URL: http://cxc.harvard.edu/ciao3.4/is_struct_defined.html
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AHELP for CIAO 3.4

is_struct_defined

Context: varmm

Jump to: Description Examples Bugs See Also

Synopsis

S−Lang function to see if a structure or field in a structure is defined

Syntax

```
Integer_Type is_struct_defined( String_Type sf )
```

Description

Determine if sf is "defined" as a field variable within a structure. The input argument should be the name of a structure or the name of the structure and field. The return value is 1 if the input structure or field exists, 0 otherwise. Note that this routine does not check whether the variable contains any data; for this you would use the __is_initialized() routine from the S−Lang Run−Time Library.

The variable containing the structure must be visible from other compilation units; ie it must not be declared as either static or private.

Example 1

With the following definition:

```
chips> variable s = struct { foo, bar }
```

then we find

```
chips> is_struct_defined( "s" )
1
chips> is_struct_defined( "s.foo" )
1
chips> is_struct_defined( "s.bar" )
1
```

but

```
chips> is_struct_defined( "s.baz" )
0
```

Example 2

If we repeat the previous example, but let ChIPS automatically create the S−Lang variable for us, then we find that the routine will always return 0. This is because the variable is defined to have static linkage; see "ahelp _auto_declare" for more information.

```
chips> r = struct { baz }
chips> is_struct_defined( "r" )
0
chips> is_struct_defined( "r.baz" )
0
```

Example 3

Here we show the routine being used in S−Lang code run by slsh. If the file struct.sl contains:

```
require("varmm");
variable a = struct { one, two };
private variable b = struct { one, two };
vmessage( "Is a.one defined? %d", is_struct_defined("a.one") );
vmessage( "Is b.two defined? %d", is_struct_defined("b.two") );
```

then running the code with slsh would produce

```
unix% slsh struct.sl
Is a.one defined? 1
Is b.two defined? 0
```

since the variable b was declared as being a private variable.

Bugs

See the bugs page for the Varmm library on the CIAO website for an up−to−date listing of known bugs.

See Also

modules
varmm
varmm
apropos, clearstack, dup_struct, print, reverse

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