

The GNOME™ Conference GUADEC

The State of Python in GNOME

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About Us



Arjan Molenaar

- 🐙 From The Netherlands
- 🐙 PyGObject and Gaphor
- 🐙 GTK on macOS

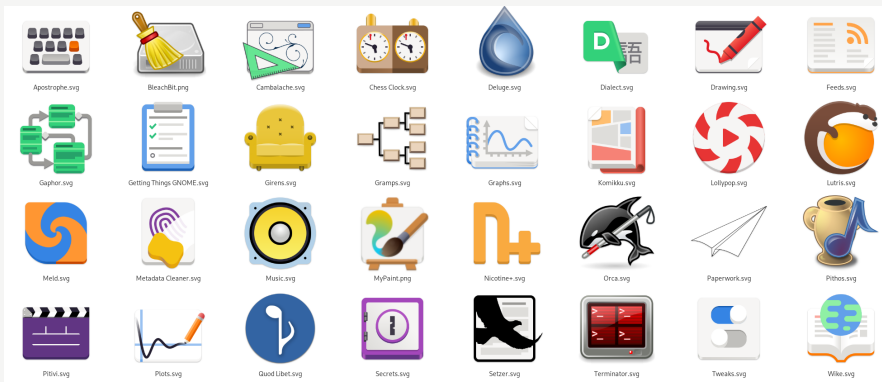


Dan Yeaw (pronounced: Yaw)

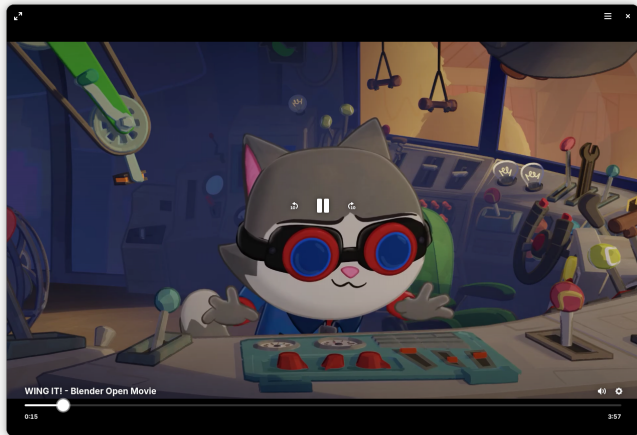
- 🐙 From California, now Michigan
- 🐙 PyGObject and Gaphor
- 🐙 Gvsbuild

GNOME Python

PyGObject is the GTK and related library bindings for Python



GNOME 49 with Showtime



What's New in GNOME Python

Improvements to AsyncIO support

It's easier to start using asyncio:

```
asyncio.set_event_loop_policy(GLibEventLoopPolicy())  
app = Adw.Application(...)  
app.run()
```

vs.

```
app = Adw.Application(...)  
with gi.events.GLibEventLoopPolicy():  
    app.run()
```

Kudos to Benjamin Berg

Enumerations based on Python's enum module

🐾 GObject enums behave like standard Python enums.

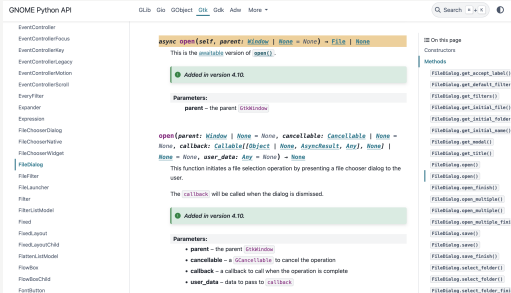
🐾 Both for enumerations and flags

Kudos to James Henstridge

```
>>> Gtk.License.LGPL_3_0
<License.LGPL_3_0: 5>
>>> Gtk.License.LGPL_3_0.name
'LGPL_3_0'
```

Enhanced documentation and examples

- 🐼 The documentation is built using PyGObject
- 🐼 API docs are focused on GNOME core libs
- 🐼 Recently added docs for async methods



<https://api.pygobject.gnome.org>

Migration to girepository 2.0

- 🐾 Improved the code base
- 🐾 Unfortunate fallout: apps not able to upgrade due to dependency on gobject-introspection

What's Next in GNOME Python

What's Next in GNOME Python

- 🐣 PyGObject is mature
- 🐣 Remove deprecated bits
- 🐣 Take advantage of new Python features
 - 🐣 Free threading Python
 - 🐣 Changes in asyncio
- 🐣 Better type support

Adding Python Examples to docs

🐙 Added examples to GtkSourceView

🐙 Not yet generated by API Docs

```
GtkTextTagTable *tag_table;  
GtkTextTag *tag;  
tag_table = gtk_text_buffer_get_tag_table (buffer);  
tag = gtk_text_tag_table_lookup (tag_table,  
                                "gtksourceview:ctx-classes:string"  
                                );
```

```
buffer = GtkSource.Buffer()  
tag_table = buffer.get_tag_table()  
tag = tag_table.lookup(name="gtksourceview:ctx-classes:string")
```

Make development environment setup easier

- Especially on Windows, a dev environment is difficult
- Distributing compiled binaries through conda or wheels could make this much easier



Call to Action

Contributions of any kind will help the community thrive

- 🐦 **Submit** and help triage issues
- 🐦 Help us **fix** bugs and implement features
- 🐦 Continue to help us **improve** the docs
- 🐦 Add examples to **Workbench**
- 🐦 **Build** projects with PyGObject
- 🐦 **Blog** and create videos

Wrap Up

Thank you so much to everyone who has contributed to PyGObject!

<https://pygobject.gnome.org/>

<https://gitlab.gnome.org/GNOME/pygobject>

Chat with us on Matrix at `#python:gnome.org`

Slides:

<https://github.com/gaphor/presentations/tree/main/state-of-python-in-gnome-2025>

Questions?