SLywnow Basic

What is that?

SLywnow basic is main library for any SLywnow’ s assets, like SLM, AutoLang e.t.c. To use it type `using SLywnow` in your script. Asset also include ZipUtil.

Save system

How it works

SaveSystemAlt is my alternative to PlayerPerfs, that have no limits of size, have multifiles system, have GUI inside Unity and can save Arrays and Lists.

Usage

`StartWork(int i=0)` - run SaveSystemAlt by some index (different indexes mean different save files)

`UseDebug(bool value)` - show debug messages

`bool IsWorking()` - is SaveSystemAlt working?

`SetString(string key, string value)` - save some string with some key in current session, to write it into file use `SaveUpdatesNotClose()` or `StopWorkAndClose()`

`SetInt(string key, int value)` - save some int with some key in current session, to write it into file use `SaveUpdatesNotClose()` or `StopWorkAndClose()`

`SetFloat(string key, float value)` - save some float with some key in current session, to write it into file use `SaveUpdatesNotClose()` or `StopWorkAndClose()`

`SetBool(string key, bool value)` - save some bool with some key in current session, to write it into file use `SaveUpdatesNotClose()` or `StopWorkAndClose()`

`SetArray<T>(string key, T[] array)` - save some array of any types with some key in current session, to write it into file use `SaveUpdatesNotClose()` or `StopWorkAndClose()`

`string GetString(string key, string def=null,bool fromanytype=false)` - return string from key, if key not found will return **def** value, use **fromanytype** to get value from any types, not only from strings

`int GetInt(string key, int def = 0)` - return int from key, if key not found will return **def** value

`float GetFloat(string key, float def = 0)` - return float from key, if key not found will return **def** value

`bool GetBool(string key, bool def = false)` - return bool from key, if key not found will return **def** value

`T[] GetArray<T>(string key)` - return array of any type from key, if key not found will return **def** value

`SetValueToUndefined(string key)` - change key type to Undefined, Undefined type can be reads/writes from any types (by converted to string)

`SetValueToSomeType(string key, SaveSystemSL.SSLTpe type)` - change value type to another

`bool HasKey(string key)` - is key exist in current session?

`RenameKey(string key, string newName)` - rename some key in current session

`DeleteKey(string key)` - delete some key in current session

`DeleteAll(string key, bool withFile = false)` - delete all keys in current session

`int IsIndex()` - return current session’ s index (from StartWork)

`StopWorkAndClose()` - stop current session and write all changes to file

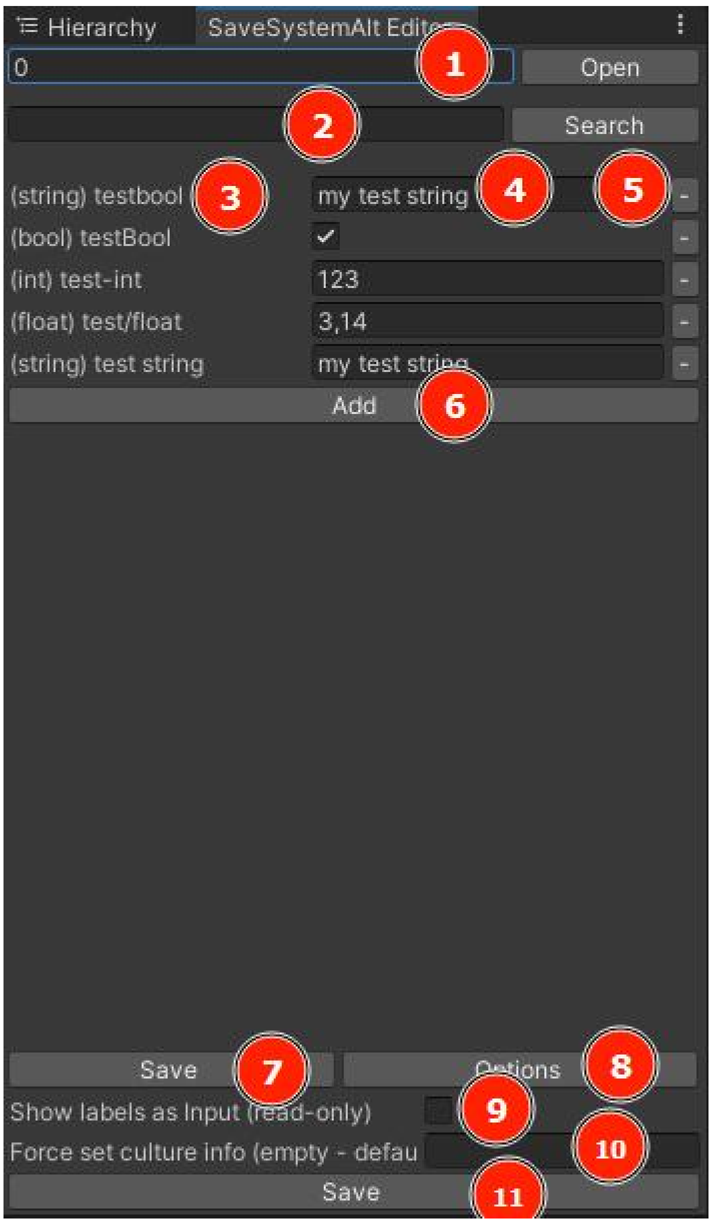
`SaveUpdatesNotClose()` - write all changes to file but not stop current session

`OutputSSAData GetData(string key)` - convert some key’ s data to OutputSSAData class. Use it to move keys between indexes

`WriteData(OutputSSAData input)` - add some key from OutputSSAData to current session. Use it to move keys between indexes

GUI

To open GUI press SLywnow/Save System Alt Editor. This editor works only in non-play mode.



0

(string) testbool	my test string
(bool) testBool	✓
(int) test-int	123
(float) test/float	3,14
(string) test string	my test string

Show labels as Input (read-only)

Force set culture info (empty - defau

1. Index number, press “Open” to load this
2. Search field
3. Name and type of key
4. Value of key
5. Delete key
6. Add new key
7. Save all changes
8. Show/Hide options
9. Show labels of keys as input (only for copy, you can’ t edit them here)
10. Set custom CultureInfo, leave it empty for InvariantCulture. Use it if your CultureInfo is different or if you use some other CultureInfo in the game
11. Save and hide options

Time savers

FilesSet

LoadByte

Loads bytes array of some file

```
byte[] LoadByte(string path, string name, string format, bool datapath = false)
```

path - path to directory with file

name - name of file without format

format - format of file

datapath - add Application.persistentDataPath before **path**

```
byte[] LoadByte(string path, bool datapath = false)
```

path - full path to file with format

datapath - add Application.persistentDataPath before **path**

SaveStream

```
SaveStream(string path, string name, string format, string[] saves, bool datapath = false, bool add = false)
```

path - path to directory with file

name - name of file without format

format - format of file

saves - array of strings to write

datapath - add Application.persistentDataPath before **path**

add - just add new lines, don’t rewrite file

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SaveStream(string path, string[] saves, bool datapath = false, bool add
= false)
```

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SaveStream(string path, string save, bool datapath = false, bool add =
false)
```

path - full path to file with format

save - string to write

datapath - add Application.persistentDataPath before **path**

add - just add new lines, don’t rewrite file

LoadStream

Loads data from file in string format. Can return data as array or single string with \n as new lines

```
string[] LoadStream(string path, string name, string format, bool datapath = false)
```

path - path to directory with file

name - name of file without format

format - format of file

datapath - add Application.persistentDataPath before **path**

```
string[] LoadStream(string path, bool datapath = false)
```

path - full path to file with format

datapath - add Application.persistentDataPath before **path**

```
string LoadStream(string path, string name, string format, bool datapath = false, bool onlyoneline = false)
```

path - path to directory with file

name - name of file without format

format - format of file

datapath - add Application.persistentDataPath before **path**

onlyoneline - load only first line

```
string LoadStream(string path, bool datapath = false, bool onlyoneline = false)
```

path - full path to file with format

datapath - add Application.persistentDataPath before **path**

onlyoneline - load only first line

LoadSprite

Load any image file and convert it into Sprite with full rect and center pivot

```
Sprite LoadSprite(string path, string name, string format, bool
datapath = false)
```

path - path to directory with file

name - name of file without format

format - format of file

datapath - add Application.persistentDataPath before **path**

```
Sprite LoadSprite(string path, bool datapath = false)
```

path - full path to file with format

datapath - add Application.persistentDataPath before **path**

SaveTexture

Save Texture2D as file

```
SaveTexture(Texture2D input, string path, TextureType format, bool
datapath = false)
```

input - imput texture that you want to save

path - full path to file without format

format - save file in .png or .jpg format?

datapath - add Application.persistentDataPath before **path**

CheckFile

Checks is file or directory exist by some path

```
bool CheckFile(string path, string name, string format, bool datapath =
false)
```

path - path to directory with file

name - name of file without format

format - format of file

datapath - add Application.persistentDataPath before **path**

`bool CheckFile(string path, bool datapath = false)`

path - full path to file with format

datapath - add Application.persistentDataPath before **path**

`bool CheckDirectory(string path, bool datapath = false)`

path - full path to directory

datapath - add Application.persistentDataPath before **path**

DelStream

Delete some file

```
DelStream(string path, string name, string format, bool datapath =
false, bool dirtoo = false, bool forse = false)
```

path - path to directory with file

name - name of file without format

format - format of file

datapath - add Application.persistentDataPath before **path**

dirtoo - do you want delete directory where file exist too?

forse - delete directory even if it’ s contain another files

```
DelStream(string path, bool datapath = false, bool dirtoo = false, bool
forse = false)
```

path - full path to file with format

datapath - add Application.persistentDataPath before **path**

dirtoo - do you want delete directory where file exist too?

forse - delete directory even if it’ s contain another files

Other

`string[] GetFilesFromdirectories(string path, string format, bool datapath = false, TypeOfGet type = TypeOfGet.Files)` - return string array with info about files/directories in path.

format - format filter, leave it empty to all

datapath - add Application.persistentDataPath before path

type:

- All - return all files and directories in path with full path
- Files - return all files in path with full path
- Directory - return all directories in path with full path
- NamesOfFiles - return all names of files in path without full path, based on `Path.GetFileNameWithoutExtension`
- NamesOfFilesWithFormat - return all names of files in path with formats (indexes will be same as in NamesOfFiles)
- Formats - return all formats in this directories (indexes will be same as in NamesOfFiles)
- NamesOfDirectories - return all names of directories without full path

`CreateDirectory(string path, bool datapath = false)` - create directory by path, can create multiple nested directories

path - full path to directory

datapath - add Application.persistentDataPath before **path**

`RenameFile(string path, string oldName, string newName)` - rename some file by path

path - path to directory with file

oldName - current name of file with format

newName - new name of file with format

`CopyFullDirectory(string sourceDirectory, string targetDirectory)` - copy all files from one directory to another

`string[] ConcatArray(string[] array1, string[] array2)` - merge 2 arrays

FastFind

`GameObject InCords(Vector3 position, bool first, string tag = null, string[] blocktags = null)` - return GameObject in some position

position - position of GameObject

first - return first object on this position, Iinstead of last GameObject

tag - search GameObject with tag

blocktags - ignore GameObject with tags

`GameObject[] AllInCords(Vector3 position, string tag = null, string[] blocktags = null)` - return all GameObjects in some position

position - position of GameObjects

tag - search GameObjects with tag

blocktags - ignore GameObjects with tags

`string GetDefaultPath()` - returns path to “Documents” folder in any systems, include android (return sdcard folder)

`Transform FindChild(Transform parent, string name)` - find child in some transform, check all subparents too, in contrast UnityEngine’s solution

EasyDo

`Texture2D byteToTexture(byte[] input)` - convert some bytes to Texture2D

`string[] UIMultiLineToStringArray(string input, string enter = "\n")` - split a string into an array with string as separator

enter - separator

`string StringArrayToUIMultiLine(string[] input, string enter = "\n")` - combine array into string with some separator

enter - separator

`Color MoveToColor(Color from, Color to, float speed, byte r = 255, byte g = 255, byte b = 255)` - smooth move from one color to another. Use this in Update or FixedUpdate

from - current color

to - color you want to see

speed - speed of canges

r - coefficient of change of the red channel

g - coefficient of change of the gree channel

b - coefficient of change of the blue channel

`Color MoveToColorWithAlpha(Color from, Color to, float speed, byte r = 255, byte g = 255, byte b = 255, byte a = 255)` - smooth move from one color to another. Use this in Update or FixedUpdate

from - current color

to - color you want to see

speed - speed of canges

r - coefficient of change of the red channel

g - coefficient of change of the gree channel

b - coefficient of change of the blue channel

a - coefficient of change of the alpha channel

`Color SetPositionColor(Color from, Color to, float position)` - get color between 2 colors with some position

from - color1

to - color2

position - position between colors

`T[] JSONtoArray<T>(string json)` - convert some JSON to array of some type

`Shuffle<T>(this List<T> list)` - random shuffle of elements in the list

`Swap<T>(this List<T> list, int i, int j)` - swap two elements in the list

JSON works

FastJSONTests

`DateTime getTime(string from = "http://worldtimeapi.org/api/timezone/Europe/Moscow")` - Get current time from web

from - your api source

`string getIp(string from = "http://worldtimeapi.org/api/timezone/Europe/Moscow")` - Get user’ s ip from web

from - your api source

JsonHelper

`T[] FromJson<T>(string json)` - convert some JSON to array of some type `string ToJson<T>(T[] array, bool prettyPrint=false)` - convert some array of some type to JSON

`Move<T>(this List<T> list, int i, int j)` - move element from one position to another in the list

`List<T> Clone<T>(this List<T> list)` - create copy for some list

`Swap<T>(this List<T> list, int i, int j)` - swap two elements in the list

UI works

UIEditor

Sprite generators

`Sprite GetSpriteWithColor(Color color, int width = 1, int height = 1, float pivotX = 0.5f, float pivotY = 0.5f)` - generate sprite with some color

color - color you want to see

width - width of future sprite

height - height of future sprite

pivotX - pivotX of future sprite

pivotY - pivotY of future sprite

`Texture2D GetTextureWithColor(Color color, int width = 1, int height = 1)` - Generate Texture2D with some color

color - Color you want to see

width - width of future texture

height - height of future texture

`Sprite GetSpriteWithGradient(Gradient gradient, bool Xdirection, int width = 1, int height = 1, float pivotX = 0.5f, float pivotY = 0.5f)` - Generate sprite with some gradient

gradient - gradient you want to see

Xdirection - Is axis of gradient X?

width - width of future sprite

height - height of future sprite

pivotX - pivotX of future sprite

pivotY - pivotY of future sprite

`Sprite GetSpriteWithGradient2D(Gradient gradientX, Gradient gradientY, int width = 1, int height = 1, float pivotX = 0.5f, float pivotY = 0.5f)` - Generate sprite with some gradients in both axises

gradientX - gradient on X axis

gradientY - gradient on Y axis

width - width of future sprite

height - height of future sprite

pivotX - pivotX of future sprite

pivotY - pivotY of future sprite

Dropdown generators

Fills dropdown by something, use it to create drowdown in realtime
dropdown - output dropdown link

enter - input dropdown

`FillDropDownByTextList(out Dropdown dropdown, List<string> strings, Dropdown enter)` - Fill dropdown by texts

strings - strings list

`FillDropDownBySpriteList(out Dropdown dropdown, List<Sprite> sprites, Dropdown enter)` - Fill dropdown by sprites

sprites - sprites list

`FillDropDownBySpriteAndTextList(out Dropdown dropdown, List<Sprite> sprites, List<string> strings, Dropdown enter)` - Fill dropdown by sprites and texts

strings - strings list

sprites - sprites list

Lists must have same size

`FillDropDownByColorList(out Dropdown dropdown, List<Color> colors, Dropdown enter)` - Create dropdown with colors (usefull for color choice in game)

colors - colors list

`FillDropDownByColorAndTextList(out Dropdown dropdown, List<Color> colors, List<string> strings, Dropdown enter)` - Create dropdown with colors (usefull for color choice in game) and fill it by texts

colors - colors list

strings - strings list

Lists must have same size

For Unity Events

Allows you to process data from string, created for using in Unity Events inside editor
input - input string that stored data

pos - position of data in string

space - separator of line

def - default value

`string GetStringUIEvent(string input, int pos, char space, string def = null)`

`int GetIntUIEvent(string input, int pos, char space, int def = 0)`

`float GetFloatUIEvent(string input, int pos, char space, float def = 0)`

`bool GetBoolUIEvent(string input, int pos, char space, bool def = false)`

Example:

Input string: `1 true myEvent`

To get data use:

```
GetIntUIEvent(str, 0, ' ')
GetBoolUIEvent(str, 1, ' ')
GetStringUIEvent(str, 2, ' ')
```

Attributes

Button Attributes

Allows you to call the function directly from the editor outside of the play mode. Usefull for some editor-only functions (don' t forget about #if UNITY_EDITOR) and tests

Based on EasyButtons, see usage here

Show/Hide Attributes

Helps you to show/hide fields in the editor without writing CustomEditor for script Exept `[ShowFromMultiple]` all this attributes have same options:

propertyName - name of propertyName, recomended to use `nameof()` here

checkval - value to check

inverse - inverse check, show if false and hide if true

All types checks:

`[ShowFromBool(string propertyName, bool checkval=true, bool inverse=false)]`

`[ShowFromInt(string propertyName, int checkval, bool inverse=false)]`

`[ShowFromFloat(string propertyName, float checkval, bool inverse=false)]`

`[ShowFromEnum(string propertyName, int checkval, bool inverse=false)]` - type index in enum as value

`[ShowFromString(string propertyName, string checkval, bool inverse=false)]`

`[ShowFromObjectNotNull(string propertyName, isNull=false)]` - check is any object field null or not

Multiple checks

You can check multiple values using [ShowFromMultiple]. Use it to check few values of some property or many few property with same value, or many property and values.

string[] propertyName/string propertyName - name of property or properties (in array) to check, if you use only one property then all values will be checks only with it, if many then indexes must match
string[] vals/string vals - values of property or properties (in array) to check, if you use only one value then all properties will be checks with it, if many then indexes must match
string[] types/string types - types of properties, if all properties has same type then enter only it, if not then enter all types and indexes must match
Mode - mode of checking:

- and - requires all parameters to pass check
- or - requires that only one parameter pass check

Examples:

`[ShowFromMultiple("QteType", new string[2] { "3", "4" }, "enum", ShowFromMultipleAttribute.mode.or)]` - show field if parameter QteType in 3rd ot 4th position

`[ShowFromMultiple(new string[2] { nameof(movePattern), nameof(lookAtThePlayer) }, new string[2] { "3", "true" }, new string[2] { "enum", "bool" }, ShowFromMultipleAttribute.mode.and)]` - show field if movePattern parameter is in 3rd position and lookAtThePlayer parameter is true