# **D-Wave homebase**

Release 1.0.1

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homebase	

An API for getting platform independent paths to user data and configuration folders, with support for virtualenv

CHAPTER	2
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# $\mathsf{CHAPTER}\,3$

Documentation

### 3.1 homebase module

This module provides an API for determining application specific directories for data, config, logs, etc. public module members:

<pre>user_data_dir(app_name, app_author[,])</pre>	Return the full path to the user data dir for this applica-
	tion, using a virtualenv location as a base, if it is exists,
	and falling back to the host OS's convention if it doesn't.
<pre>user_config_dir(app_name, app_author[,])</pre>	Return the full path to the user config dir for this ap-
	plication, using a virtualenv location as a base, if it is
	exists, and falling back to the host OS's convention if it
	doesn't.
user_cache_dir(app_name, app_author[,])	Return the full path to the user cache dir for this ap-
	plication, using a virtualenv location as a base, if it is
	exists, and falling back to the host OS's convention if it
	doesn't.
<pre>user_state_dir(app_name, app_author[,])</pre>	Return the full path to the user state dir for this applica-
	tion, using a virtualenv location as a base, if it is exists,
	and falling back to the host OS's convention if it doesn't.
user_logs_dir(app_name, app_author[,])	Return the full path to the user log dir for this applica-
	tion, using a virtualenv location as a base, if it is exists,
	and falling back to the host OS's convention if it doesn't.
<pre>site_data_dir(app_name, app_author[,])</pre>	Return the full path to the OS wide data dir for this ap-
	plication.
site_config_dir(app_name, app_author[,])	Return the full path to the OS wide config dir for this
	application.
site_data_dir_list(app_name, app_author[,	Return the list of full path to the OS wide data directo-
])	ries for this application.
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#### Table 1 – continued from previous page

<pre>site_config_dir_list(app_name, app_author[,</pre>	Return the list of full path to the OS wide data directo-
])	ries for this application.

This code is inspired by and builds on top of code from http://github.com/ActiveState/appdirs

#### class Platform

Bases: enum.Enum
WINDOWS = 1
MACOS = 2
POSIX = 3

user\_data\_dir(app\_name, app\_author, version=None, roaming=False, use\_virtualenv=True, create=True)

Return the full path to the user data dir for this application, using a virtualenv location as a base, if it is exists, and falling back to the host OS's convention if it doesn't.

If using a virtualenv, the path returned is /path/to/virtualenv/data/app\_name

Typical user data directories are:

- Mac OS X: ~/Library/Application Support/<app\_name>
- Unix: ~/.local/share/<app\_name> # or \$XDG\_DATA\_HOME/<app\_name>, if defined.
- Win XP (not roaming): C:\Documents and Settings\<username>\Application Data\<app\_author>\<app\_name>
- Win XP (roaming): C:\Documents and Settings\<username>\Local Settings\Application Data\<app\_author>\<app\_name>
- $Win 7 (not \, roaming)$ : C:\Users\<username>\AppData\Local\<app\_author>\<app\_name>
- Win7(roaming): C:\Users\<username>\AppData\Roaming\<app\_author>\<app\_name>

For Unix, we follow the XDG spec and support \$XDG\_DATA\_HOME. That means, by default ~/.local/share/<AppName>.

#### **Parameters**

- app\_name (str) Name of the application. Will be appended to the base user data path.
- app\_author (str) Only used in Windows when not in a virtualenv, name of the application author.
- **version** (*str*) If given, the application version identifier will be appended to the app\_name.
- roaming (bool) roaming appdata directory. That means that for users on a Windows network setup for roaming profiles, this user data will be synchronized on login. See <a href="http://technet.microsoft.com/en-us/library/cc766489(WS.10).aspx">http://technet.microsoft.com/en-us/library/cc766489(WS.10).aspx</a> for a discussion of issues.
- **use\_virtualenv** (bool) If True and we're running inside of a virtualenv, return a path relative to that environment.
- **create** (bool) If True, the folder is created if it does not exist before the path is returned.

**Returns** the full path to the user data dir for this application.

Return type str

**user\_config\_dir** (app\_name, app\_author, version=None, roaming=False, use\_virtualenv=True, create=True)

Return the full path to the user config dir for this application, using a virtualenv location as a base, if it is exists, and falling back to the host OS's convention if it doesn't.

If using a virtualenv, the path returned is /path/to/virtualenv/config/app\_name

#### Typical user config directories are:

- Mac OS X: same as user\_data\_dir
- Unix: ~/.confiq/<AppName> # or in \$XDG\_CONFIG\_HOME, if defined
- Win \*: same as user\_data\_dir

For Unix, we follow the XDG spec and support  $XDG_CONFIG_HOME$ . That means, by default  $\sim/$ . config/<AppName>.

#### **Parameters**

- app\_name (str) Name of the application. Will be appended to the base user config path.
- app\_author (str) Only used in Windows, name of the application author.
- **version** (str) If given, the application version identifier will be appended to the app\_name.
- roaming (bool) roaming appdata directory. That means that for users on a Windows network setup for roaming profiles, this user data will be synchronized on login. See <a href="http://technet.microsoft.com/en-us/library/cc766489(WS.10).aspx">http://technet.microsoft.com/en-us/library/cc766489(WS.10).aspx</a> for a discussion of issues.
- **use\_virtualenv** (bool) If True and we're running inside of a virtualenv, return a path relative to that environment.
- **create** (bool) If True, the folder is created if it does not exist before the path is returned.

Returns the full path to the user config dir for this application.

#### Return type str

user\_cache\_dir (app\_name, app\_author, version=None, use\_virtualenv=True, create=True)

Return the full path to the user cache dir for this application, using a virtualenv location as a base, if it is exists, and falling back to the host OS's convention if it doesn't.

If using a virtualenv, the path returned is /path/to/virtualenv/cache/app\_name

#### Typical user cache directories are:

- Mac OS X: ~/Library/Caches/<AppName>
- Unix: ~/.cache/<AppName> (XDG default)
- Win XP: C:\Documents and Settings\<username>\Local Settings\Application Data\<AppAuthor>\<AppName>\Cache
- Vista: C:\Users\<username>\AppData\Local\<AppAuthor>\<AppName>\Cache

#### **Parameters**

- app\_name (str) Name of the application. Will be appended to the base user config path.
- app\_author (str) Only used in Windows, name of the application author.
- **version** (*str*) If given, the application version identifier will be appended to the app\_name.

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- **use\_virtualenv** (bool) If True and we're running inside of a virtualenv, return a path relative to that environment.
- create (bool) If True, the folder is created if it does not exist before the path is returned.

**Returns** the full path to the user cache dir for this application.

#### Return type str

user\_state\_dir(app\_name, app\_author, version=None, roaming=False, use\_virtualenv=True, create=True)

Return the full path to the user state dir for this application, using a virtualenv location as a base, if it is exists, and falling back to the host OS's convention if it doesn't.

If using a virtualenv, the path returned is /path/to/virtualenv/state/app\_name

#### Typical user state directories are:

- Mac OS X: same as user\_data\_dir
- Unix: ~/.local/state/<AppName> # or in \$XDG\_STATE\_HOME, if defined
- Win \*: same as user\_data\_dir

For Unix, we follow this Debian proposal https://wiki.debian.org/XDGBaseDirectorySpecification#state to extend the XDG spec and support \$XDG\_STATE\_HOME. That means, by default ~/.local/state/<AppName>.

#### **Parameters**

- app\_name (str) Name of the application. Will be appended to the base user config path.
- app\_author (str) Only used in Windows, name of the application author.
- **version** (*str*) If given, the application version identifier will be appended to the app\_name.
- **roaming** (bool) roaming appdata directory. That means that for users on a Windows network setup for roaming profiles, this user data will be synchronized on login. See <a href="http://technet.microsoft.com/en-us/library/cc766489(WS.10).aspx">http://technet.microsoft.com/en-us/library/cc766489(WS.10).aspx</a> for a discussion of issues.
- **use\_virtualenv** (bool) If True and we're running inside of a virtualenv, return a path relative to that environment.
- **create** (bool) If True, the folder is created if it does not exist before the path is returned.

**Returns** the full path to the user state dir for this application.

#### Return type str

user\_logs\_dir (app\_name, app\_author, version=None, use\_virtualenv=True, create=True)

Return the full path to the user log dir for this application, using a virtualenv location as a base, if it is exists, and falling back to the host OS's convention if it doesn't.

If using a virtualenv, the path returned is :bash:/path/to/virtualenv/log/app\_name"

#### Typical user log directories are:

- Mac OS X: ~/Library/Logs/<AppName>
- Unix: ~/.cache/<AppName>/log # or under \$XDG\_CACHE\_HOME if defined
- Win \$XP\$: C:\Documents and Settings\<username>\Local Settings\Application Data\<AppAuthor>\<AppName>\Logs
- Vista: C:\Users\<username>\AppData\Local\<AppAuthor>\<AppName>\Logs

#### **Parameters**

- app\_name (str) Name of the application. Will be appended to the base user config path.
- app\_author (str) Only used in Windows, name of the application author.
- version (str) If given, the application version identifier will be appended to the app\_name.
- **use\_virtualenv** (bool) If True and we're running inside of a virtualenv, return a path relative to that environment.
- **create** (bool) If True, the folder is created if it does not exist before the path is returned.

**Returns** the full path to the user log dir for this application.

#### Return type str

**site\_data\_dir** (app\_name, app\_author, version=None, use\_virtualenv=True, create=False)
Return the full path to the OS wide data dir for this application.

#### Typical site data directories are:

- Mac OS X: /Library/Application Support/<AppName>
- Unix: /usr/local/share/<AppName> or /usr/share/<AppName>
- Win XP: C:\Documents and Settings\All Users\Application Data\<AppAuthor>\<AppName>
- Vista: (Fail! "C:\ProgramData" is a hidden \*system\* directory on Vista.)
- Win 7: C:\ProgramData\<AppAuthor>\<AppName> # Hidden, but writeable on Win 7.

For \*nix, this is using the \$XDG\_DATA\_DIRS default.

**Note:** On linux, the \$XDG\_DATA\_DIRS environment variable may contain a list. *site\_data\_dir* returns the first element of this list. If you want access to the whole list, use <code>site\_data\_dir\_list()</code>

Warning: Do not use this on Windows Vista. See the Vista-Fail note above for why.

#### **Parameters**

- app\_name (str) Name of the application. Will be appended to the base user config path.
- app\_author (str) Only used in Windows, name of the application author.
- **version** (str) If given, the application version identifier will be appended to the app\_name.
- **use\_virtualenv** (bool) If True and we're running inside of a virtualenv, return a path relative to that environment.
- **create** (bool) If True, the folder is created if it does not exist before the path is returned.

**Returns** the full path to the site data dir for this application.

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#### Return type str

**site\_data\_dir\_list** (app\_name, app\_author, version=None, use\_virtualenv=True, create=False)
Return the list of full path to the OS wide data directories for this application.

#### Typical site data directories are:

- Mac OS X: /Library/Application Support/<AppName>
- Unix: /usr/local/share/<AppName> or /usr/share/<AppName>
- Win \$XP\$: C:\Documents and Settings\All Users\Application Data\<AppAuthor>\<AppName>
- Vista: (Fail! "C:\ProgramData" is a hidden \*system\* directory on Vista.)
- Win 7: C:\ProgramData\<AppAuthor>\<AppName> # Hidden, but writeable on Win 7.

For \*nix, this is using the \$XDG\_DATA\_DIRS default.

Warning: Do not use this on Windows Vista. See the Vista-Fail note above for why.

#### **Parameters**

- app\_name (str) Name of the application. Will be appended to the base user config path.
- app\_author (str) Only used in Windows, name of the application author.
- **version** (*str*) If given, the application version identifier will be appended to the app\_name.
- **use\_virtualenv** (bool) If True and we're running inside of a virtualenv, return a path relative to that environment.
- **create** (bool) If True, the folder is created if it does not exist before the path is returned.

**Returns** A list to the full paths for site data directories for this application.

#### Return type list

**site\_config\_dir** (app\_name, app\_author, version=None, use\_virtualenv=True, create=False)
Return the full path to the OS wide config dir for this application.

#### Typical site data directories are:

- Mac OS X: /Library/Application Support/<AppName>
- Unix: /usr/local/share/<AppName> or /usr/share/<AppName>
- Win XP: C:\Documents and Settings\All Users\Application Data\<AppAuthor>\<AppName>
- Vista: (Fail! "C:\ProgramData" is a hidden \*system\* directory on Vista.)
- Win 7: C:\ProgramData\<AppAuthor>\<AppName> # Hidden, but writeable on Win 7.

For \*nix, this is using the \$XDG\_DATA\_DIRS default.

**Note:** On linux, the \$XDG\_CONFIG\_DIRS environment variable may contain a list. *site\_config\_dir* returns the first element of this list. If you want access to the whole list, use <code>site\_config\_dir\_list()</code>

Warning: Do not use this on Windows Vista. See the Vista-Fail note above for why.

#### **Parameters**

- app\_name (str) Name of the application. Will be appended to the base user config path.
- app\_author (str) Only used in Windows, name of the application author.
- **version** (*str*) If given, the application version identifier will be appended to the app\_name.
- **use\_virtualenv** (bool) If True and we're running inside of a virtualenv, return a path relative to that environment.
- **create** (bool) If True, the folder is created if it does not exist before the path is returned.

**Returns** the full path to the site config dir for this application.

Return type str

site\_config\_dir\_list (app\_name, app\_author, version=None, use\_virtualenv=True, create=False)
Return the list of full path to the OS wide data directories for this application.

#### Typical site data directories are:

- Mac OS X: /Library/Application Support/<AppName>
- Unix: /usr/local/share/<AppName> or /usr/share/<AppName>
- Win \$XP\$: C:\Documents and Settings\All Users\Application Data\<AppAuthor>\<AppName>
- Vista: (Fail! "C:\ProgramData" is a hidden \*system\* directory on Vista.)
- Win 7: C:\ProgramData\<AppAuthor>\<AppName> # Hidden, but writeable on Win 7.

For \*nix, this is using the \$XDG\_DATA\_DIRS default.

**Warning:** Do not use this on Windows Vista. See the Vista-Fail note above for why.

#### **Parameters**

- app\_name (str) Name of the application. Will be appended to the base user config path.
- app\_author (str) Only used in Windows, name of the application author.
- **version** (str) If given, the application version identifier will be appended to the app\_name.

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- **use\_virtualenv** (bool) If True and we're running inside of a virtualenv, return a path relative to that environment.
- create (bool) If True, the folder is created if it does not exist before the path is returned.

**Returns** A list to the full paths for site data directories for this application.

Return type list

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