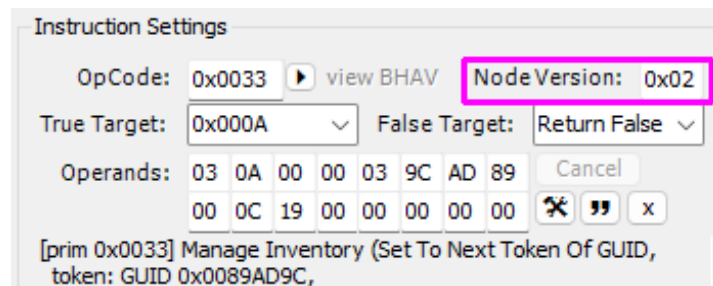


## SimAntics Primitive Node Version

All SimAntics primitives have at least eight operands, but usually sixteen, (see BHAV Versions below) that control the behaviour of the primitive and/or where values are taken from or stored into.

For example, the “0x0002 Expression” primitive uses its operands to identify the mathematical operation to carry out, which data holder the operation will be applied to, and which data holder will provide the value. (See <https://modthesims.info/wiki.php?title=0x0002> for further details.)

Some primitives have multiple node versions. The node version alters the interpretation of the operands.



For example, node version 0 of the “0x001A Relationship” primitive restricts discovering the relationship between the Stack Object and either the current Sim (My) or a Sim in Param 0, whereas with node version 1 of this primitive the relationship between any two objects identified by their OIDs held within two data holders. (See <https://modthesims.info/wiki.php?title=0x001A> for further details.)

There is very little detail on the web about node versions (that I could find), so I went digging in all the objects.package files that ship with Ultimate Collection.

## Node Versions By Expansion Pack

The following table gives all of the primitives that have multiple node versions that appear in any objects.package file within Ultimate Collection, along with the EP that the node version first appeared in.

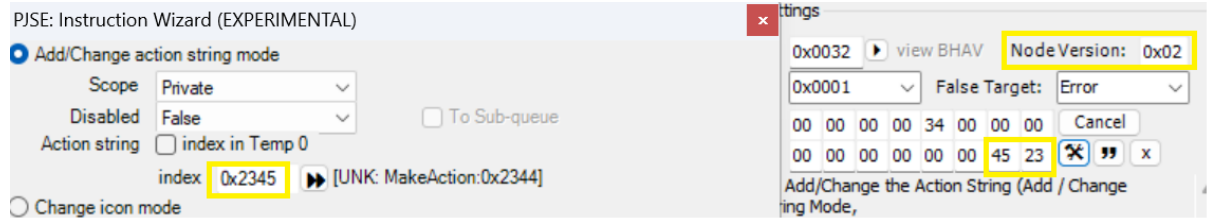
OpCode	Primitive	Node Version				
		0	1	2	3	4
0x0010	Find Location For	Base	FT			
0x0016	Turn Body Towards	Base	AL			
0x0019	Alter Budget	Base	Uni			
0x001A	Relationship	Base	Base			
0x001F	Set to Next	Base	Uni			
0x0024	Dialog	Base	Base			
0x002D	Go To Routing Slot	Base	FT			
0x002E	Snap	Base	AL			
0x0032	Add/Change the Action String	Base	Uni	OFB	BV	FT
0x0033	Manage Inventory	Base	NL	OFB		
0x006B	Animate Overlay	Base	Base			
0x006D	Change Material	Base	Uni	Uni	NL	
0x006E	Look At	Base	Base			
0x0071	Snap Into	Base	FT			

## SimPe Issues

Of the 14 primitives with multiple node versions, SimPe only recognises 8 of them, and for 1 only partially.

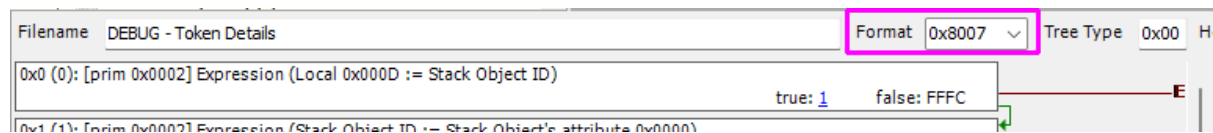
OpCode	Primitive	SimPe
0x0010	Find Location For	Only knows about version 0
0x0016	Turn Body Towards	Only knows about version 0
0x0019	Alter Budget	
0x001A	Relationship	
0x001F	Set to Next	
0x0024	Dialog	
0x002D	Go To Routing Slot	Only knows about version 0
0x002E	Snap	Only knows about version 0
0x0032	Add/Change the Action String	Partial, only knows about versions 1 thru 3
0x0033	Manage Inventory	
0x006B	Animate Overlay	
0x006D	Change Material	Only knows about version 0
0x006E	Look At	
0x0071	Snap Into	Only knows about version 0

In addition to not knowing about node version 4 for the 0x0032 Add/Change the Action String primitive, the wizard for it is bugged for versions 2 onwards, as it only saves a byte value as the STR# index (ie, 0x00 to 0xFF), and the whole point of node version 2 was to permit values beyond 0xFF! To enter a value greater than 0xFF, don't use the wizard, but edit operands 14 and 15 directly.



## BHAV Versions

BHAVs also have versions – the Format code displayed at the top of the SimPe BHAV Function Editor.



Formats 0x8003 onwards support 16 operands for primitives, while formats 0x8005 onwards support node versions (see <https://modthesims.info/wiki.php?title=42484156> for more details – note that this page incorrectly shows node version as a flag.)

If the node version box of the SimPe BHAV Function Editor is disabled (greyed out), it is because the format of the BHAV does not support node versions (ie, pre 0x8005).

=== END ===