词法和语法分析工具  
  
Flex  
全称：FLEX compiler infrastructure  
网址：https://flex.cscott.net/Harpoon/  
时间：1999-  
开发者：FLEX group  
文档：Tutorial,Java docs  
类别：Compiler Infrastructure  
执行代码公开： GNU  
源代码公开: GNU  
开发语言：Java  
生成语言： MIPS,StrongARM, and C backends  
平台：Linux, Unix and Windows 9x, ME, NT, 2000, XP, Vista  
水平：  
知识点：LR1, LALR2, LL1, AST, AG  
应用领域：  
提供示例:  
备注：  
  
Bison  
全称： The YACC-compatible Parser Generator  
网址：https://dinosaur.compilertools.net/  
时间：1995  
开发者：Charles Donnelly and Richard Stallman  
文档：Online manaul  
类别：Compiler Construction Kits  
执行代码公开：GNU  
源代码公开:GNU  
开发语言：C  
生成语言：C  
平台：Linux, Unix  
水平：  
知识点：LALR1 context-free grammar  
应用领域：  
提供示例:  
备注：  
  
JavaCC  
全称：Java Compiler Compiler  
网址：https://javacc.java.net/  
时间：  
开发者：Oracle, Project Kenai and Cognisync  
文档：User Guide，Tutorials, Java doc  
类别：Compiler Infrastructure  
执行代码公开：免费  
源代码公开:免费  
开发语言：Java  
生成语言：Java  
平台：Linux, Unix and Windows 9x, ME, NT, 2000, XP, Vista  
水平：  
知识点：front-end, syntax analysis, error checking JavaCC is similar to PCCTS. JavaCC is a LLk top down parser, whereas YACC is a LALR1 bottom up parser, so the grammars look quite different. The documentation is quite readable, unlike most of its competition. The parser has some parsing speedup tricks like lookahead and custom code for the tricky bits. JavaCC has stagnated. Most new parsers are written in ANTLR. JavaCC is more intuitive, and better fit for getting your feet with with parsers.  
应用领域：  
提供示例:  
备注：  
  
ANTLR  
全称：ANother Tool for Language Recognition  
网址：https://www.antlr.org/  
时间：February 1992  
开发者：Terence Parr and others  
文档：Documentation,Video Tutorial,Grammars ExamplesSQL,PACAL, XML非常多  
类别：Parser Generators  
执行代码公开：  
源代码公开:BSD License.  
开发语言： Java  
生成语言：Ada95, ActionScript, C, C#, Java, JavaScript, Objective-C, Perl, Python, and Ruby  
平台：  
水平：  
知识点：  
应用领域：  
提供示例:  
备注：  
  
编译前端工具  
  
Ckit  
全称： C front end kit  
网址：https://www.smlnj.org/doc/ckit/  
时间：1997  
开发者：Satish Chandra Bell Labs, Naperville and Michael Siff University of Wisconsin-Madison  
文档：Mailing list，Guide  
类别：Compiler Construction Kits  
执行代码公开：免费  
源代码公开:免费  
开发语言：SML  
生成语言：C  
平台：Linux, Unix and Windows 9x, ME, NT, 2000, XP, Vista  
水平：  
知识点：parse tree，abstract syntax trees  
应用领域：  
提供示例:  
备注：  
  
Jfront  
全称：Java Language Model  
网址：https://www.jfront.com/rawjava/  
时间：  
开发者：Jfront Inc.  
文档：Book,Java Doc  
类别：Compiler Infrastructure  
执行代码公开：免费  
源代码公开:免费  
开发语言：C  
生成语言：Java  
平台：Windows 9x, ME, NT, 2000, XP, Vista  
水平：  
知识点：front-end, language model, syntax and semantics analysis  
应用领域：  
提供示例:  
备注：  
  
编译后端工具  
  
BEG  
全称：Code Generator Generation Tool for Creating Portable Compiler  
网址：https://www.hei.biz/beg/  
时间：1995-  
开发者：H.E.I. Informationssysteme GmbH  
文档：Online manaul  
类别：Compiler Construction Kits  
执行代码公开：付费   
源代码公开:付费   
开发语言：C  
生成语言：C, Modula-2, Fortran-77, and Pascal, for the SPARC  
平台：Motorola 68020, SPARC, MIPS, Intel 386, Pentium, Inmos T800, and PowerPC  
水平：  
知识点：backend  
应用领域：BEG back end generator is a compiler code generator generation tool, for creating portable compilers also called retargetable compiler. It can also be used for compiler retargeting of existing native code compilers.  
提供示例:  
备注:  
  
SableCC  
全称：Sable Compiler Compiler  
网址：https://sablecc.org/  
时间：2006  
开发者：  
文档：Tutorials,Grammars, User Guides  
类别：Compiler Infrastructure  
执行代码公开：GNU  
源代码公开:GNU  
开发语言：Java  
生成语言：Java  
平台：Linux, Unix and Windows 9x, ME, NT, 2000, XP, Vista  
水平：  
知识点：AST,Text Parser,object-oriented language parser.  
应用领域：SableCC is a parser generator which generates fully featured object-oriented frameworks for building compilers, interpreters and other text parsers. In particular, generated frameworks include intuitive strictly-typed abstract syntax trees and tree walkers. SableCC also keeps a clean separation between machine-generated code and user-written code which leads to a shorter development cycle.  
提供示例:  
备注：  
  
编译器平台  
  
GCC  
全称：The GNU Compiler Collection  
网址：https://gcc.gnu.org/  
时间：1987  
开发者：Richard Stallman  
文档：Online Manual  
类别：Compiler System  
执行代码公开：GNU  
源代码公开:GNU  
开发语言：C  
生成语言：Objective-C, Objective-C++, Fortran, Java, Ada, and Go  
平台：Linux, Unix and Windows 9x, ME, NT, 2000, XP, Vista  
水平：  
知识点：System-specific compiler  
应用领域：GCC is often chosen for developing software that is required to execute on a wide variety of hardware and/or operating systems. System-specific compilers provided by hardware or OS vendors can differ substantially, complicating both the software's source code and the scripts that invoke the compiler to build it. With GCC, most of the compiler is the same on every platform, so only code that explicitly uses platform-specific features must be rewritten for each system.  
提供示例:  
备注：  
  
LLVM  
全称：Low Level Virtual Machine  
网址：https://llvm.org/  
时间：1987  
开发者：Chris Lattner  
文档：Online Manual  
类别：Compiler Infrastructure  
执行代码公开：Apache 2.0 License with LLVM exceptions  
源代码公开: Apache 2.0 License with LLVM exceptions  
开发语言：C++  
生成语言：  
平台：Linux, macOS and Windows  
水平：高级  
知识点：  
The LLVM compiler system for C and C++ includes the following:  
Front-ends for C, C++, Objective-C, Fortran, etc based on the GCC 4.2 parsers. They support the ANSI-standard C and C++ languages to the same degree that GCC supports them. Additionally, many GCC extensions are supported.  
A stable implementation of the LLVM instruction set, which serves as both the online and offline code representation, together with assembly ASCII and bytecode binary readers and writers, and a verifier.  
A powerful pass-management system that automatically sequences passes including analysis, transformation, and code-generation passes based on their dependences, and pipelines them for efficiency.  
A wide range of global scalar optimizations.  
A link-time interprocedural optimization framework with a rich set of analyses and transformations, including sophisticated whole-program pointer analysis, call graph construction, and support for profile-guided optimizations.  
An easily retargettable code generator, which currently supports X86, X86-64, PowerPC, PowerPC-64, ARM, Thumb, SPARC, Alpha, CellSPU, MIPS, MSP430, SystemZ, and XCore.  
A Just-In-Time JIT code generation system, which currently supports X86, X86-64, ARM, AArch64, Mips, SystemZ, PowerPC, and PowerPC-64.  
Support for generating DWARF debugging information.  
A C back-end useful for testing and for generating native code on targets other than the ones listed above.  
A profiling system similar to gprof.  
A test framework with a number of benchmark codes and applications.  
APIs and debugging tools to simplify rapid development of LLVM components.  
应用领域：  
LLVM can be used in many different kinds of projects. You might be interested in LLVM if you are:  
A compiler researcher interested in compile-time, link-time interprocedural, and runtime transformations for C and C++ programs.  
A virtual machine researcher/developer interested in a portable, language-independent instruction set and compilation framework.  
An architecture researcher interested in compiler/hardware techniques.  
A security researcher interested in static analysis or instrumentation.  
An instructor or developer interested in a system for quick prototyping of compiler transformations.  
An end-user who wants to get better performance out of your code.  
提供示例:  
备注：  
  
LCC  
全称："Local C Compiler" or "Little C Compiler"  
网址：https://www.cs.virginia.edu/~lcc-win32/  
时间：1995  
开发者：Chris Fraser and David Hanson  
文档：Online Manual  
类别：compiler for the ANSI C programming language  
执行代码公开：  
源代码公开:  
开发语言：C  
生成语言：  
平台：Alpha, SPARC, MIPS, and x86  
水平：  
知识点：  
应用领域：LCC can generate code for several processor architectures, including Alpha, SPARC, MIPS, and x86; there is also an LCC backend that generates Microsoft's Common Intermediate Language.  
提供示例:  
备注：  
  
COOL  
全称：Classroom Object Oriented Language  
网址：https://theory.stanford.edu/~aiken/software/cool/cool.html  
时间：1996  
开发者：Alexander Aiken  
文档：Online Manual  
类别：compiler for the ANSI C programming language  
执行代码公开：  
源代码公开:  
开发语言：C++  
生成语言：  
平台：a MIPS simulator, SPIM  
水平：  
知识点