

GlideinWMS - Bug #25150

Inconsistency in the handling of parameters/attributes

10/29/2020 03:59 PM - Marco Mambelli

Status:	New	Start date:	10/29/2020
Priority:	Normal	Due date:	
Assignee:		% Done:	0%
Category:		Estimated time:	0.00 hour
Target version:	v3_6_7	Spent time:	0.00 hour
First Occurred:		Stakeholders:	
Occurs In:			

Description

The items specified as "attr" in the Frontend and Factory configuration are called internally (in the code) parameters (params) if they can change (const=False) and attributes (attrs) if they are constant (const=True, cannot be overridden). They end up in descript.xml in the entries directories, in the attributes and params sections of the file.

Some parameters in the Factory are set to default values and they cannot be changed in the configuration (creation/lib/cgWParamDict.py):

```
class glideinMainDicts(cgWDictFile.glideinMainDicts):
...
    def populate(self, other=None):
...
        # add the basic standard params
        self.dicts['params'].add("GLIDEIN_Report_Failed", 'NEVER')
        self.dicts['params'].add("CONDOR_OS", 'default')
        self.dicts['params'].add("CONDOR_ARCH", 'default')
        self.dicts['params'].add("CONDOR_VERSION", 'default')
```

The error you see during the Factory upgrade is

```
# faupgrade
Using default factory config file: /etc/gwms-factory/glideinWMS.xml
Error parsing attr main[CONDOR_VERSION]: Key 'CONDOR_VERSION' already exists
Upgrading the factory [FAILED]
```

Changing the code you can see the stack trace and the cause:

```
# su -c 'reconfig_glidein -force_name "gfactory_instance" -writeback yes -update_scripts yes -xml
/etc/gwms-factory/glideinWMS.xml" -fix_rrd -verbose' - gfactory
MMDB: overwriting key not allowed CONDOR_OS default -> rhel7
Traceback (most recent call last):
  File "/usr/sbin/reconfig_glidein", line 278, in <module>
    main(conf, update_scripts, update_def_cfg, comment=comment)
  File "/usr/sbin/reconfig_glidein", line 98, in main
    glidein_dicts_obj.populate(old_glidein_dicts_obj)
  File "/usr/lib/python2.7/site-packages/glideinwms/creation/lib/cgWParamDict.py", line 621, in po
  populate
    self.main_dicts.populate(other)
  File "/usr/lib/python2.7/site-packages/glideinwms/creation/lib/cgWParamDict.py", line 283, in po
  populate
    add_attr_unparsed(attr, self.dicts, "main")
  File "/usr/lib/python2.7/site-packages/glideinwms/creation/lib/cgWParamDict.py", line 782, in ad
  d_attr_unparsed
    add_attr_unparsed_real(attr, dicts)
  File "/usr/lib/python2.7/site-packages/glideinwms/creation/lib/cgWParamDict.py", line 816, in ad
  d_attr_unparsed_real
    dicts['params'].add(attr_name, attr_val)
```

```
File "/usr/lib/python2.7/site-packages/glideinwms/creation/lib/cWDictFile.py", line 103, in add
    raise ImportError("Key '%s' already exists" % key)
ImportError: Key 'CONDOR_OS' already exists
```

There is the additional complication that if an attribute in the configuration is changed from constant to variable (or vice versa), then there are 2 copies of the same attribute/parameter, one in attributes, one in params.

```
/var/lib/gwms-factory/work-dir/entry_ITB_FC_CE2/monitor/descript.xml:      <attributes CONDOR_VERSION="8.9.9" GLEXEC_JOB="False" GLIDEIN_Downtime_Comment="" GLIDEIN_Gatekeeper="fermicloud025.fnal.gov fermicloud025.fnal.gov:9619" GLIDEIN_GlobusRSL="" GLIDEIN_GridType="condor" GLIDEIN_REQUIRE_GLEXEC_USE="False" GLIDEIN_REQUIRE_VOMS="False" GLIDEIN_SINGULARITY_REQUIRE="PREFERRED" GLIDEIN_Site="ITB_FC_CE2" GLIDEIN_SlotsLayout="fixed" GLIDEIN_SupportedAuthenticationMethod="grid_proxy" GLIDEIN_TrustDomain="grid" GLIDEIN_Verboesity="std" GLIDEIN_WorkDir="OSG" USE_CCB="True" USE_MATCH_AUTH="True"/>
/var/lib/gwms-factory/work-dir/entry_ITB_FC_CE2/monitor/descript.xml:      <params CONDOR_ARCH="default" CONDOR_OS="rhel7" CONDOR_VERSION="default" GLIDEIN_Collector="Fake" GLIDEIN_Report_Failed="NEVER"/>
```

The goal is to clarify the behavior and allow changes when those should be possible (or is expected by the operators).

History

#1 - 11/01/2020 08:21 PM - Marco Mambelli

- Description updated

#2 - 12/03/2020 09:19 PM - Marco Mambelli

- Target version changed from v3_6_6 to v3_6_7