

OPENSTEP 4.1 Release Notes: PDO

This release of PDO, in addition to implementing the latest version of NeXT's Foundation framework (thus keeping it in sync with Foundation on Windows NT and on Mach) fixes a number of bugs and improves performance over the PDO 4.0 product.

The PDO release notes supplement the on-line documentation that is included in the release. The full set of release notes consist of this file plus **Foundation.pdf**, **Compiler.pdf**, and **Debugger.pdf** (all located in **NextLibrary/Documentation/NextDev/ReleaseNotes**). Notes specific to Foundation, the compiler, or the debugger can be found in the appropriate release note file.

Complete Release Notes on NeXTanswers

The release notes that ship with this product are complete and up-to-date as of the time the CD-ROM was manufactured. Information about the release discovered since manufacture are continually being incorporated into the release notes, which can be obtained from NeXTanswers. For the location of the most up-to-date release notes for this or any other NeXT product, request NeXTanswer #2455.

About NeXTanswers

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- Electronic mail: Send requests to **nextanswers@next.com** with a subject line of HELP to receive instructions on how to proceed.
- Fax: Call 415-780-3990 from a touch-tone phone and follow instructions (you'll need to know the ID numbers of the files you want).
- Anonymous FTP: Connect to FTP.NEXT.COM and read **pub/NeXTanswers/README** for further instructions.
- Call 415-780-2965, log in as "guest", and go to the Files section. From there you can download NeXTanswer documents.

Requests sent to NeXTAnswers are answered electronically, and are not read or handled by a person. It does not answer your questions or forward your requests.

Documentation for this Release

This release contains a great deal of on-line documentation. All on-line documentation supplied with this release can be found in **NextLibrary/Documentation/NextDev** (relative to the directory into which you installed PDO). Within this directory, documentation is grouped into the following major categories:

- **DevTools**: includes documentation on **make**, **gcc**, **gdb**, and the preprocessor.
- **Reference/Foundation**: includes updated Foundation framework reference documentation. Also see the on-line Foundation Framework release notes that are included with this release.
- **Reference/RunTime**: documents the run-time system.
- **Old_PDO_Reference**: documents many of the more useful NXDO classes. With the exception of **Old_PDO_Reference/DistributedObjects/IntroDistObjects.pdf**, this documentation is only relevant to programmers working with old-style NXDO connections.
- **TasksAndConcepts**: includes the Objective-C manual and a “white paper” on how to use old DO with the Enterprise Objects Framework.

Known Problems in This Release

This section documents some of the known problems with this release of PDO. Known problems with specific portions of PDO (such as Foundation, the compiler, and so on) can be found in their own release note files.

Reference: 66188

Problem: Redefinition of MIN and MAX on HP/UX generates a warning

Description: On HP/UX, **param.h** doesn't guard against the redefinition of MIN and MAX. Since **NSString.h** indirectly includes **param.h**, if you've already imported **NSObjCRuntime.h** (which defines MIN and MAX, properly guarded against redefinition), you get a warning when **param.h** overrides these.

Workaround: Edit the copy of **param.h** that's located in **NextDeveloper/lib/gcc-lib/hppa1.1-nextpdo-hpux/2.7.2/include/sys** (relative to the location where PDO is installed), and place a guard around the MIN and MAX defines, as shown here:

```
#ifndef MIN
#define MIN(a,b) (((a)<(b))?(a):(b))
#define MAX(a,b) (((a)>(b))?(a):(b))
#endif
```

Reference: 68675

Problem: Hang while looking up connection after fork

Description: If you have a DO client which tries to look up a connection using `NSConnection's connectionWithRegisteredName:host:`, then forks a process, and then either exits or tries to look up the connection again, the client will hang. If the fork is omitted, the client won't hang.

Workaround: None.

Reference: 69152

Problem: HP-UX nmserver has problems when passing large structures

Description: On HP-UX systems, passing large structures over DO without having first defined a protocol can cause the nmserver to become non-functional.

Workaround: Use DO protocols when passing large structures over DO on HP-UX.

Reference: 69056

Problem: Multi-threaded DO example occasionally hangs on HP-UX

Description: Compiling and running the multi-threaded DO example in `/NextDeveloper/Examples/Foundation/MultiThreadedDO` occasionally results in a hang.

Workaround: None.

Deviations from the OpenStep Specification

The following items are known departures from the OpenStep specification:

- `[NSString stringByStandardizingPath]` raises when presented an absolute path ending in `".."`.
- PDO's implementation of dynamic loading of code from bundles doesn't work on either HP-UX or Solaris. This includes related functionality such as `+bundleForClass:`.