**EXTRACT   
Painless Module Extraction**

**EXTRACT** is a FORTRAN90 program which pulls a copy of a FORTRAN block data, function, module, program or subroutine from a big file, and saves the copy in a little file.

I've found EXTRACT extremely useful, as an alternative to printing out a huge library of routines, or using an editor to extract the seven routines I need from a collection of 200.

**Usage:**

**extract** *module* *file.f*

where

* *module* is the name of the desired module;
* *file.f* is the file to be searched.

If the module is found, it is written to a file named *module.f*.

**Licensing:**

The computer code and data files made available on this web page are distributed under [the GNU LGPL license.](https://people.sc.fsu.edu/~jburkardt/txt/gnu_lgpl.txt)

**Languages:**

**EXTRACT** is available in [a FORTRAN90 version](https://people.sc.fsu.edu/~jburkardt/f_src/extract/extract.html)

**Related Data and Programs:**

[CATALOG](https://people.sc.fsu.edu/~jburkardt/cpp_src/catalog/catalog.html), a C++ program which reads a C, C++, FORTRAN77 or FORTRAN90 program and prints every line that begins with a special index tag. If the program has been marked up expecting this convention, it is a handy way of making a table of contents of a program file.

[F77\_CLEANUP](https://people.sc.fsu.edu/~jburkardt/f_src/f77_cleanup/f77_cleanup.html), a FORTRAN90 program which makes a copy of a FORTRAN77 file in which some minor cleanups have been made.

[FIXCON](https://people.sc.fsu.edu/~jburkardt/f_src/fixcon/fixcon.html), a FORTRAN90 program which reads a FORTRAN file using FORTRAN77 continuation statements, and makes a copy that uses FORTRAN90 continuation instead.

[F90SPLIT](https://people.sc.fsu.edu/~jburkardt/f_src/f90split/f90split.html), a FORTRAN90 program which reads a FORTRAN file and creates individual files for every subroutine or function in the file.

[HTMLINDEX](https://people.sc.fsu.edu/~jburkardt/cpp_src/htmlindex/htmlindex.html), a C++ program which reads a FORTRAN program and writes a skeleton HTML page describing it, assuming that each subroutine includes a '!!' or 'cc' description line.

[INCLUDE\_FILES](https://people.sc.fsu.edu/~jburkardt/f_src/include_files/include_files.html), a FORTRAN90 program which reads a FORTRAN program with INCLUDE statements, and makes a copy with the indicated files included.

[MODULE\_MARK](https://people.sc.fsu.edu/~jburkardt/f_src/module_mark/module_mark.html), a FORTRAN90 program which replaces bare "END" statements by "END (module name)" statements in a FORTRAN90 file.

**Source Code:**

* [extract.f90](https://people.sc.fsu.edu/~jburkardt/f_src/extract/extract.f90), the source code;

**Examples and Tests:**

* [extract\_prb.f90](https://people.sc.fsu.edu/~jburkardt/f_src/extract/extract_prb.f90), a sample text file from which modules are to be extracted;
* [extract\_prb\_output.txt](https://people.sc.fsu.edu/~jburkardt/f_src/extract/extract_prb_output.txt), the output file;

**List of Routines:**

* **MAIN** is the main program for EXTRACT.
* **CH\_CAP** capitalizes a single character.
* **DIGIT\_TO\_CH** returns the character representation of a decimal digit.
* **FILE\_EXT** determines the "extension" of a file name.
* **GET\_UNIT** returns a free FORTRAN unit number.
* **MODULE\_FIND** searches a file for the first line of a given module.
* **MODULE\_WRITE** writes out the lines of a file until 'END' is reached.
* **S\_BEFORE\_SS\_COPY** copies a string up to a given substring.
* **S\_BLANK\_DELETE** removes blanks from a string, left justifying the remainder.
* **S\_BLANKS\_DELETE** replaces consecutive blanks by one blank.
* **S\_CAP** replaces any lowercase letters by uppercase ones in a string.
* **S\_CAT** concatenates two strings to make a third string.
* **S\_EQI** is a case insensitive comparison of two strings for equality.
* **S\_INDEX\_LAST** finds the LAST occurrence of a given substring.
* **S\_INDEXI** is a case-insensitive INDEX function.
* **S\_OF\_I4** converts an integer to a left-justified string.
* **S\_SPLIT** divides a string into three parts, given the middle.
* **TIMESTAMP** prints the current YMDHMS date as a time stamp.
* **WORD\_NEXT\_READ** "reads" words from a string, one at a time.

You can go up one level to [the FORTRAN90 source codes](https://people.sc.fsu.edu/~jburkardt/f_src/f_src.html).

*Last revised on 17 August 2010.*

**提取  
无痛模块提取**

**EXTRACT** 是一个FORTRAN90程序，它从一个大文件中提取FORTRAN块数据，函数，模块，程序或子程序的副本，并将副本保存在一个小文件中。

我发现EXTRACT非常有用，可以替代打印庞大的例程库，或者使用编辑器从200个集合中提取我需要的7个例程。

**用法：**

**提取** *模块* *file.f*

哪里

* *module*是所需模块的名称;
* *file.f*是要搜索的文件。

如果找到该模块，则将其写入名为*module.f*的文件。

**许可：**

此网页上提供的计算机代码和数据文件是在[GNU LGPL许可](https://people.sc.fsu.edu/~jburkardt/txt/gnu_lgpl.txt)下分发 [的。](https://people.sc.fsu.edu/~jburkardt/txt/gnu_lgpl.txt)

**语言：**

**EXTRACT**是提供 [一个FORTRAN90版](https://people.sc.fsu.edu/~jburkardt/f_src/extract/extract.html)

**相关数据和程序：**

[CATALOG](https://people.sc.fsu.edu/~jburkardt/cpp_src/catalog/catalog.html)，一个C ++程序，它读取C，C ++，FORTRAN77或FORTRAN90程序并打印以特殊索引标记开头的每一行。如果程序已被标记为期望此约定，则它是制作程序文件的目录的便利方式。

[F77\_CLEANUP](https://people.sc.fsu.edu/~jburkardt/f_src/f77_cleanup/f77_cleanup.html)，一个FORTRAN90程序，它复制了一个FORTRAN77文件，其中进行了一些小的清理工作。

[FIXCON](https://people.sc.fsu.edu/~jburkardt/f_src/fixcon/fixcon.html)，FORTRAN90程序，使用FORTRAN77连续语句读取FORTRAN文件，并生成使用FORTRAN90延续的副本。

[F90SPLIT](https://people.sc.fsu.edu/~jburkardt/f_src/f90split/f90split.html)，一个FORTRAN90程序，它读取FORTRAN文件并为文件中的每个子程序或函数创建单独的文件。

[HTMLINDEX](https://people.sc.fsu.edu/~jburkardt/cpp_src/htmlindex/htmlindex.html)，一个C ++程序，它读取FORTRAN程序并编写描述它的骨架HTML页面，假设每个子程序包含一个'!!' 或'cc'描述行。

[INCLUDE\_FILES](https://people.sc.fsu.edu/~jburkardt/f_src/include_files/include_files.html)，一个FORTRAN90程序，它使用INCLUDE语句读取FORTRAN程序，并使用包含的指定文件进行复制。

[MODULE\_MARK](https://people.sc.fsu.edu/~jburkardt/f_src/module_mark/module_mark.html)，FORTRAN90程序，用FORTRAN90文件中的“END（模块名称）”语句替换裸“END”语句。

**源代码：**

* [extract.f90](https://people.sc.fsu.edu/~jburkardt/f_src/extract/extract.f90)，源代码;

**示例和测试：**

* [extract\_prb.f90](https://people.sc.fsu.edu/~jburkardt/f_src/extract/extract_prb.f90)，一个示例文本文件，从中提取模块;
* [extract\_prb\_output.txt](https://people.sc.fsu.edu/~jburkardt/f_src/extract/extract_prb_output.txt)，输出文件;

**例程列表：**

* **MAIN**是EXTRACT的主要程序。
* **CH\_CAP**将单个字符大写。
* **DIGIT\_TO\_CH**返回十进制数字的字符表示。
* **FILE\_EXT** determines the "extension" of a file name.
* **GET\_UNIT** returns a free FORTRAN unit number.
* **MODULE\_FIND** searches a file for the first line of a given module.
* **MODULE\_WRITE** writes out the lines of a file until 'END' is reached.
* **S\_BEFORE\_SS\_COPY** copies a string up to a given substring.
* **S\_BLANK\_DELETE** removes blanks from a string, left justifying the remainder.
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