



 AHELP for CIAO 3.4

dup_struct

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Synopsis

S-Lang function to duplicate a structured variable.

Syntax

```
Struct_Type dup_struct( Struct_Type s )
Struct_Type dup_struct( Struct_Type s, selectedfields )
```

Description

A convenience function for duplicating a structured variable. A slice, i.e. some potentially reordered subset of fields, may optionally be created from the structure by specifying one of the following as the second parameter:

- a comma-delimited list of field names to include
- a similar list, but beginning with a single "!", for exclusion
- an integer representing the first N fields
- NULL, in which case only non-NULL fields in the input structure will be copied

Example 1

Given this structured type definition and variable instance,

```
chips> typedef struct {first, middle, last} Name_Type;
chips> variable mozart = @Name_Type;
chips> mozart.first = "Wolfgang";
chips> mozart.middle = "Amadeus";
chips> mozart.last = "Mozart";
```

this will make an entire copy of the structure:

```
chips> variable copy = dup_struct(mozart);
```

while the following is an example of one kind of slice:

```
chips> variable slice = dup_struct(mozart,"!first");
chips> print(slice);
middle          = Amadeus
last            = Mozart
```

Example 2

Structures can contain NULL fields:

```
chips> s = @struct{ elem1, elem2, elem3 };
chips> s.elem1 = "hello"
chips> s.elem3 = "there!"
chips> print(s)
elem1          = hello
elem2          = NULL
elem3          = there!
```

If NULL is supplied as the second parameter to dup_struct(), then these NULL fields – elem2 in this example – will not be copied (they are by default):

```
chips> copy = dup_struct(s,NULL)
chips> print(copy)
elem1          = hello
elem3          = there!
```

Bugs

See the [bugs page for the Varrrm library](#) on the CIAO website for an up-to-date listing of known bugs.

See Also

modules

[varrrm](#)

varrrm

[apropos](#), [clearstack](#), [is_struct_defined](#), [print](#), [reverse](#)

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URL:
http://cxc.harvard.edu/ciao3.4/dup_struct.html
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