EigenD System Release Notes

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Release: **1.4.12-stable**
Release Category: Stable

Download location: http://www.eigenlabs.com/downloads/releases

1.4 has now been promoted to stable, and will now receive only important bug fixes.

Release Chronology:

- Release 1.4.1   24th May 2011
- Release 1.4.2   13th July 2011
- Release 1.4.3   2nd September 2011
- Release 1.4.4   9th September 2011
- Release 1.4.5   12th September 2011
- Release 1.4.6   23rd September 2011
- Release 1.4.7   8th October 2011
- Release 1.4.8   3rd November 2011
- Release 1.4.9   19th December 2011
- Release 1.4.11   5th January 2012
- Release 1.4.12   10th February 2012

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1 – Introduction

The 1.4 branch is built from the Open Source Release which can be found on GitHub at http://github.org/Eigenlabs.

The Primary aim of the 1.4 release is to support the Alpha and Tau instruments under Windows. There has also been an effort to improve general performance and reduce memory usage.

Please note that to install this release, you should have previously installed the resources package from the Eigenlabs site, or have a previous running installation of an older version. In addition, for Alpha and Tau support you need the latest version (1.0.8) of the Windows Drivers.

2 – Bugs fixed in this release

The 1.4.12 release contains all bug fixes up to Release 1.3.33

- Release 1.4.12-stable

    ○ Improvements to suspend and resume from sleep.
    ○ Fix to scale manager where working with custom scales wouldn't work at times.
    ○ Made network connectivity check more resilient to uninitialized directory structures.
    ○ Make the blink trigger and mode selection consistent in the key group. Both of these now use the soft threshold definied in the keyboard, so you can make the mode key 'lighter' using:

        keyboard 1 soft threshold to 0.1 set

- Release 1.4.11-stable

    ○ Add a network connectivity check at startup. This will test multicast connectivity between processes as required for proper communication with Browser Commander.

- Release 1.4.9-testing

    ○ The scale manager wasn't listing any factory scales unless a users scales file was present.
    ○ The arranger clear all feature didn't clear the persistent state.
    ○ Minor stability fixes.
    ○ Browsing for the port of MIDI output 2 in the Tau factory setup browsed for MIDI output 1 instead.

- Release 1.4.8-testing

- ○ Arranger wasn't saving its state.
- ○ Arranger start and end points couldn't be controlled from Stage.
- ○ Routing matrix mappings could sometimes send out zero data at the end even though return to origin wasn't turned on and that data wasn't sent out by the original control stream.

- • Release 1.4.7-testing

  - ○ Belcanto name ify now removes the ordinal when a name without a trailing number is specified.
  - ○ Connecting signals from individual keys of the keyboard directly to another agent's input now functions correctly.

- • Release 1.4.6-testing

  - ○ Items on the Window menu are now ordered alphabetically.
  - ○ Windows will pop a message when the USB driver is too old.
  - ○ Mac OS will report when the USB bus doesn't have enough bandwidth.

- • Release 1.4.5-experimental

  - ○ The scale selection through Stage in the Alpha 3 factory setup now corresponds to the splits that are indicated in the labels.
  - ○ Fixes the Tau factory setup that accidentally got corrupted during packaging of the previous release.

- • Release 1.4.4-experimental

  - ○ Talker kgroup blink is now disabled so that the main kgroups can blink faster than the talker kgroups. This was experienced as the blink time not being able to go below 0.5ms.
  - ○ Stage tab fixes to Alpha factory 2 for scale browsing.
  - ○ Alpha factory 3 now updates all tonic and scale lights correctly when MIDI input notes are used to change tonics and scales.
  - ○ The kgroup blink port can now be un set, which is the same as setting it to 0.

- • Release 1.4.3-experimental

  - ○ Fix to arranger not playing first event.
  - ○ Fix to remember default setup across EigenD upgrades.
  - ○ Fixes to EigenD wake from sleep.
  - ○ Fixes to incremental setup loading.
  - ○ Fixes to Tau percussion keys to MIDI connection in factory setup.
  - ○ Updated integrated routing matrix document documentation.
  - ○ Changed Audio Unit and MIDI converter program change and bank change

bounds to be 0-127 instead of 1-128 for consistency.

○ EigenD doesn't need to be restarted anymore when custom scales are added.
○ Fixes to remember warning dialog ignores across EigenD restarts.
○ Fix to make VST plugins with generic GUIs work.
○ Fixes to make AU plugins with generic GUIs work in setups that aren't using an Apple AU already.
○ Pop up warning dialog when certain functionalities aren't available due to insufficient bandwidth on the USB bus on MacOSX.
○ Updated Pico and Alpha references guides based on the most recent factory setups, the Tau version will follow soon.
○ Fix to only upgrade old setups when no setups are present for the running version (could be experienced as being unable to delete setups).
○ Fixes to Stage connection code and addressing.
○ Fixes to Alpha/Tau keyboard replugging.
○ Unusable ports are now hidden in Stage.
○ Missing agent and port tooltips have been written for Stage.

• Release 1.4.2-experimental

○ Fix to for return to origin with per-note plugin parameters.
○ Fix to RPC getValue which could create a deadlock situation.
○ Fixed regression for the pre-instantiation of fast talkers.
○ Various stability fixes.

3 – Bugs and known issues in this release

4 – Changes and Improvements

Items in italic indicate changes or improvements that are unique to the 1.4 branch of EigenD, other items have been brought in from the 1.3 branch.

• Release 1.4.8-testing:

○ *Memory footprint reduction*

 ▪ EigenD now uses up to 400MB less memory in the Alpha 3 factory setup.

○ *All Alpha factory setups are now have Alchemy configured on Windows also*

○ *New developer-centric latch and angle/radius agents*

 ▪ To make it easier for developer to understand the creation of custom agents, two new agents have been implemented and heavily documented in the source code.
 ▪ The Latch agent uses the controller signal and a minimum threshold to

determine whether the other signals can send through their data. As soon as the threshold is exceeded, the data of the other signals will pass through unchanged. However, when the controller signal drops below the minimum threshold, the last known value of the other signals is sent instead of their real values. This essentially allows an EigenKey to become a knob that sticks to a value.

- The Angle/Radius agent takes roll and yaw inputs and interprets them as if they describe the location of a point on an orb using an angle and a radius. This can for example be used with Spectrasonic Omnisphere to control the location on its Orb controller.

- Release 1.4.7-testing:

  ○ *Talkers improvements*

    - Talkers can now specify the silent Belcanto modifier to prevent phrases to be echoed in the commander.
    - Talkers with empty do phrases for the interpreter will short-circuit and not do anything immediately.

  ○ *MIDI converter / AU / VST parameters*

    - The number of parameter inputs for the MIDI converter, AU and VST agents has been increased from 16 to 32.

  ○ *Prototype developer-centric implementation of an OSC agent*

    - An extensively source-code documented agent to send out raw OSC messages has been added to allow developers to easily get started with EigenD agent development. It can be found in the plg_osc directory of the source repository.

- Release 1.4.6-testing:

  Headphone support for the Alpha and Tau on Windows.

  From Release 1.4.6, the Windows port requires the latest device drivers. These can be downloaded from the resources section of the Eigenlabs web site:

  http://www.eigenlabs.com/downloads/releases/state/resources/

  You will get a pop up warning if the drivers installed on your system are too old. Older releases will continue to work with the new drivers.

  The changes for headphone support involve new firmware for the Base station and Power supply. This firmware is downloaded into a newly powered on device. If you quit EigenD and run an earlier version (or vice versa) the firmware will be wrong and the instrument will not be detected. Simply power cycle the Basestation or Power

supply and the correct firmware will be selected.

- Release 1.4.5-experimental:

  ○ Updates to the Windows Alpha and Tau factory setups so that they're in-line with the features on MacOSX.

- Release 1.4.4-experimental:

  ○ Alpha factory setups now have overdub keys in the advanced MIDI sections.
  ○ The Tau quick reference guide is now fully up-to-date with the factory setup.
  ○ The Tau factory setup now has pedal 1 connected to sampler 1 piano sustain.
  ○ The Tau factory setup now has all the recent features of the Alpha setups, including:
    ▪ MIDI input support
    ▪ MIDI input control on the keyboard
    ▪ MIDI clock control on the keyboard
    ▪ MIDI input scale, tonic, setup and metronome triggers through MIDI notes
    ▪ Pedal calibration
    ▪ Script browsing
    ▪ Per-instrument overdub toggle
    ▪ Belcanto playing from the instrument
  ○ The Tau stage tabs are all updated to reflect the new setup features.
  ○ The Tau and Alpha setups now have a pedal calibration Stage tab.
  ○ The Pico setups now have a global overdub toggle on the main Stage tab.

- Release 1.4.3-experimental:

  ○ Due to a prior bug in Stage, certain existing widgets might be disconnected and shown as greyed out or having a surrounding red rectangle. To reconnect these widgets, follow these instructions:
    ▪ Unlock the Stage editing by clicking on the padlock icon at the top left corner of the window
    ▪ Select the Edit tool which is the third tool in line
    ▪ Left-click on the widget that has to be reconnected
    ▪ Uncheck the 'enabled' flag in the widget properties dialog
    ▪ Confirm by pressing OK
    ▪ Select the Create tool which is the second tool in line
    ▪ Wait for the agent list to load
    ▪ Find the agent and port that the widget is supposed to be connected to
    ▪ Drag and drop the port from the available agent list onto the widget
    ▪ The widget will now be reconnected

- Release 1.4.2-experimental:

  ○ *Added support for per-note AU/VST automation parameters.*

When a mapping is configured for an automation parameter, it can now be set as being per-note. This means that is will use the number of the automation parameter for notes that are played on MIDI channel 1 and increase the number of the automation parameter for each successive MIDI channel that is used. This can then be used to tie the automation parameter to the appropriate parts of a multi-timbral plugin.

○ *Added belcanto verbs for sending specific MIDI CC messages to an AU host or MIDI convertor, for instance:*

```
audio unit 1 hey midi controller 5 to 64 set
```

- Release 1.4.1-experimental:

  ○ *Initial 1.4 release. Contains support for the Alpha and Tau on Windows.*