GUI TIDY

Thai Interindustry Dynamic Model for Government Budget Evaluation

INFORUM WORLD CONFERENCE XIV
September 2006, Austria
Somprawin Manprasert
Faculty of Economics
Chulalongkorn University
Somprawin.M@chula.ac.th

Motivation and Objective

- **TIDY (Thai INTERDYME) is used for policy analysis.**

- **Many non-technical clients have limited ability in programming.**

- **Consequently, we have developed an outer 'dress' for TIDY.**

- **We call it:**

GUI TIDY

(Graphic-User-Interface TIDY)

What can GUI TIDY do?

- It gives a visual display of the TIDY.

- It was designed for policymakers who main interests are the policy analyses. Thus, the program allow users to perform policy simulation very easily.
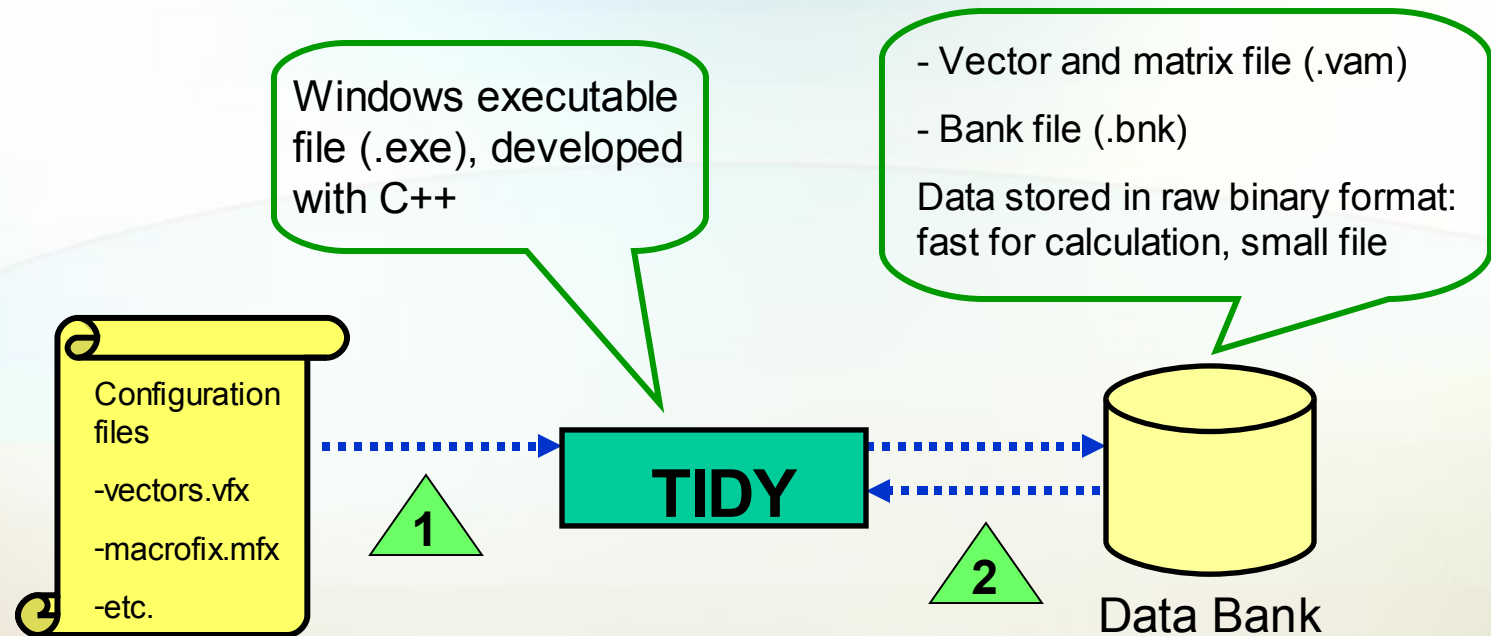
- Forecasts and reports can be exported to spreadsheet.

Outline of the Presentation

1. **Revisit Thai Interindustry Dynamic Model (TIDY)**

3. **The Building of Graphic-User-Interface TIDY**

5. **The look of GUI TIDY**

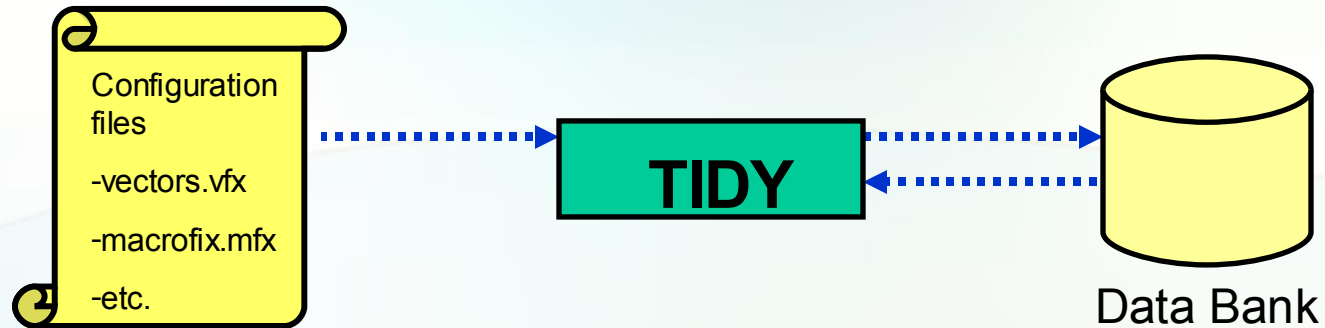# I. Revisit TIDY Thai Interindustry Dynamic Model

- **Built based on the Interdyme framework, with optimization feature that helps improving fits and revealing optimal path of policy variable.**

- **Real side, Price-income side, and the Accountant**

- **The input-output tables of Thailand**

- **26 producing sectors**

- **Data sources: the National Economic and Social Development Board (NESDB) and the Bank of Thailand (BOT)**

The structure of TIDY – How does it work?

Windows executable file (.exe), developed with C++

- Vector and matrix file (.vam)

- Bank file (.bnk)

Data stored in raw binary format: fast for calculation, small file

Configuration files

-vectors.vfx

-macrofix.mfx

-etc.

1

TIDY

2

Data Bank

1. **TIDY reads configuration files.**
2. **Access data banks for the required initial values, then run simulation, and finally store the forecasts into these data banks.**
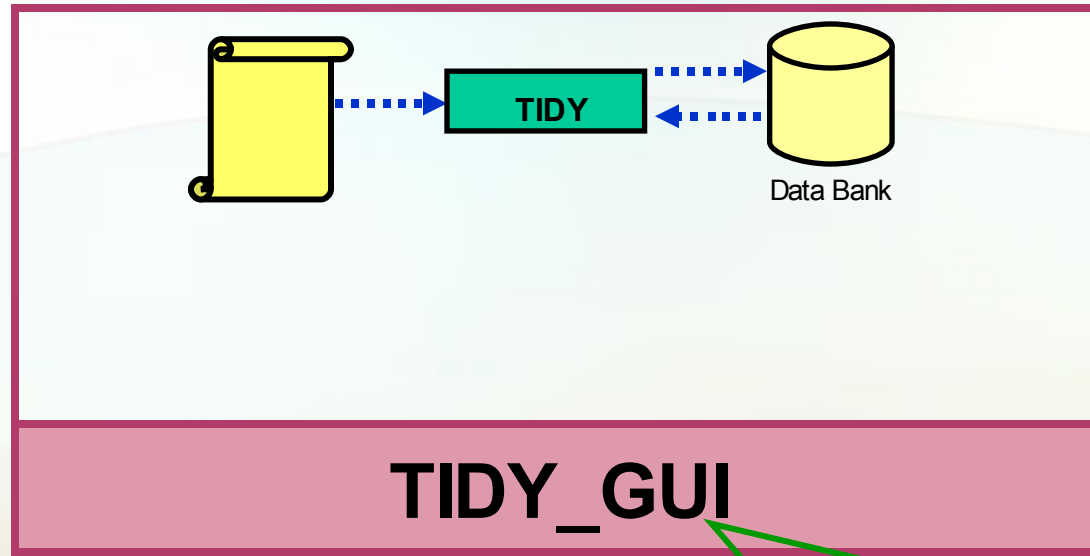
The structure of TIDY – Problems with clients

Configuration files

-vectors.vfx

-macrofix.mfx

-etc.

TIDY

Data Bank

Shock files are unfriendly to non-technical users.

Unreadable for other applications. Users are more familiar with MS.

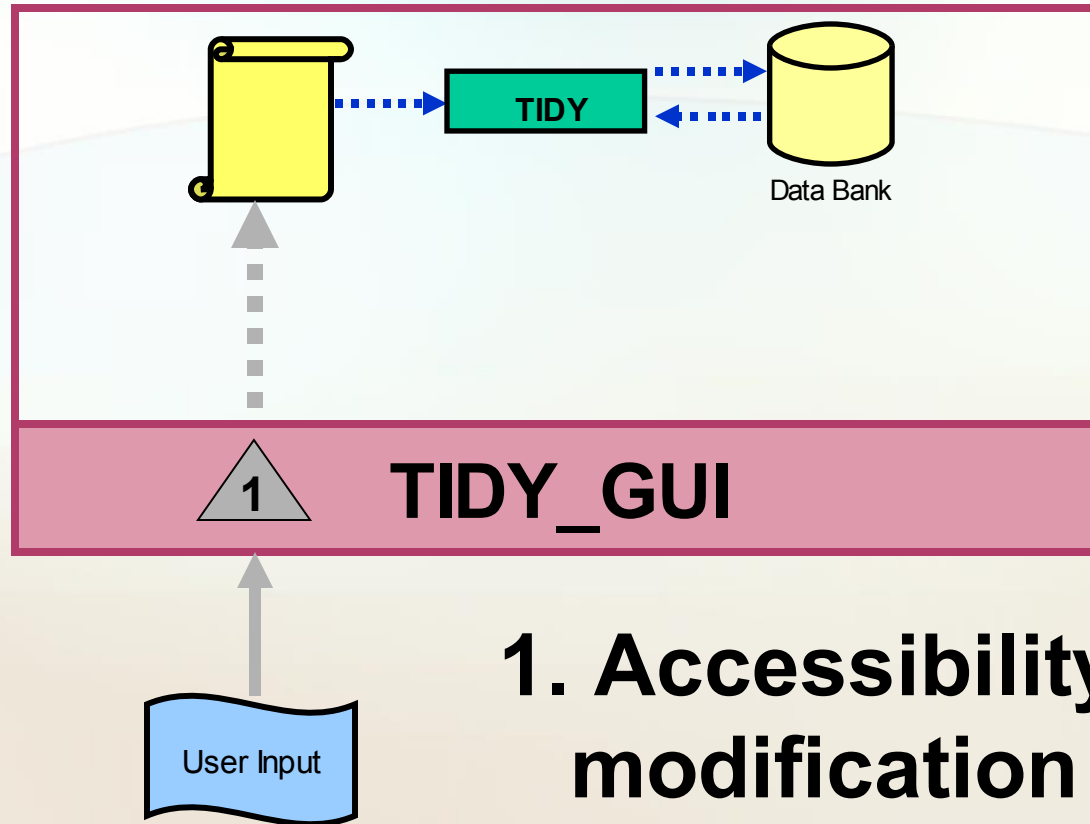# II. The Building of Graphic-User-Interface TIDY

TIDY_GUI

Why Access?

- Rich environment for building graphic user interface and data manipulation.

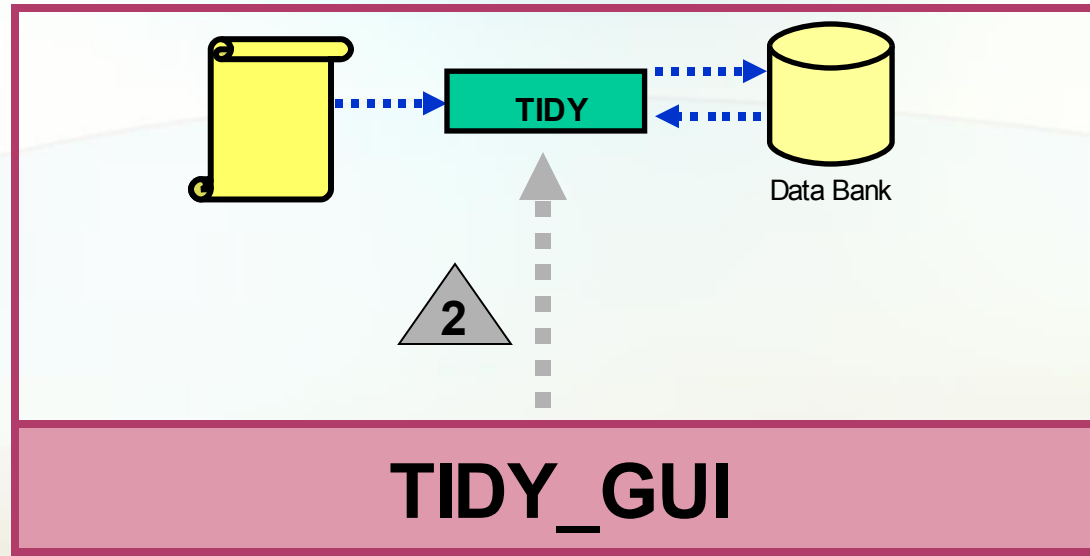- Easy and flexible development for specific-proposed application.
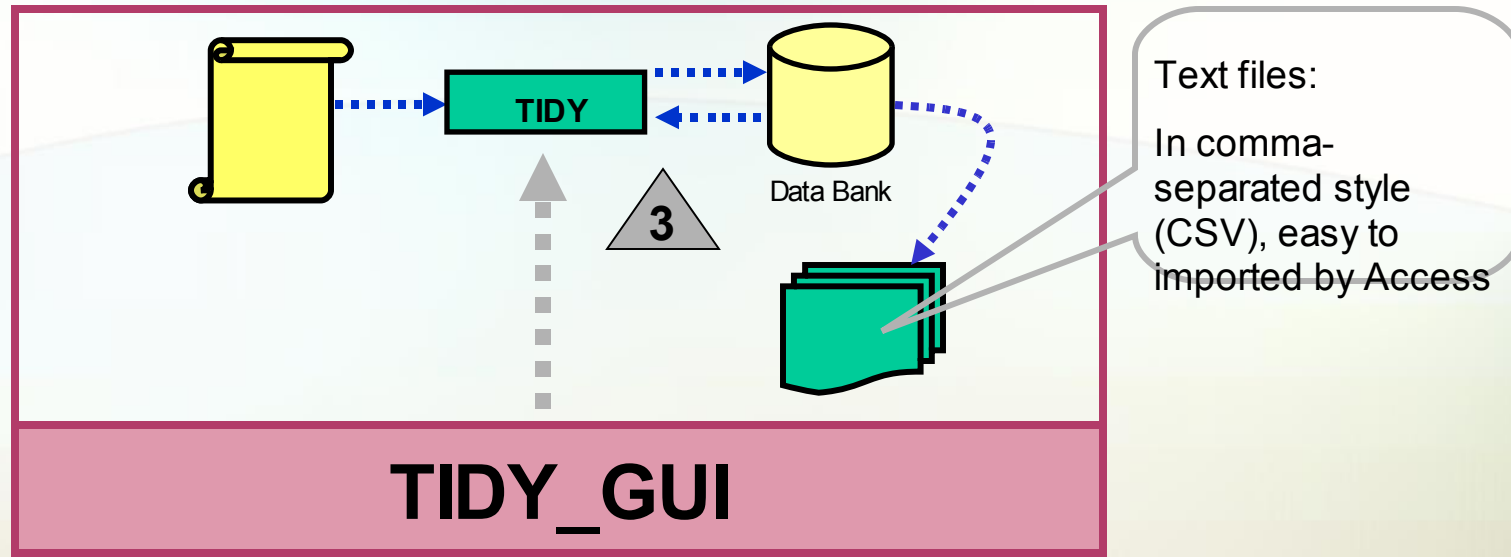
The Building of GUI

1. Accessibility and modification of the shock files.
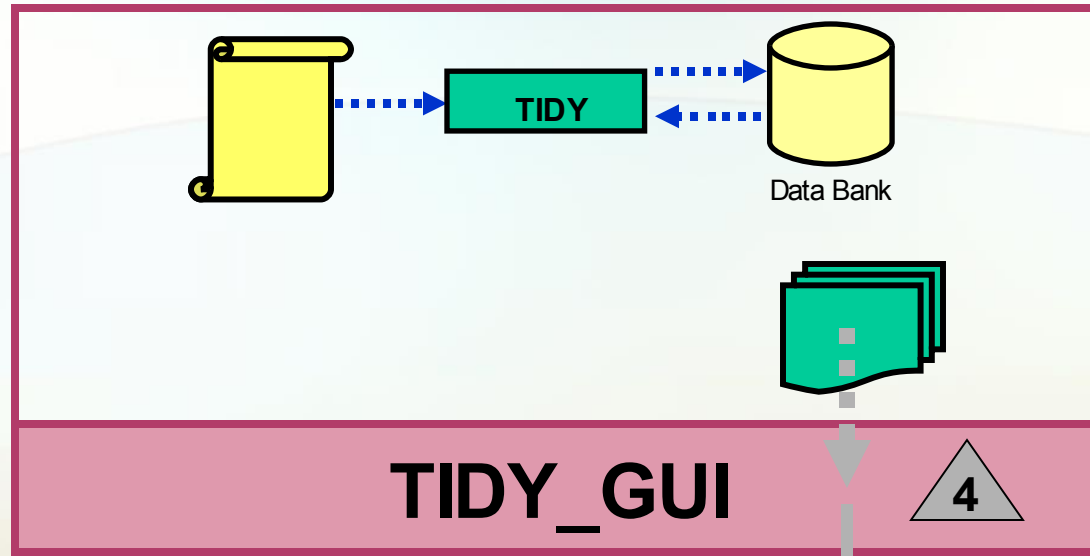
The Building of GUI

2. Calling the main program of TIDY (dyme.exe)

The Building of GUI

TIDY

Data Bank

3

TIDY_GUI

Text files:

In comma-separated style (CSV), easy to imported by Access

3. Data handling – forecasts are exported to the standard text files for GUI.

The Building of GUI

TIDY

Data Bank

TIDY_GUI ⚠ **4**

4. Reports and graphical display of the simulation.

Capabilities of GUI TIDY

- **Create base forecast and scenario forecast.**

- **Simulation results can be displayed in graph, tables, and reports.**

- **Easy for end-user's additional calculation, and flexible development for specific-proposed application.**

III. The Look of TIDY Outer Dress

- **A Thai Interindustry Dynamic Model for Government Budget Evaluation: Application from GUI-TIDY**

- **Please contact me at somprawin.m@chula.ac.th for more information about this program. I would be happy to get feedback from you.**

- **I hope I will be able to generalize the program so that it could be applied to any INTERDYME model by next conference.**

Ways to go...

- **Better data handling – directly connected to vam and time-series bank files.**
- **Optimization feature**
- **Better reports**

- **Any other things?**