

dpopen Reference Manual

1.9

Generated by Doxygen 1.3.8

Tue Aug 31 16:47:14 2004

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1 dpopen Data Structure Index

1.1 dpopen Data Structures

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2 dpopen File Index

2.1 dpopen File List

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3 dpopen Data Structure Documentation

3.1 dpipe_chain Struct Reference

Struct to store duplex-pipe-specific information.

Data Fields

- FILE * [stream](#)
Pointer to the duplex pipe stream.
- pid_t [pid](#)
Process ID of the command.
- [dpipe_chain](#) * [next](#)
Pointer to the next one in chain.

3.1.1 Detailed Description

Struct to store duplex-pipe-specific information.

3.1.2 Field Documentation

3.1.2.1 struct [dpipe_chain*](#) [dpipe_chain::next](#)

Pointer to the next one in chain.

3.1.2.2 [pid_t](#) [dpipe_chain::pid](#)

Process ID of the command.

3.1.2.3 [FILE*](#) [dpipe_chain::stream](#)

Pointer to the duplex pipe stream.

The documentation for this struct was generated from the following file:

- [dpopen.c](#)

4 dpopen File Documentation

4.1 dpopen.c File Reference

Implementation of a duplex pipe stream.

```
#include <errno.h>
#include <fcntl.h>
#include <stdio.h>
#include <stdlib.h>
#include <unistd.h>
#include <sys/types.h>
#include <sys/socket.h>
#include <sys/wait.h>
#include "dpopen.h"
```

Data Structures

- struct [dpipe_chain](#)
Struct to store duplex-pipe-specific information.

Typedefs

- typedef [dpipe_chain](#) [dpipe_t](#)

Typedef to make the struct easier to use.

Functions

- FILE * [dopen](#) (const char *command)
Initiates a duplex pipe stream from/to a process.
- int [dpclose](#) (FILE *stream)
Closes a duplex pipe stream from/to a process.
- int [dphalfclose](#) (FILE *stream)
Flushes the buffer and sends EOF to the process at the other end of the duplex pipe stream.

Variables

- [dpipe_t](#) * [chain_hdr](#)
Header of the chain of opened duplex pipe streams.

4.1.1 Detailed Description

Implementation of a duplex pipe stream.

Version:

1.10, 2004/08/31

Author:

Wu Yongwei

4.1.2 Typedef Documentation

4.1.2.1 typedef struct [dpipe_chain](#) [dpipe_t](#)

Typedef to make the struct easier to use.

4.1.3 Function Documentation

4.1.3.1 int [dpclose](#) (FILE * *stream*)

Closes a duplex pipe stream from/to a process.

Parameters:

stream pointer to a pipe stream returned from a previous [dopen](#) call

Returns:

the exit status of the command if successful; -1 if an error occurs

4.1.3.2 int dphalfclose (FILE * *stream*)

Flushes the buffer and sends EOF to the process at the other end of the duplex pipe stream.

Parameters:

stream pointer to a pipe stream returned from a previous [dpopen](#) call

Returns:

0 if successful; -1 if an error occurs

4.1.3.3 FILE* dpopen (const char * *command*)

Initiates a duplex pipe stream from/to a process.

Like *popen*, all previously [dpopen](#)'d pipe streams will be closed in the child process.

Parameters:

command the command to execute on `sh`

Returns:

a pointer to an open stream on successful completion; NULL otherwise

4.1.4 Variable Documentation

4.1.4.1 [dpipe_t*](#) [chain_hdr](#) [static]

Header of the chain of opened duplex pipe streams.

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