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The address column of the sYmbol.Browse.sYmbol window contains "locdesc", what does this mean?

2022-01-05 - Comments (0) - TRACE32 PowerView

B::sYmbol.Browse.sYmbol				
Filter: **\main*	1 T ype:	🗌 Funcs 🗹 Vars	Statics Globals	
symbol	type		address	
intptr intptr intptr intptr j j	(int *) (int *) (int *) (int *) (int) (int)		locdesc locdesc locdesc locdesc R0 R0	•
<				> .:

Each variable of a target application has some location where it is stored. Usually, the global and static variables have a fixed memory location while the local variables which exist only inside a function body are either stored in the stack frame of the corresponding function or in a general-purpose register.

With disabled compiler optimizations, each variable has only one single Location Description. If the single location description is also a simple location (like a fixed address, a general-purpose register, or a stack-frame offset) the resolved location is shown in the column "address" of the window **sYmbol.Browse**. In all other cases, **"locdesc"** is displayed in that column.

So, you see "locdesc" in the following cases:

There is more than one location for a variable. This can happen with enabled compiler optimizations. If you execute the command Var.INFO < varname > (or right mouse click the variable then select other > View Info), you can see the various locations of the variable together with a program address range. (When the program counter is inside that program address range, the related location is valid for the variable.)

B::Var.INFO \sieve\main\intptr			×
🔮 Symbols 🕮 Dump 🔄 List 🔍 View 🗱 MMU			
variable (local scope)			^
\\sieve_pic_arm\sieve\main\intptr			
P:0000::00000BC000000BC3 P:0000::00000BC800000BD3	locdesc	addr(0x00002204), stack_value	
P:0000::0000BC800000BDS	Tocdesc	addr(0x00002204), stack_value	~
<			>

• At least one of the location descriptions can't be resolved to an address, a generalpurpose register, or a stack-frame offset.