Home >> PSP Tutorials >> Tutorial m6: PSP types (datastructures)

This is the sixth miscellaneous PSP tutorial

M6: PSP types (datastructures)

Hi everybody,

This tutorial is all about the psp types. For this and all tutorials I assume that you have some C++ experience and that the basics are clear to you. This tutorial will list the psp types we use in the main tutorials. It will also give some extra function and/or variants. In addition I will also give some links to more information about certain subjects for those interested to really understand some of the parts of game programming.

Structs

With the SDK a lot of structs are available. In this tutorial (or just an overview) I will discuss the used structs in the tutorials. The list:

ScePspFVector3

This struct is used to store 3D vectors. The F in the name suggests that it is a float 3d vector. Here are the member values:

- **float x**, *the x value of the 3d vector*
- **float y**, *the y value of the 3d vector*
- **float z**, *the z value of the 3d vector*

If you do not know what vectors are you should study the subject. (Study Vectors)

Some might not need floats but need other variable types. For this there are other types:

- **ScePspIVector3**, *Integers*
- **ScePspSVector3**, *short integers*
- **ScePspL64Vector3**, *SceLong64*

ScePspFMatrix4

This struct is a 4x4 matrix. We use this type for almost all matrix functions. See also Tutorial 3 about matrices. Here are the 4 member values:

- **ScePspFVector4 x**, *The first row of the matrix in the vector4 form.*
- **ScePspFVector4 y**, *The second row of the matrix in the vector4 form.*
- **ScePspFVector4 z**, *The third row of the matrix in the vector4 form.*
- **ScePspFVector4 w**, *The fourth row of the matrix in the vector4 form.*

So with 4 4D vectors we have a 4x4 matrix. This type is aligned. Here are the other types of matrices:

- **ScePspFMatrix4Unaligned**, *the unaligned version.*
- **ScePspIMatrix4**, *the integer variant*
- **ScePspIMatrix4Unaligned**, *the unaligned integer variant*
- **ScePspFMatrix3**, *a 3x3 matrix of floats. Why do we use a matrix of 4x4 instead of 3x3 when we are in 3D? read (homogeneous coordinates)*
- **ScePspIMatrix3**, *the integer variant of the 3x3 matrix.*
- **ScePspFMatrix2**, *the 2x2 float variant.*

- **ScePspIMatrix2**, *the 2x2 integer variant.*