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# Flexible coupling with bfg

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The Bespoke Framework Generator (BFG) is a tool for automatically generating wrapper code for coupled models (e.g Earth System Models) from user-supplied XML metadata.

The metadata must define the individual models (e.g. atmosphere and ocean models), how the individual models are to be composed (i.e. connected) to form a coupled model, and how the coupled model is to be deployed on computational resources.

The wrapper code generated by BFG is typically Fortran source code that calls models and handles inter-model communication (both according to the specifications of the metadata), but it is also possible to generate appropriate configuration files for third-party frameworks such as Oasis and TDT.

BFG provides flexibility for experimentation with different coupled model compositions and deployments without onerous compliance rules.

This talk gives an overview of the current capabilities of BFG, how the tool has been used successfully to couple configurations of the GENIE ESM, and future work.