NeoClassic

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NeoClassic:
The tests were performed using the current version of NeoClassic, with slight modifications. NeoClassic is written in C++.

Note that NeoClassic is expressively limited and so cannot represent some of the test KBs. Also, NeoClassic has not been subject to much optimization.

Availability:
The sources for NeoClassic are available from:

http://www.research.att.com/sw/tools/classic

Advantages:
NeoClassic has a very featureful user interface, including an explanation component. It also has a full API for C++ programming.

Hardware and Software:
Sun Ultra 1; main memory 64 MB; Model 140 Ultra-SPARC CPU; Solaris 2.5.1; GNU g++ compiler 2.7.3.2.

Timing was done by determining the normal time to startup NeoClassic and subtracting that from the time to both startup NeoClassic and load a KB, as reported by the time command in csh.

Results:

Table 1: Realistic Tbox and ABox Classification Tests

Knowledge Base	Time (s)
ckb-roles.tkb	0.42
datamont-classic.tkb	0.65
espr-roles.tkb	0.63
fss-roles.tkb	0.78
stereo-classic.tkb	10.25
wines.tkb	2.77
wisber-classic.tkb	1.03
stereo-classic.akb	10.33

Table 2: Synthetic Tbox Classification Tests

Test	Time (s)
hc14	0.05
hc18	0.12
hc112	0.22
hc24	0.30
hc28	1.24
hc212	2.86
hc34	0.30
hc36	1.70
hc38	14.08

Table 3: Random Tbox Classification Tests

Test	Time (s)
kris151	0.11
kris301	0.24
kris451	0.46
kris601	0.59
kris751	0.70
kris901	0.86
kris1051	0.87
kris1201	1.01
kris1351	1.54
kris1501	1.63
kris2001	2.45
kris4001	7.06
kris6001	17.84
kris8001	34.70
kris10001	46.16
kris12001	90.46
kris14001	74.96
kris16001	180.56
kris18001	158.91
kris20001	249.24
kris25001	595.83
kris30001	642.81
kris35001	1049.66