IAEA
International Atomic Energy Agency

EBS – Energy Balance Studio

From Questionnaire to Balance

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Workshop on Energy Statistics

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Documents available in Dropbox

- Model (installation) https://www.dropbox.com/sh/hma6jyh1iyxfd6u/AAAkeAmiO-pXSPeKCx1e9FU4a?dl=0
- eLearning
  - English – https://www.dropbox.com/sh/5k9rfpb7iqcbg35/AAAQO6yl2NGqV1QWhy8uWefRa?dl=0
  - French – https://www.dropbox.com/sh/tuuwnmh8uij0agc/AAC7jyZc3yjwFPYZEpDXSJ8Ja?dl=0
- User manual
  - English – https://www.dropbox.com/s/fy6z3ft3ly63r62/EBS%20User%20Manual%20DRAFT%20ENGLISH.pdf?dl=0
  - French – https://www.dropbox.com/s/opqalccougd5bu7/EBS%20User%20Manual%20DRAFT%20FRENCH.pdf?dl=0

About Energy Balance Studio

- Energy Balance Studio (EBS) is a computer based tool that is compatible with the UNSD questionnaire and it may be used as a help in preparation of the first order energy balances. In that sense, the EBS is:
  - Compatible with current arrangements of UNSD
    - It should be noted that UNSD questionnaire is changing/evolving from year to year and some minor changes might be needed to the EBS in order to make it fully compatible with those updates (in future);
  - Flexible to accommodate different changes (definitions of fuels/energy commodities; links between energy levels and flows; main UN DESA databases restructuring, different OS platforms, etc.);
  - Straightforward to use, stable and with minimum support required (no advanced IT knowledge assumed);
  - Incorporated several consistency checks and metadata collection;
  - Easy to send, to fill and collect

EBS uses the UNSD Questionnaire

- EBS uses the UNSD Questionnaire as a starting point
  - EBS can be used to fill the UNSD questionnaire
    - Organise working space (e.g. hide non-important fuels, block columns to be edited)
    - Automatic compilation and check of energy balance
  - Completed UNSD questionnaire (in a bit modified form) can be loaded into EBS to produce and verify energy balance

- Do not forget that a tremendous part of work is to understand, collect and prepare data for EBS (UNSD questionnaire)

Before Installation 1

- If EBS is already installed, and if the user wants to replace the version on her/his computer (i.e. install new version into the same folder), please make sure that all existing case studies were backed-up in a different folder than the EBS installation folder
- It is possible to have multiple instances of EBS installed on one machine – but in different folders/directories

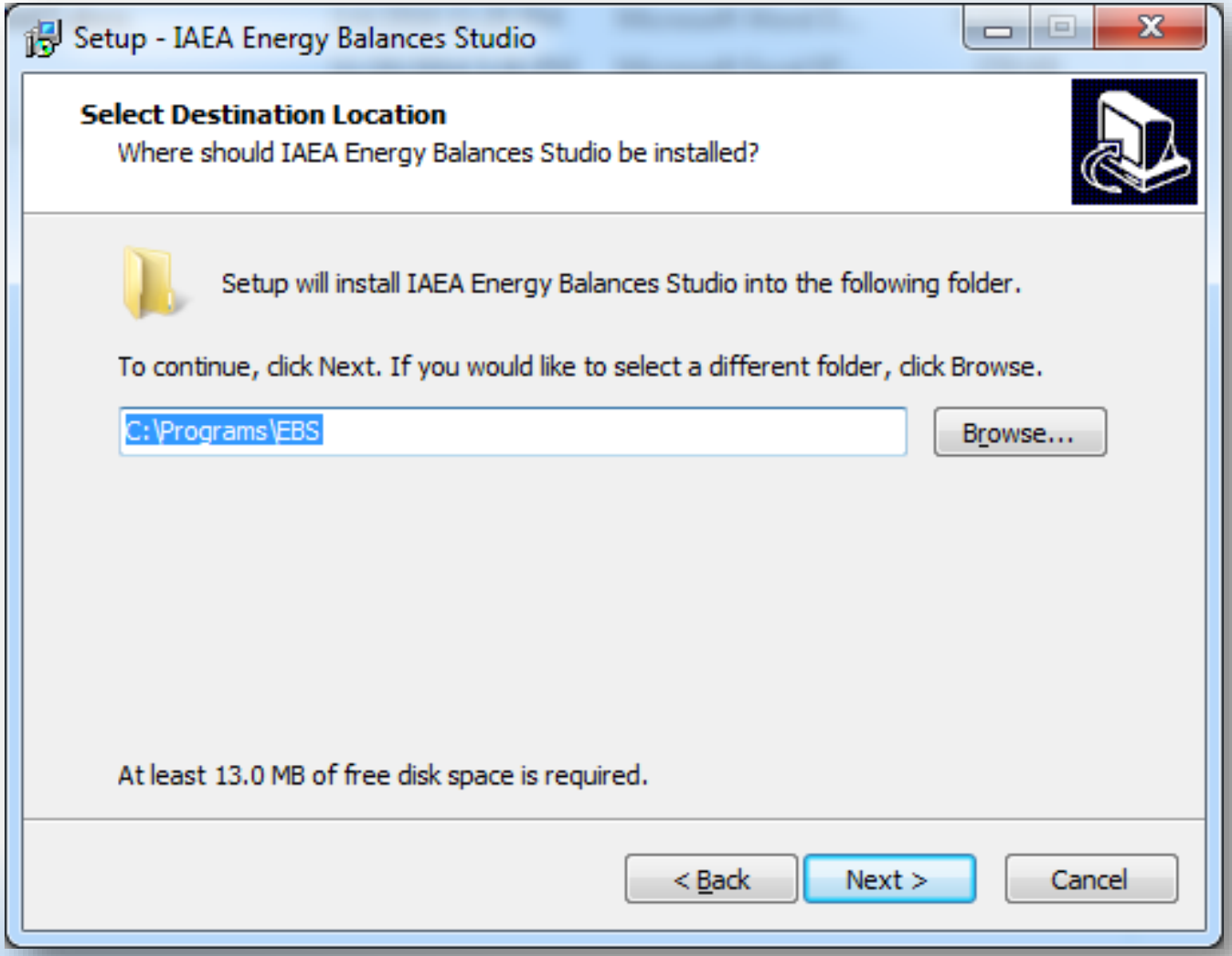
Before Installation 2

- EBS requires Java to be installed on the computer
- If Java is not already installed, during installation the software will try to automatically download and install Java
- For this procedure to be successful the user has to have an internet connection!!!
- If connection is not available at time of installation, user may still install Java by using the Java Offline Installer (to be downloaded and run before the EBS installation)
  - Java offline installer is provided for this session

Installation of EBS

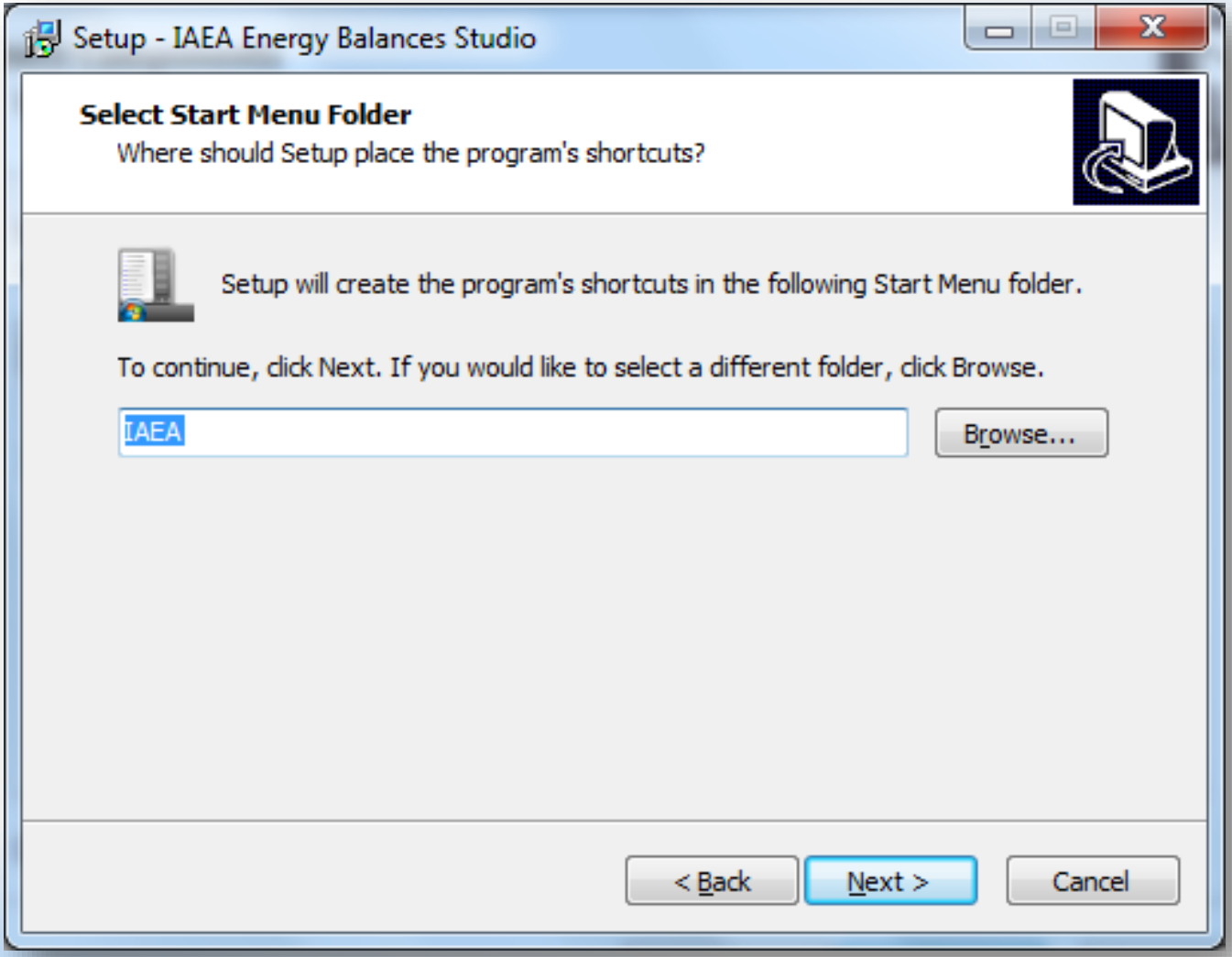
- The installation of the EBS software is straightforward
  - Please note that user has to have administrative rights on the machine to install EBS
  - Run the installation file EbsSetup.exe
  - Follow the steps
  - It is recommended to install EBS as the standard installation
- EBS can be installed in any folder according to the user preferences, but recommendation is ***not to install it into Programe Files*** folder, instead
  - Create e.g. folder C:\Programs\EBS

Select the Folder to Install the EBS
User may specify new folder



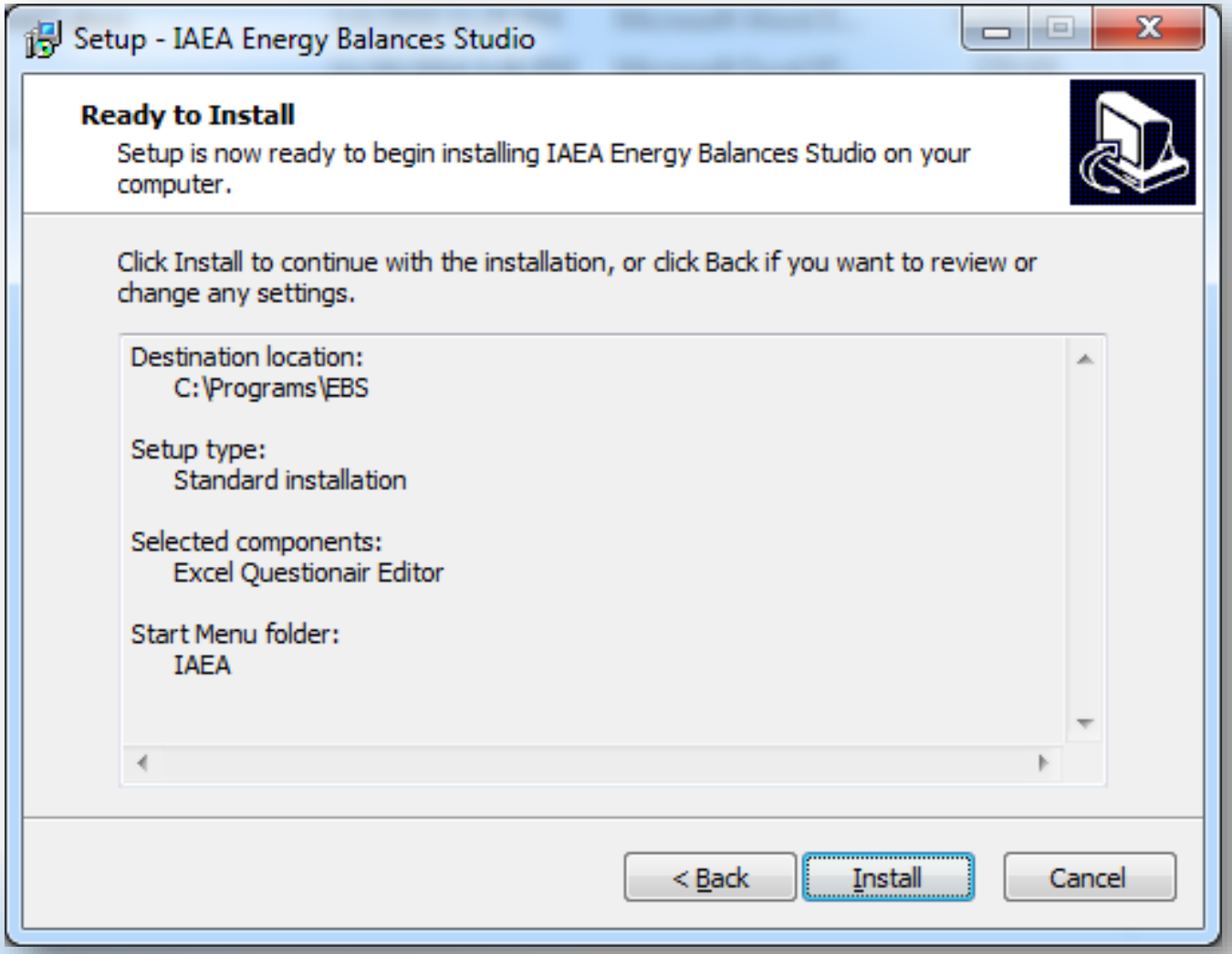
Next >

Choose where to create the program's shortcut (default is IAEA group)



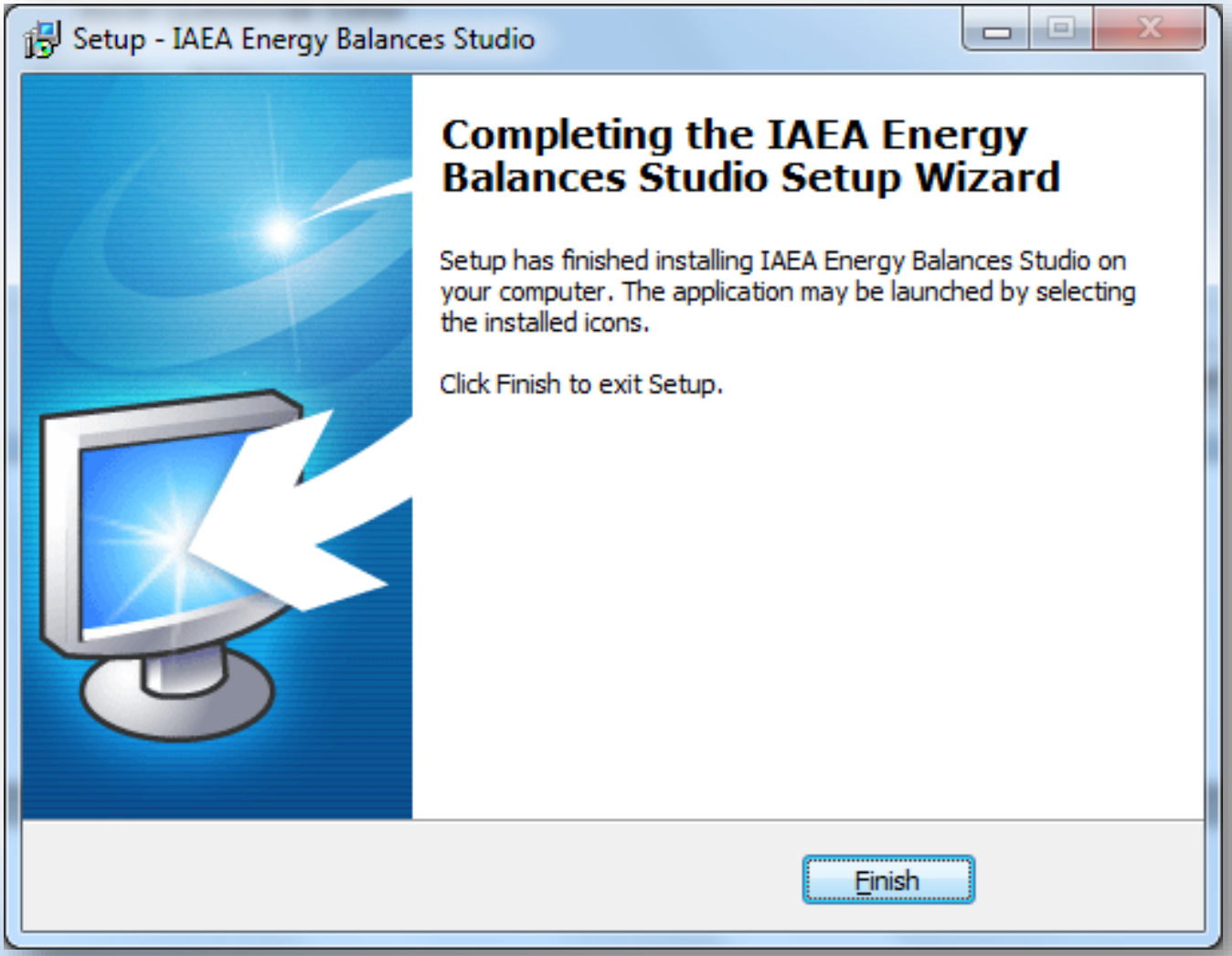
Next >

Confirm installation



Install

EBS is Successfully Installed



Finish

Data → Questionnaire → Balance

1. Select for which year data are collected and energy balance will be compiled
2. Identify all energy products or energy forms used in a country
   a. For each energy product/commodity prepare commodity balance in natural units and add info on calorific values
   b. Combine individual product commodity balances into appropriate energy products as available under UNSD questionnaire
3. Create EBS Case
4. Organize EBS working environment (hide unused energy products)
5. Enter data on physical quantities of energy products (questionnaire tab)
6. Provide specific conversion factors where available

Data → Questionnaire → Balance

7. Analyze energy balance
   a. Unusually high/low values
   b. Electricity generation efficiency
   c. Statistical differences
   d. Structure of total primary energy supply
   e. Import/export balance
   f. Structure of final energy consumption (by energy category, by consumer category)
   g. Structure of electricity generation
8. Prepare documentation / recommendations:
   a. Identify missing data (e.g. certain energy flows – production, consumption…; specific conversion factors)
   b. Identify possible data sources and data collection approaches for missing data or for data improvement (e.g. companies, other state institutions, surveys need)
   c. Legal framework in place?
   d. National institution for statistics included?

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Thank you!