
Subject: Re: Ready to quit after 25 years...
Posted by [Haje Korth](#) on Thu, 23 Jun 2011 23:26:02 GMT
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After some further debugging: As I mentioned above, drawing each vector with the arrow function works fine; this is how I used to do this in direct graphics as well. But in the new graphics system, the system slows to a crawl after a few hundred vectors. This is no joy when there are a total of 1500 vectors to plot. I tried to disabled the refresh but there was no noticeable difference. So I profiled the code and it looks like most of the time is spent in arg_present. I am either doing something terrible stupid or this is a bug.

H

Routine	Hit count	Time self(ms)
Time/hit(ms)	Time+sub(ms)	Time+sub/hit(m
ARG_PRESENT	15894517	
5461.5	0.0003	5461.5 0.0003
OBJ_ISA	3348410	
4795.0	0.0014	4795.0 0.0014
IDL_CONTAINER::GET	681989	
2721.2	0.0040	2721.2 0.0040
STRMATCH	17881	
2444.6	0.1367	2444.6 0.1367
OBJ_NEW	254351	
1547.8	0.0061	2111.7 0.0083
IDLITCOMPONENT::GETPROPERTY	941332	
1174.2	0.0012	1174.2 0.0012
N_ELEMENTS	2999143	
1017.9	0.0003	1017.9 0.0003
MIN	1219565	
948.82	0.0008	948.82 0.0008
IDLITCOMPONENT::SETPROPERTYBYIDENTIFIER	11725	
868.28	0.0741	2167.6 0.1849
IDLITCOMPONENT::SETPROPERTYATTRIBUTE	8259	
798.33	0.0967	1306.3 0.1582
FINITE	1312885	
790.30	0.0006	790.30 0.0006
IDLITWINDOW::ADD	234	
555.82	2.3753	939.23 4.0138
IDLGRMODEL::GETPROPERTY	252340	
500.59	0.0020	500.59 0.0020
IDLGRPLOT::GETPROPERTY	192002	
429.31	0.0022	429.31 0.0022
IDLITPROPERTYDESCRIPTOR::GETPROPERTY	373935	
362.35	0.0010	362.35 0.0010

IDLGRPLOT::GETDATAXYZRANGE				188275
345.12	0.0018	345.12	0.0018	
IDLGRMODEL::GETXYZRANGE				188508
344.22	0.0018	344.22	0.0018	
KEYWORD_SET				805378
330.33	0.0004	330.33	0.0004	
OBJ_VALID				624301
291.53	0.0005	291.53	0.0005	
IDLITCOMPONENT::QUERYPROPERTY				15921
217.92	0.0137	270.24	0.0170	
IDLITCOMPONENT::GETPROPERTYATTRIBUTE				1832
208.52	0.1138	363.71	0.1985	
IDLGRSRCDEST::GETFONTNAMES				56
193.31	3.4519	193.31	3.4519	
MAX				280571
170.06	0.0006	170.06	0.0006	
IDLNOTIFY				510
146.78	0.2878	146.78	0.2878	
MAP_PROJ_FORWARD				1701
127.48	0.0749	127.48	0.0749	
WHERE				160661
121.33	0.0008	121.33	0.0008	
MAP_PROJ_INVERSE				1187
116.82	0.0984	116.82	0.0984	
STRUPCASE				85200
110.42	0.0013	110.42	0.0013	
IDLGRMODEL::INIT				1249
109.51	0.0877	109.51	0.0877	
OBJ_DESTROY				7228
106.69	0.0148	219.98	0.0304	
DEFSYSV				41244
97.067	0.0024	97.067	0.0024	
STRCMP				58162
96.419	0.0017	96.419	0.0017	
IDLGRPLOT::SETPROPERTY				9471
83.796	0.0088	83.796	0.0088	
IDLITCOMPONENT::GETPROPERTYBYIDENTIFIER				2064
81.647	0.0396	124.20	0.0602	
IDLITCOMPONENT::_GETALLPROPERTYDESCRIPT				19683
77.784	0.0040	77.784	0.0040	
IDLITCOMPONENT::REGISTERPROPERTY				13120
76.795	0.0059	76.795	0.0059	
IDLGRMODEL::CLEANUP				1249
75.328	0.0603	78.868	0.0631	
IDLGRPOLYLINE::GETPROPERTY				26690
68.479	0.0026	68.479	0.0026	
STRMID				91157
63.480	0.0007	63.480	0.0007	

IDLITWINDOW::GETCURRENTVIEW				958
56.611	0.0591	492.36	0.5140	
ISA		85055		
50.592	0.0006	50.592	0.0006	
IDLGRMODEL::SETPROPERTY				14160
49.784	0.0035	49.784	0.0035	
GRAPHIC::QUERYPROPERTY				1468
48.408	0.0330	58.534	0.0399	
IDLITCOMPONENT::GETFULLIDENTIFIER				20692
47.913	0.0023	47.913	0.0023	
IDLITCOMPONENT::INIT				2529
41.184	0.0163	41.184	0.0163	
GRAPHIC::VERIFYPROPERTY				1468
37.393	0.0255	136.72	0.0931	
IDLGRGRAPHIC::GETDATAXYZRANGE				24727
37.326	0.0015	37.326	0.0015	
GRAPHIC::_GETPROPERTY				1468
34.328	0.0234	53.927	0.0367	
IDLGRMODEL::DRAW				958
33.976	0.0355	33.980	0.0355	
IDLFFXMLSAX::PARSEFILE				12
32.999	2.7499	33.066	2.7555	
IDLGRCOMPONENT::GETPROPERTY				28780
32.868	0.0011	32.868	0.0011	
READF				1
32.194	32.194	32.194	32.194	
IDLGRAXIS::GETPROPERTY				7306
31.470	0.0043	31.470	0.0043	
TOTAL		8355		
31.117	0.0037	31.117	0.0037	
IDLITWINDOW::ONEXPOSE				3
31.058	10.353	403.19	134.40	
GRAPHICSWIN::QUERYPROPERTY				1468
31.033	0.0211	90.286	0.0615	
STRTRIM				30270
30.453	0.0010	30.453	0.0010	
IDLGRSCENE::DRAW				9
30.328	3.3698	411.63	45.736	
IDL_CONTAINER::COUNT				38007
29.555	0.0008	29.555	0.0008	
STRLEN				74337
29.484	0.0004	29.484	0.0004	
WAIT				3
28.304	9.4345	28.304	9.4345	
IDLITDATA::CLEANUP				957
26.117	0.0273	227.57	0.2378	
SIZE		26903		
25.767	0.0010	25.767	0.0010	

ARRAY_EQUAL			37016	
25.272	0.0007	25.272	0.0007	
IDLITPROPERTYVALUE::GETPROPERTYBYIDENTI				10438
25.233	0.0024	25.233	0.0024	
GRAPHIC::GETPROPERTY			1468	
25.198	0.0172	223.51	0.1523	
IDLITCOMPONENT::CLEANUP				2191
24.622	0.0112	24.622	0.0112	
IDLITWINDOW::CLEARSELECTIONS				232
24.259	0.1046	36.660	0.1580	
IDLGRAXIS::SETPROPERTY			2388	
22.948	0.0096	22.948	0.0096	
IDL_CONTAINER::ISCONTAINED				4474
22.451	0.0050	22.451	0.0050	
STRARR			24344	
21.934	0.0009	21.934	0.0009	
FILE_SEARCH			3	
21.249	7.0829	21.249	7.0829	
IDLFFXMLDOMNODE::GETNODEVALUE				1825
19.638	0.0108	19.638	0.0108	
IDLITPARAMETERSET::REMOVE				726
18.640	0.0257	46.275	0.0637	
IDLITWINDOW::INIT			1	
17.711	17.711	17.820	17.820	
_IDLITCONTAINER::GET			2566	
17.588	0.0069	24.104	0.0094	
STRPOS			24037	
17.582	0.0007	17.582	0.0007	
IDLITGRWINSCEINE::GETPROPERTY				1468
17.412	0.0119	48.393	0.0330	
ON_ERROR			44207	
16.482	0.0004	16.482	0.0004	
IDLITCOMPONENT::SETPROPERTY				8712
15.958	0.0018	15.958	0.0018	
IDLITSYMBOL::DRAW			924	
14.853	0.0161	306.11	0.3313	
STRING			1714	
14.819	0.0086	14.819	0.0086	
GRAPHICSWIN::GETPROPERTY				1468
13.993	0.0095	292.82	0.1995	
IDLGRPOLYGON::GETPROPERTY				3124
13.824	0.0044	13.824	0.0044	
IDLGRMODEL::ADD			2255	
13.812	0.0061	13.812	0.0061	
IDLITPROPERTYDESCRIPTOR::SETPROPERTY				15264
13.792	0.0009	13.792	0.0009	
CATCH			22942	
12.664	0.0006	12.664	0.0006	

IDLGRPOLYLINE::SETPROPERTY				3160
12.582	0.0040	12.582	0.0040	
IDLITWINDOW::GETPROPERTY				2941
12.436	0.0042	12.436	0.0042	
IDLITWINDOW::ONMANIPULATORCHANGE				3
12.168	4.0559	15.683	5.2278	
_IDLITCONTAINER::COUNT				1948
12.005	0.0062	13.516	0.0069	
PTR_VALID				23211
11.963	0.0005	11.963	0.0005	
IDLFFXMLDOMDOCUMENT::LOAD				4
11.554	2.8884	11.554	2.8884	
OBJ_HASMETHOD				1160
10.766	0.0093	10.766	0.0093	
IDLFFXMLDOMNODELIST::ITEM				1828
10.659	0.0058	10.659	0.0058	
OBJ_CLASS				16575
10.541	0.0006	10.541	0.0006	
_IDLITCONTAINER::REMOVE				232
10.241	0.0441	37.132	0.1601	
IDLITWINDOW::SETMANIPULATORMANAGER				1
10.141	10.141	26.791	26.791	
_IDLITVISUALIZATION::CLEANUP				1013
9.8343	0.0097	88.710	0.0876	
AXIS_PROPERTIES				4404
9.5465	0.0022	9.5465	0.0022	
_IDLITGRDEST::GETPROPERTY				1431
9.5016	0.0066	19.687	0.0138	
_IDLITCONTAINER::GETBYIDENTIFIER				982
9.4694	0.0096	33.657	0.0343	
ABS				15406
9.2416	0.0006	9.2416	0.0006	
STRCOMPRESS				3098
8.8971	0.0029	8.8971	0.0029	
IDL_CONTAINER::CLEANUP				1495
8.7072	0.0058	50.556	0.0338	
IDLITSYSTEM::DOONNOTIFY				1000
8.6983	0.0087	58.080	0.0581	
IDLGRMODEL::GETCTM				1408
8.6050	0.0061	8.6050	0.0061	
STRTOK				4737
8.3797	0.0018	8.3797	0.0018	
IDLITDATA::REMOVEDATAOBSERVER				924
8.1690	0.0088	236.22	0.2557	
IDLITNOTIFIER::NOTIFY				994
7.9802	0.0080	205.09	0.2063	
STREGEX				3256
7.8868	0.0024	7.8868	0.0024	

IDLGRSYMBOL::SETPROPERTY		4620	
7.6551	0.0017	7.6551	0.0017
IDLGRWINDOW::SETCURRENTCURSOR			39
7.5543	0.1937	7.5543	0.1937
IDLITUI::HANDLEONNOTIFY		1077	
7.3758	0.0068	21.801	0.0202
IDL_CONTAINER::ADD		5044	
7.2984	0.0014	7.2984	0.0014
IDLGRSYMBOL::GETPROPERTY		3243	
6.9401	0.0021	6.9401	0.0021
FIX		2022	
6.8179	0.0034	6.8179	0.0034
IDLITDATA::GETPROPERTY		924	
6.7785	0.0073	10.895	0.0118
_IDLITCONTAINER::ISCONTAINED		925	
6.5913	0.0071	12.751	0.0138
IDLITDATACONTAINER::ONDATADELETE		462	
6.4131	0.0139	138.83	0.3005
PTR_FREE		5249	
6.1040	0.0012	6.1040	0.0012
IDLFFXMLDOMNAMEDNODEMAP::GETNAMEDITEM		916	
5.9491	0.0065	5.9491	0.0065
IDL_CONTAINER::REMOVE		3372	
5.9406	0.0018	5.9406	0.0018
IDLITNOTIFIER::CLEANUP		961	
5.8104	0.0060	12.839	0.0134
IDLITPARAMETER::QUERYPARAMETERDESCRIPTO		462	
5.7897	0.0125	9.1728	0.0199
IDLFFXMLDOMNODE::GETATTRIBUTES		916	
5.6315	0.0061	5.6315	0.0061
IDLITUI::CLEANUP		1	
5.6312	5.6312	6.1430	6.1430
_IDLITLAYOUTMANAGER::GETPROPERTY		1431	
5.5822	0.0039	8.4572	0.0059
MAP_CLIP_SET		3820	
5.3705	0.0014	5.3705	0.0014
IDLFFXMLDOMNODE::GETCHILDNODES		912	
5.2002	0.0057	5.2002	0.0057
REBIN		1918	
5.1468	0.0027	5.1468	0.0027
IDLGRTEXT::GETPROPERTY		1580	
5.0903	0.0032	5.0903	0.0032
IDLITPARAMETER::_DISCONNECTPARAMETERS		264	
5.0669	0.0192	264.74	1.0028
_IDLITPROPERTYAGGREGATE::CLEANUP		1014	
5.0283	0.0050	7.3544	0.0073
IDLITVISPLOT::CLEANUP		231	
4.8800	0.0211	485.84	2.1032

IDLGRVIEW::GETPROPERTY				1430
4.7454	0.0033	4.7454	0.0033	
N_PARAMS				10419
4.6782	0.0004	4.6782	0.0004	
IDLITBASENAME				945
4.4721	0.0047	9.7473	0.0103	
IDLITWINDOW::GETSELECTEDITEMS				120
4.3877	0.0366	4.7802	0.0398	
STRJOIN				5426
4.3853	0.0008	4.3853	0.0008	
CHECK_MATH				3851
4.3406	0.0011	4.3406	0.0011	
IDLITPARAMETERSET::GET				759
4.0832	0.0054	12.225	0.0161	
PTR_NEW				5136
4.0087	0.0008	4.0087	0.0008	
IDLGRGRAPHIC::GETPROPERTY				1723
3.9957	0.0023	3.9957	0.0023	
IDLITMANIPULATORMANAGER::CLEANUP				1
3.9671	3.9671	10.916	10.916	
MAP_PROJ_GCTP_FORINIT				955
3.9003	0.0041	3.9003	0.0041	
IDLFFXMLDOMNODE::APPENDCHILD				1029
3.8483	0.0037	3.8483	0.0037	
IDLITDATA::_SETDATAOBSERVERS				462
3.8395	0.0083	41.863	0.0906	
GRAPHICSMANIP::_AUTOSWITCH				37
3.8260	0.1034	29.623	0.8006	
IDLITPARAMETER::CLEANUP				264
3.8035	0.0144	305.76	1.1582	
_IDLITCONTAINER::CLEANUP				1545
3.7350	0.0024	6.1632	0.0040	
FILE_TEST				4
3.7054	0.9263	3.7054	0.9263	
IDLITWINDOW::CLEANUP				1
3.4944	3.4944	543.34	543.34	
IDLITPARAMETERSET::CLEANUP				495
3.3883	0.0068	101.47	0.2050	
IDL_CONTAINER::MOVE				460
3.3804	0.0073	3.3804	0.0073	
IDLITOBJDESCPROXY::CLEANUP				37
3.3106	0.0895	5.1165	0.1383	
IDLITPARAMETER::GETPARAMETERATTRIBUTE				462
3.1944	0.0069	15.436	0.0334	
OPENR				1
3.1030	3.1030	3.1030	3.1030	
IDLFFXMLDOMDOCUMENT::CREATEELEMENT				545
2.9698	0.0054	2.9698	0.0054	

IDLITDATA::SETPROPERTY				462
2.9527	0.0064	4.4981	0.0097	
CD		1		
2.9052	2.9052	2.9052	2.9052	
IDLITDATACONTAINER::CLEANUP				495
2.8809	0.0058	92.398	0.1867	
IDLITDATACONTAINER::GETPROPERTY				462
2.7541	0.0060	8.8537	0.0192	
TEMPORARY			5638	
2.7336	0.0005	2.7336	0.0005	
DOUBLE		14		
2.6901	0.1922	2.6901	0.1922	
IDLGRWINDOW::GETDIMENSIONS				983
2.6032	0.0026	2.6032	0.0026	
TAG_NAMES			2111	
2.5236	0.0012	2.5236	0.0012	
DINDGEN			1969	
2.5165	0.0013	2.5165	0.0013	
IDLITDATAMANAGERFOLDER::ONDATADELETE				231
2.4616	0.0107	54.264	0.2349	
IDLFFXMLDOMDOCUMENT::CREATETEXTNODE				484
2.4616	0.0051	2.4616	0.0051	
DBLARR			2050	
2.3959	0.0012	2.3959	0.0012	
IDLGRMODEL::TRANSLATE				1881
2.3810	0.0013	2.3810	0.0013	
IDLITOPSHUTDOWN::DOSHDUTDOWN				1
2.3402	2.3402	628.32	628.32	
REFORM			3994	
2.2132	0.0006	2.2132	0.0006	
IDLITPARAMETERDESCRIPTOR::GETPROPERTY				934
2.1329	0.0023	2.1329	0.0023	
N_TAGS			4076	
2.0537	0.0005	2.0537	0.0005	
SQRT			2573	
2.0258	0.0008	2.0258	0.0008	
FLOOR			3822	
1.9733	0.0005	1.9733	0.0005	
IDLITDATA::CLEARMETADATA				957
1.9292	0.0020	2.3063	0.0024	
IDLITMESSAGING::DOONNOTIFY				462
1.9237	0.0042	28.673	0.0621	
IDLGRMODEL::RESET				1881
1.9226	0.0010	1.9226	0.0010	
MAP_PROJ_GCTP_REVINIT				955
1.8984	0.0020	1.8984	0.0020	
CREATE_STRUCT			476	
1.8164	0.0038	1.8164	0.0038	

IDLGRSRCDEST::DRAW			6
1.6566	0.2761	41.475	6.9125
REGISTER_CURSOR			10
1.6331	0.1633	1.6331	0.1633
LINDGEN			1639
1.5680	0.0010	1.5680	0.0010
FILE_LINES			1
1.5186	1.5186	1.5186	1.5186
ROUND			1458
1.4826	0.0010	1.4826	0.0010
IDLITVISUALIZATION::CLEANUP			264
1.4696	0.0056	456.56	1.7294
IDLITTOOL::DOONNOTIFY			76
1.4186	0.0187	16.015	0.2107
PREF_GET			464
1.3413	0.0029	1.3413	0.0029
IDLGRPALETTE::SETPROPERTY			231
1.3299	0.0058	1.3299	0.0058
IDL_CONTAINER::INIT			1540
1.3034	0.0008	1.3034	0.0008
FLTARR			946
1.3001	0.0014	1.3001	0.0014
IDLITGRLAYER::GETWORLD			462
1.2441	0.0027	1.9886	0.0043
TRANSPPOSE			957
1.2274	0.0013	1.2274	0.0013
ATAN			955
1.2058	0.0013	1.2058	0.0013
IDLITDATA::_FREEITEM			957
1.1654	0.0012	2.1519	0.0022
ASIN			955
1.1466	0.0012	1.1466	0.0012
IDLGRVIEW::SETPROPERTY			481
1.1364	0.0024	1.1364	0.0024
IDLGRVIEWGROUP::CLEANUP			1
1.1307	1.1307	539.79	539.79
SCOPE_VARFETCH			931
1.1016	0.0012	1.1016	0.0012
IDLITSYMBOL::CLEANUP			231
1.0822	0.0047	12.907	0.0559
IDLGRMODEL::SCALE			936
1.0759	0.0011	1.0759	0.0011
CEIL			1912
1.0740	0.0006	1.0740	0.0006
SORT			878
1.0552	0.0012	1.0552	0.0012
ULONG			936
1.0233	0.0011	1.0233	0.0011

IDLITOBJDESC::CLEANUP			99	
0.9830	0.0099	36.848	0.3722	
IDLITPARAMETERDESCRIPTOR::SETPROPERTY				462
0.8927	0.0019	0.8927	0.0019	
PRINT			3	
0.8781	0.2927	0.8781	0.2927	
_IDLITCONTAINER::GETPROPERTY				462
0.8613	0.0019	1.1853	0.0026	
IDLITOPERATION::CLEANUP				20
0.7858	0.0393	1.9612	0.0981	
IDLGRTEXT::SETPROPERTY				305
0.7751	0.0025	0.7751	0.0025	
IDLFFXMLDOMDOCUMENT::SAVE				2
0.6952	0.3476	0.6952	0.3476	
BYTE			889	
0.6673	0.0008	0.6673	0.0008	
IDLITPROPERTYBAG::CLEANUP				99
0.6567	0.0066	1.1890	0.0120	
_IDLITSYS_GETSYSTEM				465
0.6354	0.0014	0.8885	0.0019	
IDLITMANIPULATORMANAGER::ONMOUSEMOTION				37
0.5895	0.0159	39.903	1.0785	
SIN			955	
0.5837	0.0006	0.5837	0.0006	
IDLITTOOL::REMOVEONNOTIFYOBSERVER				37
0.5658	0.0153	0.8074	0.0218	
IDLITOBJDESCTOOL::CLEANUP				62
0.5572	0.0090	36.572	0.5899	
OBJARR			466	
0.5423	0.0012	0.5423	0.0012	
IDLITMANIPSELECTBOX::CLEANUP				1
0.5155	0.5155	0.5370	0.5370	
APP_USER_DIR			1	
0.4311	0.4311	0.4311	0.4311	
PRODUCT			231	
0.3887	0.0017	0.3887	0.0017	
IDLITPROPERTYVALUE::SETPROPERTYBYIDENTI				181
0.3860	0.0021	0.3860	0.0021	
IDLGRFONT::SETPROPERTY				196
0.3798	0.0019	0.3798	0.0019	
IDLITMESSAGING::STATUSMESSAGE				37
0.3792	0.0102	2.3100	0.0624	
IDLITMESSAGING::PROBESTATUSMESSAGE				37
0.3753	0.0101	8.2601	0.2232	
BYTARR			257	
0.3555	0.0014	0.3555	0.0014	
IDLITTOOL::_GETSYSTEM				78
0.3553	0.0046	0.3553	0.0046	

IDLITMANIPULATORCONTAINER::GETPROPERTY	37
0.3373 0.0091 1.0079 0.0272	
_IDLITMANIPULATOR::GETPROPERTY	37
0.3275 0.0089 0.5516 0.0149	
IDLITCONTAINER::CLEANUP	32
0.3200 0.0100 607.92 18.997	
IDLITWINDOW::ONMOUSEMOTION	37
0.3129 0.0085 41.577 1.1237	
LONARR	467
0.3121 0.0007 0.3121 0.0007	
IDLSSYSMONITORINFO::GETNUMBEROFMONITORS	1
0.3004 0.3004 0.3004 0.3004	
STRLOWCASE	232
0.2905 0.0013 0.2905 0.0013	
TYPENAME	234
0.2804 0.0012 0.2804 0.0012	
IDLSSYSMONITORINFO::GETRESOLUTIONS	1
0.2672 0.2672 0.2672 0.2672	
IDLITFONT::CLEANUP	28
0.2543 0.0091 4.3888 0.1567	
IDLSSYSMONITORINFO::GETPRIMARYMONITORIND	1
0.2540 0.2540 0.2540 0.2540	
IDLSSYSMONITORINFO::GETRECTANGLES	1
0.2537 0.2537 0.2537 0.2537	
GRAPHICSUI::ONNOTIFY	38
0.2371 0.0062 11.108 0.2923	
IDLITTOOL::DISABLEUPDATES	38
0.2257 0.0059 0.2460 0.0065	
GRAPHICSMANIP::ONMOUSEMOTION	37
0.2213 0.0060 29.845 0.8066	
LONG	14
0.2158 0.0154 0.2158 0.0154	
LANGUAGE_GET	234
0.2141 0.0009 0.2141 0.0009	
IDLITOBJDESCVIS::CLEANUP	36
0.2083 0.0058 2.3312 0.0648	
INDGEN	231
0.1958 0.0008 0.1958 0.0008	
IDLGRVIEW::INIT	2
0.1895 0.0948 0.1895 0.0948	
IDLITVISMAGRIDLINE::CLEANUP	24
0.1871 0.0078 19.034 0.7931	
REPLICATE	13
0.1439 0.0111 0.1439 0.0111	
SYSTIME	30
0.1208 0.0040 0.1208 0.0040	
IDLITMESSAGING::GETTOOL	40
0.1205 0.0030 0.1205 0.0030	

GRAPHICSUI::CLEANUP				1
0.1158	0.1158	6.2588	6.2588	
_IDLITMANIPULATOR::CLEANUP				16
0.1131	0.0071	0.1478	0.0092	
IDLGRVIEW::CLEANUP				2
0.1088	0.0544	538.08	269.04	
IDLFFXMLDOMNODELIST::GETLENGTH				8
0.1069	0.0134	0.1069	0.0134	
IDLGRPOLYGON::SETPROPERTY				29
0.1048	0.0036	0.1048	0.0036	
IDLITSRVMACROS::RENAMEHISTORYFOLDER				1
0.1024	0.1024	1.0427	1.0427	
IDLITSYSTEM::DELETETOOL				1
0.1024	0.1024	628.97	628.97	
CLOSE				1
0.0919	0.0919	0.0919	0.0919	
IDLITGRSCENE::DRAW				2
0.0890	0.0445	352.84	176.42	
QUERY_EVENT_MASK				37
0.0733	0.0020	0.0733	0.0020	
IDLFFXMLDOMDOCUMENT::GETELEMENTSBYTAGNA				4
0.0685	0.0171	0.0685	0.0171	
SKIP_LUN				1
0.0669	0.0669	0.0669	0.0669	
IDLITMANIPULATOR::CLEANUP				12
0.0648	0.0054	0.2495	0.0208	
HEAP_NOSAVE				33
0.0645	0.0020	0.0645	0.0020	
IDLITTOOL::GETSERVICE				2
0.0590	0.0295	0.9543	0.4771	
SHIFT				74
0.0589	0.0008	0.0589	0.0008	
IDLGRSCENE::INIT				1
0.0538	0.0538	0.0538	0.0538	
IDLITVISAXIS::CLEANUP				4
0.0491	0.0123	2.3192	0.5798	
IDLITVISDATASPACE::DRAW				8
0.0470	0.0059	351.64	43.955	
BYTSCL				20
0.0443	0.0022	0.0443	0.0022	
IDLITTOOL::_UNREGISTERUICONNECTION				1
0.0440	0.0440	0.0453	0.0453	
ULONG64				69
0.0397	0.0006	0.0397	0.0006	
IDLITSYSTEM::_REMOVETOOL				1
0.0374	0.0374	2.2592	2.2592	
IDLITTOOL::CLEANUP				1
0.0369	0.0369	621.77	621.77	

ROTATE		30		
0.0364	0.0012	0.0364	0.0012	
GRAPHIC::GETTOOL			2	
0.0360	0.0180	0.0727	0.0364	
_IDLITCONTAINER::REMOVEBYIDENTIFIER				2
0.0354	0.0177	4.2136	2.1068	
IDLGRVIEWGROUP::INIT			1	
0.0343	0.0343	0.0343	0.0343	
IDLGRSCENE::ADD			1	
0.0338	0.0338	0.0338	0.0338	
IDLGRSRCDEST::GETPROPERTY				9
0.0332	0.0037	0.0332	0.0037	
IDLITWINDOW::SETPROPERTY				1
0.0332	0.0332	0.0332	0.0332	
MAKE_EVENT_MASK			24	
0.0299	0.0012	0.0299	0.0012	
IDLITMANIPULATORCONTAINER::CLEANUP				4
0.0299	0.0075	7.4235	1.8559	
IDLFFXMLDOMELEMENT::GETELEMENTSBYTAGNAM				4
0.0266	0.0066	0.0266	0.0066	
IDLFFXMLSAX::STOPPARSING				12
0.0262	0.0022	0.0262	0.0022	
_IDLITGRDEST::CLEANUP				1
0.0251	0.0251	14.403	14.403	
IDLITSYSTEM::_GETCURRENTTOOL				2
0.0247	0.0124	0.6175	0.3087	
IDLGRVIEWGROUP::ADD				3
0.0223	0.0074	0.0223	0.0074	
IDLGRVIEW::ADD			3	
0.0222	0.0074	0.0222	0.0074	
IDL_OBJECT::_OVERLOADBRACKETSRIGHTSIDE				17
0.0212	0.0012	0.0212	0.0012	
IDLITVISPOLYGON::CLEANUP				2
0.0207	0.0104	0.9572	0.4786	
IDLITMANIPVISSCALE2D::CLEANUP				1
0.0203	0.0203	4.8682	4.8682	
IDLITGRWINSCENE::CLEANUP				1
0.0202	0.0202	557.76	557.76	
IDLITSYSTEM::GETSERVICE				2
0.0186	0.0093	0.5062	0.2531	
IDLITMESSAGING::_SETTOOL				4
0.0185	0.0046	0.0185	0.0046	
IDLITVISDATASPACE::CLEANUP				2
0.0185	0.0092	529.75	264.88	
FILEPATH			3	
0.0184	0.0061	0.0184	0.0061	
INTARR			23	
0.0173	0.0008	0.0173	0.0008	

IDLITUIADAPTOR::CLEANUP			5
0.0172	0.0034	0.0470	0.0094
IDLITGRVIEW::CLEANUP			1
0.0171	0.0171	539.82	539.82
IDLITGRLAYER::CLEANUP			2
0.0157	0.0079	538.11	269.05
IGETCURRENT			1
0.0138	0.0138	0.6470	0.6470
IDLITGRWORLD::CLEANUP			2
0.0137	0.0069	537.97	268.99
IDLITUI::ONNOTIFY			2
0.0136	0.0068	6.3794	3.1897
IDLITTOOL::GETPROPERTY			1
0.0127	0.0127	0.0200	0.0200
IDLITVISNORMDATASPACE::CLEANUP			2
0.0126	0.0063	536.76	268.38
IDLITCOMMAND::CLEANUP			1
0.0125	0.0125	0.0303	0.0303
IDLITMANIPVISSCALE::CLEANUP			1
0.0123	0.0123	6.6710	6.6710
IDLITOPMAPREGISTERIMAGE::CLEANUP			1
0.0117	0.0117	0.0602	0.0602
WIDGET_INFO			3
0.0117	0.0039	0.0117	0.0039
IDLITUI::_CLEANUPWIDGETS			1
0.0116	0.0116	0.1310	0.1310
IDLITEROR::CLEANUP			1
0.0112	0.0112	0.0134	0.0134
IDLITVISMAPBOXAXES::CLEANUP			1
0.0104	0.0104	0.2458	0.2458
IDLGRCOMPONENT::SETPROPERTY			3
0.0103	0.0034	0.0103	0.0034
DEFINE_MSGBLK			1
0.0101	0.0101	0.0101	0.0101
GRAPHICSMANIP::CLEANUP			1
0.0099	0.0099	1.4066	1.4066
GRAPHICSWIN::CLEANUP			1
0.0098	0.0098	557.77	557.77
IDLITOPINSERTVIS::CLEANUP			1
0.0098	0.0098	0.0374	0.0374
IDLITCOMMANDBUFFER::CLEANUP			1
0.0097	0.0097	0.0502	0.0502
IDLITCOMMANDSET::CLEANUP			1
0.0080	0.0080	0.0398	0.0398
_IDLITLAYOUTMANAGER::CLEANUP			1
0.0073	0.0073	14.342	14.342
IDLITMANIPRANGEBOX::CLEANUP			1
0.0071	0.0071	0.0254	0.0254

IDLITTOOL::_CHECKFORUNSAVED				1
0.0066	0.0066	0.0066	0.0066	
INVERT				2
0.0065	0.0033	0.0065	0.0033	
IDLITSYSTEM::GETCURRENTTOOL				1
0.0065	0.0065	0.6168	0.6168	
IDLITUI::SETPROPERTY				1
0.0063	0.0063	0.0075	0.0075	
IDLITVISNORMALIZER::CLEANUP				2
0.0062	0.0031	536.75	268.37	
IDLITSELECTCONTAINER::CLEANUP				1
0.0055	0.0055	0.0081	0.0081	
IDLCROSSHAIR::CLEANUP				1
0.0052	0.0052	0.7073	0.7073	
IDLITCOMMAND::_RESETDATALIST				1
0.0047	0.0047	0.0052	0.0052	
IDLITSYSTEM::_SETCURRENTTOOL				1
0.0046	0.0046	0.3832	0.3832	
HEAP_REFCOUNT				1
0.0040	0.0040	0.0040	0.0040	
IDLGRSCENE::SETPROPERTY				1
0.0040	0.0040	0.0040	0.0040	
PATH_SEP				3
0.0039	0.0013	0.0039	0.0013	
IDLGRPALETTE::GETPROPERTY				1
0.0031	0.0031	0.0031	0.0031	
LON64ARR				1
0.0030	0.0030	0.0030	0.0030	
IDLITWINDOW::GETSCENE				1
0.0026	0.0026	0.0026	0.0026	
FILE_EXPAND_PATH				1
0.0024	0.0024	0.0024	0.0024	
FREE_LUN				1
0.0021	0.0021	0.0021	0.0021	
IDLITMESSAGE::CLEANUP				1
0.0013	0.0013	0.0013	0.0013	

Subject: Re: Ready to quit after 25 years...

Posted by [chris_torrence@NOSPAM](#) on Tue, 28 Jun 2011 15:52:36 GMT

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Hi Haje,

Sorry to hear that you are having so many problems. I'll take a look at the Vector code, to see how we are computing the angle, especially for non-rectangular maps. Also, Mark Piper and I have been talking about enhancing the Arrow and Symbol functions so that you can pass in

arrays for the locations.

Finally, I'll see what is going on with Arg_Present. If we convert Arrow so it accepts array arguments, then the problem with Arg_Present might go away because you wouldn't need to loop over each arrow. But perhaps there is some optimization we can do to make Arg_Present faster regardless.

Hope you're having a better coding day today.

Cheers,
Chris

Dr. Christopher Torrence
Lead Architect for Desktop Products
ITT Visual Information Solutions

Subject: Re: Ready to quit after 25 years...
Posted by chris_torrence@NOSPAM on Tue, 28 Jun 2011 21:40:12 GMT
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Hi Haje,

I think my previous post got swallowed, so I'll try again.

Sorry to hear that you are having so many problems. I've already talked to Mark Piper about adding the ability for the Arrow and Symbol functions to accept array arguments. Regarding the Vectors on non-rectangular maps, I'll take a look at the code to see what it is doing.

As far as the Arg_Present issue, I wonder if this is partly because of having to loop over all of the Arrows. Perhaps if the Arrow function were changed to accept arrays, then this problem would go away. Regardless, I'll take a look at our implementation of Arg_Present to see if there are any optimizations that we can do.

Hope you're having a better day today. Keep giving us feedback on the new graphics - we definitely appreciate it!

Cheers,
Chris

Dr. Christopher Torrence
Lead Architect for Desktop Products
ITT Visual Information Solutions

Subject: Re: Ready to quit after 25 years...

Posted by [Klemen](#) on Wed, 29 Jun 2011 07:57:20 GMT

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I would guess that you have to normalize the longitude vector `v_east` by the cosine of the point latitude. Because the direction of your vectors is correct only if you show them unprojected (lon, lat system).

Cheers, Klemen

Subject: Re: Ready to quit after 25 years...

Posted by [David Fanning](#) on Thu, 30 Jun 2011 04:23:31 GMT

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Chris Torrence writes:

> Finally, I'll see what is going on with `Arg_Present`. If we convert
> Arrow so it accepts array arguments, then the problem with `Arg_Present`
> might go away because you wouldn't need to loop over each arrow. But
> perhaps there is some optimization we can do to make `Arg_Present`
> faster regardless.

I had a similar problem with a very slow program a month or so ago. When I profiled it, I was shocked at how much time was being spent in `ARG_PRESENT`. It wouldn't surprise me to learn that function graphics were twice as fast when this problem gets fixed!

I have religiously used `ARG_PRESENT` in the `GetProperty` methods of my objects. Now, I only use the function if it is absolutely necessary.

Cheers,

David

--

David Fanning, Ph.D.

Fanning Software Consulting, Inc.

Coyote's Guide to IDL Programming: <http://www.dfanning.com/>

Sepore ma de ni thue. ("Perhaps thos speakest truth.")

Subject: Re: Ready to quit after 25 years...

Posted by [R.G.Stockwell](#) on Wed, 06 Jul 2011 23:09:27 GMT

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>

> "Chris Torrence" wrote in message
> news:1074c20b-6486-418a-bb61-f690521c59c6@m10g2000yqd.google groups.com...
>
> Hi Haje,
>
> Sorry to hear that you are having so many problems. I'll take a look
> at the Vector code, to see how we are computing the angle, especially
> for non-rectangular maps. Also, Mark Piper and I have been talking
> about enhancing the Arrow and Symbol functions so that you can pass in
> arrays for the locations.
>
> Finally, I'll see what is going on with Arg_Present. If we convert
> Arrow so it accepts array arguments, then the problem with Arg_Present
> might go away because you wouldn't need to loop over each arrow. But
> perhaps there is some optimization we can do to make Arg_Present
> faster regardless.
>
> Hope you're having a better coding day today.
>
> Cheers,
> Chris
>
> Dr. Christopher Torrence
> Lead Architect for Desktop Products
> ITT Visual Information Solutions

Hi Haje,

my two cents: IDL has really turned a corner in the last couple of years,
with improving their product and with the quick feedback that Chris and the
other ITT folks on this newsgroup provide. Along with David Fanning's
posts, I think IDL may be the most user-responsive languages in existence.

cheers,
bob

Subject: Re: Ready to quit after 25 years...
Posted by chris_torrence@NOSPAM on Fri, 08 Jul 2011 16:53:19 GMT
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Hi Bob,

Thanks for the kind remarks!

Now, regarding the problem with Arg_Present - it turns out to not be a problem with Arg_Present
at all. The Profiler introduces a slight overhead when it computes the time spent per iteration and
records the information in an internal data structure. For most routines this overhead is negligible

compared to the execution time of the routine. However, for very fast routines (like Arg_Present), the overhead is significant. The real problem is that Arg_Present was getting called 15 million times. So what you were really measuring for things like Arg_Present, Obj_Isa, etc. is just the speed of the profiler!

I just made a change to the way the Profiler works. Now, by default it will not include the following routines: ARG_PRESENT, KEYWORD_SET, N_ELEMENTS, OBJ_ISA, OBJ_VALID, PTR_VALID, SIZE. You can still turn on profiling for these routines, but you need to do it explicitly. For example:

```
PROFILER, /SYSTEM ; turns on profiling for all system routines except the above
PROFILER, 'ARG_PRESENT', /SYSTEM ; also turns it on
```

Hopefully with this change, your profiling results will no longer be biased towards routines like Arg_Present and N_Elements, and you will be better able to discover the real bottlenecks in your code.

For example, in Haje's case with the Arrow function, the real problem is that he has to call Arrow 1500 times because it doesn't accept array arguments. We're also working on that for IDL 8.2.

Cheers,
Chris
ITTVIS

Subject: Re: Ready to quit after 25 years...
Posted by [Haje Korth](#) on Fri, 08 Jul 2011 16:58:22 GMT
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Hi Bob,
no doubt the response from Chris and colleagues to arising issues is superb and prompt. Communication has significantly improved under the ITT umbrella and cannot be compared to the KODAK firewall I tried to climb over unsuccessfully most of the time (Thanks to Ali Bahrami for opening a back door here and there).

The issues I am having is that all the information on the new graphics system (NG) I absorb from the forum should be available via the IDL documentation in absence of third party books. In the past i went to David's book where the help was insufficient. I was desperately waiting for him to publish a book on the matter, but I gather from the forum he does not believe in it presumably due to lack in flexibility. Mike's new book is great but the 15-page NG chapter is not comprehensive enough to fill the holes I have in using the system. To my knowledge no other books exist describing NG. My lack of knowledge combined with the inability to fill it, results presently in regular outbursts of anger. :-)

Apparently some of the issues I am having are due to, let's say,

unoptimized codes. While this is not unexpected, the present development cycle implies that these probably small fixes which would make my life easier will takes 6-12 months to reach my system. It is very likely that the codes I am using right now will no longer be in use by the time a fix becomes available. This leaves me with the question, whether it is actually worth bothering with the new technology. No, I do not think I want to know the answer. :-)

Oh, well just my two cents, back to the pile of work in front of me...

Haje

On Jul 6, 7:09 pm, "R.G. Stockwell" <noem...@please.com> wrote:

```
>> "Chris Torrence" wrote in message
>> news:1074c20b-6486-418a-bb61-f690521c59c6@m10g2000yqd.google groups.com...
>
>> Hi Haje,
>
>> Sorry to hear that you are having so many problems. I'll take a look
>> at the Vector code, to see how we are computing the angle, especially
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> other ITT folks on this newsgroup provide. Along with David Fanning's
> posts, I think IDL may be the most user-responsive languages in existence.
>
> cheers,
> bob
```

Subject: Re: Ready to quit after 25 years...
Posted by [ben.bighair](#) on Tue, 12 Jul 2011 13:23:47 GMT
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Hi,

On 7/8/11 12:53 PM, Chris Torrence wrote:

> Now, regarding the problem with Arg_Present - it turns out to not be
> a problem with Arg_Present at all. The Profiler introduces a slight
> overhead when it computes the time spent per iteration and records
> the information in an internal data structure. For most routines this
> overhead is negligible compared to the execution time of the routine.
> However, for very fast routines (like Arg_Present), the overhead is
> significant. The real problem is that Arg_Present was getting called
> 15 million times. So what you were really measuring for things like
> Arg_Present, Obj_Isa, etc. is just the speed of the profiler!
>

I wonder if N_PARAMS would be good candidate to add to the list of
masked routines?

> I just made a change to the way the Profiler works. Now, by default
> it will not include the following routines: ARG_PRESENT, KEYWORD_SET,
> N_ELEMENTS, OBJ_ISA, OBJ_VALID, PTR_VALID, SIZE. You can still turn
> on profiling for these routines, but you need to do it explicitly.
> For example: PROFILER, /SYSTEM ; turns on profiling for all system
> routines except the above PROFILER, 'ARG_PRESENT', /SYSTEM ; also
> turns it on
>

I'm still a bit fuzzy on what the SYSTEM keyword does. Are you saying
that setting SYSTEM = 1 will cause PROFILER to include the the masked
routines? or will it exclude the masked routines?

My father might have asked, "To New York or by bus?"

Thanks,
Ben
