

IBM OS/390 UNIX TPF Cross-Development Environment Build Tools

Welcome. This README contains the latest information about installing and using the TPF Build Tools. For detailed information about individual commands, see the online UNIX manual pages for each.

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1.0    PREREQUISITES
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In order to properly use the TPF Build Tools, you need to have the following minimum software configuration on OS/390:

- o OS/390 UNIX Version 2.6+
- o DFSMS Program Management Binder Version 1.4+
- o OS/390 C/C++ Compiler Version 2.4+
- o High Level Assembler (HLASM) Version 1.3+
- o TPFLDR40 (TPF Offline Loader), any version

1.1 DEPENDENCIES AND ASSUMPTIONS

Many of the modules delivered in the TPF Build Tools perform dynamic DD name allocations and provide for an interface between the OS/390 UNIX command shell and the MVS dispatcher. These two behaviors require some assumptions:

- o UNIT=VIO is available without RACF restrictions
- o UNIT=SYSDA is available without RACF restrictions, and points to 3390 (or 3390-emulated) DASD units

The Build Tools further assume that the program names of the following products match the member names identified below, and are available via the MVS Link List or Link Pack Area:

Program Name	Member Name (PGM=)
High Level Assembler	ASMA90
Program Management Binder	IEWBLINK
C/C++ Precompiler	EDCPRLK

The TPF Offline Loader program (delivered as TPFLDR40) may be installed in the MVS Link List or LPA. Failing such installation, the partitioned data set in which TPFLDR40 resides must be identified via the OS/390 UNIX STEPLIB environment variable.

1.2 PREPARING FOR INSTALLATION

The TPF Build Tools are delivered in a compressed UNIX "tar" archive. Each member of the archive is created with a relative path, meaning that as the tar archive is unwound, files will be installed relative to the current working directory. You will need to change directory ("cd" command) to the desired absolute root, or create that absolute root directory if it does not exist. We suggest using /usr/local as the root directory; but this is a matter of local administration.

2.0 INSTALLATION

The following entry assumes that you have changed your current working directory to the proper location.

```
pax -rf TPFBuildTools-bin-1.1.EBCDIC.tar.Z
```

Alternatively the tar command

```
tar -oxvzf TPFBuildTools-bin-1.1.EBCDIC.tar.Z
```

can be used.

The correct files are now installed.

2.1 ENVIRONMENT VARIABLES

We now have to make the program modules and manual pages accessible to users.

If you have followed our suggestion regarding naming the root directory for the TPF Build Tools installation, you unwound the tar archive into /usr/local, which created the following paths if they did not already exist:

```
<ROOT>/bin
<ROOT>/man
<ROOT>/man/cat1
<ROOT>/man/cat5
<ROOT>/man/cat7
```

Above and following, <ROOT> stands for the full absolute path name of current working directory at the time you unwound the tar archive.

File /etc/profile is read by each new login shell process as part of its startup. System-wide environment definitions are normally kept in this file.

2.2 THE PATH ENVIRONMENT VARIABLE

The PATH environment variable instructs the shell's command line parser to look in one or more directory paths for program modules. We suggest that all commands be made available automatically to all users by placing the following line in /etc/profile:

```
export PATH=$PATH:<ROOT>/bin
```

2.3 THE MANPATH ENVIRONMENT VARIABLE

The MANPATH environment variable instructs the "man" command processor where its files (manual pages) can be found. We suggest that the man pages as delivered be exposed to all users by adding the following line to /etc/profile:

```
export MANPATH=$MANPATH:<root>/man
```

3.0 TRADEMARKS

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