



# Release Notes for HCA-Vision Neurite Analysis Module V1.6

## Introduction

These release notes describe system requirements, installation instructions, and known issues for HCA-Vision Neurite Analysis Module V1.6.

From this release, we have changed the way of licensing HCA-Vision. For the first 30 days after installation, HCA-Vision should be fully functional. After this period HCA-Vision will be downgraded to a freeware with a number of its advanced functions suspended, such as batch processing and parameter profiles, unless you purchase a licence from CSIRO and install the appropriate licence key on your machine.

These release notes are updated each time when we have major releases, so please check back for new information.

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## System Requirements

### Software Requirements

- Windows XP Professional with Service Pack 2 or Windows 2003
- Microsoft .Net Framework 2.0. HCA-Vision setup will automatically detect the availability of the .Net framework 2.0 and will install it automatically if it is not present on your machine.

### Hardware Requirements

- PC with 1 GHz or faster Intel Pentium processor recommended
  - 512 MB of RAM required; 1 GB or more of RAM recommended
  - 500 MB hard-disk space required; 1 GB or more hard-disk space recommended
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## Installation Notes

For detailed Installation Instructions, please see <http://www.hca-vision.com/support>.

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## New Features and Fixes

### New Features

- Improved algorithms for neurite detection, especially for fine neurites.

- Improved neuron body detection procedure. The neuron bodies can now be detected based on nuclei masks generated using different filtering criteria such as minimum nucleus area, minimum and/or maximum intensity in any channel of the neurite image or a separate nuclei image.
- Improved neurite analysis algorithms including removal of falsely connected loops in neurite branches.
- HCA-Vision Web Service is added in this release, which allows the user to remotely view all batch processing results of HCA-Vision through Internet Explorer, anytime and anywhere on the network.
- HCA-Vision can now load GE's images in FRM format.
- Neurite Field Area has been added as one of statistical features for neurite analysis.
- Max number of neurons and neurites can now be set from Tools>Options menu instead of hard coded in the software.
- "Ruler" tool has been added to help users measure the distance and angle between any two points in the input image.
- For additional channel intensity measurement, either a separate image file or additional channel of the neurite images is now accepted.
- Without nuclei image, the membrane and additional channel intensity measurements can still be conducted.

### **Fixes**

- When specifying separate nuclei image as the mask to detect neuron body, the image file was not accepted.
- In the batch processing result viewer, when clicking the column header, the records are not sorted properly.
- Other minor and miscellaneous bugs.

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## **Deprecated Features**

Nil.

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Contact: Dr. Pascal Vallotton – Leader, Biotech Imaging, Dr. Dadong Wang – Senior Software Engineer

CSIRO Mathematical & Information Sciences

Building E6B, Macquarie University Campus

Herring Road, North Ryde, Sydney

NSW 2113, Australia

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Phone: +61 2 9325 3208, +61 2 9325 3223

Email: [hca-vision@csiro.au](mailto:hca-vision@csiro.au) or [pascal.valotton@csiro.au](mailto:pascal.valotton@csiro.au) or [dadong.wang@csiro.au](mailto:dadong.wang@csiro.au)

Web: <http://www.hca-vision.com> or <http://www.csiro.au/hca-vision>