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Path Utilities (bpy.path)

This module has a similar scope to os.path, containing utility functions for dealing with paths in Blender.

bpy.path.**abspath(path, *, start=None, library=None)**

Returns the absolute path relative to the current blend file using the "//" prefix.

PARAMETERS:

- **start** (*str* | *bytes*) – Relative to this path, when not set the current filename is used.
- **library** (`bpy.types.Library`) – The library this path is from. This is only included for convenience, when the library is not None its path replaces *start*.

RETURNS:

The absolute path.

RETURN TYPE:

str

bpy.path.**basename(path)**

Equivalent to `os.path.basename`, but skips a "//" prefix.

Use for Windows compatibility.

RETURNS:

The base name of the given path.

RETURN TYPE:

str

bpy.path.**clean_name(name, *, replace='_')**

Returns a name with characters replaced that may cause problems under various circumstances, such as writing to a file.

All characters besides A-Z/a-z, 0-9 are replaced with "_" or the *replace* argument if defined.

PARAMETERS:

- **name** (*str* | *bytes*) – The path name.
- **replace** (*str*) – The replacement for non-valid characters.

RETURNS:

The cleaned name.

RETURN TYPE:

str

bpy.path.**display_name(name, *, has_ext=True, title_case=True)**

Creates a display string from name to be used menus and the user interface. Intended for use with filenames and module names.

PARAMETERS:

- **name** (*str*) – The name to be used for displaying the user interface.
- **has_ext** (*bool*) – Remove file extension from name.
- **title_case** (*bool*) – Convert lowercase names to title case.

RETURNS:

The display string.

RETURN TYPE:

str

bpy.path.**display_name_to_filepath(name)**

Performs the reverse of display_name using literal versions of characters which aren't supported in a filepath.

PARAMETERS:

name (*str*) – The display name to convert.

RETURNS:

The file path.

RETURN TYPE:

str

bpy.path.**display_name_from_filepath(name)**

Returns the path stripped of directory and extension, ensured to be utf8 compatible.

PARAMETERS:

name (*str*) – The file path to convert.

RETURNS:

The display name.

RETURN TYPE:

str

bpy.path.**ensure_ext(filepath, ext, *, case_sensitive=False)**

Return the path with the extension added if it is not already set.

PARAMETERS:

- **filepath** (*str*) – The file path.
- **ext** (*str*) – The extension to check for, can be a compound extension. Should start with a dot, such as '.blend' or '.tar.gz'.
- **case_sensitive** (*bool*) – Check for matching case when comparing extensions.

RETURNS:

The file path with the given extension.

RETURN TYPE:

str

bpy.path.**is_subdir(path, directory)**

Returns true if *path* in a subdirectory of *directory*. Both paths must be absolute.

PARAMETERS:

path (*str* | *bytes*) – An absolute path.

RETURNS:

Whether or not the path is a subdirectory.

RETURN TYPE:

bool

bpy.path.**module_names(path, *, recursive=False, package='')**

Return a list of modules which can be imported from *path*.

PARAMETERS:

- **path** (*str*) – a directory to scan.
- **recursive** (*bool*) – Also return submodule names for packages.
- **package** (*str*) – Optional string, used as the prefix for module names (without the trailing ".").

RETURNS:

a list of string pairs (module_name, module_file).

RETURN TYPE:

RETURN TYPE:

list[str]

bpy.path.**native_pathsep(path)**

Replace the path separator with the systems native `os.sep`.

PARAMETERS:

path (*str*) – The path to replace.

RETURNS:

The path with system native separators.

RETURN TYPE:

str

bpy.path.**reduce_dirs(dirs)**

Given a sequence of directories, remove duplicates and any directories nested in one of the other paths. (Useful for recursive path searching).

PARAMETERS:

dirs (*Sequence[str]*) – Sequence of directory paths.

RETURNS:

A unique list of paths.

RETURN TYPE:

list[str]

bpy.path.**relpath(path, *, start=None)**

Returns the path relative to the current blend file using the "//" prefix.

PARAMETERS:

- **path** (*str* | *bytes*) – An absolute path.
- **start** (*str* | *bytes*) – Relative to this path, when not set the current filename is used.

RETURNS:

The relative path.

RETURN TYPE:

str

bpy.path.**resolve_ncase(path)**

Resolve a case insensitive path on a case sensitive system, returning a string with the path if found else return the original path.

PARAMETERS:

path (*str*) – The path name to resolve.

RETURNS:

The resolved path.

RETURN TYPE:

str