Manual

Contents

General

General settings can be made in this section.

Direction [0°-359°] 0°=>north

Spin box for setting/entering the direction of the Quadra.

- Default direction: **0°** (North).

If the default direction is not possible or is not desired, the direction must be modified.

To achieve proper solar tracking, the direction must be set as accurately as possible.

Use the following values for setting the four cardinal points:

- 0°: North.
- 90°: East.
- 180°: South.
- 270°: West.

Time zones

Selection list for selecting the time zone of the respective location.

- Default time zone: **(GMT+01:00) Amsterdam, Berlin, Bern, Rome, Vienna**.

The display uses the **GMT**[1] format.

The time zone is required for display purposes and to calculate the following data:

- For the correct display of the date and time of day.
- For calculating the correct position of the sun.

Daylight-savings/standard time

Selection list for selecting automatic or manual switching between daylight-savings time and standard time.

- Default setting: **adapt automatically**.

Daylight-savings/standard time is required for the time of day.

Switching is performed in accordance with the Central European time change.

- **Adapt automatically**: Daylight-savings and standard time are switched manually.
- **Adapt manually**: Daylight-savings and standard time are switched manually.

Send time/date

Selection list to select whether or not the time and date should be sent.

- Default value: **1 h**.
- **No function**: Time and date will not be sent.
- Value in seconds (s), minutes (min) or hours (h): Time and date will be sent at the selected time interval.

Send periodically security objects

Selection list for selecting whether or not security objects should be sent periodically.

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[1]Greenwich Mean Time (abbreviated GMT): The mean sun time at the Greenwich meridian. (Source: Wikipedia, http://de.wikipedia.org/wiki/Greenwich_Mean_Time, also see entry in English).

- Default setting: **Do not send periodically**.
- **Do not send periodically**: Security objects will not be sent.
- Value in seconds (s), minutes (min) or hours (h): Security objects will be sent at the selected time interval.

Time delay after reset

Selection list for selecting how long the central unit waits after a rest before beginning to send again.

A reset occurs, for example, when there is a power failure.

- Default setting: **30 s**.
- **No time delay**: The central unit begins sending immediately after a reset.
- Value in seconds (s), minutes (min) or hours (h): Duration of the delay until the central unit begins sending once again.

Read input programmes after a reset?

Selection list for selecting whether or not the inputs should first be read after a reset.

A reset occurs, for example, when there is a power failure.

- Default setting: **No**.

Service interval after

Selection list for selecting the service interval in months.

- Default setting: **6 months**.

Telegramme rate per second

Spin box for setting/entering the telegramme rate.

The telegramme rate specifies the maximum number of telegrammes to be sent per second.

- Default setting: **5 s**.

Buttons

OK

Saves entries and changes and closes the dialog box.

Cancel

Discards entries and changes and closes the dialog box.

Default

Allows you to reset the values to the default settings.

1. Click on the **Default** button.
   The **Error** dialog box will open.
2. Select whether or not the object flags should be reset.
   1. **Yes**: The object flags will be reset.
   2. **No**: The object flags will not be reset.
   The default settings will be restored.

Info

Opens help menu.

Help

Opens the ETS help menu.

Location

The location can be specified in this section.

Position reckoning by:

    Selection list for selecting whether a location should be specified by selecting a country and a town or by entering coordinates.

- Default setting: **Place**.
- **Place**: Specify location by selecting a country and a town.

> **Note**: If the country or the town in which you are located is not available in the list, the location must be specified using coordinates. In the selection list, select **Position reckoning by: Coordinates**.

- **Coordinates**: Specify the location by entering the respective geographical latitude and longitude.

Note: The following selection lists and fields are only available if the **Position reckoning by:** > **Town** option was selected in the selection list.

Country

    Selection list containing countries for specifying the location.

Town

    Selection list containing towns for specifying the location.

    The list of towns available depends on the country selection made in the **Country** selection list.

Latitude

    Display of the geographical latitude in degrees (°) and angular minutes (') as well as the compass orientation.

    The geographical latitude depends on the country selection made in the **Country** selection list and the town selection made in the **Town** selection list.

Longitude

    Display of the geographical longitude in degrees (°) and angular minutes (') as well as the compass orientation.

    The geographical longitude depends on the country selection made in the **Country** selection list and the town selection made in the **Town** selection list.

Note: The following selection lists and spin boxes are only available if the **Position reckoning by:** > **Coordinates** option was selected in the selection list.

Longitude

    Selection list for choosing the easterly or westerly geographical longitude.

Longitude in degrees [0° - 180°]

    Spin box for setting/entering the easterly or westerly longitude in degrees (°).

Longitude in minutes [0'-59']

    Spin box for setting/entering the easterly or westerly longitude in angular minutes (').

Latitude

Selection list for choosing the northerly or southerly geographical latitude.

Latitude in degrees [0° - 180°]

Spin box for setting/entering the northerly or southerly latitude in degrees (°).

Latitude in minutes [0'-59']

Spin box for setting/entering the northerly or southerly latitude in angular minutes (').

Buttons

OK

Saves entries and changes and closes the dialog box.

Cancel

Discards entries and changes and closes the dialog box.

Default

Allows you to reset the values to the default settings.

1. Click on the **Default** button.
   The **Error** dialog box will open.
2. Select whether or not the object flags should be reset.
   1. **Yes**: The object flags will be reset.
   2. **No**: The object flags will not be reset.
   The default settings will be restored.

Info

Opens help menu.

Help

Opens the ETS help menu.

Position of the sun

This section is used to specify whether or not the position of the sun should be displayed.

Show position of the sun?

Selection list to select whether or not the position of the sun should be displayed.

- Default setting: **No**.
- **No**: The position of the sun is not displayed.
- **Yes**: The position of the sun is displayed.

Note: The following selection lists are only available if the option **Yes** was selected in the selection list **Show position of the sun?**.

Send azimuth periodically

Selection list for choosing a time interval at which the azimuth is sent.

- Default setting: -----: The value of the azimuth is not sent.
- Value in seconds (s) or minutes (min): The value of the azimuth is sent at the selected time interval.

Send azimuth with changes

Selection list for choosing a change of the azimuth in degrees (°) at which the value of the azimuth is sent.

- Default setting: -----: The value of the azimuth is not sent.
- Value in degrees (°): Value of the azimuth at which the value of the azimuth is sent.

Send elevation periodically

Selection list for choosing a time interval at which the elevation is sent.

- Default setting: -----: The value of the elevation is not sent.
- Value in seconds (s) or minutes (min): The value of the elevation is sent at the selected time interval.

Send elevation with changes

Selection list for choosing a change of the elevation in degrees (°) at which the value of the elevation is sent.

- Default setting: -----: The value of the elevation is not sent.
- Value in degrees (°): The value of the elevation at which the value of the elevation is sent.

Buttons

OK

Saves entries and changes and closes the dialog box.

Cancel

Discards entries and changes and closes the dialog box.

Default

Allows you to reset the values to the default settings.

1. Click on the **Default** button.
   The **Error** dialog box will open.

2. Select whether or not the object flags should be reset.
    1. **Yes**: The object flags will be reset.
    2. **No**: The object flags will not be reset.
    The default settings will be restored.

Info

Opens help menu.

Help

Opens the ETS help menu.

Sensors

In this section, it is possible to specify which of the communication objects listed below are available for internal and external sensors and which are not.

Available communication objects are listed below the **Sensors** section.

The available communication objects can be parametrised in the respective windows **[Name of communication object]**.
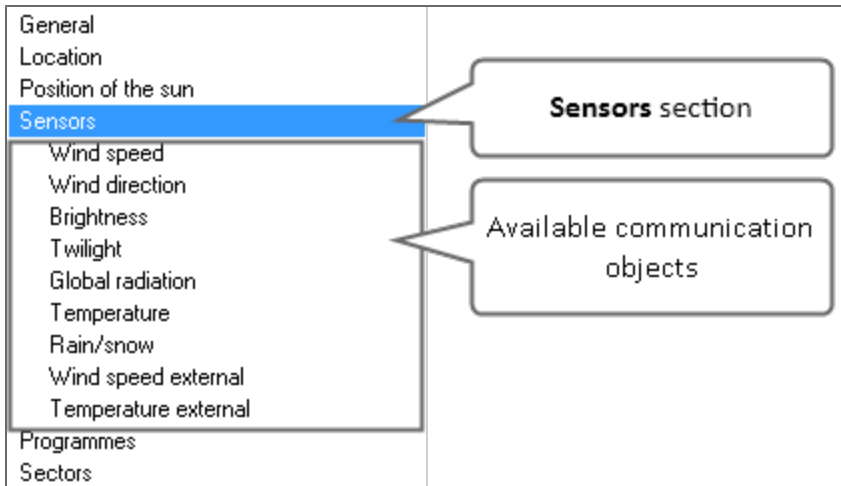
Sensors section with all available communication objects.

Internal sensors

Wind speed

  Selection list for switching the **Wind speed** communication object on/off.

- Default setting: **Off**: The **Wind speed** communication object is not available.
- **On**: The **Wind speed** communication object is available.
  This communication object is displayed below the **Sensors** section.
  Parametrisation can be done in the **Wind speed** window.

Wind direction

  Selection list for switching the **Wind direction** communication object on/off.

- Default setting: **Off**: The **Wind direction** communication object is not available.
- **On**: The **Wind direction** communication object is available.
  This communication object is displayed below the **Sensors** section.
  Parametrisation can be done in the **Wind direction** window.

Brightness

  Selection list for switching the **Brightness** communication object on/off.

- Default setting: **Off**: The **Brightness** communication object is not available.
- **On**: The **Brightness** communication object is available.
  This communication object is displayed below the **Sensors** section.
  Parametrisation can be done in the **Brightness** window.

Twilight

  Selection list for switching the **Twilight** communication object on/off.

- Default setting: **Off**: The **Twilight** communication object is not available.
- **On**: The **Twilight** communication object is available.
  This communication object is displayed below the **Twilight** section.
  Parametrisation can be done in the **Brightness** window.

Global radiation

Selection list for switching the **Global radiation** communication object on/off.

- Default setting: **Off**: The **Global radiation** communication object is not available.
- **On**: The **Global radiation** communication object is available.
  This communication object is displayed below the **Sensors** section.
  Parametrisation can be done in the **Global radiation** window.

Temperature

Selection list for switching the **Temperature** communication object on/off.

- Default setting: **Off**: The **Temperature** communication object is not available.
- **On**: The **Temperature** communication object is available.
  This communication object is displayed below the **Sensors** section.
  Parametrisation can be done in the **Temperature** window.

Rain/snow

Selection list for switching the **Rain/snow** communication object on/off.

- Default setting: **Off**: The **Rain/snow** communication object is not available.
- **On**: The **Rain/snow** communication object is available.
  This communication object is displayed below the **Sensors** section.
  Parametrisation can be done in the **Rain/snow** window.

External sensors

In this section, you can specify whether or not the following communication objects are available for external sensors.

Parametrisation can be done in the enabled communication objects.

Wind speed

Selection list for switching the **Wind speed** communication object on/off.

- Default setting: **Off**: The **Wind speed** communication object is not available.
- **On**: The **Wind speed** communication object is available.
  This communication object is displayed below the **Sensors** section.
  Parametrisation can be done in the **External wind speed** window.

Temperature

Selection list for switching the **Temperature** communication object on/off.

- Default setting: **Off**: The **Temperature** communication object is not available.
- **On**: The **Temperature** communication object is available.
  This communication object is displayed below the **Sensors** section.
  Parametrisation can be done in the **External temperature** window.

Buttons

OK

Saves entries and changes and closes the dialog box.

Cancel

Discards entries and changes and closes the dialog box.

Default

Allows you to reset the values to the default settings.

1. Click on the **Default** button.
   The **Error** dialog box will open.
2. Select whether or not the object flags should be reset.
   1. **Yes**: The object flags will be reset.
   2. **No**: The object flags will not be reset.
   The default settings will be restored.

Info

Opens help menu.

Help

Opens the ETS help menu.

Wind speed

Wind

Selection list for choosing under what conditions the value for wind speed in m/s should be sent.

- Default setting: **Send periodically / 30 s**.
- **Send periodically**: Sends the value for wind speed at the selected time interval without regard to whether or not the value for wind speed has changed.
  The time interval in seconds (s), minutes (min) or hours (h) can be selected in the selection list under selection list **Wind**.
- **Send with changes**: Sends the value for wind speed when it changes by a certain amount.
  The value of the change of wind speed in [m/s] can be selected in the selection list under selection list **Wind**.
- **Send periodically + with changes**: Sends the value for wind speed at the selected time interval as well as when the wind speed changes.
  The time interval in seconds (s), minutes (min) or hours (h) can be selected in the selection list under selection list **Wind**.
  The value of the change of wind speed in [m/s] can be selected in the second selection list under selection list **Wind**.

Buttons

OK

Saves entries and changes and closes the dialog box.

Cancel

Discards entries and changes and closes the dialog box.

Default

Allows you to reset the values to the default settings.

1. Click on the **Default** button.
   The **Error** dialog box will open.
2. Select whether or not the object flags should be reset.
   1. **Yes**: The object flags will be reset.
   2. **No**: The object flags will not be reset.
   The default settings will be restored.

Info

Opens help menu.

Help

Opens the ETS help menu.

Wind direction

Wind direction

Selection list for choosing under what conditions the value for wind direction in degrees (°) should be sent.

- Default setting: **Send periodically / 30 s**.
- **Send periodically**: Sends the value for wind direction at the selected time interval without regard to whether or not the value for wind direction has changed.
  The time interval in seconds (s), minutes (min) or hours (h) can be selected in the selection list under selection list **Wind direction**.
- **Send with changes**: Sends the value for wind direction when it changes by a certain amount.
  The value of the change in wind direction in degrees (°) can be selected in the selection list under selection list **Wind direction**.
- **Send periodically + with changes**: Sends the value for the wind direction at the selected time interval as well as when the wind direction changes.
  The time interval in seconds (s), minutes (min) or hours (h) can be selected in the selection list under selection list **Wind direction**.
  The value of the change in wind direction in degrees (°) can be selected in the second selection list under selection list **Wind direction**.

Buttons

OK

Saves entries and changes and closes the dialog box.

Cancel

Discards entries and changes and closes the dialog box.

Default

Allows you to reset the values to the default settings.

1. Click on the **Default** button.
   The **Error** dialog box will open.
2. Select whether or not the object flags should be reset.
   1. **Yes**: The object flags will be reset.
   2. **No**: The object flags will not be reset.
   The default settings will be restored.

Info

Opens help menu.

Help

Opens the ETS help menu.

Brightness

Brightness north

Selection list for choosing under what conditions the value for brightness should be sent in **kLux** for the cardinal point **North**.

- Default setting: **Send periodically / 30 s**.
- **Send periodically**: Sends the value for brightness at the selected time interval without regard to whether or not the value for brightness has changed.
  The time interval in seconds (s), minutes (min) or hours (h) can be selected in the selection list under selection list **Brightness north**.
- **Send with changes**: Sends the value for brightness when it changes by a certain amount.
  The value of the change of brightness in kLux can be selected in the selection list under selection list **Brightness north**.
- **Send periodically + with changes**: Sends the value for brightness at the selected time interval as well as when the brightness changes.
  The time interval in seconds (s), minutes (min) or hours (h) can be selected in the selection list under selection list **Brightness north**.
  The value of the change of brightness in lux (kLux) can be selected in the second selection list under selection list **Brightness north**.

Brightness east

Selection list for choosing under what conditions the value for brightness should be sent for the cardinal point **East**.

- Default setting: **Send periodically / 30 s**.
- **Send periodically**: Sends the value for brightness at the selected time interval without regard to whether or not the value for brightness has changed.
  The time interval in seconds (s), minutes (min) or hours (h) can be selected in the selection list under selection list **Brightness east**.
- **Send with changes**: Sends the value for brightness when it changes by a certain amount.
  The value of the change of brightness in kLux can be selected in the selection list under selection list **Brightness east**.
- **Send periodically + with changes**: Sends the value for brightness at the selected time interval as well as when the brightness changes.
  The time interval in seconds (s), minutes (min) or hours (h) can be selected in the selection list under selection list **Brightness east**.
  The value of the change of brightness in lux (kLux) can be selected in the second selection list under selection list **Brightness east**.

Brightness south

Selection list for choosing under what conditions the value for brightness should be sent for the cardinal point **South**.

- Default setting: **Send periodically / 30 s**.
- **Send periodically**: Sends the value for brightness at the selected time interval without

regard to whether or not the value for brightness has changed.
The time interval in seconds (s), minutes (min) or hours (h) can be selected in the selection list under selection list **Brightness south**.

- **Send with changes**: Sends the value for brightness when it changes by a certain amount.
The value of the change of brightness in kLux can be selected in the selection list under selection list **Brightness south**.
- **Send periodically + with changes**: Sends the value for brightness at the selected time interval as well as when the brightness changes.
The time interval in seconds (s), minutes (min) or hours (h) can be selected in the selection list under selection list **Brightness south**.
The value of the change of brightness in lux (kLux) can be selected in the second selection list under selection list **Brightness south**.

Brightness west

Selection list for choosing under what conditions the value for brightness should be sent for the cardinal point **West**.

- Default setting: **Send periodically / 30 s**.
- **Send periodically**: Sends the value for brightness at the selected time interval without regard to whether or not the value for brightness has changed.
The time interval in seconds (s), minutes (min) or hours (h) can be selected in the selection list under selection list **Brightness west**.
- **Send with changes**: Sends the value for brightness when it changes by a certain amount.
The value of the change of brightness in kLux can be selected in the selection list under selection list **Brightness west**.
- **Send periodically + with changes**: Sends the value for brightness at the selected time interval as well as when the brightness changes.
The time interval in seconds (s), minutes (min) or hours (h) can be selected in the selection list under selection list **Brightness west**.
The value of the change of brightness in lux (kLux) can be selected in the second selection list under selection list **Brightness west**.

Brightness sky

- Default setting: **Send periodically / 30 s**.
- **Send periodically**: Sends the value for brightness at the selected time interval without regard to whether or not the value for brightness has changed.
The time interval in seconds (s), minutes (min) or hours (h) can be selected in the selection list under selection list **Brightness sky**.
- **Send with changes**: Sends the value for brightness when it changes by a certain amount.
The value of the change of brightness in kLux can be selected in the selection list under selection list **Brightness sky**.
- **Send periodically + with changes**: Sends the value for brightness at the selected time interval as well as when the brightness changes.
The time interval in seconds (s), minutes (min) or hours (h) can be selected in the selection list under selection list **Brightness sky**.

The value of the change of brightness in lux (kLux) can be selected in the second selection list under selection list **Brightness sky**.

Buttons

OK

Saves entries and changes and closes the dialog box.

Cancel

Discards entries and changes and closes the dialog box.

Default

Allows you to reset the values to the default settings.

1. Click on the **Default** button.
   The **Error** dialog box will open.
2. Select whether or not the object flags should be reset.
   1. **Yes**: The object flags will be reset.
   2. **No**: The object flags will not be reset.
   The default settings will be restored.

Info

Opens help menu.

Help

Opens the ETS help menu.

Twilight

Twilight

Selection list for choosing under what conditions the value for twilight should be sent in **klx**[1].

- Default setting: **Send periodically / 30 s**.
- **Send periodically**: Sends the value for twilight at the selected time interval without regard to whether or not the value for twilight has changed.
  The time interval in seconds (s), minutes (min) or hours (h) can be selected in the selection list under selection list **Twilight**.
- **Send with changes**: Sends the value for twilight when it changes by a certain amount.
  The value of the change of twilight in klx can be selected in the selection list under selection list **Twilight**.
- **Send periodically + with changes**: Sends the value for twilight at the selected time interval as well as when the twilight changes.
  The time interval in seconds (s), minutes (min) or hours (h) can be selected in the selection list under selection list **Twilight**.
  The value of the change of twilight in klx can be selected in the second selection list under selection list **Twilight**.

Buttons

OK

Saves entries and changes and closes the dialog box.

Cancel

Discards entries and changes and closes the dialog box.

Default

Allows you to reset the values to the default settings.

1. Click on the **Default** button.
   The **Error** dialog box will open.
2. Select whether or not the object flags should be reset.
   1. **Yes**: The object flags will be reset.
   2. **No**: The object flags will not be reset.
   The default settings will be restored.

Info

Opens help menu.

Help

Opens the ETS help menu.

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[1]Kilolux. 1000 lux = 1 klx.

Global radiation

Global radiation north

Selection list for choosing under what conditions the value for global radiation should be sent in W/m² for the cardinal point **North**.

- Default setting: **Send periodically / 30 s**.
- **Send periodically**: Sends the value for global radiation at the selected time interval without regard to whether or not the value for global radiation has changed.
  The time interval in seconds (s), minutes (min) or hours (h) can be selected in the selection list under selection list **Global radiation north**.
- **Send with changes**: Sends the value for global radiation when it changes by a certain amount.
  The value of the change of global radiation in W/m^2 can be selected in the selection list under selection list **Global radiation north**.
- **Send periodically + with changes**: Sends the value for global radiation at the selected time interval as well as when the global radiation changes.
  The time interval in seconds (s), minutes (min) or hours (h) can be selected in the selection list under selection list **Global radiation north**.
  The value of the change of global radiation in W/m^2 can be selected in the second selection list under selection list **Global radiation north**.

Global radiation east

Selection list for choosing under what conditions the value for global radiation should be sent in W/m² for the cardinal point **East**.

- Default setting: **Send periodically / 30 s**.
- **Send periodically**: Sends the value for global radiation at the selected time interval without regard to whether or not the value for global radiation has changed.
  The time interval in seconds (s), minutes (min) or hours (h) can be selected in the selection list under selection list **Global radiation east**.
- **Send with changes**: Sends the value for global radiation when it changes by a certain amount.
  The value of the change of global radiation in W/m^2 can be selected in the selection list under selection list **Global radiation east**.
- **Send periodically + with changes**: Sends the value for global radiation at the selected time interval as well as when the global radiation changes.
  The time interval in seconds (s), minutes (min) or hours (h) can be selected in the selection list under selection list **Global radiation east**.
  The value of the change of global radiation in W/m^2 can be selected in the second selection list under selection list **Global radiation east**.

Global radiation south

Selection list for choosing under what conditions the value for global radiation should be sent in W/m² for the cardinal point **South**.

- Default setting: **Send periodically / 30 s**.
- **Send periodically**: Sends the value for global radiation at the selected time interval without regard to whether or not the value for global radiation has changed.
  The time interval in seconds (s), minutes (min) or hours (h) can be selected in the selection list under selection list **Global radiation south**.
- **Send with changes**: Sends the value for global radiation when it changes by a certain amount.
  The value of the change of global radiation in W/m^2 can be selected in the selection list under selection list **Global radiation south**.
- **Send periodically + with changes**: Sends the value for global radiation at the selected time interval as well as when the global radiation changes.
  The time interval in seconds (s), minutes (min) or hours (h) can be selected in the selection list under selection list **Global radiation south**.
  The value of the change of global radiation in W/m^2 can be selected in the second selection list under selection list **Global radiation south**.

Global radiation west

Selection list for choosing under what conditions the value for global radiation should be sent in W/m² for the cardinal point **West**.

- Default setting: **Send periodically / 30 s**.
- **Send periodically**: Sends the value for global radiation at the selected time interval without regard to whether or not the value for global radiation has changed.
  The time interval in seconds (s), minutes (min) or hours (h) can be selected in the selection list under selection list **Global radiation west**.
- **Send with changes**: Sends the value for global radiation when it changes by a certain amount.
  The value of the change of global radiation in W/m^2 can be selected in the selection list under selection list **Global radiation west**.
- **Send periodically + with changes**: Sends the value for global radiation at the selected time interval as well as when the global radiation changes.
  The time interval in seconds (s), minutes (min) or hours (h) can be selected in the selection list under selection list **Global radiation west**.
  The value of the change of global radiation in W/m^2 can be selected in the second selection list under selection list **Global radiation west**.

Global radiation sky

Selection list for choosing under what conditions the value for global radiation should be sent in W/m² for the cardinal point **Sky**.

- Default setting: **Send periodically / 30 s**.
- **Send periodically**: Sends the value for global radiation at the selected time interval without regard to whether or not the value for global radiation has changed.
  The time interval in seconds (s), minutes (min) or hours (h) can be selected in the selection list under selection list **Global radiation sky**.
- **Send with changes**: Sends the value for global radiation when it changes by a certain

amount.

The value of the change of global radiation in W/m^2 can be selected in the selection list under selection list **Global radiation sky**.

- **Send periodically + with changes**: Sends the value for global radiation at the selected time interval as well as when the global radiation changes.

    The time interval in seconds (s), minutes (min) or hours (h) can be selected in the selection list under selection list **Global radiation sky**.

    The value of the change of global radiation in W/m^2 can be selected in the second selection list under selection list **Global radiation sky**.

Buttons

OK

Saves entries and changes and closes the dialog box.

Cancel

Discards entries and changes and closes the dialog box.

Default

Allows you to reset the values to the default settings.

1. Click on the **Default** button.
   The **Error** dialog box will open.
2. Select whether or not the object flags should be reset.
   1. **Yes**: The object flags will be reset.
   2. **No**: The object flags will not be reset.
   The default settings will be restored.

Info

Opens help menu.

Help

Opens the ETS help menu.

Temperature

Temperature

Selection list for choosing under what conditions the value for temperature in **kelvin**[1] should be sent.

- Default setting: **Send periodically / 30 s**.
- **Send periodically**: Sends the value for temperature at the selected time interval without regard to whether or not the value for temperature has changed.
  The time interval in seconds (s), minutes (min) or hours (h) can be selected in the selection list under selection list **Temperature**.
- **Send with changes**: Sends the value for temperature when it changes by a certain amount.
  The value of the change in temperature in kelvin can be selected in the selection list under selection list **Temperature**.
- **Send periodically + with changes**: Sends the value for temperature at the selected time interval as well as when the temperature changes.
  The time interval in seconds (s), minutes (min) or hours (h) can be selected in the selection list under selection list **Temperature**.
  The value of the change in temperature in kelvin can be selected in the second selection list under selection list **Temperature**.

Buttons

OK

Saves entries and changes and closes the dialog box.

Cancel

Discards entries and changes and closes the dialog box.

Default

Allows you to reset the values to the default settings.

1. Click on the **Default** button.
   The **Error** dialog box will open.
2. Select whether or not the object flags should be reset.
   1. **Yes**: The object flags will be reset.
   2. **No**: The object flags will not be reset.
   The default settings will be restored.

Info

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[1]The kelvin (unit symbol: K) is the SI base unit for thermodynamic temperature and also the legally stipulated temperature unit; it is also used to specify temperature differences. In Germany, Austria and Switzerland as well as in other European countries, the degree Celsius (unit symbol: °C) is also used as a legal unit for the specification of Celsius temperatures and their differences. (Source: Wikipedia, http://de.wikipedia.org/wiki/Kelvin, also see entry in English).

Opens help menu.

Help

Opens the ETS help menu.

Rain/snow

Rain/snow

Selection list for choosing under what conditions the value for rain/snow should be sent.

- Default setting: **Send periodically** / **2 h**.
- **Send periodically**: Sends the value for temperature at the selected time interval without regard to whether or not the value for temperature has changed.
  The time interval in seconds (s), minutes (min) or hours (h) can be selected in the selection list under selection list **Temperature**.
- **Send with changes**: Sends the value for temperature when it changes by a certain amount.
  The value of the change in temperature in kelvin can be selected in the selection list under selection list **Temperature**.
- **Send periodically + with changes**: Sends the value for temperature at the selected time interval as well as when the temperature changes.
  The time interval in seconds (s), minutes (min) or hours (h) can be selected in the selection list under selection list **Temperature**.
  The value of the change in temperature in kelvin can be selected in the second selection list under selection list **Temperature**.

Buttons

OK

Saves entries and changes and closes the dialog box.

Cancel

Discards entries and changes and closes the dialog box.

Default

Allows you to reset the values to the default settings.

1. Click on the **Default** button.
   The **Error** dialog box will open.
2. Select whether or not the object flags should be reset.
   1. **Yes**: The object flags will be reset.
   2. **No**: The object flags will not be reset.
   The default settings will be restored.

Info

Opens help menu.

Help

Opens the ETS help menu.

External wind speed

Monitor external wind periodically

Selection list to select whether or not the wind speed should be monitored.

- Default setting: -----, wind speed is not monitored.
- -----: Wind speed is not monitored.
- Value in seconds (s), minutes (min) or hours (h): The wind speed is monitored at the selected time interval.
  If no value is received from the external wind sensor within the selected time interval, the value will be set to the maximum of 670760 m/s and the error **Wind sensor** will be set to 1.

Buttons

OK

Saves entries and changes and closes the dialog box.

Cancel

Discards entries and changes and closes the dialog box.

Default

Allows you to reset the values to the default settings.

1. Click on the **Default** button.
   The **Error** dialog box will open.
2. Select whether or not the object flags should be reset.
   1. **Yes**: The object flags will be reset.
   2. **No**: The object flags will not be reset.
   The default settings will be restored.

Info

Opens help menu.

Help

Opens the ETS help menu.

External temperature

No parameters can be set.

Note: The external sensor operates exclusively in connection with the Heat programme.

Buttons

OK

Saves entries and changes and closes the dialog box.

Cancel

Discards entries and changes and closes the dialog box.

Default

Allows you to reset the values to the default settings.

1. Click on the **Default** button.
   The **Error** dialog box will open.
2. Select whether or not the object flags should be reset.
   1. **Yes**: The object flags will be reset.
   2. **No**: The object flags will not be reset.
   The default settings will be restored.
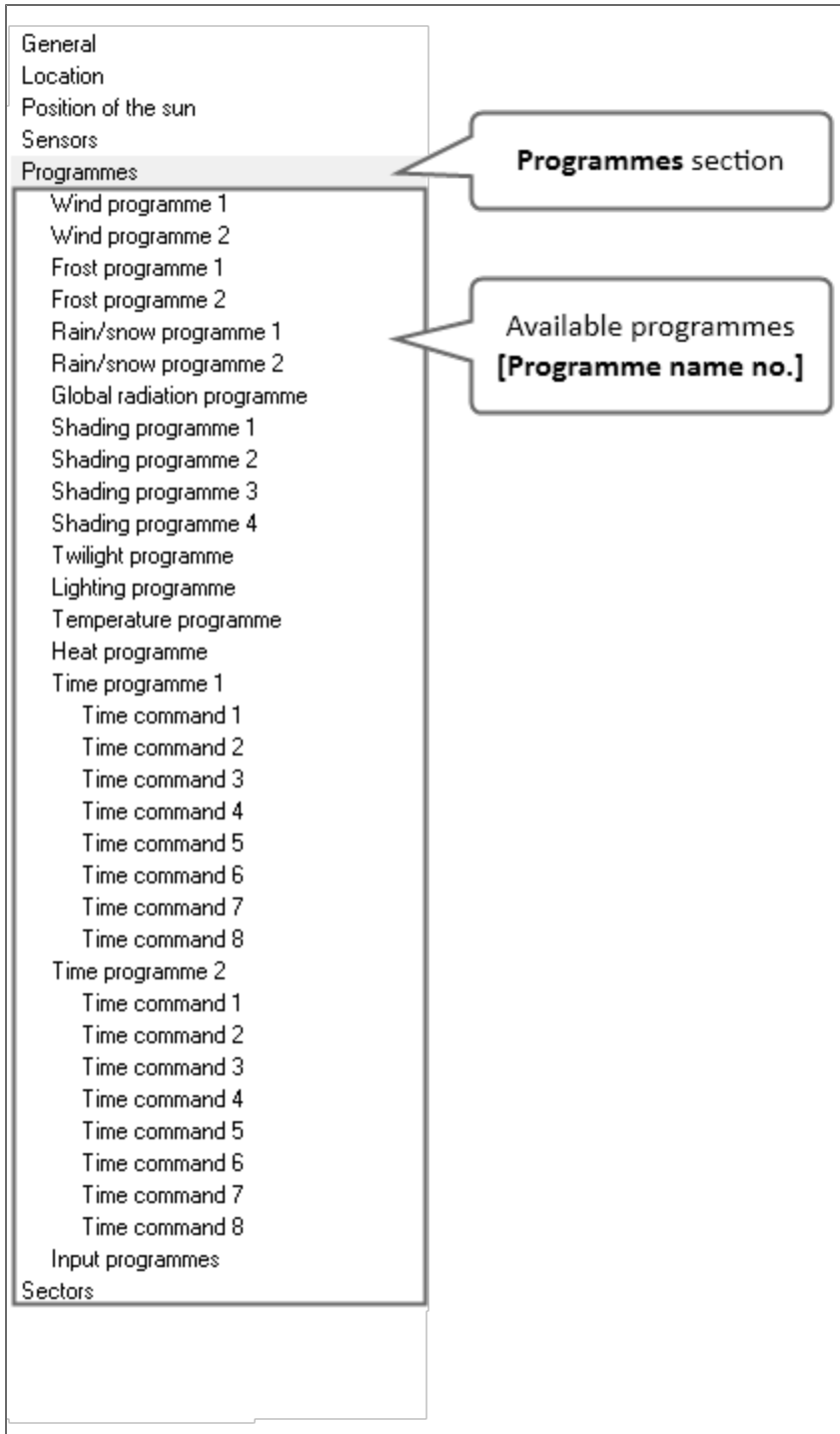
Info

Opens help menu.

Help

Opens the ETS help menu.

Programmes

In this section it is possible to specify which programmes are available and which are not.

Available programmes are listed to the left below the section **Programmes**.

General
Location
Position of the sun
Sensors
Programmes   **Programmes** section
    Wind programme 1
    Wind programme 2
    Frost programme 1
    Frost programme 2
    Rain/snow programme 1   Available programmes
    Rain/snow programme 2   **[Programme name no.]**
    Global radiation programme
    Shading programme 1
    Shading programme 2
    Shading programme 3
    Shading programme 4
    Twilight programme
    Lighting programme
    Temperature programme
    Heat programme
    Time programme 1
        Time command 1
        Time command 2
        Time command 3
        Time command 4
        Time command 5
        Time command 6
        Time command 7
        Time command 8
    Time programme 2
        Time command 1
        Time command 2
        Time command 3
        Time command 4
        Time command 5
        Time command 6
        Time command 7
        Time command 8
    Input programmes
Sectors

Programmes section with all available programmes.

The programmes can be parametrised in the respective programmes **[Name of programme]**.

Programmes can be assigned to sectors.

Wind programmes

Selection list to select whether or not wind programmes 1 and 2 are to be available.

- Default setting: **Off**.
  Wind programmes 1 and 2 are not available.
- **On**: Wind programmes 1 and 2 are available.
  Parametrisation can be done in the wind programme **Wind programme 1/2**.

Frost programmes

Selection list to select whether or not frost programmes 1 and 2 are to be available.

- Default setting: **Off**.
  Frost programmes 1 and 2 are not available.
- **On**: Frost programmes 1 and 2 are available.
  Parametrisation can be done in the frost programme **Frost programme 1/2**.

Rain/snow programmes

Selection list to select whether or not the rain/snow programmes 1 and 2 are to be available.

- Default setting: **Off**.
  The rain/snow programmes 1 and 2 are not available.
- **On**: The rain/snow programmes 1 and 2 are available.
  Parametrisation can be done in the rain/snow programme **Rain/snow programme 1/2**.

Global radiation programme

Selection list for selecting whether or not the global radiation programme is to be available.

- Default setting: **Off**.
  The global radiation programme is not available.
- **On**: The global radiation programme is available.
  Parametrisation can be done in the global radiation programme **Global radiation programme**.

Shading programmes

Selection list to select whether or not the shading programmes 1 through 4 are to be available.

- Default setting: **Off**.
  Shading programmes 1 through 4 are not available.
- **On**: Shading programmes 1 through 4 are not available.
  Parametrisation can be done in the shading programme **Global radiation programmes 1/2/3/4**.
  Additionally, the following position variations can be displayed below **Shading programme 1/2/3/4**:
  - **Positioning standard**: This is displayed if the option **Standard solar tracking** is selected under **Shading programme 1/2/3/4** in the **Action ---> Action limit value exceeded** selection list.
  - **Positioning vertical**: This is displayed if the option **Vertical solar tracking** is selected under **Shading programme 1/2/3/4** in the **Action ---> Action limit value exceeded** selection list.
  - **Positioning horizontal**: This is displayed if the option **Horizontal solar tracking** is

selected under **Shading programme 1/2/3/4** in the **Action ---> Action limit value exceeded** selection list.

Twilight programme

Selection list for selecting whether or not the twilight programme is to be available.

- Default setting: **Off**.
  The twilight programme is not available.
- **On**: The twilight programme is available.
  Parametrisation can be done in the twilight programme **Twilight programme**.

Lighting programme

Selection list for selecting whether or not the lighting programme is to be available.

- Default setting: **Off**.
  The lighting programme is not available.
- **On**: The lighting programme is available.
  Parametrisation can be done in the lighting programme **Lighting programme**.

Temperature programme

Selection list for selecting whether or not the temperature programme is to be available.

- Default setting: **Off**.
  The temperature programme is not available.
- **On**: The temperature programme is available.
  Parametrisation can be done in the temperature programme **Temperature programme**.

Heat programme

Selection list for selecting whether or not the heat programme is to be available.

- Default setting: **Off**.
  The heat programme is not available.
- **On**: The heat programme is available.
  Parametrisation can be done in the heat programme **Heat programme**.

Time programmes

Selection list to select whether or not time programmes 1 and 2 are to be available.

- **Off**: Time programmes 1 and 2 are not available.
- **On**: Time programmes 1 and 2 are available.
  The time programmes are displayed below the section **Programmes**.
  Parametrisation can be done in the time programme **Time programmes 1/2**.
  Parametrisation of the time commands can be done under the time command **Time command [no.]**

Input programmes

Selection list to select whether or not input programmes are to be available.

- Default setting: **Off**.
  Input programmes are not available.
- **On**: Input programmes are available.
  The input programmes are displayed below the section **Programmes**.

Parametrisation can be done in the input programme **Input programmes**.

Parametrisation of the inputs can be done under input **Input [no.]**

Buttons

OK

Saves entries and changes and closes the dialog box.

Cancel

Discards entries and changes and closes the dialog box.

Default

Allows you to reset the values to the default settings.

1. Click on the **Default** button.
   The **Error** dialog box will open.
2. Select whether or not the object flags should be reset.
   1. **Yes**: The object flags will be reset.
   2. **No**: The object flags will not be reset.
   The default settings will be restored.

Info

Opens help menu.

Help

Opens the ETS help menu.

Wind programmes [no.]

Description

Entry field for the programme names.

Default name: **Wind programme [no.]**.

Analysis of

Selection list for selecting whether the wind speed from the internal, external or from both sensors should be analysed.

- Default setting: **Internal wind sensor**.
  The wind speed of the internal wind sensor will be analysed.
- **External wind sensor**: The wind speed of the external wind sensor (KNX) will be analysed.
- **Both wind sensors (highest value)**: The wind speeds from the internal and external wind sensors will be analysed. The greater wind speed will be used.

Security objects of the sectors

Selection list for choosing which security object for the connected sectors is sent when the alarm is triggered.

- Default setting: **---**.
  Security objects are not sent when the alarm is triggered.
- **Security object [no.]**: The security object of the connected sector is sent when the alarm is triggered.

Limit value

Specify the limit values for the wind speed at which the alarm triggers or the alarm is reset.

Alarm [m/s]

Spin box for setting/entering the limit value for the wind speed at which an alarm is triggered when it is exceeded.

- Default setting: **6 [m/s]**.

Reset [%]

Selection list for choosing at what wind speed the alarm is reset.

The wind speed for the reset is computed as a percent value of the limit value in the **Alarm [m/s]** spin box.

Example: The limit value for wind speed which triggers an alarm is 10 [m/s].

With a reset value of -20%, the wind speed at which the alarm is reset is 8 [m/s].

- Default setting: **-10%**.

Time delay

Specify the time delay at which the alarm triggers or the alarm is reset.

Alarm [s]

Spin box for setting/entering the time delay which triggers an alarm after it elapses.

- Default setting: **3 [s]**.

Reset [min]

Spin box for setting/entering the time delay which resets the alarm after it elapses.

- Default setting: **15 [min]**.

Limit value of KNX objects

Selection list for choosing whether or not to display Set communication objects for the limit value and Status on.

- Default setting: **Do not display**.
  The communication objects for Setting the limit value and for Status are not displayed.
- **Display**: The communication objects for Setting the limit value and for Status are displayed.

Buttons

OK

Saves entries and changes and closes the dialog box.

Cancel

Discards entries and changes and closes the dialog box.

Default

Allows you to reset the values to the default settings.

1. Click on the **Default** button.
   The **Error** dialog box will open.
2. Select whether or not the object flags should be reset.
   1. **Yes**: The object flags will be reset.
   2. **No**: The object flags will not be reset.
   The default settings will be restored.

Info

Opens help menu.

Help

Opens the ETS help menu.

Frost programmes [no.]

Description

Entry field for the programme names.

Default name: **Frost programme [no.]**.

Security objects of the sensors

Selection list for choosing which security object for the connected sectors is sent when the alarm is triggered.

- Default setting: ---.
  Security objects are not sent when the alarm is triggered.
- **Security object [no.]**: The security object of the connected sector is sent when the alarm is triggered.

Analyse rain/snow values?

Selection list for selecting whether or not rain/snow is considered.

- Default setting: **Yes**.
  Rain/snow is considered.
  The spin box **Reset possible via KNX?** is displayed.
- **No**: Rain/snow is not considered.
  The spin box **Reset possible via KNX?** is hidden.

Consideration of previous rain/snow [h]

Note: This spin box is only available if the value **Yes** was selected in the selection list **Analyse rain/snow?**.

Spin box for setting/selecting the delay time for rain/snow including consideration of the previous rain/snow in the specified time frame.

- Default setting: **6 [h]**.

Reset possible via KNX?

Selection list for selecting whether a communication object is activated which allows a manual reset of the frost alarm.

- Default setting: **No**.
  The frost alarm cannot be reset manually.
- **Yes**: The frost alarm can be reset manually.

Limit value

Specify the limit values for the frost temperature at which the alarm triggers or the alarm is reset.

Alarm when [℃] is underrun

Spin box for setting/entering the limit value for the frost temperature at which an alarm is triggered when it is exceeded.

- Default setting: **3 [℃]**.

Reset / Hysteresis[1] [K]

Selection list for choosing at what frost temperature the alarm is reset.

The frost temperature for the reset is computed as a K value from the limit value in the **Alarm when [℃] is underrun** spin box.

Example: The limit value for the frost temperature which triggers an alarm is 2 [℃].

With a reset value of 3K, the frost temperature at which the alarm is reset is 5 [℃].

- Default setting: **3K**.

Time delay

Specify the time delay at which the alarm triggers or the alarm is reset.

Alarm [min]

Spin box for setting/entering the time delay which triggers an alarm after it elapses.

- Default setting: **3 [min]**

Reset [min]

Spin box for setting/entering the time delay which resets the alarm after it elapses.

- Default setting: **360 [min]**.

Limit value of KNX objects

Selection list for choosing whether or not to display Set communication objects for the limit value and Status on.

- Default setting: **Do not display**.
  The communication objects for Setting the limit value and for Status are not displayed.
- **Display**: The communication objects for Setting the limit value and for Status are displayed.

Buttons

OK

Saves entries and changes and closes the dialog box.

Cancel

Discards entries and changes and closes the dialog box.

Default

Allows you to reset the values to the default settings.

1. Click on the **Default** button.
   The **Error** dialog box will open.

---

[1]Hysteresis (gr.: hysteresis = deficiency, lagging behind) characterises a system behaviour in which the output variable is not exclusively dependent on the independently changeable input variable, but also on the previous state of the output variable. The system can take on several states for the same input variable. (Source: Wikipedia, http://de.wikipedia.org/wiki/Hysterese, also see entry in English).

2. Select whether or not the object flags should be reset.
    1. **Yes**: The object flags will be reset.
    2. **No**: The object flags will not be reset.
    The default settings will be restored.

Info

Opens help menu.

Help

Opens the ETS help menu.

Rain/snow programmes [no.]

Description

Entry field for the programme names.

Default name: **Rain/snow programmes [no.]**.

Security objects of the sensors

Selection list for choosing which security object for the connected sectors is sent when the alarm is triggered.

- Default setting: ---.
  Security objects are not sent when the alarm is triggered.
- **Security object [no.]**: The security object of the connected sector is sent when the alarm is triggered.

Sensitivity

Selection list for choosing at what level of rain/snow the alarm is triggered.

- Default setting: **Low rain/snow**.
  Light rain/snow will trigger the alarm.
- **Heavy rain/snow**: Heavy rain/snow will trigger the alarm.

Time delay

Specify the time delay at which the alarm triggers or the alarm is reset.

Alarm [s]

Spin box for setting/entering the time delay which triggers an alarm after it elapses.

- Default setting: **3 [s]**

Reset [min]

Spin box for setting/entering the time delay which resets the alarm after it elapses.

- Default setting: **3 [min]**.

Limit value of KNX objects

Selection list for choosing whether or not to display Set communication objects for the limit value and Status on.

Limit value = 1: Sensitivity for low rain/snow.

Limit value > 1: Sensitivity for heavy rain/snow.

- Default setting: **Do not display**.
  The communication objects for Setting the limit value and for Status are not displayed.
- **Display**: The communication objects for Setting the limit value and for Status are displayed.

Buttons

OK

Saves entries and changes and closes the dialog box.

Cancel

Discards entries and changes and closes the dialog box.

Default

Allows you to reset the values to the default settings.

1. Click on the **Default** button.
   The **Error** dialog box will open.
2. Select whether or not the object flags should be reset.
   1. **Yes**: The object flags will be reset.
   2. **No**: The object flags will not be reset.
   The default settings will be restored.

Info

Opens help menu.

Help

Opens the ETS help menu.

Global radiation programme

Description

Entry field for the programme names.

Default name: **Global radiation programme**.

Security objects of the sensors

Selection list for choosing which security object for the connected sectors is sent when the alarm is triggered.

- Default setting: **---**.
  Security objects are not sent when the alarm is triggered.
- **Security object [no.]**: The security object of the connected sector is sent when the alarm is triggered.

Limit value

Specify the limit values for the global radiation at which the alarm triggers or the alarm is reset.

High energy impact [W/m^2]

Spin box for setting/entering the limit value for global radiation at which an alarm is triggered when it is exceeded.

- Default setting: **200 [W/m^2]**.

Reset [%]

Selection list for choosing at what global radiation the alarm is reset.

The global radiation for the reset is computed as a percent value of the limit value in the **High energy impact [W/m^2]** spin box.

Example: The limit value for global radiation which triggers an alarm is 200 [W/m^2].

With a reset value of -20%, the global radiation at which the alarm is reset is 160 [W/m^2].

- Default setting: **-20%**.

Time delay

Specify the time delay at which the alarm triggers or the alarm is reset.

Alarm [min]

Spin box for setting/entering the time delay which triggers an alarm after it elapses.

- Default setting: **10 [min]**.

Reset [min]

Spin box for setting/entering the time delay which resets the alarm after it elapses.

- Default setting: **10 [min]**.

Limit value of KNX objects

Selection list for choosing whether or not to display Set communication objects for the limit value and Status on.

- Default setting: **Do not display**.
  The communication objects for Setting the limit value and for Status are not displayed.
- **Display**: The communication objects for Setting the limit value and for Status are displayed.

Buttons

OK

Saves entries and changes and closes the dialog box.

Cancel

Discards entries and changes and closes the dialog box.

Default

Allows you to reset the values to the default settings.

1. Click on the **Default** button.
   The **Error** dialog box will open.
2. Select whether or not the object flags should be reset.
   1. **Yes**: The object flags will be reset.
   2. **No**: The object flags will not be reset.
   The default settings will be restored.

Info

Opens help menu.

Help

Opens the ETS help menu.

Shading programme [no.]

Description

Entry field for the programme names.

Default name: **Shading programme [no.]**

Analyse using

Selection list for selecting whether the respective shading programme operates using an analysis of brightness in lux or of global radiation in W/m².

- Default setting: **Lux**.
  The respective shading programme operates using an analysis of brightness in lux.
  In the Limit value and Time delay section
- **W/m²**: The respective programme operates using an analysis of global radiation in W/m².

Choice of sensors

Selection list for selecting whether sensors are selected automatically or manually.

- Default setting: **Automatic**.
  The proper brightness sensor is selected automatically according to the position of the sun.
- **Manual**: Manual selection of the sensors. These must be selected from a selection list which appears below the **Choice of sensors** selection list if **Manual** has been selected in this selection list.
  The following values may be selected:
  - Default setting: **Sky**. The brightness sensor directed towards the sky will be analysed.
  - **North**. The brightness sensor facing north will be analysed.
  - **East**. The brightness sensor facing east will be analysed.
  - **South**. The brightness sensor facing south will be analysed.
  - **West**. The brightness sensor facing west will be analysed.
  - **All (maximal analysis)**. All brightness sensors (north, south, east, west) will be analysed. Then, the greatest brightness value will be used.

Analyse using fuzzy logic?

Selection list for selecting whether or not the brightness should be analysed using **fuzzy logic**[1] for the selection of ideal shading.

---

[1]Fuzzy logic is a theory used in particular for modeling uncertainties and ambiguities which developed from colloquial descriptions. It is a generalisation of two-valued Boolean logic. For example, the so-called fuzziness of expressions such as a little, pretty much or strongly can be captured in mathematical models. Fuzzy logic is based on the concept of fuzzy sets and so-called membership functions which describe objects of fuzzy sets as well as associated logical operations for these sets and their inferences. For technical applications, methods of fuzzification and defuzzification must also be considered, which means methods for converting figures and coherences into fuzzy logic and back again, for example, as the setting for a heating system as the result. (Source: Wikipedia, http://de.wikipedia.org/wiki/Fuzzylogik, also see entry in English).

Fuzzy logic improves the analysis of the glare and adapts to the needs of the user.

- Default setting: **Yes**.
  Analysis of the glare is performed using fuzzy logic.
- **No**: Fuzzy logic is not used.

Action ---> Limit value exceeded

Selection list for choosing which function is performed if the following conditions occur:

- The limit value for bright is exceeded and
- The time delay value for bright elapses.

Selection:

- Default setting: **Down**.
- **Up**.
- **Shading position**.
  The value of 1 is sent when the limit value and the delay time are exceeded for the shading position communication object of the linked sector or sectors.
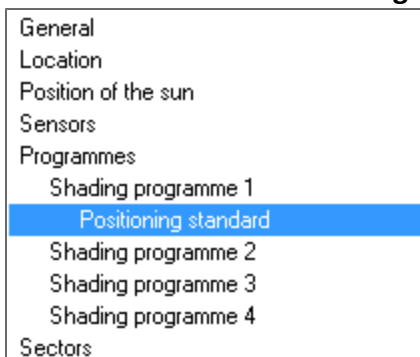- **Position**.
  Displays the spin boxes for **Height [%]** and **Angle [%]**.
  - **Height [%]**: Spin box for setting/entering a value in percent for setting the height.
  - **Angle [%]**: Spin box for setting/entering a value in percent for setting the angle.
- **Standard solar tracking**.
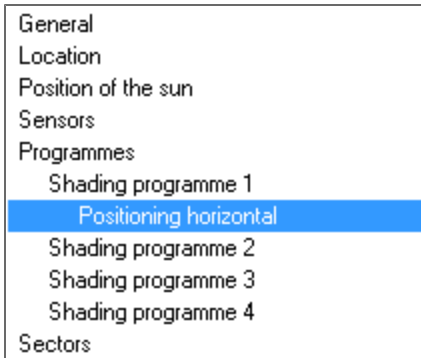 Makes it possible to set standard slats for a certain position of the sun.
  Lists the **Positioning standard** to the left below **Shading programme [no.]**. Parametrisation can be done under **Positioning standard**.

General
Location
Position of the sun
Sensors
Programmes
    Shading programme 1
       Positioning standard
    Shading programme 2
    Shading programme 3
    Shading programme 4
Sectors

- **Horizontal solar tracking**.
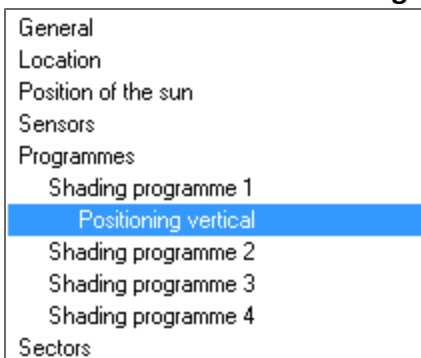 Makes it possible to set horizontal slats for a certain position of the sun.
  Lists the **Positioning standard** to the left below **Shading programme [no.]**. Parametrisation can be done under **Positioning horizontal**.

- **Vertical solar tracking**.
  Makes it possible to set vertical slats for a certain position of the sun.
  Lists the **Positioning standard** to the left below **Shading programme [no.]**. Parametrisation can be done under **Positioning vertical**.

Action ---> Limit value underrun

Selection list for choosing which function is performed if the following conditions occur:
- Underrun of the limit value dark and
- The time delay value for dark elapses.

Selection:
- Default setting: **Up**.
- **Down**.
- **Shading position**.
  The value of 1 is sent when the limit value and the delay time are exceeded for the shading position communication object of the linked sector or sectors.
- **Position**.
  Displays the spin boxes for **Height [%]** and **Angle [%]**.
  - **Height [%]**: Spin box for setting/entering a value in percent for setting the height.
  - **Angle [%]**: Spin box for setting/entering a value in percent for setting the angle.
- ----. No action is performed.

Action ---> Switch off programme

Selection list for choosing which function is performed if the following condition occurs:

Switching off of a programme for the respective linked sector.

Selection:

- Default setting: **Up**.
- **Down**.
- **Shading position**.
  The value of 1 is sent when the limit value and the delay time are exceeded for the shading position communication object of the linked sector or sectors.
- **Position**.
  Displays the spin boxes for **Height [%]** and **Angle [%]**.
  - **Height [%]**: Spin box for setting/entering a value in percent for setting the height.
  - **Angle [%]**: Spin box for setting/entering a value in percent for setting the angle.
- ----. No action is performed.

Limit value

Bright [kLux] or high energy impact [W/m^2]

Note: Whether the description **Bright [kLux]** or **High energy impact [W/m^2]** is displayed depends on the unit of measure selected in the **Analyse using** selection list.

The value for the reset is computed as a percent value of the limit value in the **Bright [kLux] or High energy impact [W/m^2]** spin box.
Example: The limit value for brightness which triggers an alarm is 30 [kLux].
With a reset value of -20%, the brightness at which the alarm is reset is 24 [kLux].
The limit value can be changed using the communication object Limit value shading programme and can be read using Status limit value shading programme.

Dark [%] or Low energy impact [%]

Note: Whether the description **Dark [%]** or **Low energy input [%]** is displayed depends on the unit of measure selected in the **Analyse using** selection list.

The value for the reset is computed as a percent value of the limit value in the **Dark [%] or Low energy impact [%]** spin box.
Example: The limit value for darkness which triggers an alarm is 10 [kLux].
With a reset value of -20%, the darkness at which the alarm is reset is 8 [kLux].

Time delay

Bright [s] or High energy impact [s]

Note: Whether the description **Bright [s]** or **High energy impact [s]** is displayed depends on the unit of measure selected in the **Analyse using** selection list.

Spin box for setting/entering the time delay which triggers an alarm after it elapses.
- Default setting: **60 [s]**

Reset [min]
Spin box for setting/entering the time delay which resets the alarm after it elapses.
- Default setting: **15 [min]**.

Limit value of KNX objects
Selection list for choosing whether or not to display Set communication objects for the limit value and Status on.

- Default setting: **Do not display**.
  The communication objects for Setting the limit value and for Status are not displayed.
- **Display**: The communication objects for Setting the limit value and for Status are displayed.

Buttons

OK

Saves entries and changes and closes the dialog box.

Cancel

Discards entries and changes and closes the dialog box.

Default

Allows you to reset the values to the default settings.

1. Click on the **Default** button.
   The **Error** dialog box will open.
2. Select whether or not the object flags should be reset.
   1. **Yes**: The object flags will be reset.
   2. **No**: The object flags will not be reset.
   The default settings will be restored.

Info

Opens help menu.

Help

Opens the ETS help menu.

Positioning standard

Useful for standard slat systems, among other things.

Makes it possible to set the slat angle for a certain elevation (sun position).

The set positions will only be moved to under the following conditions:

- The solar radiation must affect the facade direction of the linked sector and
- The limit value and the time delay must be exceeded.

Description

Entry field for the programme names.

Default name: **Positioning standard [no.]**

P1 Elevation > 0°

Angle [%]: Spin box for setting/entering an angle.

- Default setting: **0%**.
- Recommendation: 90%.

P2 Elevation > 15°

Angle [%]: Spin box for setting/entering an angle.

- Default setting: **0%**.
- Recommendation: 60%.

P3 Elevation > 28°

Angle [%]: Spin box for setting/entering an angle.

- Default setting: **0%**.
- Recommendation: 30%.

P4 Elevation > 38°

Angle [%]: Spin box for setting/entering an angle.

- Default setting: **0%**.
- Recommendation: 10%.

Buttons

OK

Saves entries and changes and closes the dialog box.

Cancel

Discards entries and changes and closes the dialog box.

Default

Allows you to reset the values to the default settings.

1. Click on the **Default** button.
   The **Error** dialog box will open.
2. Select whether or not the object flags should be reset.
   1. **Yes**: The object flags will be reset.
   2. **No**: The object flags will not be reset.

The default settings will be restored.

Info

Opens help menu.

Help

Opens the ETS help menu.

Positioning horizontal

Useful for horizontal slats, among other things.

View example

Under Elevation > 0°, the first position can now be entered in height and/or angle of the slats for a sun position (elevation) from 0° to the next set angle.

Under Elevation >, the next higher angle step, respectively, can be set so that in this way, the positioning table can be set up. Up to 8 positioning steps are allowed. If ---- is set for Angle, this position will not be analysed or moved to.
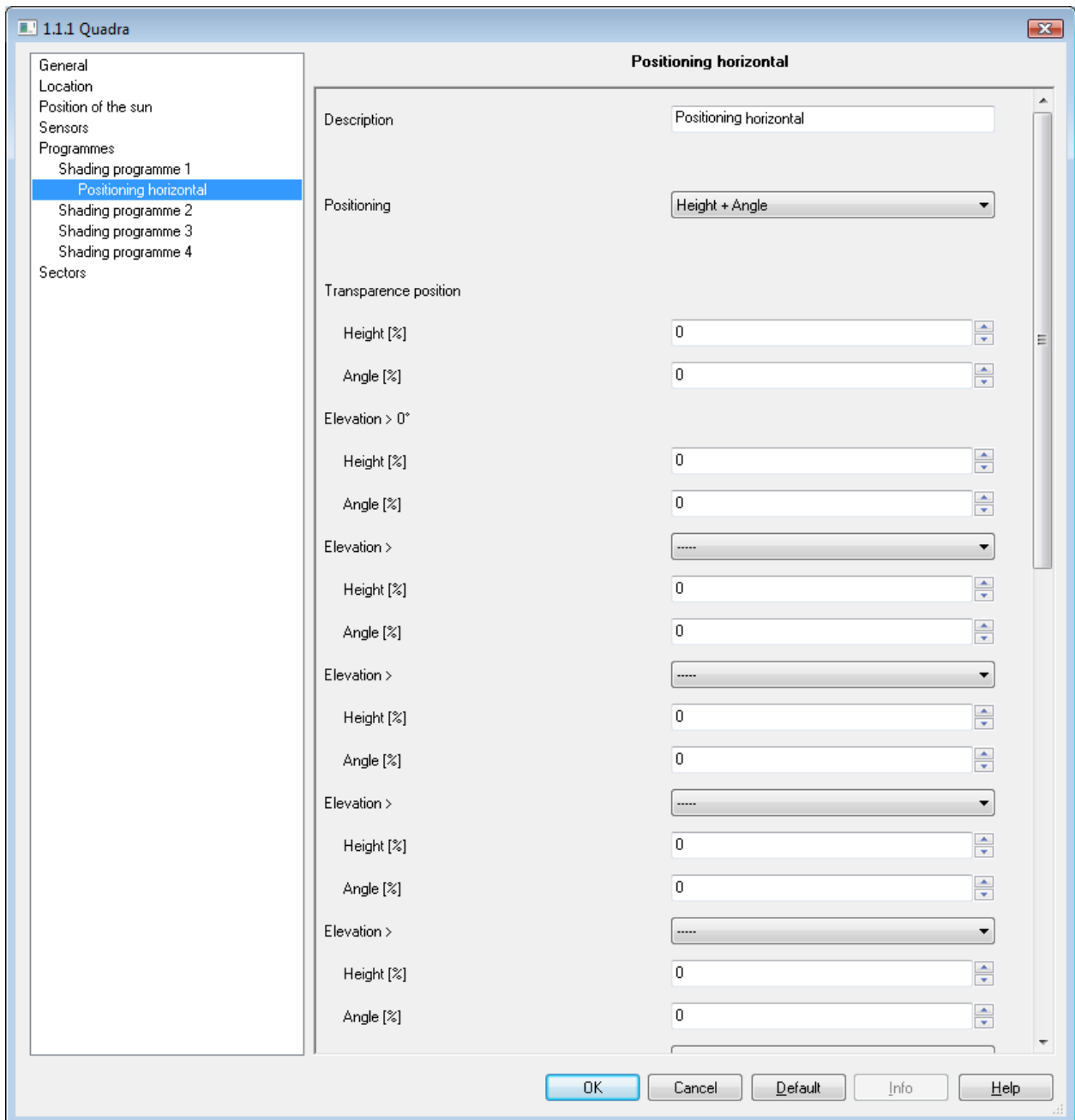
Assuming that the limit value is constantly exceeded, the following height positions would be moved to with these settings:

Azimuth of the sun	=>	Slat height
0°-10°	=>	8%
11° - 20°	=>	16%
21° - 30°	=>	24%
31° - 44°	=>	32%
45° - 90°	=>	38%

If the transparence position is moved to, the value equals 50%.

Description

Entry field for the programme names.

Default name: **Positioning horizontal 1**

Positioning

Selection list for choosing the positioning according to height, angle or height and angle.

Default setting: Height and Angle

Positioning is done according to height and angle.

- **Transparence position**
  - **Height [%]**: Spin box for setting/entering a value for the height of the transparence position.
  - **Angle [%]**: Spin box for setting/entering a value for the angle of the transparence position.
- **Azimuth > -90°**
  Under Elevation > 0°, the first position can now be entered in height and/or angle of the slats for a sun position (azimuth) from -90° to the next set angle.
  - **Height [%]**: Spin box for setting/entering a value for the height of the transparence position.
  - **Angle [%]**: Spin box for setting/entering a value for the angle of the transparence position.
- **Azimuth >[value]**
  Set the next higher angle step in order to set up the positioning table.
  - **Height [%]**: Spin box for setting/entering a value for the height of the transparence position.
  - **Angle [%]**: Spin box for setting/entering a value for the angle of the transparence position.

Default setting: Height

Positioning is done according to height.

- **Transparence position**
    - **Height [%]**: Spin box for setting/entering a value for the height of the transparence position.
    - **Angle [%]**: Spin box for setting/entering a value for the angle of the transparence position.
- **Azimuth > -90°**
    Under Elevation > 0°, the first position can now be entered in height and/or angle of the slats for a sun position (azimuth) from -90° to the next set angle.
    - **Height [%]**: Spin box for setting/entering a value for the height of the transparence position.
    - **Angle [%]**: Spin box for setting/entering a value for the angle of the transparence position.
- **Azimuth >[value]**
    Set the next higher angle step in order to set up the positioning table.
    - **Height [%]**: Spin box for setting/entering a value for the height of the transparence position.
    - **Angle [%]**: Spin box for setting/entering a value for the angle of the transparence position.

Default setting: Angle

Positioning is done according to angle.

- **Transparence position**
    - **Height [%]**: Spin box for setting/entering a value for the height of the transparence position.
    - **Angle [%]**: Spin box for setting/entering a value for the angle of the transparence position.
- **Azimuth > -90°**
    Under Elevation > 0°, the first position can now be entered in height and/or angle of the slats for a sun position (azimuth) from -90° to the next set angle.
    - **Height [%]**: Spin box for setting/entering a value for the height of the transparence position.
    - **Angle [%]**: Spin box for setting/entering a value for the angle of the transparence position.
- **Azimuth >[value]**
    Set the next higher angle step in order to set up the positioning table.
    - **Height [%]**: Spin box for setting/entering a value for the height of the transparence position.
    - **Angle [%]**: Spin box for setting/entering a value for the angle of the transparence position.

Buttons

OK

Saves entries and changes and closes the dialog box.

Cancel

Discards entries and changes and closes the dialog box.

Default

Allows you to reset the values to the default settings.

1. Click on the **Default** button.
   The **Error** dialog box will open.
2. Select whether or not the object flags should be reset.
   1. **Yes**: The object flags will be reset.
   2. **No**: The object flags will not be reset.
   The default settings will be restored.

Info

Opens help menu.

Help

Opens the ETS help menu.
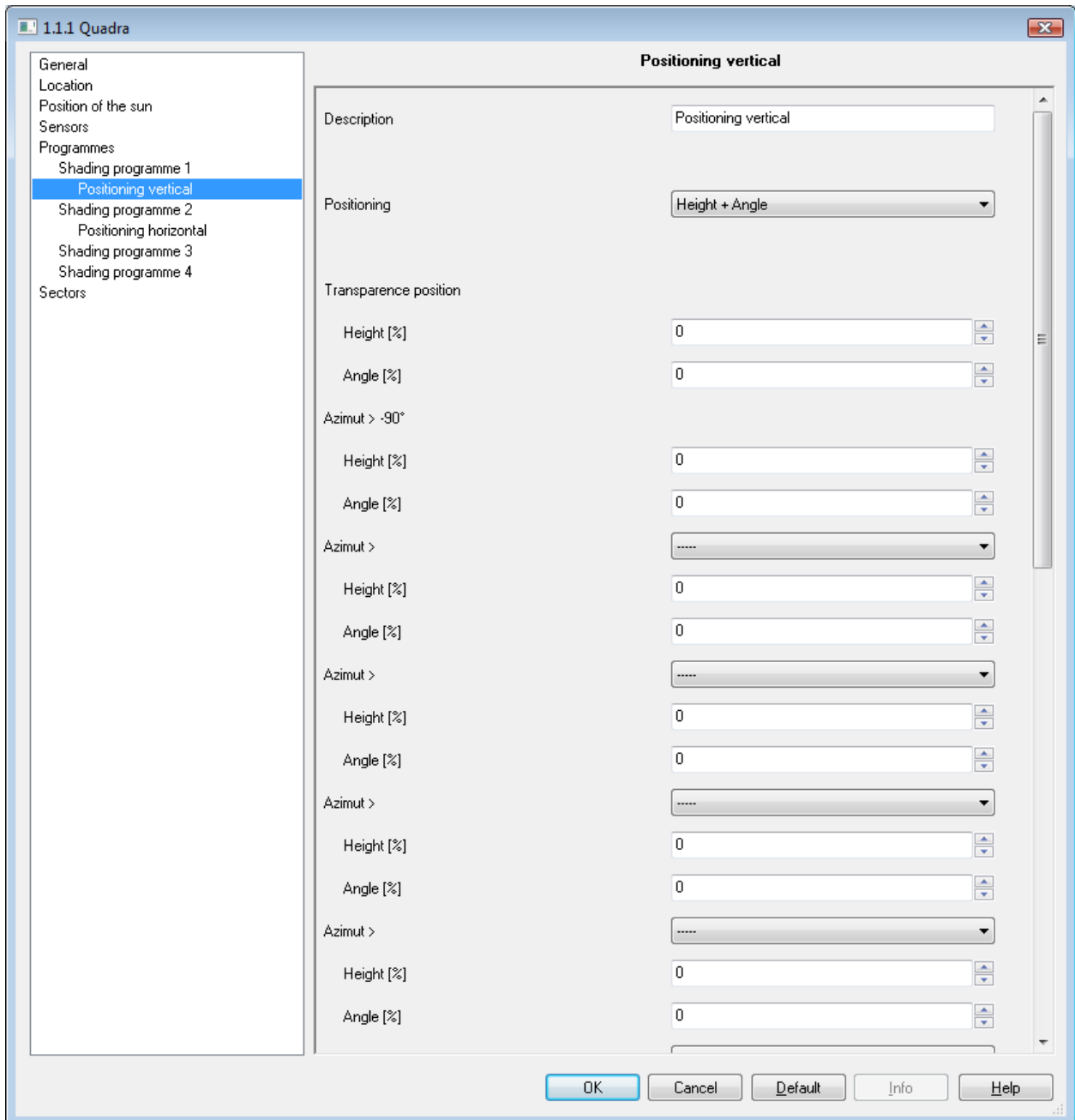
Positioning vertical

Useful for vertical slats, among other things.

View example

Under Elevation > 0°, the first position can now be entered in height and/or angle of the slats for a sun position (azimuth) from -90° to the next set angle.

Under Elevation >, the next higher angle step, respectively, can be set so that in this way, the positioning table can be set up. Up to 8 positioning steps are allowed.

If ---- is set for Angle, this position will not be analysed or moved to.

Assuming that the limit value is constantly exceeded, the following height positions would be moved to with these settings:

Azimuth of the sun	=>	Slat height
-90° to -61°	=>	98%
-60° to -31°	=>	80%
-30° to -6°	=>	60%
-5° to +5°	=>	50%
+6° to +29°	=>	40%
+30° to +59°	=>	20%
+60° to +90°	=>	2%

If the transparence position is moved to, the value equals 50%.

Description

Entry field for the programme names.

Default name: **Positioning vertical 1**.

Positioning

Selection list for choosing the positioning according to height, angle or height and angle.

Default setting: Height and Angle

Positioning is done according to height and angle.

- **Transparence position**
  - **Height [%]**: Spin box for setting/entering a value for the height of the transparence position.
  - **Angle [%]**: Spin box for setting/entering a value for the angle of the transparence position.
- **Azimuth > -90°**
  Under Elevation > 0°, the first position can now be entered in height and/or angle of the slats for a sun position (azimuth) from -90° to the next set angle.
  - **Height [%]**: Spin box for setting/entering a value for the height of the transparence position.
  - **Angle [%]**: Spin box for setting/entering a value for the angle of the transparence position.
- **Azimuth >[value]**
  Set the next higher angle step in order to set up the positioning table.
  - **Height [%]**: Spin box for setting/entering a value for the height of the transparence position.
  - **Angle [%]**: Spin box for setting/entering a value for the angle of the transparence position.

Default setting: Height

Positioning is done according to height.

- **Transparence position**
  - **Height [%]**: Spin box for setting/entering a value for the height of the transparence position.
  - **Angle [%]**: Spin box for setting/entering a value for the angle of the transparence position.
- **Azimuth > -90°**
  Under Elevation > 0°, the first position can now be entered in height and/or angle of the slats for a sun position (azimuth) from -90° to the next set angle.
  - **Height [%]**: Spin box for setting/entering a value for the height of the transparence position.
  - **Angle [%]**: Spin box for setting/entering a value for the angle of the transparence position.
- **Azimuth >[value]**
  Set the next higher angle step in order to set up the positioning table.
  - **Height [%]**: Spin box for setting/entering a value for the height of the transparence position.
  - **Angle [%]**: Spin box for setting/entering a value for the angle of the transparence position.

Default setting: Angle

Positioning is done according to angle.

- **Transparence position**
  - **Height [%]**: Spin box for setting/entering a value for the height of the transparence position.
  - **Angle [%]**: Spin box for setting/entering a value for the angle of the transparence position.
- **Azimuth > -90°**
  Under Elevation > 0°, the first position can now be entered in height and/or angle of the slats for a sun position (azimuth) from -90° to the next set angle.
  - **Height [%]**: Spin box for setting/entering a value for the height of the transparence position.
  - **Angle [%]**: Spin box for setting/entering a value for the angle of the transparence position.
- **Azimuth >[value]**
  Set the next higher angle step in order to set up the positioning table.
  - **Height [%]**: Spin box for setting/entering a value for the height of the transparence position.
  - **Angle [%]**: Spin box for setting/entering a value for the angle of the transparence position.

Buttons

OK

Saves entries and changes and closes the dialog box.

Cancel

Discards entries and changes and closes the dialog box.

Default

Allows you to reset the values to the default settings.

1. Click on the **Default** button.

   The **Error** dialog box will open.

2. Select whether or not the object flags should be reset.

   1. **Yes**: The object flags will be reset.

   2. **No**: The object flags will not be reset.

   The default settings will be restored.

Info

Opens help menu.

Help

Opens the ETS help menu.

Twilight programme

Description

Entry field for the programme names.

Default name: **Twilight programme**.

Action ---> Limit value underrun

Selection list for choosing which function is performed if the following conditions occur:

- Underrun of the limit value dark and
- The time delay value for dark elapses.

Running command

Selection list for choosing which running command is triggered.

- Default setting: --- (no action).
- **Up**.
- **Down**.
- **Position**:
  - **Height [%]**: Spin box for setting/entering a percent value for the height.
  - **Angle [%]**: Spin box for setting/entering a percent value for an angle.

Shading programme

Selection list for switching the shading programme on/off.

- Default setting: --- (no action).
- **Switch on**: Switches the shading programme on.
- **Switch off**: Switches the shading programme off.

Temperature programme

Selection list for switching the temperature programme on/off.

- Default setting: --- (no action).
- **Switch on**: Switches the temperature programme on.
- **Switch off**: Switches the temperature programme off.

Heat programme

Selection list for switching the heat programme on/off.

- Default setting: --- (no action).
- **Switch on**: Switches the heat programme on.
- **Switch off**: Switches the heat programme off.

Action ---> Limit value exceeded

Selection list for choosing which function is performed if the following conditions occur:

- The limit value for bright is underrun and
- The time delay value for bright elapses.

Running command

Selection list for choosing which running command is triggered.

- Default setting: --- (no action).
- **Up**.

- **Down**.
- **Position**:
  - **Height [%]**: Spin box for setting/entering a percent value for the height.
  - **Angle [%]**: Spin box for setting/entering a percent value for an angle.

Shading programme

Selection list for switching the shading programme on/off.

- Default setting: --- (no action).
- **Switch on**: Switches the shading programme on.
- **Switch off**: Switches the shading programme off.

Temperature programme

Selection list for switching the temperature programme on/off.

- Default setting: --- (no action).
- **Switch on**: Switches the temperature programme on.
- **Switch off**: Switches the temperature programme off.

Heat programme

Selection list for switching the heat programme on/off.

- Default setting: --- (no action).
- **Switch on**: Switches the heat programme on.
- **Switch off**: Switches the heat programme off.

Limit value

The limit values for dark and bright can be set/selected here.

Dark [lux]

Spin box for setting/entering the limit value for dark.

- Default setting: **80 lux**.

Bright [%]

Selection list for setting a limit value for bright.

Here, the value for bright is dependent on the value for dark as a percent.

Example: If dark is set to 100 lux and the value for bright is set to 20%, then the reset value is 120 lux.

The limit value can be changed using the communication object Set limit value twilight programme and can be read using Status limit value twilight programme.

- Default setting: **50%**.

Time delay

The time delay for dark and bright can be set/selected here.

Dark [s]

Spin box for setting/entering a time delay for the value dark.

- Default setting: **600 s**.

Bright [s]

Spin box for setting/entering a time delay for the value bright.

- Default setting: **600 s**.

Limit value of KNX objects

Selection list for choosing whether or not to display Set communication objects for the limit value and Status on.

- Default setting: **Do not display**.
  The communication objects for Setting the limit value and for Status are not displayed.
- **Display**: The communication objects for Setting the limit value and for Status are displayed.

Buttons

OK

Saves entries and changes and closes the dialog box.

Cancel

Discards entries and changes and closes the dialog box.

Default

Allows you to reset the values to the default settings.

1. Click on the **Default** button.
   The **Error** dialog box will open.
2. Select whether or not the object flags should be reset.
   1. **Yes**: The object flags will be reset.
   2. **No**: The object flags will not be reset.
   The default settings will be restored.

Info

Opens help menu.

Help

Opens the ETS help menu.

Lighting programme

Description

Entry field for the programme names.

Default name: **Lighting programme**.

Action --> Limit value underrun

Selection list for choosing what state the digital lighting programme output should go to if the following conditions occur:

- Underrun of the limit value dark and
- The time delay value for dark elapses.

Selection:

- Default setting: **Output = 1**.
  The lighting programme digital output goes to state 1.
- **Output = 0**.
  The lighting programme digital output goes to state 0.
- ---- (no action).
  The lighting programme digital output goes to no state.

Action ---> Limit value exceeded

Selection list for choosing what state the digital lighting programme output should go to if the following conditions occur:

- The limit value for bright is underrun and
- The time delay value for bright elapses.

Selection:

- Default setting: **Output = 0**.
  The lighting programme digital output goes to state 0.
- **Output = 1**.
  The lighting programme digital output goes to state 1.
- ---- (no action).
  The lighting programme digital output goes to no state.

Action --> Switch off programme

Selection list for choosing what state the digital lighting programme output should go to if the lighting programme is switched off.

Selection:

- Default setting: --- (no action).
  The lighting programme digital output goes to no state when the lighting programme is switched off.
- **Output = 1**.
  The lighting programme digital output goes to state 1 when the lighting programme is switched off.
- **Output = 2**.

The lighting programme digital output goes to state 2 when the lighting programme is switched off.

Limit value

The limit values for dark and bright can be set/selected here.

Dark [lux]

Spin box for setting/entering the limit value for dark.

- Default setting: **80 lux**.

Bright [%]

Selection list for setting a limit value for bright.

Here, the value for bright is dependent on the value for dark as a percent.

Example: If dark is set to 100 lux and the value for bright is set to 20%, then the reset value is 120 lux.

The limit value can be changed using the communication object Set limit value twilight programme and can be read using Status limit value twilight programme.

- Default setting: **50%**.

Time delay

The time delay for the limit values for dark and bright can be set/selected here.

Dark [s]

Spin box for setting/entering a time delay for the value dark.

- Default setting: **600 s**.

Bright [s]

Spin box for setting/entering a time delay for the value bright.

- Default setting: **600 s**.

Limit value of KNX objects

Selection list for choosing whether or not to display Set communication objects for the limit value and Status on.

- Default setting: **Do not display**.
  The communication objects for Setting the limit value and for Status are not displayed.
- **Display**: The communication objects for Setting the limit value and for Status are displayed.

Buttons

OK

Saves entries and changes and closes the dialog box.

Cancel

Discards entries and changes and closes the dialog box.

Default

Allows you to reset the values to the default settings.

1. Click on the **Default** button.
   The **Error** dialog box will open.

2. Select whether or not the object flags should be reset.
   1. **Yes**: The object flags will be reset.
   2. **No**: The object flags will not be reset.
   The default settings will be restored.

Info

Opens help menu.

Help

Opens the ETS help menu.

Temperature programme

Description

Entry field for the programme names.

Default name: **Temperature programme**

Action ---> Limit value exceeded

Selection list for choosing which function is performed if the following conditions occur:

- The warm limit value is exceeded and
- The time delay value for warm elapses.

Running command

Selection list for choosing which running command is triggered.

- Default setting: --- (no action).
- **Up**.
- **Down**.
- **Position**:
  - **Height [%]**: Spin box for setting/entering a percent value for the height.
  - **Angle [%]**: Spin box for setting/entering a percent value for an angle.

Shading programme

Selection list for switching the shading programme on/off for the sector(s) linked to the temperature programme.

- Default setting: --- (no action).
- **Switch on**: Switches the shading programme on.
- **Switch off**: Switches the shading programme off.

Action ---> Limit value underrun

Selection list for choosing which function is performed if the following conditions occur:

- The limit value for hysteresis is underrun and
- The time delay value for cold elapses.

Running command

Selection list for choosing which running command is triggered.

- Default setting: --- (no action).
- **Up**.
- **Down**.
- **Position**:
  - **Height [%]**: Spin box for setting/entering a percent value for the height.
  - **Angle [%]**: Spin box for setting/entering a percent value for an angle.

Shading programme

Selection list for switching the shading programme on/off for the sector(s) linked to the temperature programme.

- Default setting: --- (no action).
- **Switch on**: Switches the shading programme on.

- **Switch off**: Switches the shading programme off.

Limit value

The limit values for warm and hysteresis can be set/selected here.

Warm [°C]

Spin box for setting/entering the warm limit value.

- Default setting: **20 °C**.

Hysteresis[1] [K]

Spin box for setting/entering the hysteresis limit value.

- Default setting: **-3 K**.

Time delay

The time delay for the limit values for warm and cold can be set/selected here.

Warm [min]

Spin box for setting/entering the warm limit value.

- Default setting: **3 min**.

Cold [min]

Spin box for setting/entering the limit value for cold.

If the limit value for warm is set to 10 °C and the value for hysteresis is set to -8K, then the value for cold equals 2°C.

The limit value can be changed using the communication object Set limit value temperature programme and can be read using Status limit value temperature programme.

- Default setting: **3 min**.

Limit value of KNX objects

Selection list for choosing whether or not to display Set communication objects for the limit value and Status on.

- Default setting: **Do not display**.
  The communication objects for Setting the limit value and for Status are not displayed.
- **Display**: The communication objects for Setting the limit value and for Status are displayed.

Buttons

OK

Saves entries and changes and closes the dialog box.

Cancel

Discards entries and changes and closes the dialog box.

---

[1]Hysteresis (gr.: hysteresis = deficiency, lagging behind) characterises a system behaviour in which the output variable is not exclusively dependent on the independently changeable input variable, but also on the previous state of the output variable. The system can take on several states for the same input variable. (Source: Wikipedia, http://de.wikipedia.org/wiki/Hysterese, also see entry in English).

Default

Allows you to reset the values to the default settings.

1. Click on the **Default** button.

   The **Error** dialog box will open.

2. Select whether or not the object flags should be reset.

   1. **Yes**: The object flags will be reset.

   2. **No**: The object flags will not be reset.

   The default settings will be restored.

Info

Opens help menu.

Help

Opens the ETS help menu.

Heat programme

The heat programme only works in combination with a separate temperature sensor. This is referred to as an indoor sensor because it usually is mounted indoors.

Description

　　Entry field for the programme names.

　　Default name: **Heat programme**.

Action --> Warm outdoors - warm indoors

Selection list for choosing which action is performed if the following conditions occur for the outdoor and indoor sensors:

- Underrun of the warm limit value and
- The time delay value for warm elapses.

Running command

　　Selection list for choosing which running command is triggered.

- Default setting: --- (no action).
- **Up**.
- **Down**.
- **Position**:
    - **Height [%]**: Spin box for setting/entering a percent value for the height.
    - **Angle [%]**: Spin box for setting/entering a percent value for an angle.

Shading programme

　　Selection list for switching the shading programme on/off for the sector(s) linked to the temperature programme.

- Default setting: --- (no action).
- **Switch on**: Switches the shading programme on.
- **Switch off**: Switches the shading programme off.

Action --> Warm outdoors - cold indoors

Selection list for choosing which action is performed if the following conditions occur.

For the outdoor sensor:

- Underrun of the warm limit value and
- The time delay value for warm elapses.

For the indoor sensor:

- Underrun of the cold limit value and
- The time delay value for cold elapses.

Running command

　　Selection list for choosing which running command is triggered.

- Default setting: --- (no action).
- **Up**.
- **Down**.
- **Position**:

- **Height [%]**: Spin box for setting/entering a percent value for the height.
- **Angle [%]**: Spin box for setting/entering a percent value for an angle.

Shading programme

Selection list for switching the shading programme on/off for the sector(s) linked to the temperature programme.

- Default setting: --- (no action).
- **Switch on**: Switches the shading programme on.
- **Switch off**: Switches the shading programme off.

Action --> Cold outdoors - warm indoors

Selection list for choosing which action is performed if the following conditions occur.

For the outdoor sensor:

- Underrun of the cold limit value and
- The time delay value for cold elapses.

For the indoor sensor:

- The warm limit value is exceeded and
- The time delay value for warm elapses.

Running command

Selection list for choosing which running command is triggered.

- Default setting: --- (no action).
- **Up**.
- **Down**.
- **Position**:
  - **Height [%]**: Spin box for setting/entering a percent value for the height.
  - **Angle [%]**: Spin box for setting/entering a percent value for an angle.

Shading programme

Selection list for switching the shading programme on/off for the sector(s) linked to the temperature programme.

- Default setting: --- (no action).
- **Switch on**: Switches the shading programme on.
- **Switch off**: Switches the shading programme off.

Action --> Cold outdoors - cold indoors

Selection list for choosing which action is performed if the following conditions occur for the outdoor and indoor sensors:

- Underrun of the cold limit value and
- The time delay value for cold elapses.

Running command

Selection list for choosing which running command is triggered.

- Default setting: --- (no action).
- **Up**.
- **Down**.
- **Position**:

- **Height [%]**: Spin box for setting/entering a percent value for the height.
- **Angle [%]**: Spin box for setting/entering a percent value for an angle.

Shading programme

Selection list for switching the shading programme on/off for the sector(s) linked to the temperature programme.

- Default setting: --- (no action).
- **Switch on**: Switches the shading programme on.
- **Switch off**: Switches the shading programme off.

Limit value of the outdoor sensor

The limit value for warm as well as the hysteresis for the outdoor sensor can be entered here.

Warm [℃]

Spin box for setting/entering the warm limit value.

- Default setting: **5 ℃**.

Hysteresis[1] [K]:

Spin box for setting/entering the hysteresis limit value.

- Default setting: **-3 K**.

Limit value indoor sensor

The limit value for warm as well as the hysteresis for the indoor sensor can be entered here.

For example, if the value for warm is set to 10 °C and the value for hysteresis is set to -8K, then the value for cold equals 2°C.

The limit value can be changed using the communication object Set limit value heat programme indoor (or outdoor) sensor and can be read using Status limit value heat programme indoor (or outdoor) sensor.

Warm [℃]

Spin box for setting/entering the warm limit value.

- Default setting: **20 ℃**.

Hysteresis[2] [K]:

Spin box for setting/entering the hysteresis limit value.

---

[1]Hysteresis (gr.: hysteresis = deficiency, lagging behind) characterises a system behaviour in which the output variable is not exclusively dependent on the independently changeable input variable, but also on the previous state of the output variable. The system can take on several states for the same input variable. (Source: Wikipedia, http://de.wikipedia.org/wiki/Hysterese, also see entry in English).

[2]Hysteresis (gr.: hysteresis = deficiency, lagging behind) characterises a system behaviour in which the output variable is not exclusively dependent on the independently changeable input variable, but also on the previous state of the output variable. The system can take on several states for the same input variable. (Source: Wikipedia, http://de.wikipedia.org/wiki/Hysterese, also see entry in English).

- Default setting: **-3 K**.

Time delay outdoor sensor

Warm [min]:

Spin box for setting/entering the time delay for warm.

- Default setting: **1 min**.

Cold [min]:

Spin box for setting/entering the time delay for cold.

- Default setting: **1 min**.

Time delay indoor sensor

Warm [min]:

Spin box for setting/entering the time delay for warm.

- Default setting: **1 min**.

Cold [min]:

Spin box for setting/entering the time delay for cold.

- Default setting: **1 min**.

Limit value of KNX objects

Selection list for choosing whether or not to display Set communication objects for the limit value and Status on.

- Default setting: **Do not display**.
  The communication objects for Setting the limit value and for Status are not displayed.
- **Display**: The communication objects for Setting the limit value and for Status are displayed.

Buttons

OK

Saves entries and changes and closes the dialog box.

Cancel

Discards entries and changes and closes the dialog box.

Default

Allows you to reset the values to the default settings.

1. Click on the **Default** button.
   The **Error** dialog box will open.
2. Select whether or not the object flags should be reset.
   1. **Yes**: The object flags will be reset.
   2. **No**: The object flags will not be reset.
   The default settings will be restored.

Info

Opens help menu.

Help

Opens the ETS help menu.

Time programme [no.]

Use this section to set whether time programme [no.] runs throughout the entire year or for a specific date range.

For every time programme [no.], there are eight time commands available with the following parameters:

- Day: Day of the week on which time programme [no.] should begin.
- Time: Time of day at which time programme [no.] should begin.
- Running command: Specify which action is triggered.
- Shading, lighting, temperature and heat programme: Switch on/off.

Parametrisation can be done in time command [no.].

Description

Entry field for the programme names.

Default name: **Time programme [no.]**.

Date range

- Default setting: **Full year**.
  Time programme [no.] runs the full year.
- **Date**.
  Time programme [no.] runs in the date range specified.
  - **Month start**: Selection list for choosing a month in which time programme [no.] should begin.
  - **Day start**: Selection list for choosing the date of a day on which time programme [no.] should begin.
  - **Month end**: Selection list for choosing a month in which time programme [no.] should end.
  - **Day end**: Selection list for choosing the date of a day on which time programme [no.] should end.

Buttons

OK

Saves entries and changes and closes the dialog box.

Cancel

Discards entries and changes and closes the dialog box.

Default

Allows you to reset the values to the default settings.

1. Click on the **Default** button.
   The **Error** dialog box will open.
2. Select whether or not the object flags should be reset.
   1. **Yes**: The object flags will be reset.
   2. **No**: The object flags will not be reset.
   The default settings will be restored.

Info

Opens help menu.

Help

Opens the ETS help menu.

Time command [no.]

Description

Entry field for the programme names.

Default name: **Time command [no.]**.

Day

Selection list for choosing a day of the week on which time programme [no.] should begin.

- Default setting: **Mon.**

Time [h]

Selection list for choosing an hour of the time of day at which time programme [no.] should begin.

- Default setting: **4**.

Time [min]

Selection list for choosing a minute of the hour of the time of day at which time programme [no.] should begin.

- Default setting: **12**.

Running command

Select the action which is to be performed in the date area set.

- Default setting: --- (no action).
- **Up**.
- **Down**.
- **Shading position**.
- **Position**.
  - **Height [%]**: Spin box for setting/entering a percent value for the height.
  - **Angle [%]**: Spin box for setting/entering a percent value for an angle.
- **Automation lock on**.

Shading programme

Selection list for switching the shading programme on/off.

- Default setting: --- (no action).

Lighting programme

Selection list for switching the lighting programme on/off.

- Default setting: --- (no action).

Temperature programme

Selection list for switching the temperature programme on/off.

- Default setting: --- (no action).

Heat programme

Selection list for switching the heat programme on/off.

- Default setting: --- (no action).

Buttons

OK

Saves entries and changes and closes the dialog box.

Cancel

Discards entries and changes and closes the dialog box.

Default

Allows you to reset the values to the default settings.

1. Click on the **Default** button.
   The **Error** dialog box will open.
2. Select whether or not the object flags should be reset.
   1. **Yes**: The object flags will be reset.
   2. **No**: The object flags will not be reset.
   The default settings will be restored.

Info

Opens help menu.

Help

Opens the ETS help menu.

Input programmes

Inputs 1-8

Selection list to select whether or not inputs 1-8 are to be available.

Parametrisation of the inputs can be done under **Input [no.]**.

Inputs 9-16

Selection list to select whether or not inputs 9-16 are to be available.

Parametrisation of the inputs can be done under **Input [no.]**.

Buttons

OK

Saves entries and changes and closes the dialog box.

Cancel

Discards entries and changes and closes the dialog box.

Default

Allows you to reset the values to the default settings.

1. Click on the **Default** button.
   The **Error** dialog box will open.
2. Select whether or not the object flags should be reset.
   1. **Yes**: The object flags will be reset.
   2. **No**: The object flags will not be reset.
   The default settings will be restored.

Info

Opens help menu.

Help

Opens the ETS help menu.

Input [no.]

Description

Entry field for the programme names.

Default name: **Input [no.]**.

Connected with:

Selection list for choosing with which sector the respective input [no.] is to be connected.

- Default setting: **All sectors**.
  The input **Input [no.]** is connected to all sectors.
- **Sector [no.]**: The input **Input [no.]** is connected to **Sector [no.]**.

Utilisation:

Selection list for choosing which function is used.

Default setting: Operate programmes

Action ---> Input 1

- **Shading programme**: Selection list for switching the shading programme on/off. Default setting: --- (no action).
- **Twilight programme**: Selection list for switching the twilight programme on/off. Default setting: --- (no action).
- **Lighting programme**: Selection list for switching the lighting programme on/off. Default setting: --- (no action).
- **Temperature programme**: Selection list for switching the temperature programme on/off. Default setting: --- (no action).
- **Heat programme**. Selection list for switching the heat programme on/off. Default setting: --- (no action).
- **Time programme**: Selection list for switching the time programme on/off. Default setting: --- (no action).

Action ---> Input = 0

- **Shading programme**: Selection list for switching the shading programme on/off. Default setting: --- (no action).
- **Twilight programme**: Selection list for switching the twilight programme on/off. Default setting: --- (no action).
- **Lighting programme**: Selection list for switching the lighting programme on/off. Default setting: --- (no action).
- **Temperature programme**: Selection list for switching the temperature programme on/off. Default setting: --- (no action).
- **Heat programme**. Selection list for switching the heat programme on/off. Default setting: --- (no action).
- **Time programme**: Selection list for switching the time programme on/off. Default setting: --- (no action).

Running command

Selection list for choosing which running command is triggered when an input of 0 or 1 is

received from the respective connected sector.

Action ---> Input = 1

- Default setting: --- (no action).
- **Up**.
- **Down**.
- **Shading position**.
- **Position**.
    - **Height [%]**: Spin box for setting/entering a percent value for the height.
    - **Angle [%]**: Spin box for setting/entering a percent value for an angle.
- **Automation lock on**.
- **Automation lock off**.

Action ---> Input = 0

- Default setting: --- (no action).
- **Up**.
- **Down**.
- **Shading position**.
- **Position**.
    - **Height [%]**: Spin box for setting/entering a percent value for the height.
    - **Angle [%]**: Spin box for setting/entering a percent value for an angle.
- **Automation lock on**.
- **Automation lock off**.

Security (BMA, cleaning…).

- **Check periodically digital input**
  Selection list for choosing a time frame within which a telegramme must be received at the digital input. If no telegramme is received within this time frame, the security object set will be sent to the connected sector.
- **Connected with**
  Selection list for choosing a security object for the connected sector which is to be sent if a 1 is received or if the cycle time is exceeded.

Buttons

OK

Saves entries and changes and closes the dialog box.

Cancel

Discards entries and changes and closes the dialog box.

Default

Allows you to reset the values to the default settings.

1. Click on the **Default** button.
   The **Error** dialog box will open.
2. Select whether or not the object flags should be reset.
   1. **Yes**: The object flags will be reset.
   2. **No**: The object flags will not be reset.

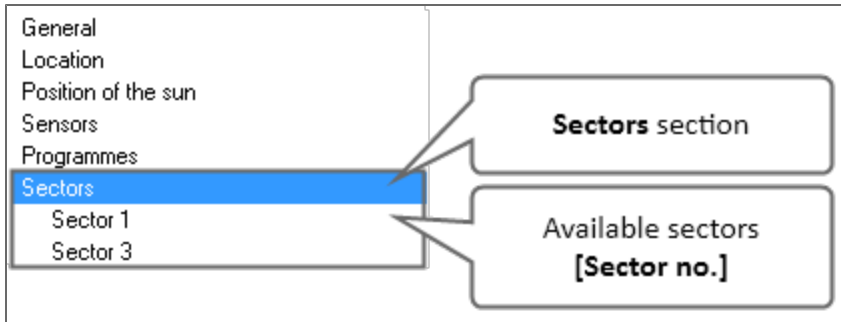The default settings will be restored.

Info

Opens help menu.

Help

Opens the ETS help menu.

Sectors

In this section it is possible to specify which of the total of eight sectors are available and which are not.

Available sectors are listed to the left below the section **Sectors**.

Sectors section showing sectors 1 and 3 available from a total of 8 sectors.

The sectors can be parametrised in the respective sectors **Sector [no.]**.

Sector [no.]

Selection list to select whether or not sectors are to be available.

- Default setting: **Off**.
  The respective **Sector [no.]** is not available.
- **On**: The respective **Sector [no.]** is available.
  Parametrisation can be done in **Sector [no.]**.

Buttons

OK

Saves entries and changes and closes the dialog box.

Cancel

Discards entries and changes and closes the dialog box.

Default

Allows you to reset the values to the default settings.

1. Click on the **Default** button.
   The **Error** dialog box will open.
2. Select whether or not the object flags should be reset.
   1. **Yes**: The object flags will be reset.
   2. **No**: The object flags will not be reset.
   The default settings will be restored.

Info

Opens help menu.

Help

Opens the ETS help menu.

Sector [no.]

In this section, sectors **Sectors [no.]** can be parametrised.

This includes the assignment of programmes to the respective **Sector [no.]**.

Description

Entry field for the sector names.

Default name: **Sector [no.]**

Direction [0° - 359°] 0°=> north

Spin box for setting/entering the direction of the respective sector.

- Default direction: **0°** (North).

If the default direction is not possible or is not desired, the direction must be modified.

To achieve proper solar tracking, the direction must be set as accurately as possible.

Use the following values for setting the four cardinal points:

- 0°: North.
- 90°: East.
- 180°: South.
- 270°: West.

Assigned programmes

In this section, programmes can be assigned to the respective**Sector [no.]**.

Wind programme

- Default setting: -----: No wind programme is assigned to **Sector [no.]**.
- **Programme 1/2**: Wind programme 1 or 2 is assigned to **Sector [no.]**.
  It is possible to assign wind programme 1 or 2 regardless of whether or not the respective wind programme has been parametrised.
  The parametrisation of wind programme 1 or 2 can be done in the section **Programmes** > **Wind programme 1/2**.

Frost programme

- Default setting: -----: No frost programme is assigned to **Sector [no.]**.
- **Programme 1/2**: Frost programme 1 or 2 is assigned to **Sector [no.]**.
  It is possible to assign frost programme 1 or 2 regardless of whether or not the respective frost programme has been parametrised.
  The parametrisation of frost programme 1 or 2 can be done in the section **Programmes** > **Frost programme 1/2**.

Rain/snow programme

- Default setting: -----: No rain/snow programme is assigned to **Sector [no.]**.
- **Rain/snow programme 1/2**: Rain/snow programme 1 or 2 is assigned to **Sector [no.]**.
  It is possible to assign rain/snow programme 1 or 2 regardless of whether or not the respective rain/snow programme has been parametrised.
  The parametrisation of rain/snow programme 1 or 2 can be done in the section **Programmes** > **Rain/snow programme 1/2**.

Shading programme
- Default setting: -----: No shading programme is assigned to **Sector [no.]**.
- **Shading programme 1/2/3/4**: Shading programme 1, 2, 3 or 4 is assigned to **Sector [no.]**.
  It is possible to assign shading programme 1, 2, 3 or 4 regardless of whether or not the respective shading programme has been parametrised.
  The parametrisation of shading programme 1, 2, 3 or 4 can be done in the section **Programmes** > **Shading programme 1/2/3/4**.

Twilight programme
- Default setting: -----: No twilight programme is assigned to **Sector [no.]**.
- **Twilight programme 1**: Twilight programme 1 is assigned to **Sector [no.]**.
  It is possible to assign twilight programme 1 regardless of whether or not the respective twilight programme has been parametrised.
  The parametrisation of twilight programme 1 can be done in the section **Programmes** > **Twilight programme 1**.

Global radiation programme
- Default setting: -----: No global radiation programme is assigned to **Sector [no.]**.
- **Global radiation programme 1**: Global radiation programme 1 is assigned to **Sector [no.]**.
  It is possible to assign global radiation programme 1 regardless of whether or not the respective global radiation programme has been parametrised.
  The parametrisation of global radiation programme 1 can be done in the section **Programmes** > **Global radiation programme 1**.

Temperature programme
- Default setting: -----: No temperature programme is assigned to **Sector [no.]**.
- **Temperature programme 1**: Temperature programme 1 is assigned to **Sector [no.]**.
  It is possible to assign temperature programme 1 regardless of whether or not the respective temperature programme has been parametrised.
  The parametrisation of temperature programme 1 can be done in the section **Programmes** > **Temperature programme 1**.

Heat programme
- Default setting: -----: No heat programme is assigned to **Sector [no.]**.
- **Heat programme 1**: Heat programme 1 is assigned to **Sector [no.]**.
  It is possible to assign heat programme 1 regardless of whether or not the respective heat programme has been parametrised.
  The parametrisation of heat programme 1 can be done in the section **Programmes** > **Heat programme 1**.

Time programme
- Default setting: -----: No time programme is assigned to **Sector [no.]**.
- **Time programme 1/2/1+2**: Time programme 1, 2 or 1+2 is assigned to **Sector [no.]**.
  It is possible to assign time programme 1, 2 or 1+2 regardless of whether or not the respective time programme has been parametrised.

The parametrisation of time programme 1 or 2 can be done in the section **Programmes** > **Time programme 1/2**.

Buttons

OK

Saves entries and changes and closes the dialog box.

Cancel

Discards entries and changes and closes the dialog box.

Default

Allows you to reset the values to the default settings.

1. Click on the **Default** button.
   The **Error** dialog box will open.
2. Select whether or not the object flags should be reset.
   1. **Yes**: The object flags will be reset.
   2. **No**: The object flags will not be reset.
   The default settings will be restored.

Info

Opens help menu.

Help

Opens the ETS help menu.

Overview of all communication objects

Name	Function	Description	Data type
Send date	Output	The central unit sends the internal date	[11.1] DPT_ Date
Send time	Output	The central unit sends the internal time of day	[10.1] DPT_ TimeOfDay
Receive date	Input	The date is set in the central unit	[11.1] DPT_ Date
Receive time	Input	The time of day is set in the central unit	[10.1] DPT_ TimeOfDay
Azimuth	Output	The current azimuth is sent in consideration of the location and time and date	[8.11] DPT_ Rotation_ Angel
Elevation	Output	The current elevation is sent in consideration of the location and time and date	[8.11] DPT_ Rotation_ Angel
Reset frost programme 1	Input	1 = Reset frost programme 1	[1.2] DPT_ Bool
Reset frost programme 2	Input	1 = Reset frost programme 2	[1.2] DPT_ Bool
Wind speed	Output	Sends the current measured value in m/s	[9.5] DPT_ Value_Wsp
Wind direction	Output	Sends the current measured value in degrees	[8.11] DPT_ Rotation_ Angel
Temperature	Output	Sends the current measured value in °C	[9.1] DPT_ Value_Temp
Rain/snow - sensitivity	Output	"Sends the current measured value	
0% = no rain/snow			
1% = light rain/snow			
327.67% = heavy rain/snow"	[8.10] DPT_ Percent_V16		

Name	Function	Description	Data type
Rain/snow - yes/no	Output	"0 = no rain/snow	
1 = rain/snow"	[1.2] DPT_Bool		
Brightness north	Output	Sends the current measured value in lux; ideal for elevations up to 30°	[9.4] DPT_Value_Lux
Brightness east	Output	Sends the current measured value in lux; ideal for elevations up to 30°	[9.4] DPT_Value_Lux
Brightness south	Output	Sends the current measured value in lux; ideal for elevations up to 30°	[9.4] DPT_Value_Lux
Brightness west	Output	Sends the current measured value in lux; ideal for elevations up to 30°	[9.4] DPT_Value_Lux
Brightness sky	Output	Sends the current measured value in lux; ideal for elevations as of 30°	[9.4] DPT_Value_Lux
Global radiation north	Output	Sends the current measured value in W/m²; ideal for elevations up to 30°	[9.22] DPT_PowerDensity
Global radiation east	Output	Sends the current measured value in W/m²; ideal for elevations up to 30°	[9.22] DPT_PowerDensity
Global radiation south	Output	Sends the current measured value in W/m²; ideal for elevations up to 30°	[9.22] DPT_PowerDensity
Global radiation west	Output	Sends the current measured value in W/m²; ideal for elevations up to 30°	[9.22] DPT_PowerDensity
Global radiation sky	Output	Sends the current measured value in W/m²; ideal for elevations as of 30°	[9.22] DPT_PowerDensity

Name	Function	Description	Data type
Twilight	Output	Sends the current measured value in lux; average value of all sensors; output of max. 1000 lux	[9.4] DPT_Value_Lux
External wind speed	Input	Input from an external wind sensor	[9.5] DPT_Value_Wsp
Temperature external	Input	Input from an external temperature sensor	[9.1] DPT_Value_Temp
Set limit value wind programme 1	Input	Sets the limit value of the respective programme; does not change the hysteresis	[9.5] DPT_Value_Wsp
Set limit value wind programme 2	Input	Sets the limit value of the respective programme; does not change the hysteresis	[9.5] DPT_Value_Wsp
Set limit value frost programme 1	Input	Sets the limit value of the respective programme; does not change the hysteresis	[9.1] DPT_Value_Temp
Set limit value frost programme 2	Input	Sets the limit value of the respective programme; does not change the hysteresis	[9.1] DPT_Value_Temp
Set limit value rain/snow programme 1	Input	Sets the limit value of the respective programme; does not change the hysteresis	[8.10] DPT_Percent_V16
Set limit value rain/snow programme 2	Input	Sets the limit value of the respective programme; does not change the hysteresis	[8.10] DPT_Percent_V16
Set limit value global radiation programme	Input	Sets the limit value of the respective programme; does not change the hysteresis	[9.22] DPT_PowerDensity
Set limit value shading programme 1 (lux)	Input	Sets the limit value of the respective programme; does not change the hysteresis	[9.4] DPT_Value_Lux
Set limit value shading programme 2 (lux)	Input	Sets the limit value of the respective programme; does not change the hysteresis	[9.4] DPT_Value_Lux
Set limit value shading	Input	Sets the limit value of the	[9.4] DPT_

Name	Function	Description	Data type
programme 3 (lux)		respective programme; does not change the hysteresis	Value_Lux
Set limit value shading programme 4 (lux)	Input	Sets the limit value of the respective programme; does not change the hysteresis	[9.4] DPT_ Value_Lux
Set limit value shading programme 1 (W/m²)	Input	Sets the limit value of the respective programme; does not change the hysteresis	[9.22] DPT_ PowerDensity
Set limit value shading programme 2 (W/m²)	Input	Sets the limit value of the respective programme; does not change the hysteresis	[9.22] DPT_ PowerDensity
Set limit value shading programme 3 (W/m²)	Input	Sets the limit value of the respective programme; does not change the hysteresis	[9.22] DPT_ PowerDensity
Set limit value shading programme 4 (W/m²)	Input	Sets the limit value of the respective programme; does not change the hysteresis	[9.22] DPT_ PowerDensity
Set limit value twilight programme	Input	Sets the limit value of the respective programme; does not change the hysteresis	[9.4] DPT_ Value_Lux
Set limit value lighting programme	Input	Sets the limit value of the respective programme; does not change the hysteresis	[9.4] DPT_ Value_Lux
Set limit value temperature programme	Input	Sets the limit value of the respective programme; does not change the hysteresis	[9.1] DPT_ Value_Temp
Set limit value heat programme outdoor sensor	Input	Sets the limit value of the respective programme; does not change the hysteresis	[9.1] DPT_ Value_Temp
Set limit value heat programme - indoor sensor	Input	Sets the limit value of the respective programme; does not change the hysteresis	[9.1] DPT_ Value_Temp
Status limit value wind programme 1	Output	Sends the current limit value of the respective programme	[9.5] DPT_ Value_Wsp
Status limit value wind	Output	Sends the current limit value of	[9.5] DPT_

Name	Function	Description	Data type
programme 2		the respective programme	Value_Wsp
Status limit value frost programme 1	Output	Sends the current limit value of the respective programme	[9.1] DPT_ Value_Temp
Status limit value frost programme 2	Output	Sends the current limit value of the respective programme	[9.1] DPT_ Value_Temp
Status limit value rain/snow programme 1	Output	Sends the current limit value of the respective programme	[8.10] DPT_ Percent_V16
Status limit value rain/snow programme 2	Output	Sends the current limit value of the respective programme	[8.10] DPT_ Percent_V16
Status limit value global radiation programme	Output	Sends the current limit value of the respective programme	[9.22] DPT_ PowerDensity
Status limit value shading programme 1 (lux)	Output	Sends the current limit value of the respective programme	[9.4] DPT_ Value_Lux
Status limit value shading programme 2 (lux)	Output	Sends the current limit value of the respective programme	[9.4] DPT_ Value_Lux
Status limit value shading programme 3 (lux)	Output	Sends the current limit value of the respective programme	[9.4] DPT_ Value_Lux
Status limit value shading programme 4 (lux)	Output	Sends the current limit value of the respective programme	[9.4] DPT_ Value_Lux
Status limit value shading programme 1 (W/m²)	Output	Sends the current limit value of the respective programme	[9.22] DPT_ PowerDensity
Status limit value shading programme 2 (W/m²)	Output	Sends the current limit value of the respective programme	[9.22] DPT_ PowerDensity
Status limit value shading programme 3 (W/m²)	Output	Sends the current limit value of the respective programme	[9.22] DPT_ PowerDensity
Status limit value shading programme 4 (W/m²)	Output	Sends the current limit value of the respective programme	[9.22] DPT_ PowerDensity
Status limit value twilight programme	Output	Sends the current limit value of the respective programme	[9.4] DPT_ Value_Lux
Status limit value lighting programme	Output	Sends the current limit value of the respective programme	[9.4] DPT_ Value_Lux

Name	Function	Description	Data type
Status limit value temperature programme	Output	Sends the current limit value of the respective programme	[9.1] DPT_ Value_Temp
Status limit value heat programme outdoor sensor	Output	Sends the current limit value of the respective programme	[9.1] DPT_ Value_Temp
Status limit value heat programme - indoor sensor	Output	Sends the current limit value of the respective programme	[9.1] DPT_ Value_Temp
Collective error	Output	"An OR function for all error messages	
0 = No error			
1 = Error"	[1.2] DPT_Bool		
Error wind sensor	Output	"0 = No error	
1 = Error"	[1.2] DPT_Bool		
Error brightness sensor north	Output	"0 = No error	
1 = Error"	[1.2] DPT_Bool		
Error brightness sensor east	Output	"0 = No error	
1 = Error"	[1.2] DPT_Bool		
Error brightness sensor south	Output	"0 = No error	
1 = Error"	[1.2] DPT_Bool		
Error brightness sensor west	Output	"0 = No error	
1 = Error"	[1.2] DPT_Bool		
Error brightness sensor sky	Output	"0 = No error	
1 = Error"	[1.2] DPT_Bool		
Error temperature	Output	"0 = No error	
1 = Error"	[1.2] DPT_Bool		
Error rain/snow	Output	"0 = No error	
1 = Error"	[1.2] DPT_Bool		

Name	Function	Description	Data type
Up / Down	Sector n, end position	1 = Moves to the lower end position	[1.8] DPT_ UpDown
		0 = Moves to the upper end position	
Up / Shading	Sector n, up/shading	1 = Moves to the shading position	[1.8] DPT_ UpDown
		0 = Moves to the upper end position	
Height	Sector n, height	0 = Moves to the upper end position	[5.1] DPT_ Scaling
		100% = Moves to the lower end position	
Angle	Sector n, angle	0% = slats open - transparence	[5.1] DPT_ Scaling
		100% = slats closed	
Automatic lock-out	Sector n, automatic lock-out	1 = Set lock-out of automatic	[1.2] DPT_ Bool
		0 = Cancel lock-out of automatic	
Security object 1	Sector n, security object 1	"0 = No security enabled	
1 = Security enabled"	[1.2] DPT_Bool		
Security object 2	Sector n, security object 2	"0 = No security enabled	
1 = Security enabled"	[1.2] DPT_Bool		
Security object 3	Sector n, security object 3	"0 = No security enabled	
1 = Security enabled"	[1.2] DPT_Bool		
Digital input	Input n	Freely assignable, see input programme	[1.2] DPT_ Bool
Digital output lighting	Output	Freely assignable, see lighting	[1.2] DPT_

Name	Function	Description	Data type
programme		programme	Bool

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