Test-Data-Input widget documentation

Through this module, the *Mjölnir* system operators should be able to test their own developed modules, or the whole system, without using the needed measurement devices.

The next few paragraphs will describe, how the user can insert the test data sets through this widget. This module can only be executed, if the current user is the system administrator. In every other case, the following message will be shown on screen:

"This widget can be only used by the Mjölnir-Administrator!"

Through the *next-*, and *back-button* (q.v. *Figure 1*), the user can move forward, and backward inside the widget process. If this module is not needed anymore, it can be closed top right, by the *closed-button* (q.v. *Figure 10*).

Users

The widget user must be able to insert test data for multiple users, to test the *Mjölnir* system boundaries. Therefore, an user can be chosen. Then the energy data will be inserted for this specific user. Of course, a couple of users have to be added to this system beforehand.

Test building

The whole test data set consists of multiple buildings, which are representing real households. The section, **??** describes this in more detail.

Test file

If one test building has been chosen, two different cases can occur:

- A new test data file can be chosen (it represents one day),
- or the system can send information, about the last insert process of the current building, which had been stopped. (q.v. *Figure 2*)

The last insert process can be stopped, through two different ways:

- automatically - if the user doesn't want to insert the whole data file, he can then only chose a certain amount of hours, and after all the chosen hours have been inserted, the system will stop this process automatically.

- the *stop-button* - the user can press the *stop-button*, if he doesn't have enough time.

The stop message (means that the insert process has been terminated through the *stop-button*), contains three additional pieces of information:

- the last used data file,
- the last used user,
- and the next hour, where the continuing process will start.

Day of current month

The admin can choose a day of the current month. For that particular day, the energy data of the chosen test data file will be inserted. (q.v. *Figure 3*)

List of hours

This view will be selected, if a data file has been chosen before. Every building data file represents one day, and this is noted in the subsection *Test file*. The administrator can select one hour, or up to a maximum of twenty four hours, that the *Mjölnir* system should insert into the data base immediately (q.v. *Figure 5*; the selected hour is called as ***process hour***). If the last insert process has been automatically stopped, the data file can be selected again, but the administrator can only continue from that given hour, which hadn't been inserted before.

Insert process preparation

If all needed insert process information is available, the *Mjölnir* client will wait for five seconds, and then the test data insert process will begin, but only if the selected building doesn't exist already, the *Mjölnir* system creates a new building, one room, and the related test devices automatically. Then all the current added devices are shown on this widget (q.v. *Figure 6*).

The insert process

During the data insert process, the following information will be displayed:

- the current chosen *building*, and the *test data file*,

- the last inserted device *consumptionevents* in *Watt*, at a special timestamp, which are embedded into a table (the first line relates to the previous *consumptionevents*, the second line to the current),
- a progress bar, which displays the whole data file insert process progress in percentage.

The whole process can be interrupted through the *BREAK-button*. During this time, the insert process screen is shown greyed out, and the following message will be displayed (q.v. *Figure 7*):

"The insert process have been interrupted! This process can be reactivated, if you press CONTINUE!"

The *BREAK-* , and *STOP-button*, are disabled.

Through the *STOP-button*, this insert process will also be interrupted, but the view will be closed, and it has to be started all over again, as is described in the subsections before. After this button has been pressed, a message will be shown (q.v. *Figure 9*):

"Attention: The insert process had been stopped, and will be closed in 5 seconds!"

All the buttons are greyed out, and disabled.

No problems will show up, if the *insert process* is ended ahead of time, by closing the *web-browser*, or pressing the *refresh-button* inside the browser. At the next session, this *insert process* will start again, where it had been interrupted before.

Widget end

If the insert process had finished normally, the widget will display the message:

"... Would you like to continue?"

The current user has the following options:

- *YES* - the widget starts at the beginning again
- *NO* - this process has finished completely, and the widget can be closed (q.v. *Figure 10*)

The Trash-button

If one, ore more test data files, of a particular user, and building have been inserted completely, it is possible to delete all stored information (inserted energy data, devices, ...) for this selected user, and building, by clicking on the *trash-button*, on the *Test file* view. (q.v. *Figure 11*)

Every time an *insert process* is executed, it isn't possible for the admin user to start a new one by any other browser, or browser tab, for the previous selected user, and building. This avoids that the needed insert information (e.g. the last inserted energy data line) will be mutilated. (q.v. *Figure 4*)

If there is enough electrical energy data inside the *Mjölnir* data base, it is possible to use most of the other widgets normally.

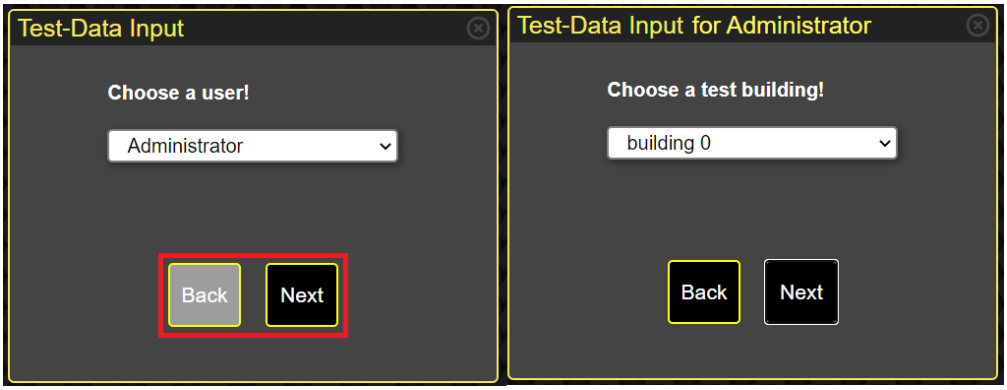

Figure 1: Next, and back; choose building

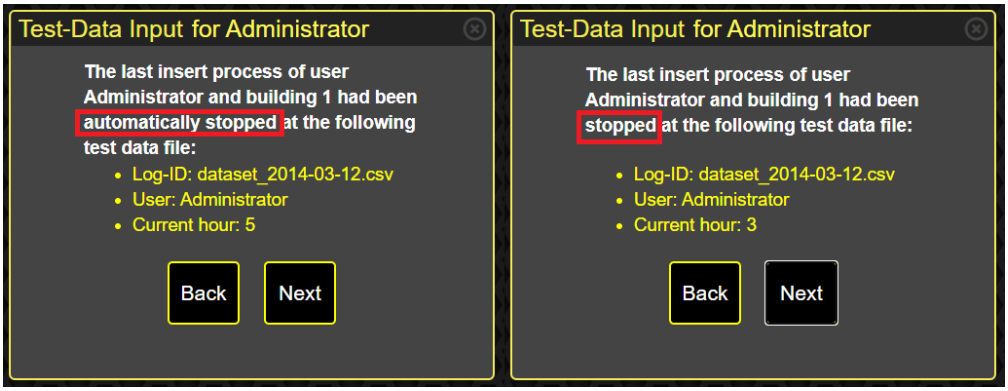

Figure 2: Last ip automatically stopped; last ip stopped by hard

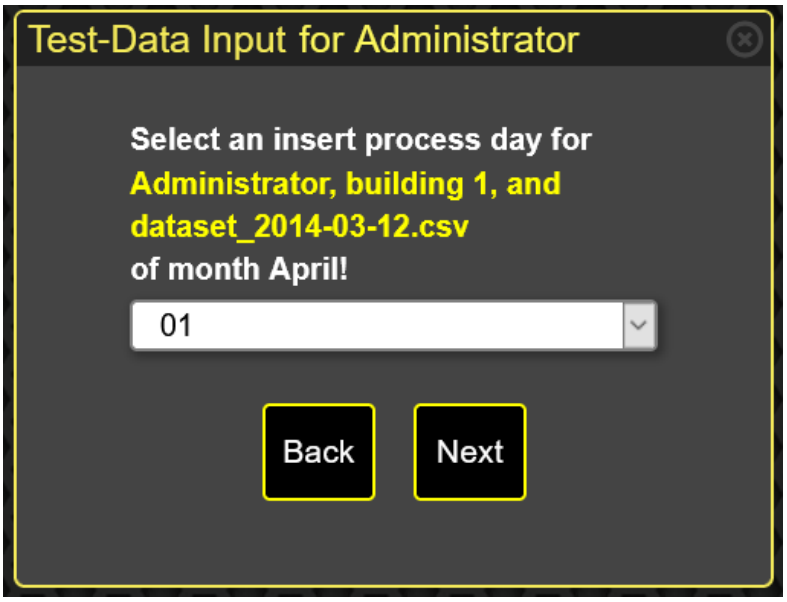

Figure 3: Insert process day selection

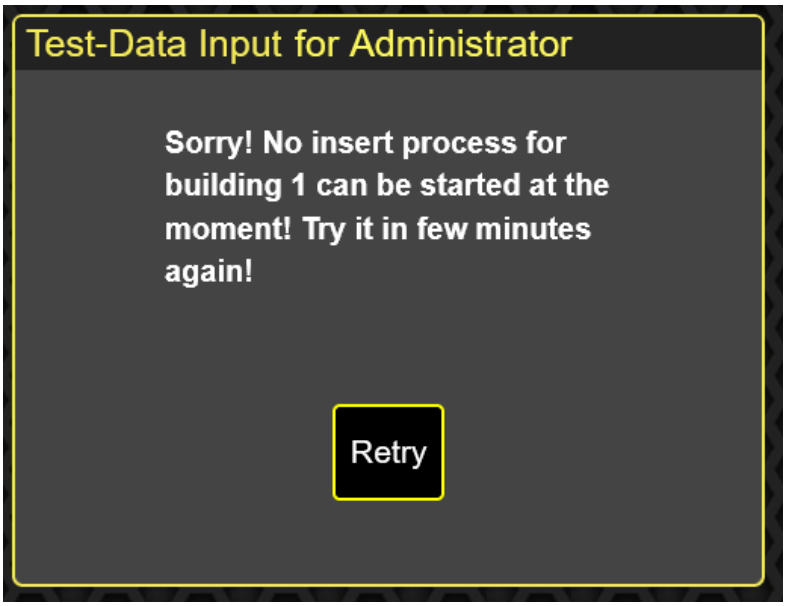

Figure 4: No insert process is available

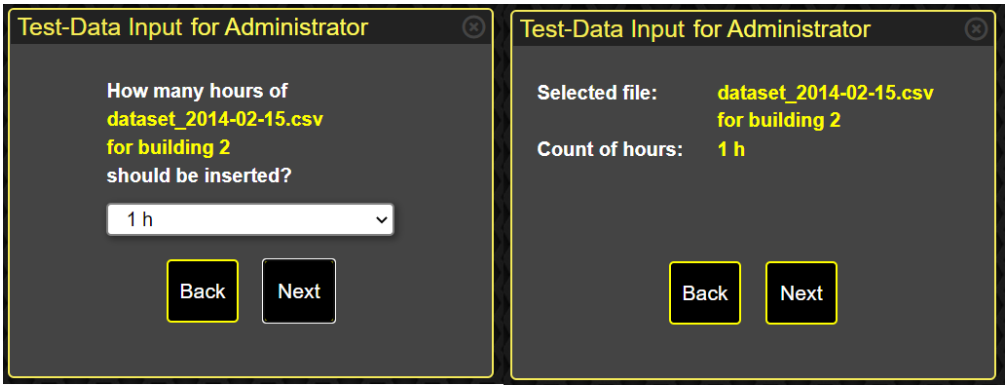

Figure 5: Choose hours; selected data

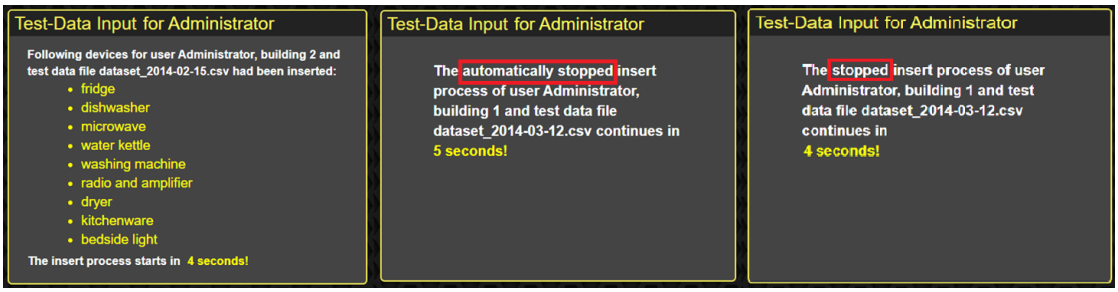

Figure 6: Ip prep. for the first time; ip prep. after automatically stop; ip prep. after hard stop

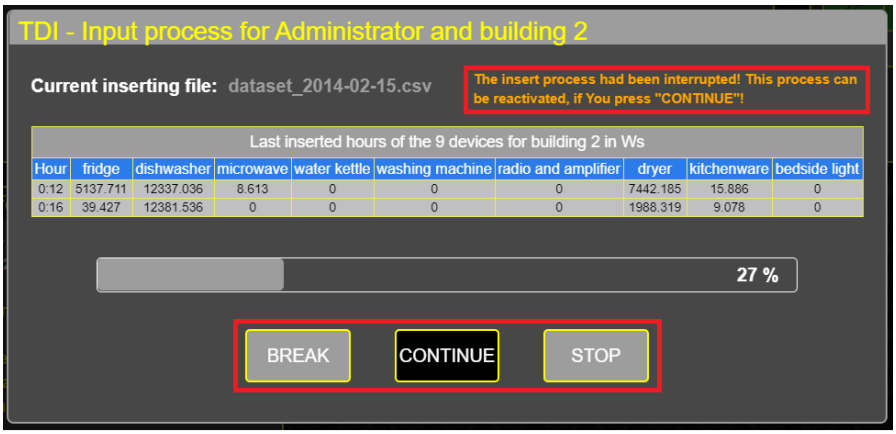

Figure 7: Continue input process

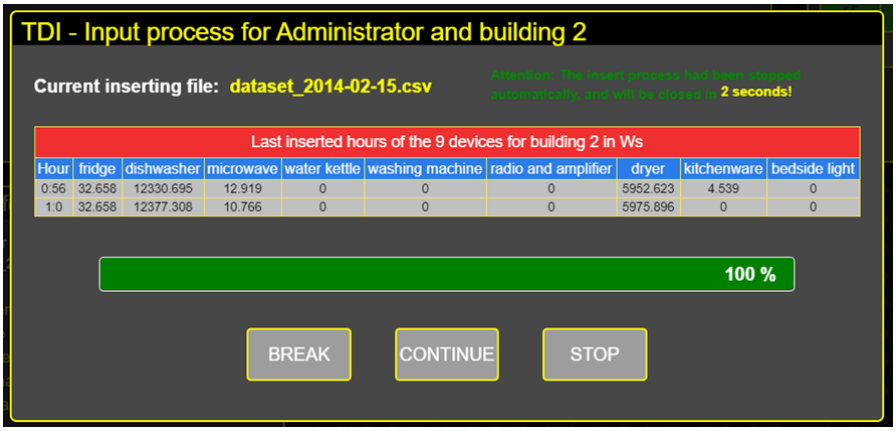

Figure 8: Stop input process automatically

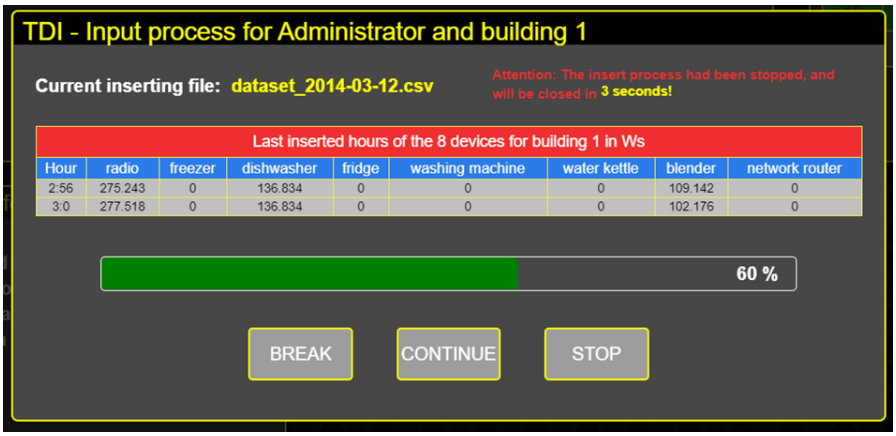

Figure 9: Stop input process by hard

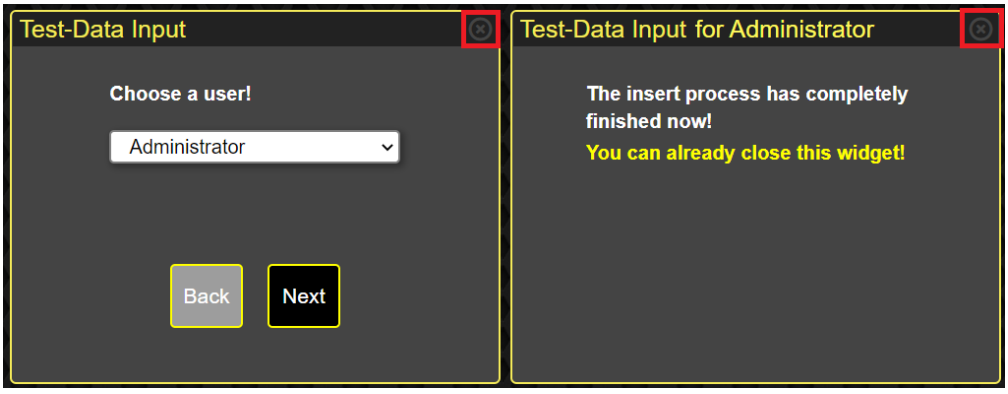

Figure 10: Close widget; widget is finished

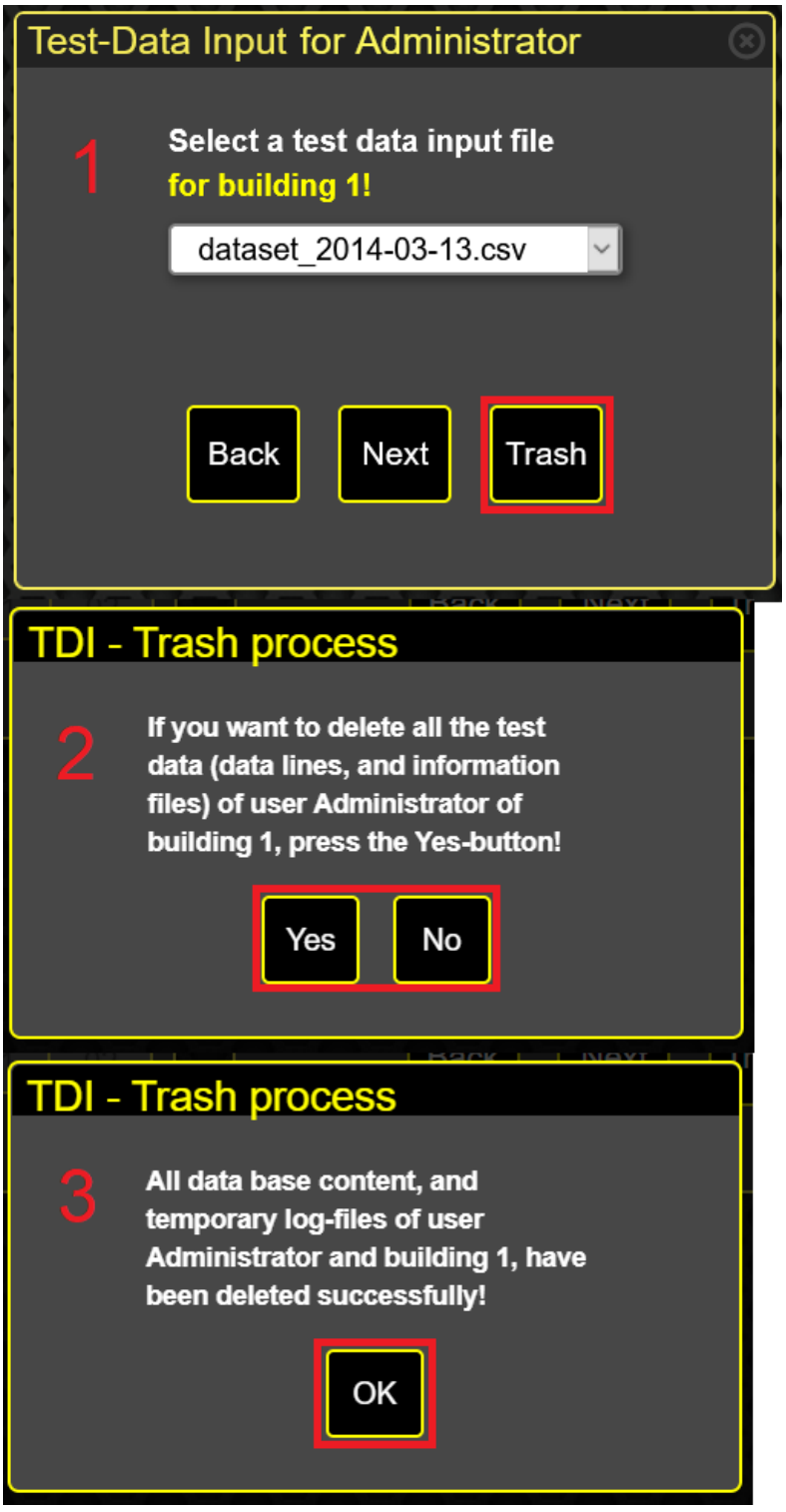

Figure 11: Deletion of the inserted data