

NAME

binfmt.d – Configure additional binary formats for executables at boot

SYNOPSIS

```
/etc/binfmt.d/*.conf
/run/binfmt.d/*.conf
/usr/local/lib/binfmt.d/*.conf
/usr/lib/binfmt.d/*.conf
```

DESCRIPTION

At boot, **systemd-binfmt.service**(8) reads configuration files from the above directories to register in the kernel additional binary formats for executables.

CONFIGURATION FORMAT

Each file contains a list of `binfmt_misc` kernel binary format rules. Consult the kernel's **Kernel Support for miscellaneous Binary Formats (binfmt_misc)**^[1] documentation file for more information on registration of additional binary formats and how to write rules.

Empty lines and lines beginning with ";" and "#" are ignored. Note that this means you may not use those symbols as the delimiter in binary format rules.

CONFIGURATION DIRECTORIES AND PRECEDENCE

Configuration files are read from directories in `/etc/`, `/run/`, `/usr/local/lib/`, and `/usr/lib/`, in order of precedence, as listed in the SYNOPSIS section above. Files must have the ".conf" extension. Files in `/etc/` override files with the same name in `/run/`, `/usr/local/lib/`, and `/usr/lib/`. Files in `/run/` override files with the same name under `/usr/`.

All configuration files are sorted by their filename in lexicographic order, regardless of which of the directories they reside in. If multiple files specify the same option, the entry in the file with the lexicographically latest name will take precedence. Thus, the configuration in a certain file may either be replaced completely (by placing a file with the same name in a directory with higher priority), or individual settings might be changed (by specifying additional settings in a file with a different name that is ordered later).

Packages should install their configuration files in `/usr/lib/` (distribution packages) or `/usr/local/lib/` (local installs)^[2]. Files in `/etc/` are reserved for the local administrator, who may use this logic to override the configuration files installed by vendor packages.

It is recommended to prefix all filenames with a two-digit number and a dash to simplify the ordering. It is recommended to use the range 10–40 for configuration files in `/usr/` and the range 60–90 for configuration files in `/etc/` and `/run/`, to make sure that local and transient configuration files will always take priority over configuration files shipped by the OS vendor.

If the administrator wants to disable a configuration file supplied by the vendor, the recommended way is to place a symlink to `/dev/null` in the configuration directory in `/etc/`, with the same filename as the vendor configuration file. If the vendor configuration file is included in the `initrd` image, the image has to be regenerated.

EXAMPLE

Example 1. `/etc/binfmt.d/wine.conf` example:

```
# Start WINE on Windows executables
:DOSWin:M::MZ::usr/bin/wine:
```

SEE ALSO

systemd(1), **systemd-binfmt.service**(8), **systemd-delta**(1), **wine**(8)

NOTES

1. Kernel Support for miscellaneous Binary Formats (binfmt_misc)
<https://docs.kernel.org/admin-guide/binfmt-misc.html>

2. Please note that those configuration files must be available at all times. If `/usr/local/` is a separate partition, it may not be available during early boot, and must not be used for configuration.