

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`, `xm`, 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 **BindTo=** 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. *gnome-session-properties(1)* can be used to easily configure them.

**\$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-properties(1) gnome-session-quit(1)