Focus on exciting development, delegate tedious dependencies update

By Sergi, from the Gfx CI team
What’s an uprev?

- **Update revision**
  - Uprev {{dependency}} in {{target}}

- There is a wiki:
  ```
  fd.o / gfx-ci / ci-uprev
  ```

---

**Pairs**

- virglrenderer
  - mesa
- mesa
  - apitrace
  - crosvm
  - deqp
  - kernel (stalled)
  - libva-utils
  - piglit
  - virglrenderer
  - vkd3d
  - vulkan-cts (stalled)
- Linux-DrmCI
  - mesa
Uprev procedure

1. pre: find/prepare candidate revision to update to.
   - Explore the dependency project to find a candidate revision
     - Some projects require extra information (like pipeline of the commit)
     - Some projects require to apply patches to upstream
   - Produce a structure with the necessary information to do an uprev.

2. core: uprev.

3. post: report.
Uprev procedure

1. pre: find/prepare candidate revision to update to.
2. core: uprev.
   - The uprev to the target project:
     - commit and
     - launch the test pipeline.
   - Update expectations if required.
3. post: report.
Uprev procedure

• 1. pre: find/prepare candidate revision to update to.
• 2. core: uprev.
• 3. post: report.

- Output of the uprev producing:
  - a merge request uprev proposal (new or refresh an existing one) or,
  - an issue with the information about what blocked the uprev (new or append).

- Once a proposal to uprev is possible,
  - if there was an issue open because it failed in the previous attempts,
    close the issue.
Update expectations

- Given a pipeline, iterate the testing jobs to get `failures.csv`

- This can be useful in more general cases than `uprev`
Update expectations

- Given a pipeline, iterate the testing jobs to get *failures.csv*

- This can be useful in more general cases than *uprev*
Update expectations

- Given a pipeline, iterate the testing jobs to get `failures.csv`

- This can be useful in more general cases than `uprev`
What's collate?

- Collate jobs *traces* and *artifacts*
- Dive in a pipeline to collate together the traces and any of the output artifacts
  - Special interest in *results.csv* and *failures.csv*
- *Prepare an expectations patch*
What's collate?

- Collate jobs *traces* and *artifacts*

```python
trace = Collate(namespace='mesa').from_job(49215221).trace()
```
What’s collate?

- Collate jobs *traces* and *artifacts*

```python
trace = Collate(namespace='mesa').from_job(49215221).trace()

failures = Collate(namespace='mesa').from_job(49215223).get_artifact('results/failures.csv')
```
• Collate jobs *traces* and *artifacts*

```python
trace = Collate(namespace='mesa').from_job(49215221).trace()

failures = Collate(namespace='mesa').from_job(49215223).get_artifact('results/failures.csv')

pipeline = Collate(namespace='mesa').from_pipeline(989977)
artifacts = pipeline.get_artifact("results/failures.csv", status="failed")
```
• Collate jobs *traces* and *artifacts*

```python
trace = Collate(namespace='mesa').from_job(49215221).trace()

failures = Collate(namespace='mesa').from_job(49215223).get_artifact('results/failures.csv')

pipeline = Collate(namespace='mesa').from_pipeline(989977)
artifacts = pipeline.get_artifact("results/failures.csv", status="failed")

artifacts = pipeline.get_artifact("results/failures.csv", status="failed", stage=["etnaviv", "freedreno"])
```
What’s collate?

- Prepare an expectations patch
What's collate?

- Prepare an expectations patch

```
ci-collate \
--namespace mesa \
--project mesa \
patch \
  --local-clone tmp_mesa \
1007236
```
What’s collate?

- Prepare an expectations patch

```bash
ci-collate
  --namespace mesa
  --project mesa
  patch
    --local-clone tmp_mesa
    1007236

ci-collate
  --namespace virgl
  --project virglrenderer
  patch
    --branch-namespace gawin
    1006538
```
What's collate?

- Prepare an expectations patch

```bash
# Preparing for mesa patch
ci-collate
  --namespace mesa
  --project mesa
  patch
    --local-clone tmp_mesa
    1007236

# Preparing for virgl renderer patch
ci-collate
  --namespace virgl
  --project virglrenderer
  patch
    --branch-namespaced gawin
    1006538

# Debugging with helen.fornasier project
ci-collate
  --debug
  --namespace helen.fornasier
  --project linux
  patch
    --local-clone tmp_linux
    --branch xfails-test
    1003730
```
We are hiring
col.la/careers