

# Updates on the PortableDyme Model Building Framework

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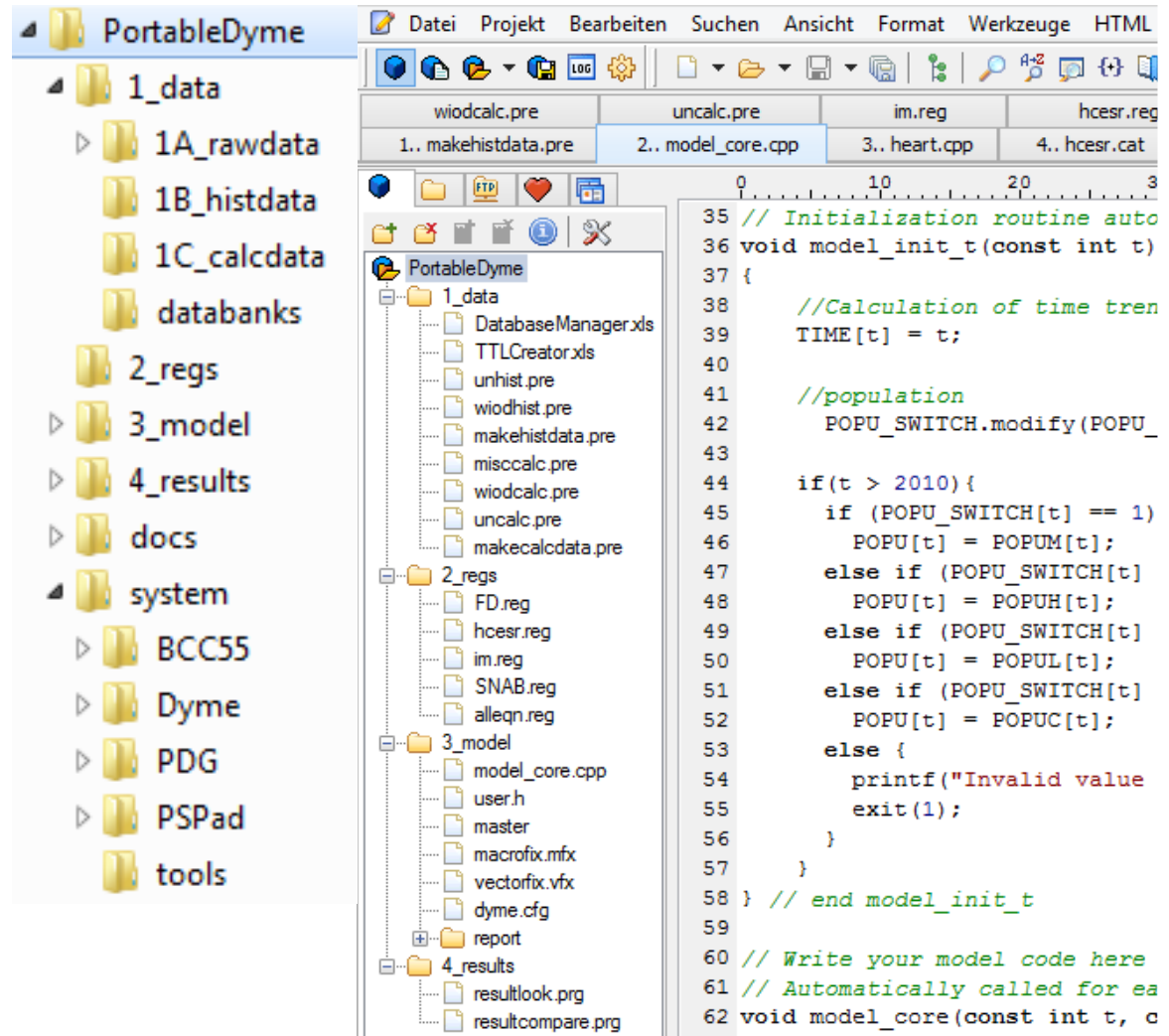
# Overview of the PortableDyme Framework

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- PortableDyme: A Comprehensive model building framework for beginners and intermediate users
  - Software: INFORUM software, compiler, project editor, scripts, Excel tools
  - Template of an enhanced macro-econometric IO model (usage is optional)
- Key features
  - Portable: Preconfigured to run from any storage media (best choice: SSD drive)
  - Clear structure reflects model building steps (see next slide)
  - Open architecture: Any part of the system may be adopted, i.e. the model
  - C++ ensures outstanding performance even for huge models
  - Free of charge [for INFORUM members]

# Overview of the PortableDyme Framework (cont.)

- The four major steps of model building:
  1. Building the historical database
  2. Performing regressions
  3. Writing model code
  4. Performing impact analysis and evaluating
- PortableDyme reflects these steps both on disk and in the project editor
- Each step contains preconfigured scripts and instructions
- Model building is an iterative process!



# Recent Updates to PortableDyme

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- Changes to the software
  - idbuild replaced by xbuild to translate regressions results into C++ code, e.g.

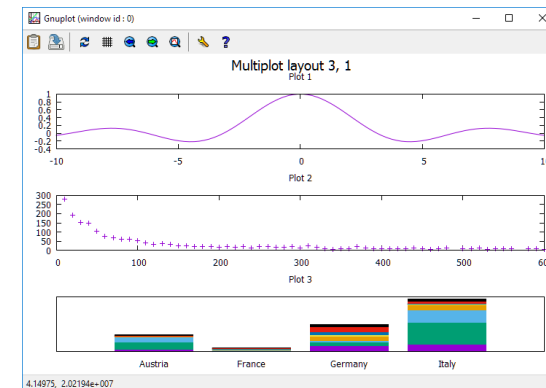
```
reg file:
ti CP044 - Water supply relating to dwelling
r @log(pthcepv07) = !@log(PTB6GT/PTPHCES)

result in heart.cpp:
// CP044 - Water supply relating to dwelling
assert(PTPHCES[t] != 0);
assert(PTB6GT[t] / PTPHCES[t] > 0);
depend = exp(0.948062 * log(PTB6GT[t] / PTPHCES[t]));
pthcepv[7] = pthcepvEQN.rhoadj(depend, pthcepv[7], 7);
pthcepv.fix(t, 7);
```
  - New Excel scenario evaluation tools (Anett)
  - Some changes of the system tool section
- Changes to the model template
  - Main data source is now Eurostat instead of WIOD
  - Template now contains prices and bridge matrices (e.g. consumption)
- New PortableDyme models for Portugal (Anett Großmann) and Germany (Anke Mönnig)

# Planned Updates to PortableDyme

- Update documentation to reflect recent changes
- Rewrite parts of the documentation for non-INFORUM model builders
- Further standardize template (e.g. naming convention) to ease comparison of model results
- Provide a “cockpit” software and eliminate command prompt window
- Add OpenOffice/LibreOffice support (portable versions could be integrated into the framework)
- Replace very old Borland compiler bcc55 by free GNU compiler gcc/g++ to enable
  - Many new C++ features
  - GNU debugger gdb
  - Integrated Development Environments (IDEs) like Codelite, Codeblocks, etc.
- Introduce GNU plot as a powerful graphics tool
  - No need to transfer database content to Excel
  - Many new chart types and functions
  - Multiple charts on one page

➔ Fully open-source solution!



**Thank you for your attention!**

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