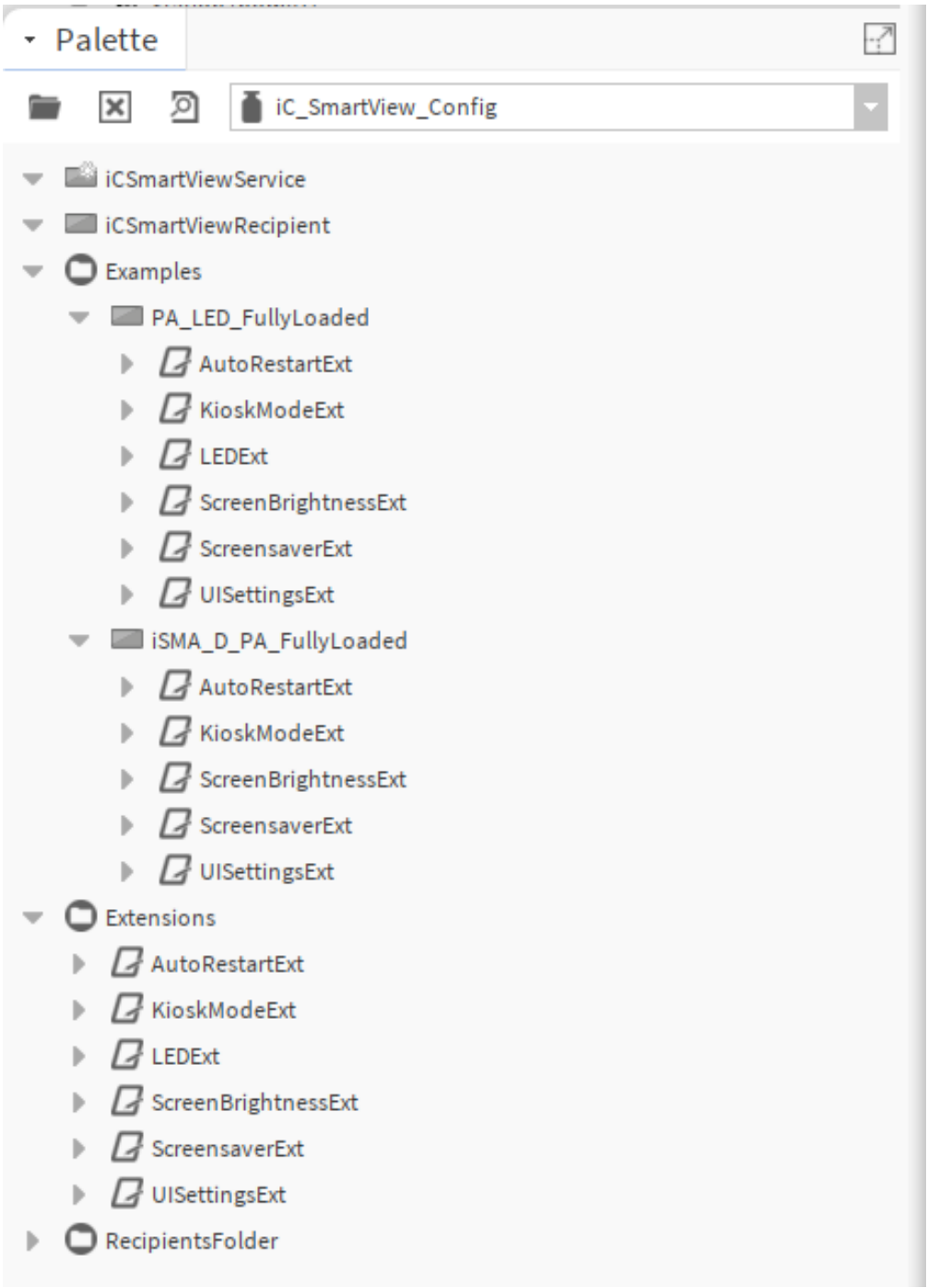

Figure 27. Contents of the iC SmartView Config palette

The iC SmartView Config palette includes 2 templates: the PA_LED_FullyLoaded and iSMA_D_PA_FullyLoaded.

The PA_LED_FullyLoaded is dedicated for the PA-LED panels series and consists of the following elements:

- PA_LED_FullyLoaded (iCSmartViewRecipient level),
  - KioskModeExt (extensions level):
    - Kiosk Mode default value: null,
    - Kiosk Unlock Password default value: null;
  - LEDExt:
    - Led default value: false,
    - Led Color default value: PulsingModeWOW;
  - ScreenbrightnessExt:
    - Brightness Level default value: 100 %,
    - Delay default value: 120 s;
  - ScreensaverExt:
    - Screensaver Enabled default value: false,
    - Screensaver Graphics Enabled default value: false,
    - Delay default value: 120 s.

The iSMA_D_PA_FullyLoaded is dedicated for the iSMA-D-PA panels series and consists of the following elements:

- iSMA_D_PA_FullyLoaded_FullyLoaded (iCSmartViewRecipient level),
  - KioskModeExt (extensions level):
    - Kiosk Mode default value: null,
    - Kiosk Unlock Password default value: null;
  - ScreenbrightnessExt:
    - Brightness Level default value: 100 %,
    - Delay default value: 120 s;
  - ScreensaverExt:
    - Screensaver Enabled default value: false,
    - Screensaver Graphics Enabled default value: false,
    - Delay default value: 120 s.

All parameters in the templates are set to default values and are ready to be configured according to the user requirements.

To use the template, drag and drop it directly under the iCSmartViewService.

Note
Please keep in mind that for any component located under the iCSMartViewService to work properly, the service must be enabled. The status of the iCSmartViewService is inherited by its children components.
It is possible to add only one iCSmartViewService to the station, but there are no limits as to the iCSmartViewRecipient level components and extensions.