

Gekko steering committee meeting, September 2, 2024, 15-17, at Statistics Denmark^{1 2}

Proposed agenda

Part 1

1. Welcome + choice of minute taker + approval of last year's minutes.
2. Editor's report regarding 2023-24.
3. Status regarding Gekko 2.4 and 3.0
4. Feedback regarding Gekko 2.4 and 3.0
5. Prioritization of main lines regarding 2024-25
6. Organization and choice of editor for the next period
7. Date of the next meeting + any other business

Part 2

8. Commentaries regarding detailed checklist + prioritization of this
9. Gekko risk assessment (long-term software reliability)
10. Other potential users
11. Status regarding documentation, help systems, etc.

¹ Links: Gekko main webpage: www.t-t.dk/gekko, organization: www.t-t.dk/gekko/organization. Gekko on GitHub: <https://github.com/thomsen67/GekkoTimeseries>.

² Note that "Gekko version 2.4" generally means Gekko 2.5.3, whereas "Gekko version 3.0" generally means Gekko 3.1.20.

Re item 5. Main lines

- a1. Error messages. Are they in an acceptable state now? (So-called “internal errors” could perhaps at least designate the offending line?)
- a2. More data tracing capabilities? What would be the next steps for such time series meta information? Being able to search traces? Delete traces by some filtering criteria (saving databank space)?
- a3. DOC<browser> for html equation browsing for GAMS-type models (for instance MAKRO). This module could use scalar models, inspired by the DECOMP module, perhaps even show time-differences decomposition.
- a4. Regarding the new DECOMP module: make it easier to unfold aggregated “cells” of contributions (a feature to show all disaggregated contributions would be nice, and perhaps the possibility to point-and-click a “cell” to unfold). Not a large project.
- a5. Does Gekcel (Gekko add-in for Excel) need improvements? Maybe distribute among all Gekko users the Central Bank VBA “query” approach (The Quarterly National Accounts have some VBA modules, too).
- a6. Seasonal adjustment. Get JDemetra+ up and running from inside Gekko. This will entail producing xml files for the JDemetra+ “cruncher”. The Quarterly National Accounts know how to do this and can help.
- a7. Improve INTERPOLATE, perhaps augment the Denton method with Denton-Cholette or similar, so that uneven levels of the series are of less concern.
- a8. PRT<i> and PLOT<i> ought to be implemented, showing series indices (practical if the series have very different levels). Relatively easy.
- a9. Improved PLOT window? The buttons ought to look more like the DECOMP window, and being able to show the age dimension on the x axis would be nice. (A draft/proposal of this exists, inspired by RStudio).
- a10. Xlsx files as table templates for Gekko (see editor’s report from the 2022 meeting).
- a11. Modelling developments. Discuss the [Gekko model blueprint](#) among interested users. Also: more means than goals (interdependence between goals) via addition of a special discardable model block describing the interdependence. A prototype for doing this has been proposed. More goals than means (goals contribute partly to means).
- a12. Introductory guides, examples collections, exercises, etc. Is more material needed?

Re item 8. More detailed check list

- b1. More drag&drop. Gekko is often used to compare two databanks, so perhaps add two “receiver fields” (first-position and reference) in the Gekko F2 window, so that databanks can be dragged from File Explorer or similar into these fields. Kind of like attaching a file in a webmail program like Gmail.
- b2. Tweaking of auto-complete (suggestions), perhaps being able to show variable name suggestions even if the variables do not reside in the first-position databank.
- b3. Rolling log in the main Gekko window, highlighting new features. With the possibility to click “understood” to make the rolling log go away for that particular Gekko installation. Only the most interesting new features should be mentioned in such a log.
- b4. User-developed procedures/functions could possibly be hosted on Gekko's website, in the form of downloadable library packages (cf. the new LIBRARY command). An “authorized” official gekko.zip library package could be made available.
- b5. Improving the interface to StatBank Denmark (cf. for instance [this old blueprint](#))? Interface to other online databases like for instance Jobindsats?
- b6. In the longer run, implementing dataframes in Gekko proper as a new variable type could be useful, also for handling Apache Arrow files and interfacing more easily with R and Python (the new DECOMP could use dataframes objects internally, too).
- b7. Better R/Python (or even Julia) integration, perhaps using Apache Arrow files for dataframes (both read and write from Gekko).
- b8. VS Code editor: is something needed? Gekko has an add-in for it regarding .gcm files. MAKRO is migrating to that editor, too.