Betriebssysteme Bsp2: mypopen

2.0

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Chapter 1

File Index

1.1 File List

Here is a list of all files with brief descriptions:

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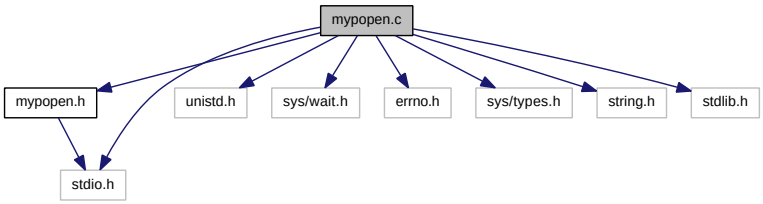
Chapter 2

File Documentation

2.1 mypopen.c File Reference

```
#include "mypopen.h"
#include <stdio.h>
#include <unistd.h>
#include <sys/wait.h>
#include <errno.h>
#include <sys/types.h>
#include <string.h>
#include <stdlib.h>
```

Include dependency graph for mypopen.c:



Functions

- FILE * mypopen (const char *command, const char *type)

  popen clone

- int mypclose (FILE *stream)

  pclose clone

Variables

- static pid_t pid = -1
- static FILE * gl_Stream = NULL

2.1.1 Detailed Description

Betriebssysteme Beispiel 2 mypopen - ein Klon der Linux Funktionen "popen und pclose"

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Date:

2018/05/04

Version:

1.0

Definition in file mypopen.c.

2.1.2 Function Documentation

2.1.2.1 int mypclose (FILE * *stream*)

This function closes the pipe, waits for the child process to exit and retrieves and returns the exit status of the child.

Parameters:

stream file pointer to parent's pipe end

Returns:

exit status of child process or -1 in case of an error

Definition at line 192 of file mypopen.c.

References gl_Stream, and pid.

2.1.2.2 FILE* mypopen (const char * *command*, const char * *type*)

This function creates a child process executing the command given in *cmd*, opens a unnamed pipe, redirects stdin (if *type* is equal to "w") or stdout (if *type* is equal to "r") of the child process to the pipe and returns a file pointer to the pipe end, that is not used by the child process to the caller.

Parameters:

command command to execute in the context of the child process

type "r" or "w" depending on whether the parent process intends to read from or write to the pipe.

Returns:

file pointer to the parent's pipe end or NULL in case of an error

Definition at line 56 of file mypopen.c.

References gl_Stream, and pid.

2.1.3 Variable Documentation

2.1.3.1 FILE* gl_Stream = NULL [static]

Definition at line 39 of file mypopen.c.

Referenced by mypclose(), and mypopen().

2.1.3.2 pid_t pid = -1 [static]

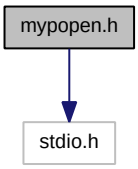
Definition at line 38 of file mypopen.c.

Referenced by mypclose(), and mypopen().

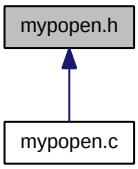
2.2 mypopen.h File Reference

```
#include <stdio.h>
```

Include dependency graph for mypopen.h:



This graph shows which files directly or indirectly include this file:



Functions

- FILE * mypopen (const char *command, const char *type)

  popen clone

- int mypclose (FILE *stream)

  pclose clone

2.2.1 Detailed Description

Betriebssysteme Beispiel 2 mypopen - ein Klon der Linux Funktionen "popen und pclose"

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Date:

2018/05/04

Version:

1.0

Definition in file mypopen.h.

2.2.2 Function Documentation

2.2.2.1 int mypclose (FILE * *stream*)

This function closes the pipe, waits for the child process to exit and retrieves and returns the exit status of the child.

Parameters:

stream file pointer to parent's pipe end

Returns:

exit status of child process or -1 in case of an error

Definition at line 192 of file mypopen.c.

References gl_Stream, and pid.

2.2.2.2 FILE* mypopen (const char * *command*, const char * *type*)

This function creates a child process executing the command given in *cmd*, opens a unnamed pipe, redirects stdin (if *type* is equal to "w") or stdout (if *type* is equal to "r") of the child process to the pipe and returns a file pointer to the pipe end, that is not used by the child process to the caller.

Parameters:

command command to execute in the context of the child process

type "r" or "w" depending on whether the parent process intends to read from or write to the pipe.

Returns:

file pointer to the parent's pipe end or NULL in case of an error

Definition at line 56 of file mypopen.c.

References gl_Stream, and pid.

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