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AMME Manual
Version 1.0
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Installation of AMME

- The program AMME is available as a zip-file on the FTP-server *iha018.ethz.ch*. User and password can be achieved from the owner of this document.
- Create a folder called Amme (see table, p. 3).
- Log in to the FTP-server *iha018.ethz.ch*. Go to the directory amme. Get the file amme.zip (approximate size 7 MB).
- Unzip amme.zip in the folder Amme. The expanded folders should now look like the figure on the next page.

Folders overview

The folders of the AMME concept are briefly described for rapid cross-reference, overview and for introductory purposes (see table, p. 3).

Data flow

Not all existing files are described, but only those used throughout the work in [1].

- Adimens.exe generates exec.log.
- Such files should be renamed to *.org.
- The *.org files serve as input for the conversion program Readlog.exe.
- Readlog.exe generates a *.log file as output, used as input by Amme.exe.
- Further input for Amme.exe is structure.str, describing the database system.
- Amme.exe generates several files. These are:
  i) *.pro (task solving description),
  ii) *.epl (elementary process list) and
  iii) structure.pro (system description).
- The *.epl files are used as input by Mathematica.
- Mathematica generates *.txt files. These files are take as input for Systat.
- Systat generates *.syd (contains ascii numbers) and *.syg (graphics).

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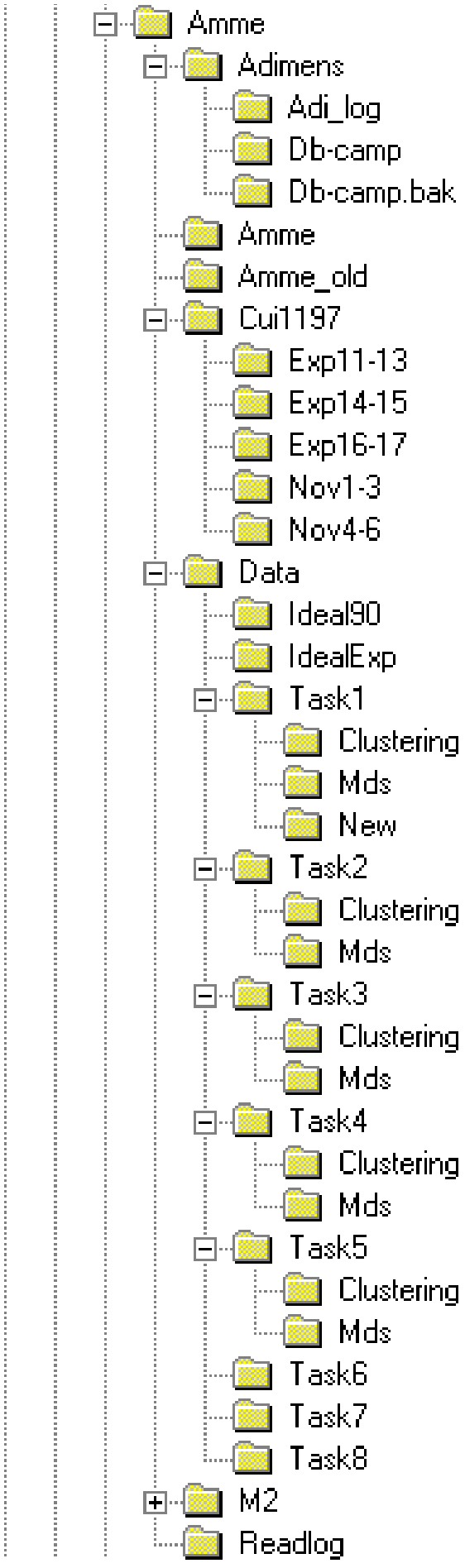

Top level folder. Contains 5 icons (Amme.ico, Amme_epl.ico, Amme_epl.ico, Amme_str.ico, Ammebaby.ico (not in use)).
Contains the database program Adimense.exe. This program generates the output file Exec.log, renamed to *.org.
Contains Readlog.exe. This program is also contained in the folder ReadLog. See there for further explanations.
Database workspace. Use the files here and restore them by original files from Db-camp.bak when necessary.
Database files: originales. Use these files only to restore the folder Db-camp to an original state.
Contains the main program amme.exe and the Modula II source files to regenerate it. Current state of AMME.
Same as in Amme, but the old state of the program. The difference is that this program does not generate EPL-files.
Original experimental data, by users, otherwise as in folder Data. See there for further explanation.
Original experimental data: Expert 11, 12 and 13.
Original experimental data: Expert 14 and 15.
Original experimental data: Expert 16 and 17.
Original experimental data: Novice 1, 2 and 3.
Original experimental data: Novice 3, 4 and 5.
Experimental data, by tasks. See chapter Data flow.
Different, ideal task solving strategies for Task 1 (observed 1990). See chapter Data flow.
Different, ideal task solving strategies for Task 1 (generated 1997). See chapter Data flow.
See chapter Data flow. Data analysis of Task 1 data.
Results of clustering analysis with Systat.
Results of Multi Dimensional Scaling (MDS) with Systat.
Different graphic-formats of MDS-plots for a paper [4].
See chapter Data flow. Data analysis of Task 2 data.
Results of clustering analysis with Systat.
Results of Multi Dimensional Scaling (MDS) with Systat.
See chapter Data flow. Data analysis of Task 3data.
Results of clustering analysis with Systat.
Results of Multi Dimensional Scaling (MDS) with Systat.
See chapter Data flow. Data analysis of Task 4 data.
Results of clustering analysis with Systat.
Results of Multi Dimensional Scaling (MDS) with Systat.
See chapter Data flow. Data analysis of Task 5 data.
Results of clustering analysis with Systat.
Results of Multi Dimensional Scaling (MDS) with Systat.
See chapter Data flow. Data analysis of Task 6 data.
See chapter Data flow. Data analysis of Task 7 data.
See chapter Data flow. Data analysis of Task 8 data.
Modula II environment. /Bin/Wshell.exe starts the programming environment. Load Amme/Amme/Amme.prj
Original program for conversion of exec.log into the AMME format, *.log (different from the direct output of adimens.exe!).

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Using ADIMENS

Adimens runs on a Window98 machine. It is not assured whether it can run on an NT machine. To use adimens, an environment variable (Table 1) must be set (assuming that c:\amme is the top level folder). After usage of Adimens, all the files in /Amme/Adimens/Db-camp.bak must be copied into /Amme/Adimens/Db-camp to restore the database in its original form.

Table 1: Environment variable that is necessary to develop the amme code with Modula II.

adimens	**c:\amme\adimens**

Using READLOG

Run the program from an MS-DOS console:

- Cd amme/adimens/adi_log (go to where adi_log.exe is)
- readlog [path]*.org >[path]*.log (run program, source and target fils)

Using AMME

Start amme by clicking Amme/Amme/Amme.exe. Select File, load structure file, amme/data/structur.str to load the structure file. Then File, load logfile, choose the logfile to be analysed. Select Generate Elementary Process List (*.epl), deselect PrintMatrix. Start the application. Amme will give a dialogue with Out of memory. This can be ignored, since it only has to do with the screen display.
The files generated by amme, *.epl and *.pro, are written in the same folder as where the logfile was loaded from.

Using Mathematica

Start math_1.nb by clicking it. Select stepwise each block and execute by (shift + enter). This mathematica notebook (nb) performs the following steps / generates the following files:

- SetDirectory, this is the default directory, all files reside here when nothing else noted
- eplTab contains the *.epl files of all the users, unilength is the number of users for this task
-

Programming in Modula II to modify the functionality of Amme (optional)

To program in Modula II, the following environment variables must be set (assuming that c:\amme is the top level folder):

Table 2: Environment variables that are necessary to develop the amme code with Modula II.

lib	**c:\amme\m2\lib**
m2def	**.;<amme\m2\src**
m2mod	**.;<amme\m2\src**
m2sym	**.;<amme\m2\sym**

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Software/versions applied

Adimens for Windows98.
AMME for NT 4.0.
Systat for NT4.0, Version 7.0.1.
Mathematica for NT4.0, Version .
Modula II for NT4.0.

References

[1] M. Fjeld (1998): List of recent AMME publications. (http://www.iha.bepr.ethz.ch/pages/leute/fjeld/publications/all_publications.htm#ce)

[2] M. Rauterberg & M. Fjeld (1997): An Analysing and Modelling Tool Kit for Human-Computer Interaction. In M.J. Smith, G. Salvendy & R.J. Koubek (eds.), Design of Computing Systems: Social and Ergonomic Considerations (HCI'97) (Advances in Human Factors/Ergonomics, Vol. 21B), pp. 589-592. Amsterdam: Elsevier. (http://www.ifap.bepr.ethz.ch/~rauter/publications/HCI97paper1.pdf)

[3] M. Rauterberg (1997): AMME Homepage. (http://www.ifap.bepr.ethz.ch/~rauter/amme.html).

[4] S. Schluep, M. Fjeld & M. Rauterberg (1998): Discriminating Task Solving Strategies Using Statistical and Analytical Methods. In T.R.G. Green, L. Bannon, C.P.Warren & J.Buckley (eds.) Cognition and Co-operation (ECCE9), pp. 121-126. Ireland: University of Limerick. (http://www.cs.vu.nl/~eace/ECCE9/papers/schluep.pdf).