Name

nmalyzr — Tool for nm output size analysis

Synopsis

```
nmalyzr [-o|--out-file  <file>] [-T|--text-input] [-V|--verbose  [0-3]] [-
E|--filter <regexp>][-S|--symbol-types <st>][--kb][-n|--ns <namespace-
list>][-c|--class  <class-list>][-N|--ns-summary][-C|--class-summary][-
I|--show-internal-ns][--xml <xml-output-file>][--alt-nm-path <nm-path>]
[--quiet][--help][input-file ...]
```

DESCRIPTION

nmalyzr builds size summaries for demangled C++ nm symbol information from executable, library, object, or nm output format text files. A summary is build for all nm symbol types found in the input. By default nmalyzr takes one or more object, library or executable input files, calls 'nm -C -S --size-sort' internally and filters and analyzes the output directly.

EXAMPLE:

```
$ nmalyzr a.out
Summary by symbol type:
=========================
Type         Size #Symbols
D         8409088        2
d        12612104        3
B        12632148        3
t        29404076        7
b        33686044        8
I       105375800       25
T       218400684       52
i       231831388       55
N       438154980      103
```

Additionally symbols from the input can be filtered by certain namespace or class symbol names.

EXAMPLE:

```
$ nmalyzr -c "A<int, std::vector<int, std::allocator<int> > >" a.out
Summary by symbol type:
=========================
Type         Size #Symbols
T         8400916        2
Class summaries:
================================================================================
Type         Size Class
T         8400916 'Ns1::Ns2::A<int, std::vector<int, std::allocator<int> > >'
```

NOTE: *The class name must be specified as appearing in the demangled output, including any default template parameters expanded by the compiler.*

If the input is provided through stdin, or the `--text-input` option is specified the input must conform the output produced by 'nm -C -S --size-sort'.

nmalyzr declares certain 'internal' namespace names, that can be used with the `--ns` option to match special symbols from the input:

<linkmap>	Matches symbols starting with '.'
<sysinternal>	Matches symbols starting with '__'
<system>	Matches symbols starting with '_'
<global>	Matches any other symbols that have no namespace or class prefix

OPTIONS

Analyze given nm demangled C++ output regarding size information.

`-o <file>`, `--out-file=<file>`	Allows to specify an output filename, by default all output will be written to stdout.
`-T`, `--text-input`	Input is processed from stdin or specified input files rather than calling nm internally.
`-V [0-3]`, `-verbose [=0-3]`	Produces verbose output for the summaries. Levels are: 0 = Display no details on symbols 1 = Display all symbols considered from input 2 = Display all symbols considered for namespaces 3 = Display all symbols considered for classes
`-E <regexp>`, `--filter=<regexp>`	Filters the input by <regexp> before analyzing.
`-S <st>`, `--symbol-types=<st>`	Filters the input by symbol types before analyzing. <st> can contain one or more characters used as symbol types by nm.
`--kb`	Shows all sizes in kilobytes.
`-n <namespace-list>`, `--ns=<namespace-list>`	Filters the input to match at least one symbol from the given <namespace-list> before analyzing, multiple namespaces are separated using the ';' character.
`-c <class-list>`, `--class=<class-list>`	Filters the input to match at least one class symbol from the given <class-list> before analyzing, multiple class symbols are separated using the ';' character.
`-N`, `--ns-summary`	Shows a summary by namespace (automatically if --ns option is used).
`-C`, `--class-summary`	Shows a summary by class (automatically if --class option is used).
`-I`, `--show-internal-ns`	Shows all internal namespaces.
`--help`	Shows a help text.
`--xml=<xml-output-filename>`	Provides results as XML output written to <xml-output-filename>.

`--alt-nm-path=<nm-path>`	Allows to specify an explicit path for the nm tool (e.g. for usage of cross-tool chains).
`--quiet`	Suppresses any output to stdout.

AUTHOR

The program was written by Günther Makulik (g-makulik@t-online.de).

SEE ALSO

nm(1)