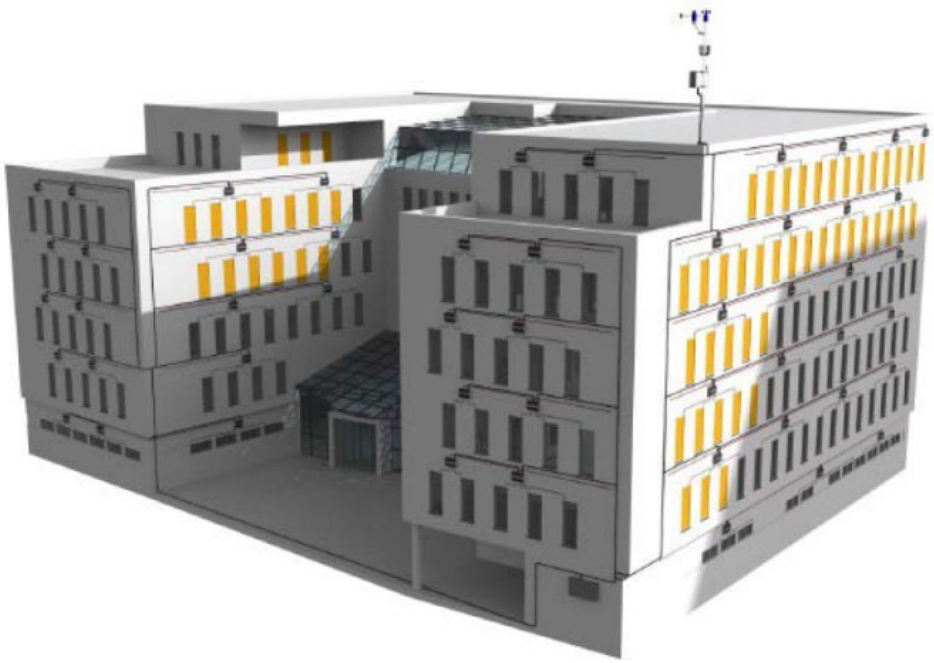
animeo® KNX

“Master Control Extended”

Shadow Management server

Operating Manual



Somfy Activites SA

50 Avenue du Nouveau Monde

74300 Cluses

France

www.somfy.com/projects

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These instructions apply to the solution “animeo Master Control Extended”

Before starting up it is necessary to follow the safety instructions in these instructions. SOMFY cannot be held liable for defects and damages when these have been caused as a result of not following instructions (wrong installation, incorrect service etc.). Establishing, testing and starting up of the equipment is permitted only by a qualified person. Switch on all connections without voltage. Take precautions against unintentional turning on.

The installation of the Somfy products may occur only at easily accessible places. If maintenance and repair become hindered by accessibility substantially (e.g. stuck or extensively stuck flooring, installation behind lamps or behind façades), any originating supplementary costs therein cannot be charged to the seller.

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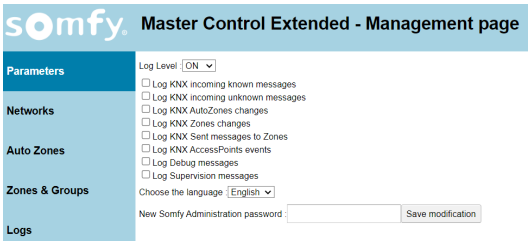
1. Description

Principle

animeo KNX Master Control Extended allows to implement the management of the **shadow** casted on facades/blinds generated by surrounding buildings or obstacles to increase the comfort of the local occupants.

animeo KNX Master Control Extended is an add-on solution over sun glare protection. By implementing this solution, blinds will be moved up when they are impacted by shadows. The condition of shadow is done at regular intervals.

animeo KNX Master Control Extended is a server with a web-based configuration interface. The Master Control Extended functionality is meant to split an orientation or a zone, into several sub-zones. Every subzone is linked to a database which stores the state of this zone, regarding the time and date.



Depending on the weather conditions, the KNX weather station combined with the KNX Master Control Extended sends information via the KNX bus to the individual sun protection control devices to ensure optimum lighting by knowing at any time the shadow on each façade at all the times.

The sun protection controller can be connected also to external systems (e.g. fire warning equipment), so that safety is guaranteed in the building.

The parameter settings are realized via:

- A PC software for the Master Control W2/W8 to set up the needed sun command, the sensor threshold, all the automation. KNX objects for the Master Control W2/W8 and KNX weather station linked with the ETS Software.
- A web page configuration software for the Master control Extended to make the link for any zone between the sun commands and the shadow tracking zone information stored on the server.

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2.Products requirement

To implement the Shadow tracking solution with the Master Control Extended solution, the below equipment's are needed and mandatory. Do not specify/sell this solution with KNX Blinds actuators/Motor Controllers which are not from SOMFY.

- ✓ "SOMFY KNX Weather station" solution with Sun algorithms:
  - **animeo KNX Master Control W2 ***

  Reference: 1860187

  Or

  - **animeo KNX Master Control W8***

  Reference: 1860193

  Or

  - **Weather station KNX**

  Reference: 1870932

- ✓ "SOMFY Motor Controllers"/Blinds KNX Actuators:
  - **KNX 4AC Motor Controller**

    Reference: 1860114/116
  - **KNX 4AC Motor Controller 3 EL**

    Reference: 1860242
  - **KNX 6AC Motor Controller**

    Reference: 1870398
  - **KNX/RS485 Motor Controller**

    Reference: 1860286
  - **KNX 4DC Motor Controller**

    Reference: 1870452
  - **KNX 4DC Motor Controller with 24V PS**

    Reference: 1871121

- ✓ "animeo Master Control Extended":

This solution is only available only via a dedicated service reference.

- 9028715: Shadow management implémentation support <80 Zones
- 9028716: Shadow management implémentation support >80 Zones

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3. PC & OS(software) requirement

animeo KNX “Master Control Extended” requires a dedicated PC on site to store the server having the minimum following capacity.

- Processor : I3 – 7100T or higher (4Cores/3Mo/4T/3,4GHz)
- Ram : 4Go DDR4 no ECC 2 666 MHz
- SATA Hard disk : 128 Go
- 2 USB ports
- 1 RJ 45
- Keyboard, mouse, screen

- Windows 10 and Windows 11

- Windows server 2024

- 4GO DDR4 no ECC2666Mhz

- Service/APACHE TOMCAT

- Service/ JAVA JR

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4. Blinds Compatibility

"Master Control Extended" list of compatible/non Compatible products.

Roller Shutter

Screen

ZIP Screen

Venetian blind 90°/-90°

Venetian blind 90°/0°

Louver (tilt only)

Vertical fixed Louvers (tilt only)

Venetian blind 3 EL 90°/0°

Folding arm awning

Drop arm awning

Markisolette

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5.Scope of use

5.1. Functionality

When the Master Control Extended is used together with the SOMFY Master control W2/W8(1860187,1860193) , some functionality are limited and not usable.

SOMFY MASTER Control functionality compatible or not with the Master Control Extended:

Major Alarm	✓
Lock0%	✓
Wind speed	✓
Wind speed direction	✓
Snow	✓
Frost/ice	✓
Rain	✓
PC Command	✗
Timer Zones	✗
Block heat	✗
Solar heating	✗
Maintain heat	✗
Ventilation cooling	✗
Sun	✓
Sun fix position	✓
Sun Tracking	✓
Azimuth Elevation	✓

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5.2. Limitation

- The number of shadow zones is limited to 930
- In case more zones are needed, a new Pc could be installed with a new “Master control Extended” server to extend the zones capacity by 930 more.
- To secure the communication, number of KNX IP router should not exceed 175.
- HMI (user interface on PC) Interface is only available in French or English.
- The solution allows to log KNX telegrams but the setup is limited and reserved to Somfy Expert.
- Log size are limited to the PC memory and depend of the configuration.
- The Master control Extended solution is protected via a unique LOGIN&PASSWORD

6. Mandatory settings & recommendation

Sun Off position

When “Master control w2” 1860187 is used with the “Master control extended”, the sun off position must be set to

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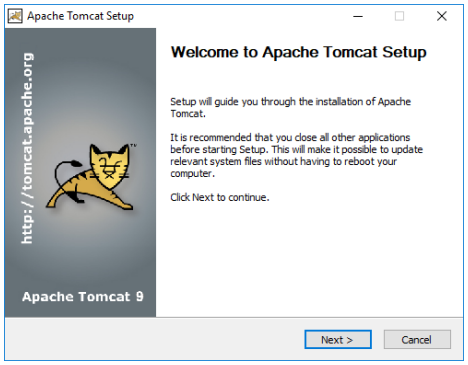
7. Installation and set up

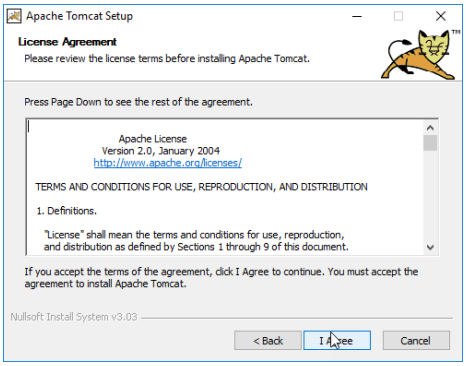
Download needed files/programs

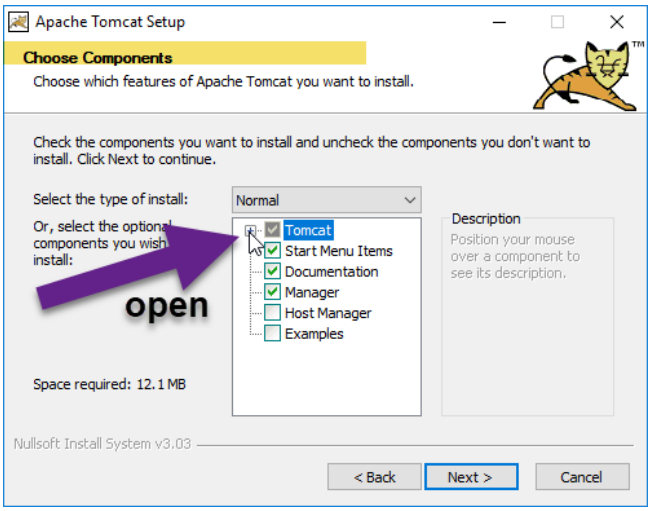
- Download Java installation file
- Download Tomcat 9 installation file
- Download war (Contact Building control Technical Support) folder
- Computer must be connected to LAN and able to access KNX IP interfaces or routers.

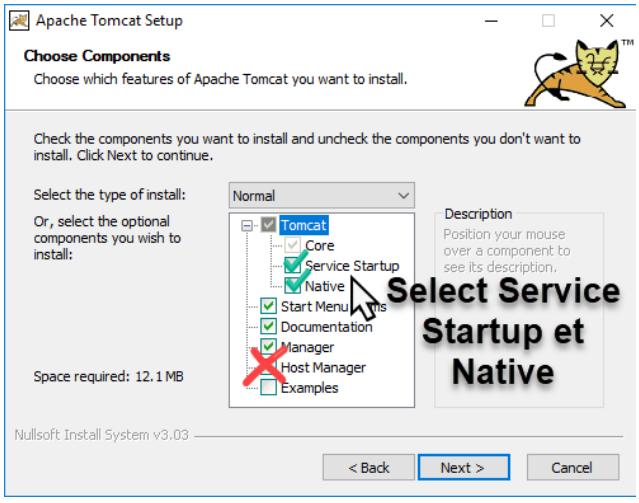
Installation and settings of JAVA and TomCat

- Install JAVA
- Install Apache Tomcat server









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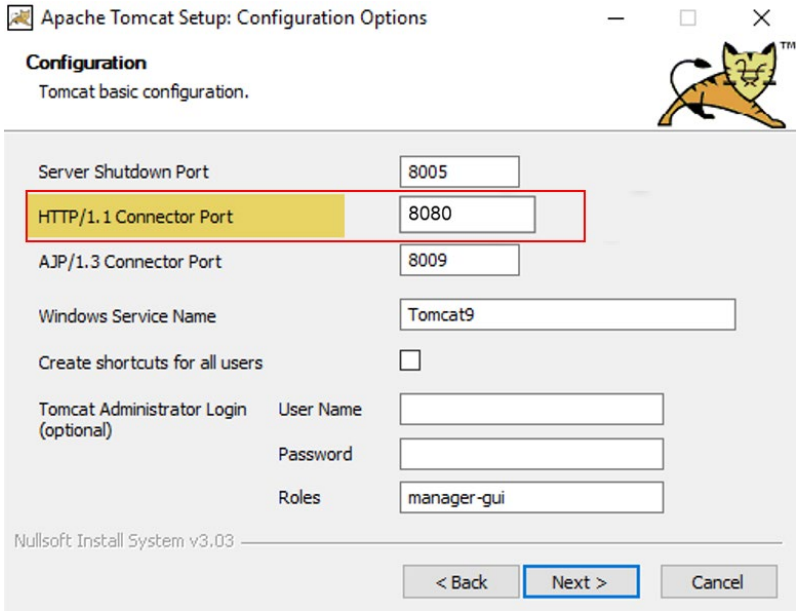
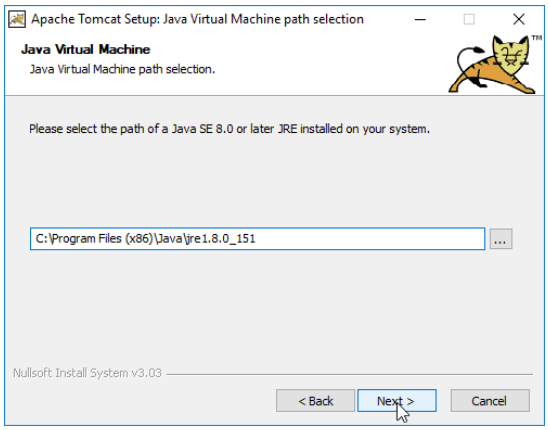
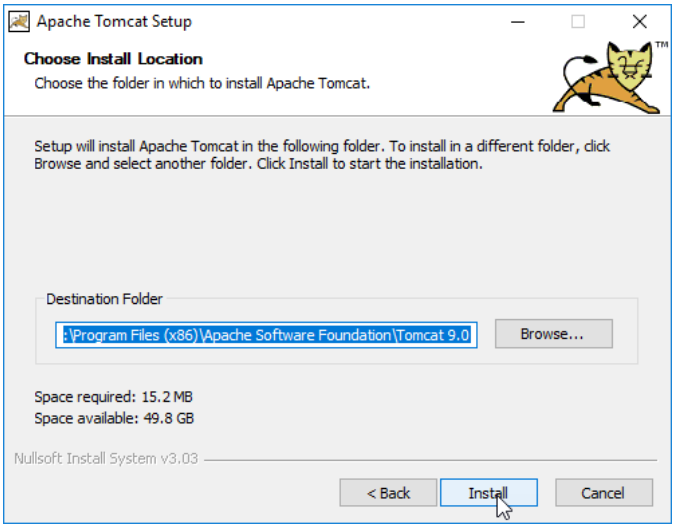
- Select port 8080







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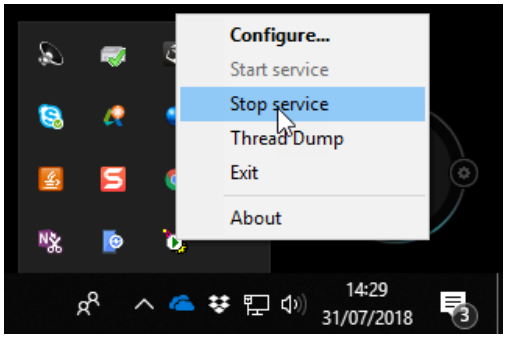
Master Control Extended installation into Tomcat

- Stop TomCat service



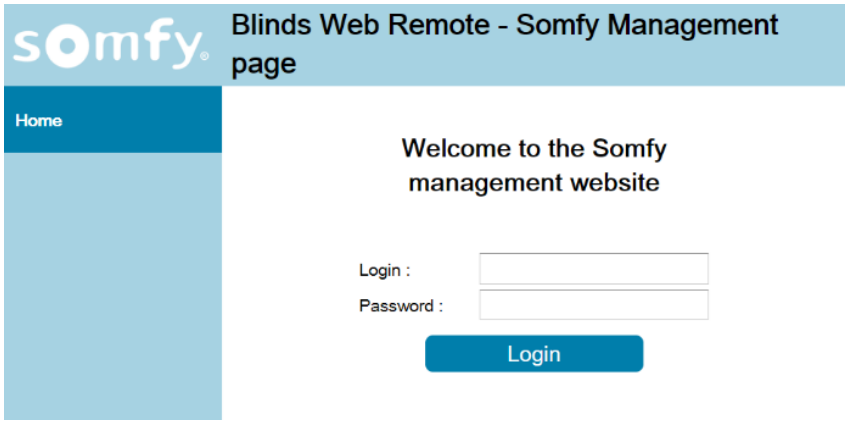
- Clean TomCat folder:
  - Go to C:\Program Files (x86)\Apache Software Foundation\Tomcat 9.0
  - Remove all folders within « webapps »
  - Delete all the « logs » folder content

- Adding “Master Control Extended” software:
  - Go back into « Webapps » folder which must be empty
  - Unzip « WAR » folder and rename the folder in « ROOT » insdide “Webapps” folder.

- Adding Shadow database of the project:
  - If needed, unzip the Shadow db
  - Paste the Shadow .db directly to C:
  - Shadow database folder must be called: “**ShadowDB**”

- Start TomCat service .

- Go to *IPADDRESS:8080*/SomfyAdmin.html



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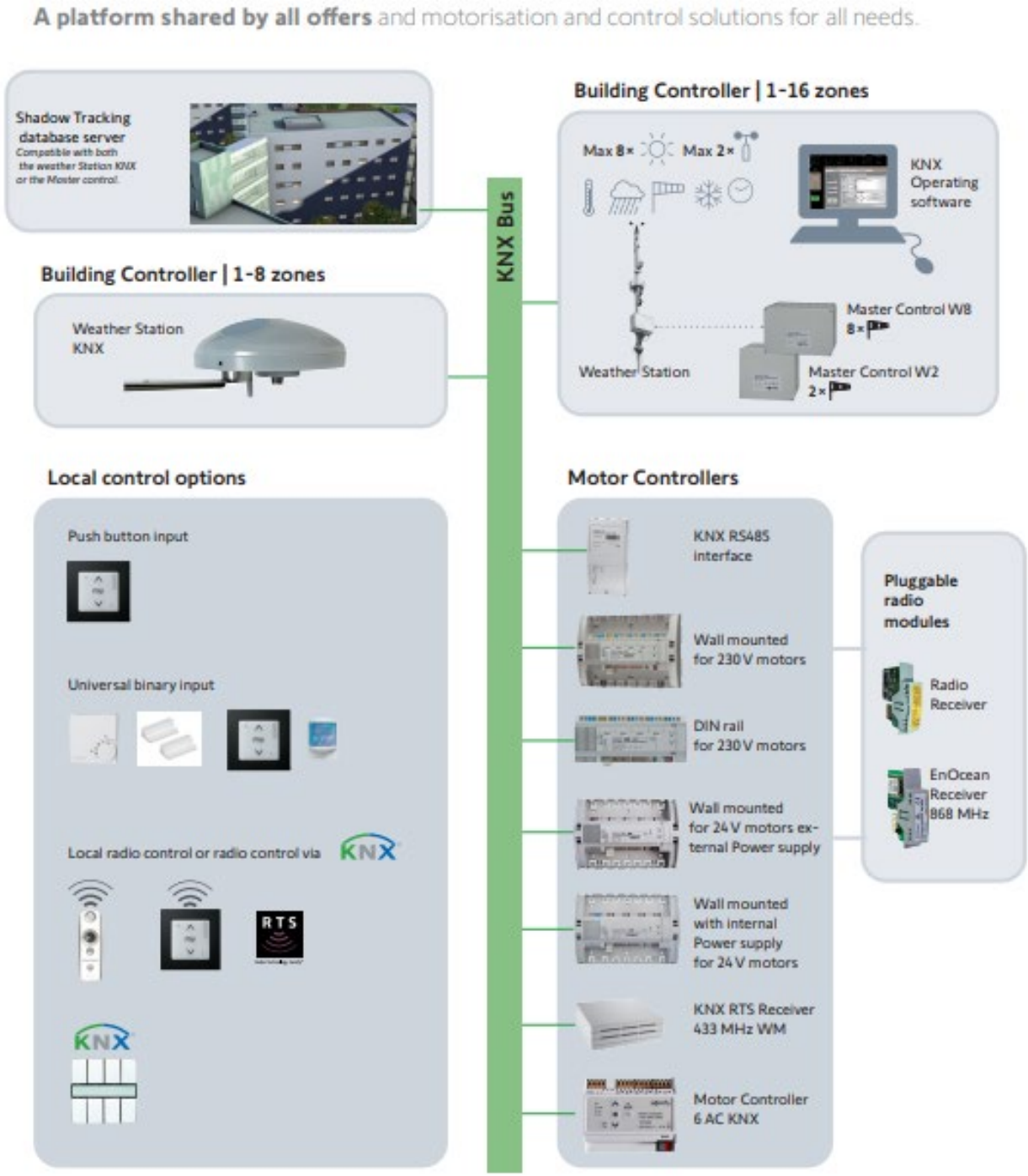
- Default ID and password are:
  - Login: somfy
  - Password: somfy

Remark: Password will have to be changed for any project

8.Schematic principle



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