

Acacia

- CCia extracts "facts" about C++ entities and relationships
 - Can then query factbase to produce textual or graphical output
- CCia is a command line extractor
 - Based on EDG C++ front end
 - Use like g++
 - Supports u u I flags
 - Supports all-at-once or separate-then-merge extractions



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 Section Content of the section of the	 Find all member variables of the class Player: % ksh cdef -u v - ptype=Player dbl8647e;hand;variable;Player.h;CardPile *; regular;37;0;37;def; 00000000;;;protected;Player.h;Vector<int, alloc="">;regular; 43;0;43;def;00000000;;;protected;Player;;; remaining output deleted]</int,> Print the name and beginning line num of all function declarations in SmartPlayer.cc: % ksh cdef -u fu - def=def file=SmartPlayer.cc cut -d ';' -f 2,7 playCard;81 followSuit;48 findARandomCard;21 Find all instances of inheritance relationships from entities in file main.c to any other classes:

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IWPC 2002

CppETS and Acacia

% ksh cref -u - - - tclass1=class file1=main.C rkind=inheritance

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CppETS and Acacia

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CCia: Ups and downs

- Works pretty well on straightforward code
 I've used it as a drop-in replacement for cfx with PBS
- Not very robust

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- Can't handle embedded languages
- Requires complete header info
- Some quirks and problems:
 - CCia is based on an older (pre-ANSI) third-party front end
 - Doesn't do well with namespaces, templates
 - Some bugs remain in both front-end and back-end; unlikely to be fixed.

CppETS and Acacia

Querying: Ups and downs

• **⊎**ps

 Once you've figured out how it works, you can move mountains if you are good at grep/cut/awk/bash/perl/grok etc. ©

Downs

- Need to use grep/cut/awk/bash/perl/grok etc. 🔅
- Poor documentation a problem



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