

- Library block names are switched invisible. The blocks mode of operation may be identified clearly by its icon. Nevertheless applications may be explained in detail via any block names – see examples.
- Adjustments of “Type” and “Parameter non-linear” as well as unblocking of additional outputs (displacement, momentum, power) influence the icon design. Please press button “apply” on changes directly. This is especially true for the following special tasks: fields („InputDimensionVector“), S/D (“Source extern”) and TF/GY („Negative sign ...“) as well as all adjustments for node blocks.
- A change of the node blocks appearance (button: „Alternative power variable input “) is possible only if the number of „Fed power ports“ is equal to 1 and the number of „Consumed power ports“ is greater then 1 – compare “Forms of appearance of the node block”.
- The button „Block function tunable“ blocks any access to block adjustments with exception to “Value” if “Value” is constant.
- Because of the blocks changeable configured icon a block copy command inactivates the link connection to the library – but does not breaks it. Please note the consequences.
- For a clearly arranged design of large models and / or preparation of the reuse of a (part of a) model the usual SIMULINK nesting via subsystems may be used. Please take care of an avoidance of double model elements and syntactic correct connections. Newly defined subsystems do not include causality hints in their icon!
- The connection of bond graphs graphically programmed by means of BG V.2.0 to their “outside world”, i.e. the connection to blocks of other libraries, may exclusively be done via S inputs of S/D blocks and outputs of AB blocks as well as NL/NL2 inputs in case of non-constant parameters. For “display” and “scope” blocks there are no exceptions valid too.
- Any changes behind the masks and for the pre-adjustments at any location are illegal.
- An easy syntax check is integrated and screens the connection of BG blocks among themselves for the identity of the ports power variable in the icon (E/E or F/F).
- Don’t switch equal node blocks (4 options – see „ Forms of appearance of the node block”) directly in series!
- TF and GY blocks using a non-linear parameter value of “0” and “1” may be used to switch-off and switch-on parts of bond graphs.
- See “Measurement of effort and flow in bond graphs by means of BG V.2.0” (6 options) for connection variants of AB blocks to measure power variables.
- The power output of fields represents a vector of port powers. To provide the over-all field power please connect “sum(u)” (MATLAB Fcn block).

Application hints for SIMULINK block library BG V.2.0