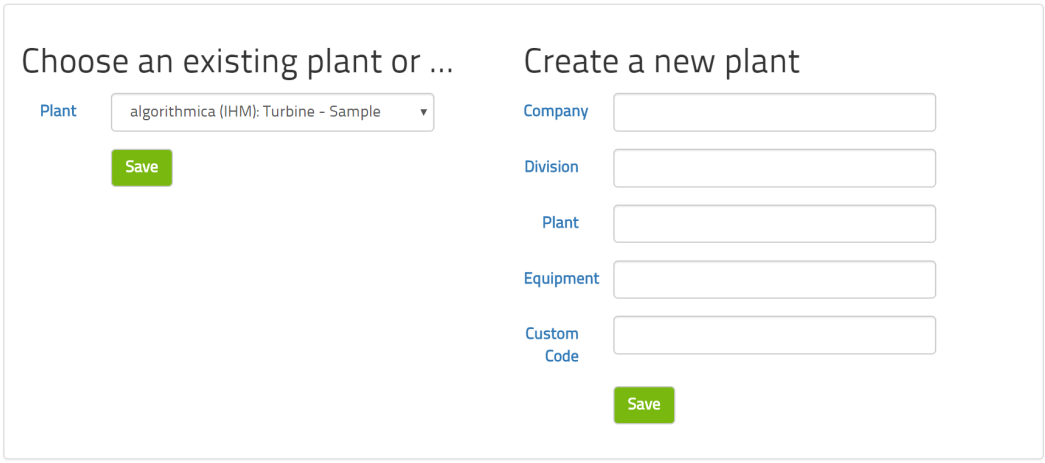
Manual: 5.4. Initial Putting into Service

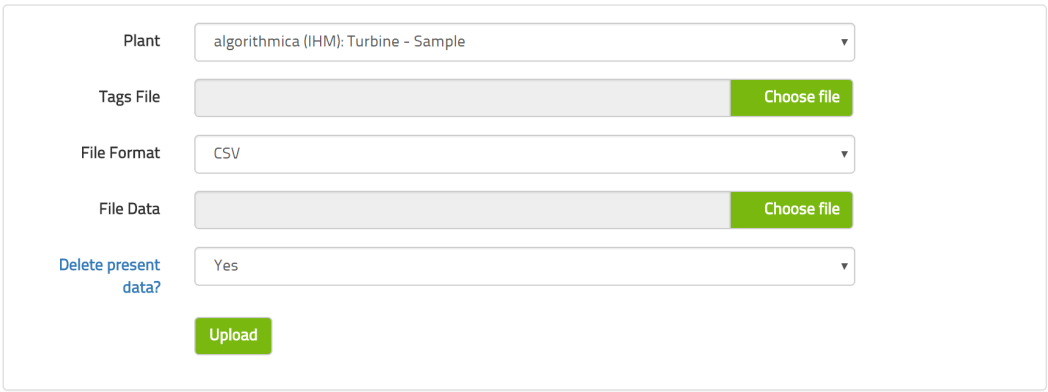
After installing IHM on your system, you will find a menu on the interface page. One of the entries is called Wizards and among them is the IHM Setup wizard. If you click on this, you will be guided through a workflow to generate a new dataset with model and dynamic limits.



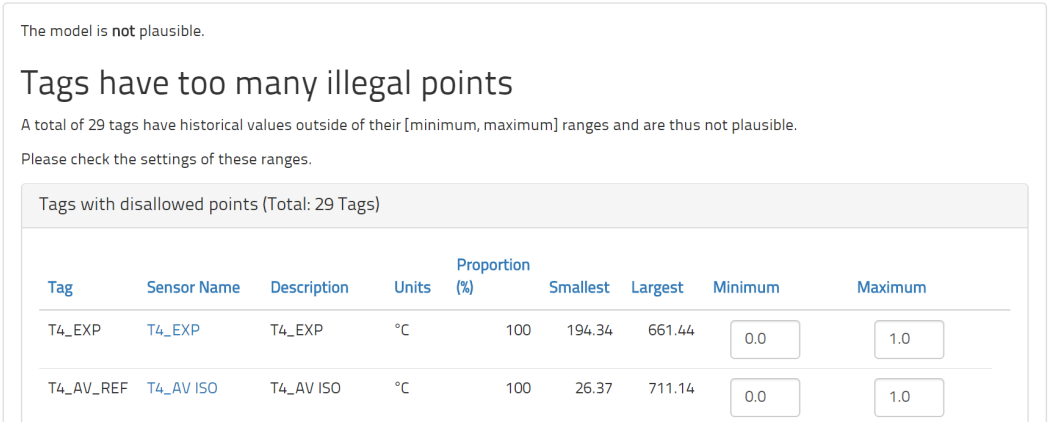
First, you generate a new plant. While this is called a plant, you may want to create a new plant for each major piece of equipment. The decision which data points belong into a single analysis framework, here referred to as a plant, is up to you and depends on how connected these parts are. The IHM software can handle multiple plants.

	Tag	PLS Tag	Sensor Name	Description	Units	Minimum	Maximum	Delta	Limited	Low Green	High Green	Low Yellow	High Yellow	Low Orange	High Orange
1	SCH0201001	SCH0201001	GG Rotation Rate max Setpoint	GG Rotation Rate max Setpoint	rpm	0.00	15000.00	7500.00	No						
2	SCL0201001	SCL0201001	GG Rotation Rate min Setpoint	GG Rotation Rate min Setpoint	rpm	0.00	15000.00	7500.00	No						
3	SI0201001	SI0201001	GG Rotation Rate	GG Rotation Rate	rpm	0.00	15000.00	7500.00	No						14203.00
4	SI0201001A	SI0201001A	GG Rotation Rate A	GG Rotation Rate A	rpm	0.00	15000.00	7500.00	No						14203.00
5	SI0201001B	SI0201001B	GG Rotation Rate B	GG Rotation Rate B	rpm	0.00	15000.00	7500.00	No						14203.00
6	SI0201001C	SI0201001C	GG Rotation Rate C	GG Rotation Rate C	rpm	0.00	15000.00	7500.00	No						14203.00
7	ZI0201051A	ZI0201051A	GG Axial Displacement A	GG Axial Displacement A	mm	-1.00	1.00	1.00	Yes	-0.25	0.60	-0.35			0.70
8	ZI0201051B	ZI0201051B	GG Axial Displacement B	GG Axial Displacement B	mm	-1.00	1.00	1.00	Yes	-0.25	0.60	-0.35			0.70
9	VI0201061X	VI0201061X	GG Axial Vibration Forward Bearing X	GG Axial Vibration Forward Bearing X	µm	0.00	150.00	75.00	Yes		70.00				100.00
10	VI0201061Y	VI0201061Y	GG Axial Vibration Forward Bearing Y	GG Axial Vibration Forward Bearing Y	µm	0.00	150.00	75.00	Yes		70.00				100.00
11	VI0201071X	VI0201071X	GG Axial Vibration Backward Bearing X	GG Axial Vibration Backward Bearing X	µm	0.00	150.00	75.00	Yes		70.00				100.00
12	VI0201071Y	VI0201071Y	GG Axial Vibration Backward Bearing Y	GG Axial Vibration Backward Bearing Y	µm	0.00	150.00	75.00	Yes		70.00				100.00
13	KI0201081	KI0201081	GG Keyphasor	GG Keyphasor	-	0.00	1.00	0.50	No						
14	TI0201111A	TI0201111A	GG Forward Radial Bearing	GG Forward Radial Bearing	°C	-30.00	200.00	115.00	Yes		90.00				110.00
15	TI0201121A	TI0201121A	GG Backward Radial Bearing	GG Backward Radial Bearing	°C	-30.00	200.00	115.00	Yes		90.00				110.00
16	TI0201131A	TI0201131A	GG Thrust Bearing inactive	GG Thrust Bearing inactive	°C	-30.00	200.00	115.00	Yes		90.00				110.00
17	TI0201141A	TI0201141A	GG Thrust Bearing active	GG Thrust Bearing active	°C	-30.00	200.00	115.00	Yes		90.00				110.00

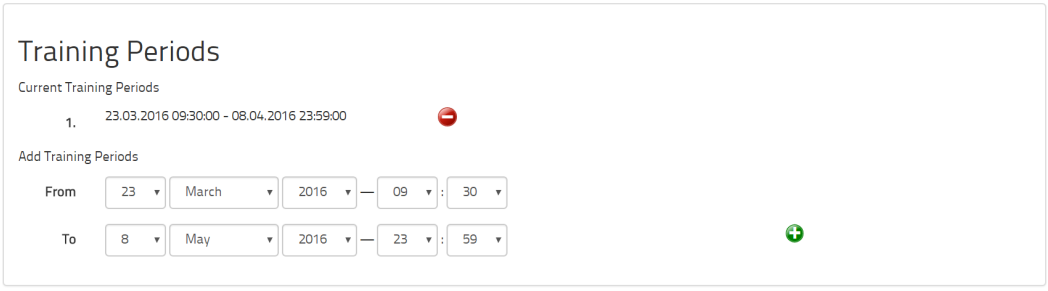
Second, you define the measurements and their metadata. This is explained in the wizard in detail. You may enter this information directly in the form on the page or you may prepare the information externally and put it into a file.



Third, you will upload the historical data that you have exported from your data historian. Here you will also upload the metadata if you have not manually typed it into the online form before.



Fourth, there will be a plausibility check for the metadata. If there are any implausibilities, the interface will explain what they are and how to fix them. This essentially detects any typos in the ranges of values and so on to make sure that everything makes numerical sense.



Fifth, you can enter the time periods that the equipment was known to be healthy and any exclude conditions. These two wizard entries will apply to all models for this dataset. You can, if you wish, customize these two pieces of information for each model individually. It is far more efficient to do it here globally. It makes sense that the times of health apply to the whole equipment and that exclude conditions also apply for the whole equipment. Thus, we recommend that you only customize these concepts for each model in exceptional circumstances.

On this last page, there is a button to model everything. If you click on this button, the computer will automatically select the independent variables, train and apply the model to the historical data for every single model requested in the metadata. Depending on the number of models requested and the amount of training data, this may take a substantial period of time. We recommend pressing this button at the end of a working day or even on a Friday afternoon so that the computer may work for many hours without disturbing you during any other items of work.