## **Release Notes**

## **Brain Dynamics Toolbox**

## Version 2017a

Released 21 March 2017.

Requires Matlab 2014b or newer.

Major new features: (1) Dynamic loading of GUI plot panels. (2) Enhanced GUI class properties allow the solver output and panel objects to be accessed directly. (3) New *sys* struct has a more flexible syntax for defining system parameters and variables. (4) Improved validation of *sys* structs. (5) Time and Phase portraits now support graphic hold. (6) All example models have been revised.

This version is not backwards compatible with version 2016a. In particular: (1) sys.pardef, sys.vardef, sys.auxdef, sys.lagdef were changed from cell arrays to struct arrays; (2) sys.gui was renamed sys.panels; (3) SDE function handles were renamed sys.sdeF and sys.sdeG; (4) bdCorrelationPanel was renamed bdCorrPanel; (5) bdSpaceTimePortrait was renamed bdSpaceTime; (6) odeEuler was renamed odeEul; (7) sdeIto was renamed sdeEM; (8) sdeStratonovich was renamed sdeSH; (9) bdVerify was renamed bdSysCheck; (10) bdUtils was renamed bd; (11) The gui.control property was replaced by gui.sys, gui.sol and gui.sox. (12) The sys fields tspan, odesolver, odeoption, ddesolver and ddeoption are no longer mandatory.

**Important message to users migrating from 2016a to 2017a.** Scripts written for 2016a will need to be modified to accommodate the changes above. We recommend using *bdSysCheck* when migrating old code. It will quickly detect obsolete and invalid fields in existing *sys* structures.

## Version 2016a

Released 24 Dec 2016.

Requires Matlab 2014b or newer.

This version is the first public release of the Brain Dynamics Toolbox.