

**NAME**

gnome-session - Start the GNOME desktop environment

**SYNOPSIS**

**gnome-session** [-a|--autostart=**DIR**] [--session=**SESSION**] [--failsafe|-f] [--debug] [--whale]

**DESCRIPTION**

The *gnome-session* program starts up the GNOME desktop environment. This command is typically executed by your login manager (either gdm, xdm, or from your X startup scripts). It will load either your saved session, or it will provide a default session for the user as defined by the system administrator (or the default GNOME installation on your system). Note that *gnome-session* is a wrapper script for *gnome-session-binary*.

The default session is defined in **gnome.session**, a .desktop-like file that is looked for in **\$XDG\_CONFIG\_HOME/gnome-session/sessions**, **\$XDG\_CONFIG\_DIRS/gnome-session/sessions** and **\$XDG\_DATA\_DIRS/gnome-session/sessions**.

When saving a session, *gnome-session* saves the currently running applications in the **\$XDG\_CONFIG\_HOME/gnome-session/saved-session** directory. Saving sessions is only supported with the legacy non-systemd startup method.

*gnome-session* is an X11R6 session manager. It can manage GNOME applications as well as any X11R6 SM compliant application.

**OPTIONS**

The following options are supported:

*--autostart=DIR*

The directory **DIR** to be searched for autostart .desktop files. This option can be used multiple times. When this option is present, then default autostart directories will not be searched.

*--session=SESSION*

Use the applications defined in **SESSION.session**. If not specified, **gnome.session** will be used.

*--builtin*

Use the legacy non-systemd method of managing the user session. This is the opposite of the *--systemd* option.

*--systemd*

Use the systemd method of managing the user session. This is the opposite of the *--builtin* option.

*--failsafe*

Run in fail-safe mode. User-specified applications will not be started.

*--debug*

Enable debugging code.

*--whale*

Show the fail whale in a dialog for debugging it.

## SESSION DEFINITION

Sessions are defined in **.session** files, that are using a **.desktop**-like format, with the following keys in the **GNOME Session** group:

*Name*

Name of the session. This can be localized.

*RequiredComponents*

List of component identifiers (desktop files) that are required by the session. The required components will always run in the session.

Here is an example of a session definition:

```
[GNOME Session]
Name=GNOME
RequiredComponents=gnome-shell;gnome-settings-daemon;
```

In **systemd** managed sessions the **RequiredComponents** may be provided by **systemd** units instead. In this case the corresponding **.desktop** file needs to contain **X-GNOME-HiddenUnderSystemd=true**. *gnome-session* will ignore these components and rely on *systemd* to manage them appropriately, see the *systemd* for more information on how this works.

The **.session** files are looked for in **\$XDG\_CONFIG\_HOME/gnome-session/sessions**, **\$XDG\_CONFIG\_DIRS/gnome-session/sessions** and **\$XDG\_DATA\_DIRS/gnome-session/sessions**.

## systemd

*gnome-session* can pass much of the session management over to **systemd** (see the *--systemd* option which may be the default since 3.34). In this case, startup components that have **X-GNOME-HiddenUnderSystemd=true** set in their **.desktop** file will be ignored by *gnome-session*. It instead relies on the fact that these components are managed by **systemd**.

As of GNOME 3.34 the systemd support is new and the customizing the configuration is not yet easily possible. With GNOME 3.34 it may be best to use *--builtin* if session customizations are required. This is due to the way that GNOME currently defines the components that will be started on each session type.

**systemd** provides the two special targets **graphical-session.target** and **graphical-session-pre.target** which are fully functional and should be used. *gnome-session* provides the following main targets:

*gnome-session.target*

Generic unit that will be active throughout the session. Similar to **graphical-session.target**.

*gnome-session-pre.target*

Used for tasks that need to be done before session startup. Similar to **graphical-session-pre.target**.

*gnome-session-x11@SESSION.target* *gnome-session-wayland@SESSION.target*

Main unit started for X11/wayland based session. **SESSION** is set according to the session that is passed in *--session*.

*gnome-session-x11.target* *gnome-session-wayland.target*

Convenience units without the session embedded into the target.

*gnome-session@SESSION.target*

Convenience unit with just the **SESSION** information embedded.

*gnome-session-x11-services.target*

Special unit started when X11 services are needed. This will be used from GNOME 3.36 onwards. Programs will need to use the special **GNOME\_SETUP\_DISPLAY** environment variable instead of *DISPLAY*.

Note that care must be taken to set appropriate **After=** rules. It is also strongly recommended to always do this in combination with **BindsTo=** or **PartOf=** on one of the core targets (e.g. **graphical-session.target**).

Units are required to set **CollectMode=inactive-or-failed**. In addition, it is strongly recommended to set **TimeoutStopSec=5** so that logout will not be delayed indefinitely in case the process does not stop properly.

## ENVIRONMENT

*gnome-session* sets several environment variables for the use of its child processes:

## SESSION\_MANAGER

This variable is used by session-manager aware clients to contact gnome-session.

## DISPLAY

This variable is set to the X display being used by *gnome-session*. Note that if the *--display* option is used this might be different from the setting of the environment variable when *gnome-session* is invoked.

Behavior of *gnome-session* itself can be modified via the following environment variable:

## GNOME\_SESSION\_AUTOSTART\_DIR

This variable specifies a list of directories to be searched for autostart files. This variable overrides all directories specified via the *--autostart* option, as well as all default autostart directories.

## FILES

**\$XDG\_CONFIG\_HOME/autostart \$XDG\_CONFIG\_DIRS/autostart /usr/share/gnome/autostart**

Applications defined via *.desktop* files in those directories will be started on login.

**\$XDG\_CONFIG\_HOME/gnome-session/sessions \$XDG\_CONFIG\_DIRS/gnome-session/sessions  
\$XDG\_DATA\_DIRS/gnome-session/sessions**

These directories contain the *.session* files that can be used with the *--session* option.

**\$XDG\_CONFIG\_HOME/gnome-session/saved-session**

This directory contains the list of applications of the saved session.

## BUGS

If you find bugs in the *gnome-session* program, please report these on <https://gitlab.gnome.org/GNOME/gnome-session/issues>.

## SEE ALSO

**gnome-session-quit(1)**