

Introduction to Doxygen

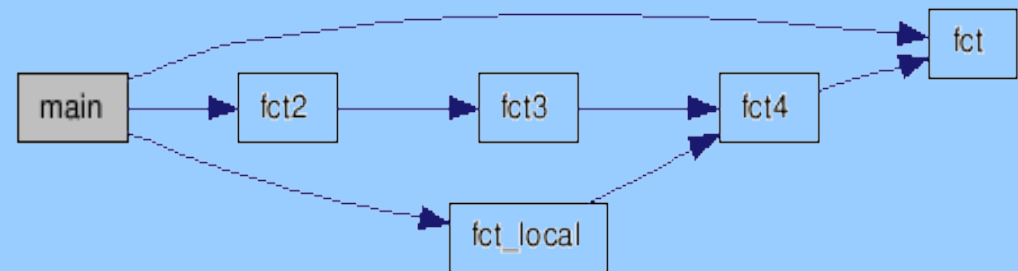
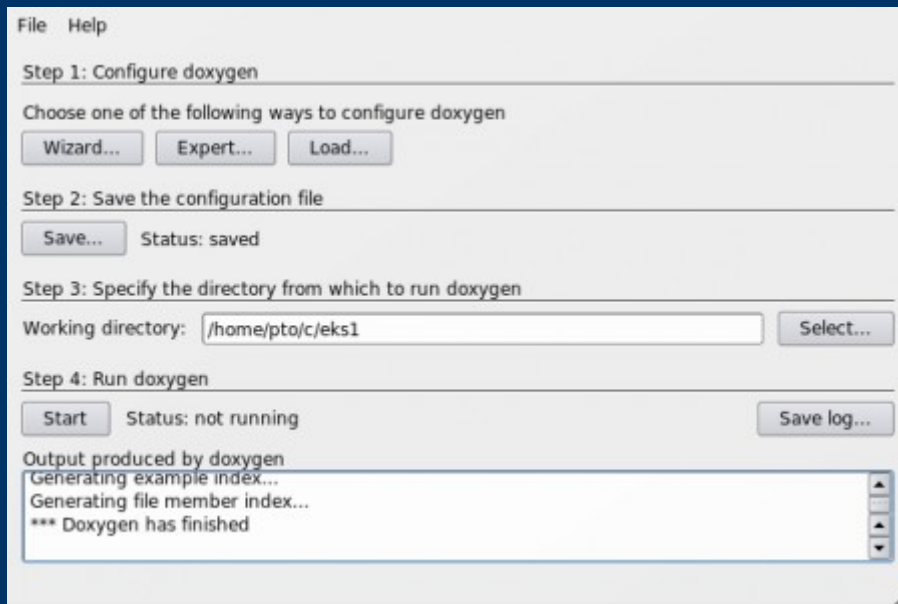
Peter Toft

About Peter Toft

- Using Linux since 1994
 - Linux/Open Source advocat
 - Conferences:
Linux98/ON99/Uptime/Linuxforum/Open
Source Days
 - www.linuxbog.dk
 - SSLUG chairman for many years
 - Lots of other stuff...
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Introduction to Doxygen

- <http://www.version2.dk/artikel/9173-kode-vaerkstedet-1-doxxygen>



Documentation of code...

- It always sucks to document code
 - The documentation is never in sync with the source code... which is a strong limitation.
- Waste of time....
 - why bother do this work
 - My code is self-documenting :-)
- For the reader is a often hell to start working with say 50k+ lines of code

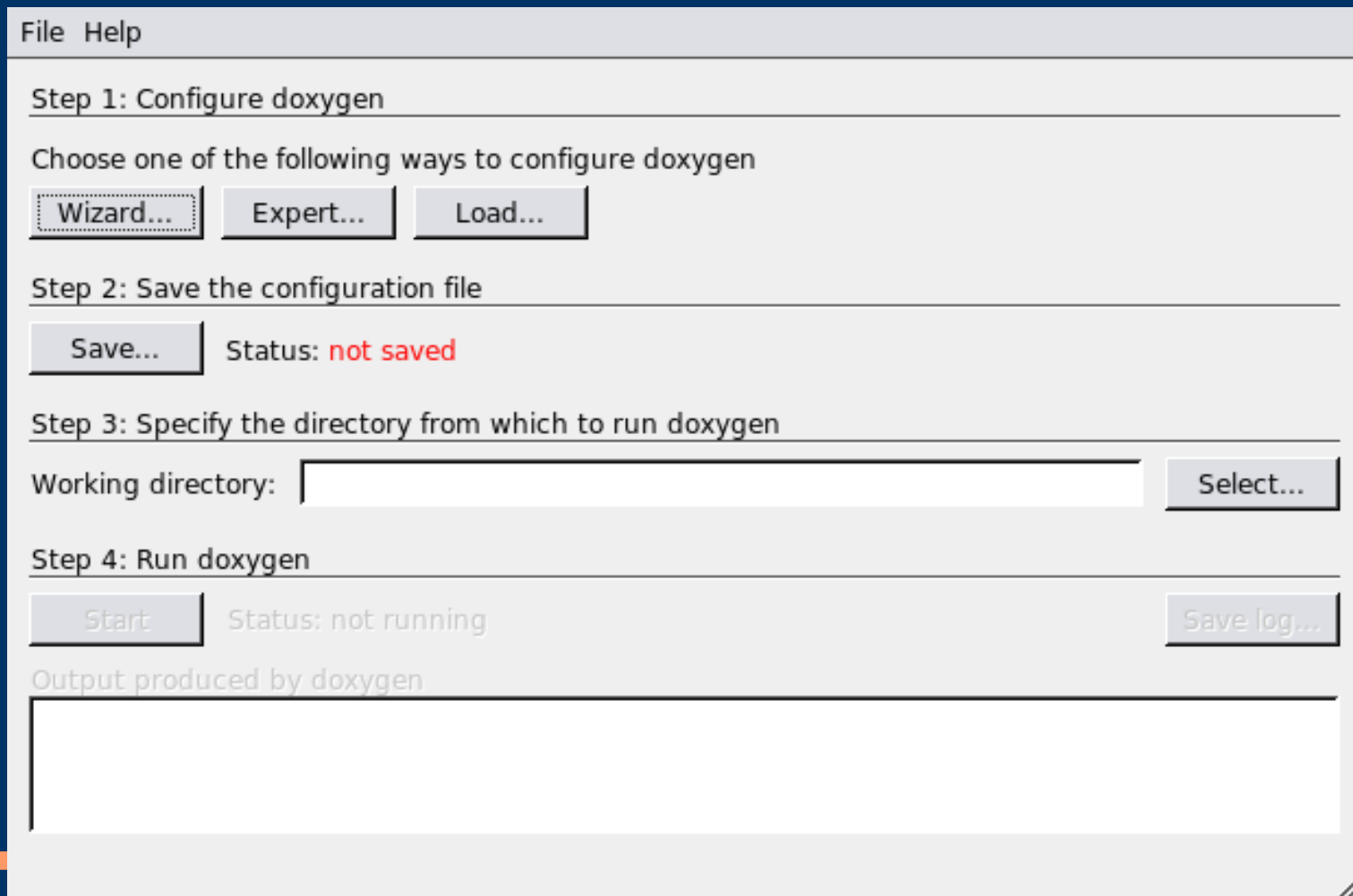
Doxygen solves quite a few of these problems

Doxygen

- Doxygen generates the documentation in HTML, RTF or alike from the current source code.
 - Put a few more "tags" in your source code to improve readability – but not necessary
 - Great return on investment to add these additional tags
 - Easy to setup scripts which generates documentation from SVN or CVS archives
 - Script/text based documentaion generator
 - GUI front end too :)
 - Home : <http://www.stack.nl/~dimitri/doxygen>
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The GUI front-end is nice...

- apt-get install graphviz doxygen



Doxywizard

Project | Mode | Output | Diagrams

Provide some information about the project you are documenting

Project name:

Project version or id:

Specify the directory to scan for source code

Source code directory:

Select...

Scan recursively

Specify the directory where doxygen should put the generated documentation

Destination directory:

Select...

OK

Cancel

Doxywizard

The image shows a screenshot of the Doxywizard application's 'Mode' tab. The window has a title bar with tabs for 'Project', 'Mode', 'Output', and 'Diagrams'. The 'Mode' tab is active. The main content area is divided into two sections. The first section is titled 'Select the desired extraction mode:'. It contains three options: 'Documented entities only' (selected with a radio button and highlighted by a dashed border), 'All entities' (unselected), and 'Include cross-referenced source code in the output' (unchecked checkbox). The second section is titled 'Select programming language to optimize the results for:'. It contains four radio button options: 'Optimize for C++ output' (unselected), 'Optimize for Java output' (unselected), 'Optimize for C output' (selected), and 'Optimize for C# output' (unselected). At the bottom right of the window are two buttons: 'OK' and 'Cancel'.

Project | Mode | Output | Diagrams

Select the desired extraction mode:

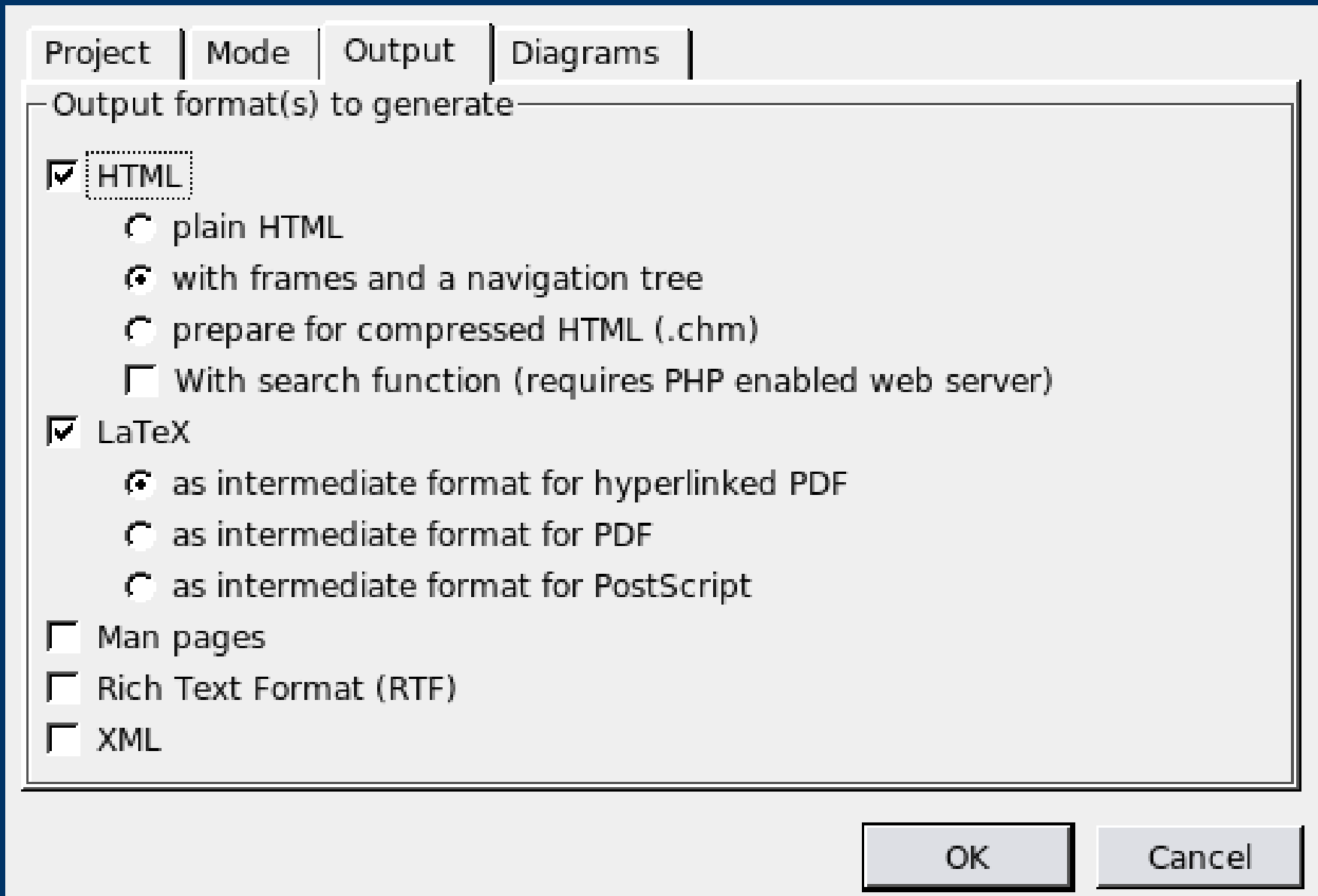
- Documented entities only
- All entities
- Include cross-referenced source code in the output

Select programming language to optimize the results for:

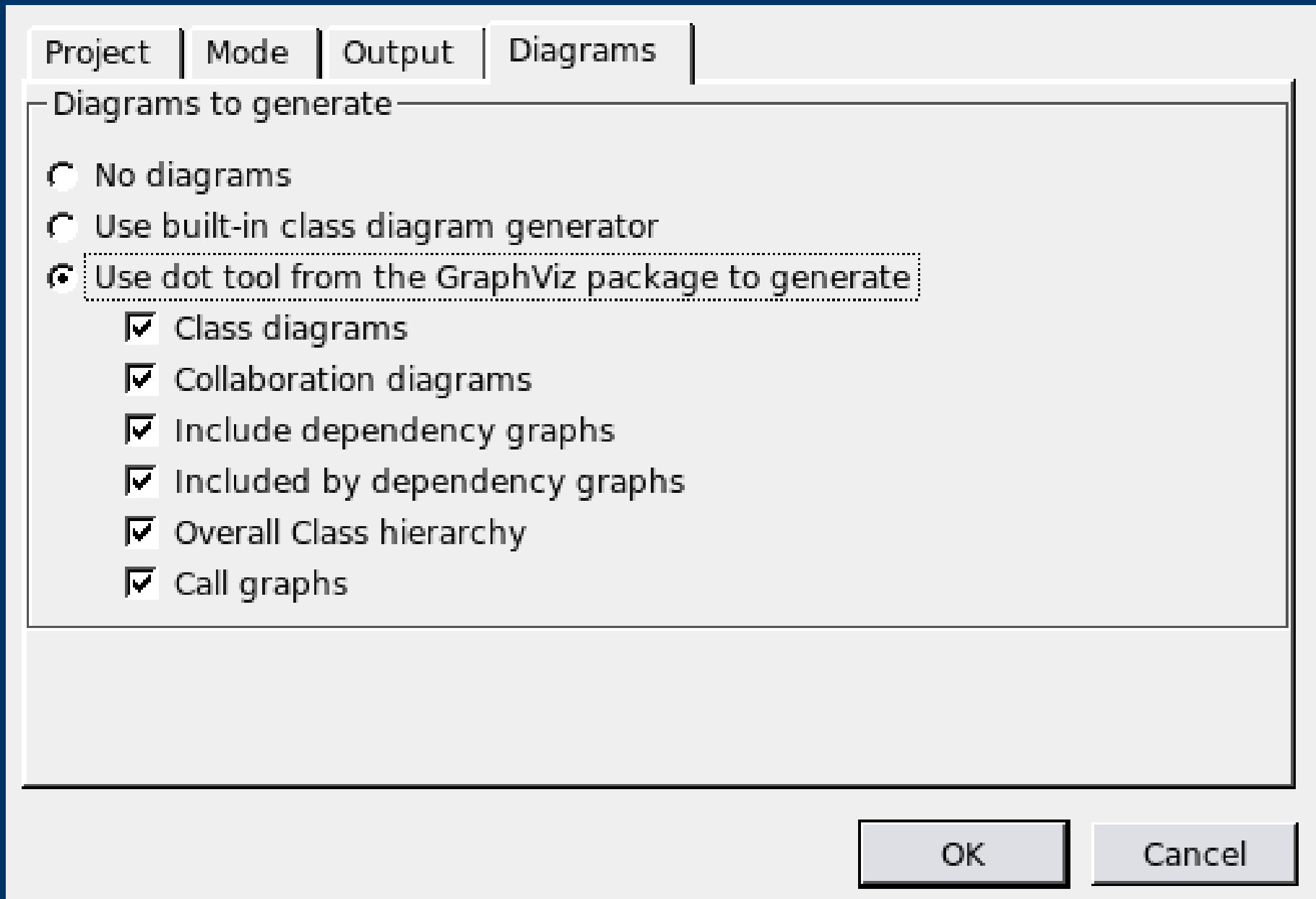
- Optimize for C++ output
- Optimize for Java output
- Optimize for C output
- Optimize for C# output

OK Cancel

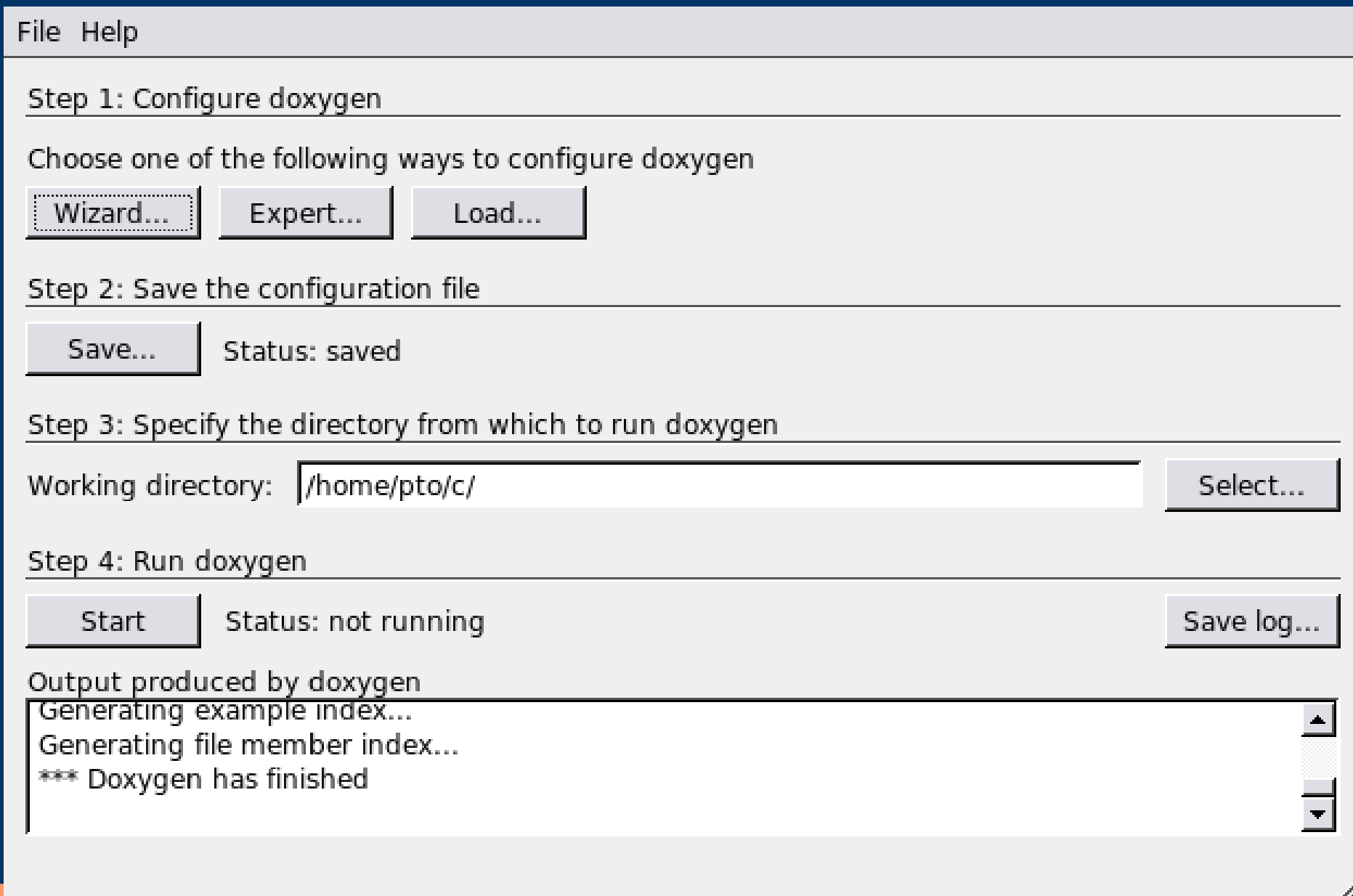
Doxywizard



Doxywizard



Doxywizard



```
/**
 * fct3 is yet another function - middle level
 * this one takes two parameters
 * @see fct() also
 * @param i the first argument.
 * @param j the second argument.
 */
```

```
int fct3(int i,int j)
{
    int a;

    if (i<12)
        a=31;
    else
        a=1;

    return fct4(a);
}
```

Special
tags



C-code

Doxygen output

```
int fct3 ( int i,  
         int j  
        )
```

fct3 is yet another function - middle level this one takes two parameters

See also:

[fct\(\)](#) also

Parameters:

i the first argument.

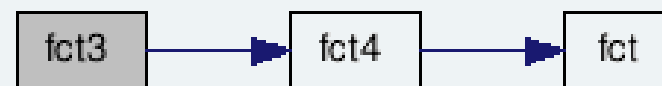
j the second argument.

Definition at line [25](#) of file [code2.c](#).

References [fct4\(\)](#).

Referenced by [fct2\(\)](#).

Here is the call graph for this function:



```
/**
 * fct is yet another...
 */
int fct(int i)
{
    int a;

    if (i<1)
        a=3;
    else
        a=1;

    return a;
}
```

```
/**
 * fct2 is a function - some level
 */
int fct2(int i)
{
    int a;
    /* if i equals 3 */
    if (i==3)
        a=2;
    else
        a=1;

    return fct3(a,2);
}
```

C-code

Doxygen output

The screenshot shows a web browser window displaying the output of Doxygen. The browser's address bar shows the file path: `file:///home/pto/Offentligt/html/inc`. The browser's menu bar includes options like `Filer`, `Rediger`, `Vis`, `Historik`, `Bogmærker`, `Funktioner`, and `Hjælp`. The browser's tab bar shows several open tabs, including `demo_SW`, `Gmail - Indba...`, `Hvalpe f.18/2...`, `Atilla - www.1...`, and `Doxygen`.

The main content area of the browser displays the Doxygen documentation for `demo_SW`. The page has a navigation bar with `Main Page` and `Files` buttons. The title of the page is `demo_SW Documentation`. Below the title, it says `Generated on Fri Mar 20 20:53:37 2009 for demo_SW by` followed by the `doxygen 1.5.6` logo.

The left sidebar shows a file list for `demo_SW` with the following files:

- `code2.c`
- `code2.h`
- `main.c`
- `main.h`
- `Globals`

The status bar at the bottom of the browser window shows the text `Færdig`.

Doxygen output

```
int main ( void )
```

Definition at line **16** of file **main.c**.

References **fct()**, **fct2()**, and **fct_local()**.

Here is the call graph for this function:

