APP02

The Netlabs EPM Distribution

Unleash the power of EPM on your system

Overview

- What is E ? / Versions of EPM

- EPM architecture overview

- How to configure/recompile standard EPM

- The Netlabs EPM Distribution extensions

  - installation, dynamic configuration, extended directory structure

  - extended recompilation support, extended file type support

  - EPM window enhancements, NEPMD runtime API library

- Demo

What is E ?

What is E ?

- E is a text mode editor coming from DOS

- All the following are *E* editors:

    - E for DOS

    - E for OS/2 (textmode version)

    - E for Windows (textmode version)

    - EPM for OS/2 V5.51 - part of OS/2 Warp 3

    - EPM for OS/2 V6.03 - part of OS/2 Warp 4 and eCS

    - even the »Tiny Editor« (TEDIT.EXE) on your boot disk !

Versions of EPM

Versions of EPM (I/III)

- EPM V5.51

  - coming as part of OS/2 Warp 3

  - several limits solved with V6.x

  - extensions for EPM V5.51 not compatible to EPM V6.x

  - not supported by the Netlabs EPM distribution !

Versions of EPM (II/III)

- EPM V6.03

  - coming as part of OS/2 Warp 4 or eComStation

  - new internal extension format

  - not supported by the Netlabs EPM distribution !

Versions of EPM (III/III)

- EPM V6.03b (EPMBBS distribution)

  - available in the internet

  - needs to be installed manually ! ...

  - beware of old versions of the EPM executable and the E Toolkit runtime when installing !

  - includes E language macro sourcecode and the EPM macro compiler

  - this distribution is base for the Netlabs EPM distribution project (excluding E Toolkit runtime)

EPM architecture overview

EPM architecture overview (I/V)

- EPM consists of three major parts

  - the (E)PM frame program and the E Toolkit runtime

    - files: EPM.EXE, ETK603?.DLL and some more

    - this part can only be changed by IBM/the authors, as source is not available

  - the EPM executable extension modules

    - files: EPM.EX and other .EX files

    - many other files used by EPM extensions

    - this part can be changed, sources are available

EPM architecture overview (II/V)
The PM frame program

- frame program is quite small

- uses the E Toolkit runtime DLLs to open an EPM window

- Note: any application can use the E Toolkit runtime DLLs !

EPM architecture overview (III/V)
The E Toolkit runtime

- The **E Toolkit** runtime DLLs

  - are part of OS/2 and eComStation

  - implement all basic E(PM) commands

    - LOAD, SAVE, QUIT, LOCATE, REPLACE

  - implement hooks to allow external modules to add handlers for

    - new editor commands, mouse, keyboard and menu actions

  - implement load and execution of EPM extension modules

  - are not well documented

EPM architecture overview (IV/V)
The EPM extension modules

- All external EPM extension modules (*.ex)

  - are searched via the PATH

  - are compiled binaries

    - sources are of the **E language**, being a REXX derivate

    - require the EPM macro compiler for compilation

    - are (theoretically) platform independant

EPM architecture overview (V/V)
The EPM extension modules

- Most important and required:

  - main extension module **EPM.EX**

    - defines menu, configuration constants, basic E routines

- Extensions can be made available to EPM by

  - compiling their sources directly into EPM.EX

    - beware of space limitations in string table !

  - linking a separately compiled module during runtime

How to configure standard EPM

Configure standard EPM (I/V)

- Configuration of EPM by

  - settings notebook

  - REXX profile (profile.erx)

  - E source code maintenance and recompile

- All three options

  - overlap concerning the settings that can be customized with it

Configure standard EPM (II/V)

- The settings notebook of EPM

  - customizes certain settings via GUI

  - is the most user friendly configuration interface available

  - cannot configure/activate/deactivate all components though

Configure standard EPM (III/V)

- Configuration by REXX profile

  - can nearly customize all settings that are otherwise not be configurable via the settings notebook

  - requires already some little programming skills and EPM knowledge

  - does not require extra tools though
    (uses REXX of OS/2 or eComStation)

  - »REXX Profile Support« must be activated in the settings notebook !

Configure standard EPM (IV/V)

- Configuration by E source code maintenance

  - configuration gets hardcoded part of EPM.EX

  - can customize all settings and set defaults for the settings notebook

  - requires more or less REXX programming skills

  - requires the E sourcecode of EPM.EX

  - requires the EPM macro compiler

  - requires rebuild and close/open of all EPM windows to activate changes

Configure standard EPM (V/V)

- Main disadvantages of standard EPM configuration schemes (before NEPMD):

  - settings notebook cannot configure everything (not solved yet with NEPMD)

  - REXX profile support and E sourcecode maintenance require programming knowledge

  - E sourcecode maintenance required for parts of EPM due to hardcoded values !

  - no decent recompile support

Recompile EPM

Recompile EPM

- requires

  - E sourcecode of EPM.EX

  - the EPM macrocompiler (commandline tool)

- mostly required is

  - copy sample config file to mycnf.e

  - maintain hardcoded configuration constants

  - recompile and deliver resultant EPM.EX file

Netlabs EPM Distribution extensions

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An overview

NEPMD extensions (I/VIII)

- WarpIn installation package

    - no more manual installation !

    - easy-to-use installation program for a full-featured EPM !

- Dynamic configuration

    - loader executable loads extended environment for EPM process only

        - no CONFIG.SYS cluttered, no reboot required !

        - extended environment easily to maintain

NEPMD extensions (II/VIII)

- Extended directory structure for source and configuration files

  - proper distinction between files

    - provided by the NEPMD: trees epmbbs and netlabs

    - user maintained files: tree myepm

  - easy backup of all user files !

  - easy transport of a complete user configuration to other/new systems !

NEPMD extensions (III/VIII)

- Extended recompilation support

  - easy-to-use GUI to support dynamic recompile of EPM

    - supports direct jump to errant file

    - automatically reloads all open EPM windows on success

- but: in the future the Netlabs EPM distribution intends to make any recompile of EPM.EX **obsolete** by removing all hardcoded values !

NEPMD extensions (IV/VIII)

- Extended filetype handling

  - NEPMD newly implements the **EPM mode**

    - used already with the new syntax highlighting concept

    - replaces the old hardcoded mechanism of determining the filetype by filename extension within the old E source code

    - the mode for a given file can be overridden by the new mode command (new mode stored as an extended attribute)

    - forthcoming releases will have a GUI for

      - creation of new EPM modes

      - addition of new filename extensions to existing EPM modes

NEPMD extensions (V/VIII)

- Extended syntax highlighting concept

  - improved keyword file scheme

    - global color definition per keyword type

      - allows to have the same color for comments, literals, keywords for all kind of files

      - can be overridden per EPM mode though

    - keywords can be added by providing an additional new file

      - useful when adding keywords of an external library

  - is designed to support easy customization of color schemes in a GUI in forthcoming NEPMD releases

NEPMD extensions (VI/VIII)

- Improvements for the EPM Editor window

  - reworked menu

  - reworked/additional keyboard commands

  - new keybord shortcuts

  - new title and status lines (soon freely configurable)

NEPMD extensions (VII/VIII)

- Implementation of the NEPMD API library

  - full documented API reference included in online help

  - replaces many of the older »Procedures in Standard EPM«, makes E coding much more convenient

    - includes (among other)

      - APIs for to access the NEPMD registry

      - EPM mode APIs

      - file and file EA handling APIs

      - Text Message File (TMF) API

NEPMD extensions (VIII/VIII)

- Autolink feature for EPM extension modules

  - only required for modules to be loaded on startup of an EPM window, load all others dynamically !

  - place modules in myepm\autolink directory

  - loaded in alphabetic order

    - you can force a specific order only by renaming the module files (keeping the extension .ex)

Current limitations

Current limitations

- Yet no specific support for

  - completely replacing EPM V5.51 under OS/2 Warp 3

  - the Workplace Shell EPM object

Next steps for future releases

Next steps - usability

- Build configuration GUI (settings notebook) to allow all settings to be configured there

- Further extension of the **EPM mode** concept

  - attach more attributes to the EPM mode

  - extensions to the hilight concept (e.g. color schemes)

- Include more external packages into NEPMD, where applicable

Next steps - programming support

- Implement more NEPMD library functions

  - replace more of the old »Procedures in Standard EPM«

- Read all configurable settings from the NEPMD registry

- Remove more hardcoded values within the E source code

Demo of Netlabs EPM Distribution

Where to get NEPMD ?

Where to get NEPMD ? (I/II)

- Package size is approx. 2.5 MB

- Currently downloadable from:

  - **http://nepmd.netlabs.org**

- Upcoming versions will be available also from

  - The Hobbes File Archive - http://hobbes.nmsu.edu

  - Hobbes mirrors

  - possibly other FTP sites

Where to get NEPMD ? (II/II)

- Here on **Warpstock Europe 2002**:

  - download the most recent version to your notebook at the booth of

    Team OS/2 Germany / Team OS/2 Ruhr e.V.

The Netlabs EPM Distribution Project

- Homepage: htttp://nepmd.netlabs.org

- Current project members
  (in alphabetic order)

  - Christian Langanke, Andreas Schnellbacher

- Please help us by

  - testing our package and giving us feedback

  - contributing to the project and/or

  - become team member !

Thank you very much for your attention !

See

The Netlabs EPM Distribution

(and us) during

Warpstock Europe 2002

at the booth of

Team OS/2 Germany