

python api & client code (to discuss @ 3/9 dev meeting)

Simple workflow (input_file) [TAR] (arch.tar.gz)

- default filenames:
 - SiteCatalog.yml
 - TransformationCatalog.yml
 - ReplicaCatalog.yml
 - pegasus.properties
 - Workflow.yml
- default location for submit_dir: <cwd>/<username>/pegasus/<dag name>/runXXXX
- default location for outputs : <cwd>/wf-output
 - when no "local" site given and one is auto generated
 - --output-site=local must be specified in plan

```
#!/usr/bin/env python3

from pathlib import Path

from Pegasus.api import *

# --- Pegasus Properties -----
props = Properties()
props["pegasus.data.configuration"] = "condorio"
props.write()

# --- Sites -----
LOCAL = "local"
CONDORPOOL = "condorpool"
sc = SiteCatalog()\
    .add_sites(
        Site(CONDORPOOL, arch=Arch.X86_64, os_type=OS.LINUX)
        .add_profile_pegasus(style="condor")
        .add_profile_condor(universe="vanilla")
    )

# --- Replicas -----
input_file = File("input")
rc = ReplicaCatalog()\
    .add_replica(LOCAL, input_file, "file://" + str(TOP_DIR / "input"))

# --- Transformations -----
tar = Transformation("tar", site=CONDORPOOL, pfn="/usr/bin/tar", is_stageable=False)

tc = TransformationCatalog()\
    .add_transformations(tar)

# --- Workflow -----
output_file = File("output")

Workflow("compress", infer_dependencies=True)\
    .add_jobs(
        Job(tar)
        .add_args("-czvf", "arch.tar.gz", input_file)
        .add_inputs(input_file)
        .add_outputs(output_file)
    ).add_site_catalog(sc)\
    .add_replica_catalog(rc)\
    .add_transformation_catalog(tc)\
    .plan(output_site=LOCAL, submit=True)\
    .wait()

'''[#####-----] 16.7% ..Running (Completed: 1, Queued: 0, Running: 2,
Failed: 0)'''
```