

BrainVISA dependencies

BrainVISA depends on many external libraries. The following list tries to exhaustively reference these dependencies. Some of the dependencies listed below are required only for compiling but not for using BrainVISA. These dependencies are not packaged with BrainVISA, only runtime dependencies are packaged.

Note : the weight of a dependency is specified by **R**:required, **U**:urged, **O**:optional

package	version	weight	license	CentOS 5.3	CentOS 5.7	Debian/Ubuntu	packaged with BrainVISA
SYSTEM							
GCC	4.2.2	<center>R</center> >	GPL	yum install gcc cpp gcc-c++ gcc-gfortran - [packaged version : 4.1.2]		gcc g++ gfortran	no
GLIBC	4.6.1	<center>R</center> >	GPL	yum install glibc glibc-devel glibc-headers glibc-common glibc-utils - [packaged version : 4.5.1]			no
LIBSTDC++	4.2.2	<center>R</center> >	GPL	yum install libstdc++ libstdc++-devel - [packaged version : 4.1.2]			yes
LIBSIGC++2.0	2.1.1	<center>R</center> >	LGPL	yum install libsigc++20 libsigc++20-devel - [packaged version : 2.0.17]	[packaged version : 2.0.18]	libsigc++-2.0-dev	yes
FREETYPE	1.3.1	<center>R</center> >	BSD	yum install freetype freetype-devel - [packaged version : 2.2.1]		libfreetype6-dev	no
FONTCONFIG	2.4.2	<center>R</center> >	BSD	yum install fontconfig fontconfig-devel - [packaged version : 2.4.1]		libfontconfig-devel	yes
OPENSSL	0.9.8e	<center>R</center> >	BSD	yum install openssl openssl-devel - [packaged version :]		libssl-dev	yes

				0.9.8e]			
EXPAT	2.0.1	<center>R</center>	BSD	yum install expat expat-devel - [packaged version : 1.95.8]		libexpat-dev	yes
LIBXML2	2.6.30	<center>R</center>	BSD	yum install libxml2 libxml2-devel - [packaged version : 2.6.26]		libxml2-dev	yes
ZLIB	1.2.3	<center>R</center>	BSD	yum install zlib zlib-devel - [packaged version : 1.2.3]		zlib1g-dev	no
SQLITE	3.6.2	<center>R</center>	BSD	yum install sqlite sqlite-devel - [packaged version : 3.3.6]		libsqlite3-dev	yes
SIP	4.13.3	<center>R</center>	GPL	need manual install - [packaged version : 4.13.3]		python-sip-dev	yes
HDF5	1.6.5	<center>R</center>	BSD	yum install hdf5 hdf5-devel - [packaged version : 1.8.0]	[packaged version : 1.8.7]	libhdf5-dev	no
READLINE	1.3.31	<center>R</center>	BSD	yum install readline readline-devel - [packaged version : 1.3.29]		libreadline-dev	no
CMAKE	2.6.4	<center>U</center>	BSD	yum install cmake - [packaged version : 2.6.4]		cmake	no
MAKE		<center>U</center>	GPL			make	no
PKG-CONFIG	0.21.0	<center>U</center>	BSD	yum install pkgconfig - [packaged version : 0.21.0]		pkg-config	no
BOOST	1.33.1	<center>U</center>	BSD	yum install boost boost-devel - [packaged version : 1.33.1]		libboost-dev	no

BLITZ	0.9.0	<center>U</center>	GPL	need manual install - [not packaged on system]	yum install blitz blitz-devel [packaged version : 0.9.3]	libblitz0-dev	no
SWIG	1.3.31	<center>O</center>	BSD	yum install swig - [packaged version : 1.3.29]		swig	no
DISPLAY							
MESA-LIBGLU	7.0.1	<center>R</center>	BSD	yum install mesa-libGLU mesa-libGLU-devel - [packaged version : 6.5.1]		libglu1-mesa-dev	yes
OPENGL	7.0.1	<center>R</center>	BSD	yum install mesa-libGL mesa-libGL-devel - [packaged version : 6.5.1]		libgl1-mesa-dev	no
GLUT	7.0.1	<center>R</center>	BSD	yum install freeglut freeglut-devel - [packaged version : 2.4.0]		freeglut3-dev	no
MESA-LIBOS	7.0.1	<center>O</center>	BSD	yum install mesa-libOSM esa mesa-libOSM esa-devel - [packaged version : 6.5.1]		libosmesa6-dev	yes
LIBICE	1.0.1	<center>O</center>	BSD	yum install libice libice-devel - [packaged version : 1.0.1]		libice-dev	no
VTK	>= 5.4	<center>O</center>	BSD	?		libvtk5-qt4-dev	yes
VTKINRIA3D	svn trunk	<center>O</center>	BSD	need manual install - [not packaged on system]		need manual install - [not packaged on system]	yes
SCIENTIFIC							
BLAS	1.1.8	<center>R</center>	BSD	yum install blas blas-devel - [packaged version : 3.1.1]		libblas-dev	yes

LAPACK	3.0.24	<center>R</center>	BSD	yum install lapack lapack-devel - [packaged version : 3.1.1]		liblapack-dev	yes
NETCDF	3.6.1	<center>U</center>	BSD	yum install netcdf netcdf-devel - [packaged version : 3.6.3]		libnetcdf-dev	no
UNURAN	1.5.1	<center>U</center>	GPL	need manual install - [not packaged on system]	yum install unuran unuran-devel [packaged version: 1.7.1]	need manual install - [not packaged on system]	no
PRNG	3.0.2	<center>U</center>	GPL	need manual install - [not packaged on system]		need manual install - [not packaged on system]	no
GSL	1.13.0	<center>O</center>	GPL	yum install gsl gsl-devel - [packaged version : 1.12.0]	[packaged version : 1.13]	libgsl0-dev	no
IO PLUGINS							
LIBTIFF	3.8.2	<center>U</center>	BSD	yum install libtiff libtiff-devel - [packaged version : 3.8.2]		libtiff-dev	yes
LIBJPEG	6b	<center>U</center>	BSD	yum install libjpeg libjpeg-devel - [packaged version : 6b]		libjpeg62-turbo-dev or libjpeg8-dev	no
LIBPNG	1.2.22	<center>U</center>	BSD	yum install libpng libpng-devel - [packaged version : 1.2.10]		libpng12-dev	yes
LIBMNG	1.0.10	<center>U</center>	BSD	yum install libmng libmng-devel - [packaged version : 1.0.9]		libmng-dev	yes
DCMTK	3.5.4	<center>U</center>	?	need manual install - [not packaged on system]		libdcmtk2-dev	yes
MINC	1.5.1	<center>O</center>	BSD	need manual install - [not packaged on system]		libminc-dev	no
USER INTERFACE							
QT4	4.6.2	<center><font	GPL	need manual		libqt4-dev	yes

		color=red>R</center>>		install - [packaged version : 4.2.1]		libqt4-opengl-dev	
QWT	5.2.1	<center>U</center>	LGPL	need manual install - [not packaged on system]	[packaged version: 5.1.2]	libqwt-dev	yes
DOCUMENTATION							
DOT	2.12.6	<center>O</center>	CPL	yum install graphviz graphviz-devel - [packaged version : 2.22.0]		libgraphviz-dev	yes
DOXYGEN	1.4.7	<center>O</center>	CPL	yum install doxygen - [packaged version : 1.4.7]		doxygen	yes
PYTHON SYSTEM							
PYTHON	2.7.4	<center>R</center>>	BSD	need manual install - [packaged version : 2.7.3]	manual install [packaged version: 2.7.3]	python2.7	yes
PYXML	0.8.4	<center>R</center>>	GPL	need manual install - [packaged version : 0.8.4]			yes
SETUPTOOLS	0.6c5	<center>R</center>>	BSD	need manual install - [packaged version : 0.6c5]		python-setuptools	yes
IPYTHON	0.13 + patch	<center>U</center>	BSD	need manual install - [not packaged on system]	[package version: 0.13 patched]	ipython ipython-qtconsole	yes
GTEMPLATE	0.1.0	<center>O</center>	BSD	need manual install - [not packaged on system]		need manual install - [not packaged on system]	yes
MYSQL-PYTHON	1.2.2	<center>O</center>	GPL	need manual install - [packaged version : 1.2.1]		python-mysqldb	yes
PYRO	3.10.0	<center>U</center>	BSD	need manual install - [not packaged on system]		pyro	yes
PEXPECT	2.1.0	<center>U</center>	BSD	need manual install - [packaged version : 2.3.0]		python-pexpect	yes
PARAMIKO	1.7.0	<center>	LGPL	need manual install -	[packaged version: 1.7.6]	python-paramiko	yes

		O</center>		[packaged version : 1.7.4]			
PYTABLES	2.0.3	<center>O</center>	BSD	need manual install - [not packaged on system]		python-tables	no
NOSE	0.11.0	<center>O</center>	LGPL	need manual install - [packaged version : 0.10.4]	[packaged version : 0.11.3]	python-nose	yes
LINE_PROFILER	1.0b2.0	<center>O</center>	BSD	need manual install - [not packaged on system]		need manual install - [not packaged on system]	yes
GADFLYB5	1.0.0	<center>O</center>	LGPL	need manual install - [not packaged on system]		python-gadfly	yes
MDP	2.1.0	<center>O</center>	LGPL	need manual install - [not packaged on system]		python-mdp	yes
XMLTODICT	0.9.2	<center>R</center>	BSD-like	need easy_install/pip install (before Ubuntu 15-04)	[packaged version: 0.9.2]		yes
PYTHON DISPLAY							
PYOPENGL	3.0.0a6	<center>O</center>	BSD	need manual install - [not packaged on system]		python-opengl	yes
PYTHON SCIENTIFIC							
NUMPY	1.6.1	<center>R</center>	BSD	need manual install - [packaged version : 1.6.2]		python-numpy	yes
SCIPY	0.11	<center>U</center>	BSD	need manual install - [not packaged on system]	need manual install [packaged version: 0.11.0rc2]	python-scipy	yes
LIBSVM	2.83.0	<center>U</center>	BSD	need manual install - [not packaged on system]	[packaged version: 3.11]	python-libsvm	yes
PYNIFTI	0.2.0	<center>O</center>	BSD	need manual install - [not packaged on system]		python-nifti	no (in fMRI toolbox packages)
NIPY	?	<center>O</center>	BSD	need manual install - [not packaged on system]		need manual install - [not packaged on system]	no (in fMRI toolbox packages)
PIL	1.1.6	<center>U</center>	BSD	need manual install -		python-imaging	yes

		</center>		[packaged version : 1.1.6]			
SYMPY	0.6.5	<center>O</center>	BSD	need manual install - [not packaged on system]		python-sympy	yes
PYCLUSTER	1.52	<center>U</center>	?(free)	need manual install - [packaged version : 1.52]	[packaged version : 1.52]	python-cluster	yes
PYTHON USER INTERFACE							
PYQT4	4.9.4	<center>R</center>	GPL	need manual install - [packaged version: 4.9.4]		python-qt4 python-qt4-gl python-qt4-dev	yes
MATPLOTLIB	1.1.1	<center>U</center>	LGPL	need manual install - [packaged version : 0.1.1]	[packaged version : 1.1.1]	python-matplotlib	yes
PYQWT	5.2.0	<center>O</center>	GPL	need manual install - [not packaged on system]		python-qwt5-qt4	yes
PYGOBJECT	2.14.1	<center>O</center>	LGPL	need manual install - [packaged version : 2.12.1]		[unknown, TODO]	yes
PYCAIRO	1.4.12	<center>O</center>	LGPL	need manual install - [packaged version : 1.2.0]		python-cairo	yes
PYGAME	1.7.1	<center>O</center>	LGPL	need manual install - [packaged version : 1.8.1]	[packaged version : 1.7.1]	python-pygame	yes
PYTHON DOCUMENTATION							
SPHINX	1.0.7	<center>O</center>	BSD	?	[packaged version: 0.9.8]	python-sphinx	no

To fix many issues, we'd like to plan to change version of following packages

package	version	weight	license
PYTHON SYSTEM			
PYTHON	2.7.4	<center>R</center>	BSD
IPYTHON	0.14 (not released) or 0.13 with patch (see #4293 and https://github.com/ipython/ipython/issues/2080#issuecomment-6920389), or 0.11	<center>U</center>	BSD