Cold Strip Mill Dynamic Model

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Corus Systems Dynamics and Control (CDC) Group has created a library of Cold Strip Mill Dynamic models. With this library we are able to quickly make a dynamic model of a Cold Tandem Mill configuration. The models are programmed in Matlab/Simulink.

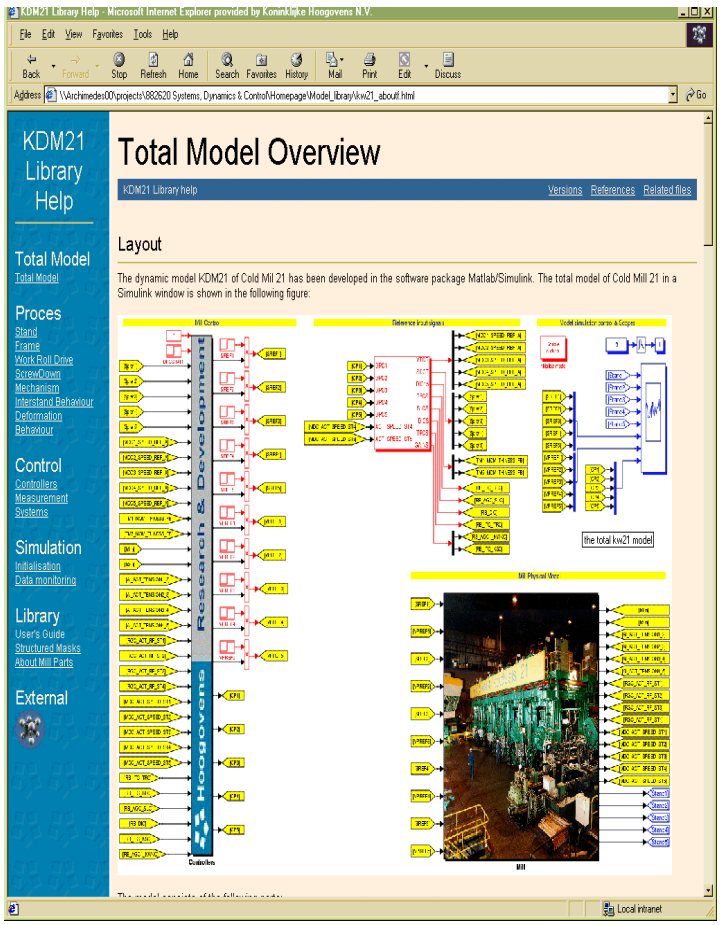
Simulations

Several possibilities exist to perform a time simulation with a model that is based on the library sub-models. As example is shown the model of Coldmill 21 of Corus Strip Products IJmuiden.

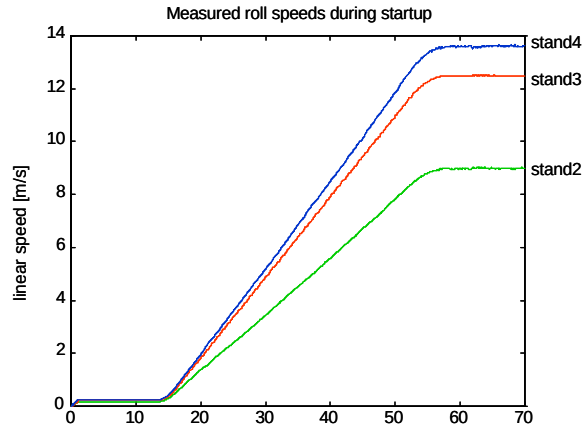
Help Functions

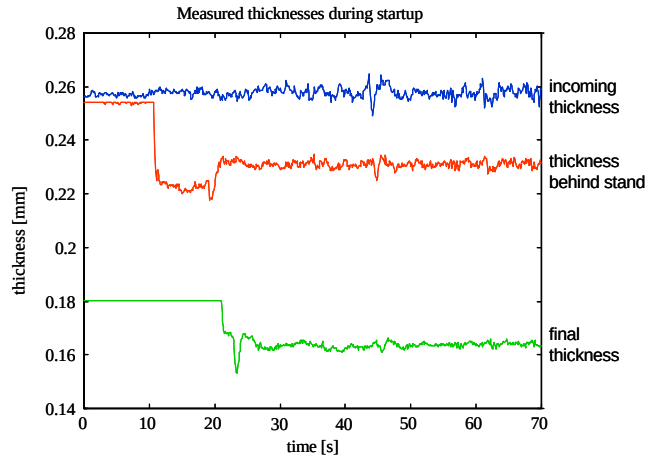
Every function block in the library has its own help function. These help functions are available in HTML mode. They contain the following information:

- Description of the model
- Instruction for running a simulation and data to download



Typical results of threading control





- Information about the model "Mask" (a typical Simulink feature)
- Inputs and outputs: names and units
- Related (m-)files;
- References with links to the Corus Research Development & Technology (CRD&T) Reference Source, the database of CRD&T reports and other documents.

Examples of model use

- The model is used for many different purposes. Some of them are:
- Simulation and assessment of flying gauge change
- Optimisation of flatness control
- Improvement of threading