

rbMIT Software Library 2007-2009 (C)MIT.

Bugs list and technical problems/incompatibilities reported during the test phase.

All the files to be replaced (patched) are annexed in the zip folder rbMIT\_fixes.

Please note that at the present there are not limitation in using different OS (Windows, Mac, Linux).

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19 February 2009

All the following patches are available for the first release of the software (September 2007). The highest Matlab version supported by September 2007 release is R2008a (7.6) whose symbolic toolbox is based on Maple with PDE Toolbox 1.0.12. Users of Matlab R2008b (7.7) should upgrade to the new rbMIT release (February 2009) of the software, since symbolic toolbox supports now Mupad instead of Maple. The newest release is running on all the previous Matlab versions (7.1-7.7) and different operating systems (MAC, Linux, Windows).

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3 October 2008

The new PDE Toolbox supported in Matlab version 7.5 and 7.6 (R2007b and R2008a) version 1.0.12 needs a patch to allow the use of symbolic capabilities of rbMIT. Copy the replacement file pdeexpd.m in the symbolic folder (inside the folder rbMIT\_Library) to fix this incompatibility among different PDE Toolbox versions.

The file assem2.m needs a fix due to a bug in the HB ("home brewed" ) option of FEM solver when PDE Toolbox is not used for FEM assembling. A replacement is provided.

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19 September 2008

A bug has been found in function gencompfunc.m (in the symbolic folder) when the option plotdemo=1 is activated. A replacement is provided.

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9 July 2008

A fix is needed for the file primal\_symgen.m when considering many boundaries with Robin conditions. A replacement is provided.

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8 June 2008 :

If you are running rbMIT software under Linux OS please be aware to

modify  
the file `addrbMITpath.m` accordingly by changing in lines 1-2 the symbol  
"`\`" with "`/`".

The same procedure is necessary in file  
`rbMIT_Library\symbolic\symbolicdual.m` on lines 57-58  
where

```
load(strcat('..\',probname,'_', 'SYMB'))  
load(strcat('..\',probname,'_', 'pr_PROBDEF'))
```

will become

```
load(strcat('../',probname,'_', 'SYMB'))  
load(strcat('../',probname,'_', 'pr_PROBDEF'))
```

```
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```

20 March 2008

Due to an error in the transposition during a matrix assembling  
the current file `\texttt{offline_parabolic_dual.m}` in the  
`\texttt{rbMIT Library\_parabolic}` folder should be replaced with  
the new one if one is solving time-dependent problems holding  
non-symmetric operators (like for example advection-diffusion  
problems).

```
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```

3 March 2008

Please comment the line 13 (%) of file `rbU_fin.m` in `rbUfiles` if you are not using  
COMSOL capabilities  
to avoid an error message due to the fact that Matlab cannot find a COMSOL function/  
routine.

compiled by G.Rozza