NAME

sysusers.d - Declarative allocation of system users and groups

SYNOPSIS

/usr/lib/sysusers.d/*.conf

DESCRIPTION

systemd-sysusers uses the files from sysusers.d directory to create system users and groups at package installation or boot time. This tool may be used to allocate system users and groups only, it is not useful for creating non-system users and groups, as it accesses /etc/passwd and /etc/group directly, bypassing any more complex user databases, for example any database involving NIS or LDAP.

CONFIGURATION FORMAT

Each configuration file shall be named in the style of *package*.conf or *package-part*.conf. The second variant should be used when it is desirable to make it easy to override just this part of configuration.

The file format is one line per user or group containing name, ID, GECOS field description and home directory:

```
# Type Name ID GECOS
u httpd 440 "HTTP User"
u authd /usr/bin/authd "Authorization user"
g input - -
m authd input
u root 0 "Superuser" /root
```

Type

The type consists of a single letter. The following line types are understood:

u

Create a system user and group of the specified name should they not exist yet. The user's primary group will be set to the group bearing the same name. The user's shell will be set to /sbin/nologin, the home directory to the specified home directory, or / if none is given. The account will be created disabled, so that logins are not allowed.

g

Create a system group of the specified name should it not exist yet. Note that *u* implicitly create a matching group. The group will be created with no password set.

m

Add a user to a group. If the user or group do not exist yet, they will be implicitly created.

r

Add a range of numeric UIDs/GIDs to the pool to allocate new UIDs and GIDs from. If no line of this type is specified, the range of UIDs/GIDs is set to some compiled-in default. Note that both UIDs and GIDs are allocated from the same pool, in order to ensure that users and groups of the same name are likely to carry the same numeric UID and GID.

Name

The name field specifies the user or group name. It should be shorter than 31 characters and avoid any non-ASCII characters, and not begin with a numeric character. It is strongly recommended to pick user and group names that are unlikely to clash with normal users created by the administrator. A good scheme to guarantee this is by prefixing all system and group names with the underscore, and avoiding too generic names.

For *m* lines, this field should contain the user name to add to a group.

For lines of type *r*, this field should be set to "-".

ID

For *u* and *g*, the numeric 32-bit UID or GID of the user/group. Do not use IDs 65535 or 4294967295, as they have special placeholder meanings. Specify "-" for automatic UID/GID allocation for the user or group. Alternatively, specify an absolute path in the file system. In this case, the UID/GID is read from the

path's owner/group. This is useful to create users whose UID/GID match the owners of pre-existing files (such as SUID or SGID binaries).

For *m* lines, this field should contain the group name to add to a user to.

For lines of type *r*, this field should be set to a UID/GID range in the format "FROM-TO", where both values are formatted as decimal ASCII numbers. Alternatively, a single UID/GID may be specified formatted as decimal ASCII numbers.

GECOS

A short, descriptive string for users to be created, enclosed in quotation marks. Note that this field may not contain colons.

Only applies to lines of type *u* and should otherwise be left unset, or be set to "-".

Home Directory

The home directory for a new system user. If omitted, defaults to the root directory. It is recommended to not unnecessarily specify home directories for system users, unless software strictly requires one to be set.

Only applies to lines of type *u* and should otherwise be left unset, or be set to "-".

CONFIGURATION DIRECTORIES AND PRECEDENCE

Configuration files are read from directories in /etc/, /run/, and /lib/, in order of precedence. Each configuration file in these configuration directories shall be named in the style of *filename*.conf. Files in /etc/ override files with the same name in /run/ and /lib/. Files in /run/ override files with the same name in /lib/.

Packages should install their configuration files in /lib/. Files in /etc/ are reserved for the local administrator, who may use this logic to override the configuration files installed by vendor packages. 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. It is recommended to prefix all filenames with a two-digit number and a dash, to simplify the ordering of the files.

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.

IDEMPOTENCE

Note that **systemd-sysusers** will do nothing if the specified users or groups already exist, so normally, there is no reason to override sysusers.d vendor configuration, except to block certain users or groups from being created.

SEE ALSO

systemd(1), **systemd-sysusers(8)**