

## IMPORTANT:

Any change which are done here also must be done in:

<https://github.com/dmwm/WMCore/blob/master/src/python/WMCore/WMExceptions.py>

- Range(1 - 512)
  - ◆ standard ones in Unix and indicate a CMSSW abort that the cmsRun did not catch as exception
- Range(7000 - 9000)
  - ◆ cmsRun (CMSSW) exit codes. These codes may depend on specific CMSSW version [https://github.com/cms-sw/cms-sw/blob/CMSSW\\_11\\_0\\_0/FWCore/Utilities/interface/EDMException.I](https://github.com/cms-sw/cms-sw/blob/CMSSW_11_0_0/FWCore/Utilities/interface/EDMException.I)
- Range(10000 - 19999)
  - ◆ Failures related to the environment setup
- Range(50000 - 59999)
  - ◆ Failures related executable file
- Range(60000 - 69999)
  - ◆ Failures related staging-OUT
- Range(70000 - 79999)
  - ◆ Failures related only for WMAgent. (which does not fit into ranges before)
- Range(80000 - 89999)
  - ◆ Failures related only for CRAB3. (which does not fit into ranges before)
- Range(90000 - 99999)
  - ◆ Other problems which does not fit to any range before.

## Error codes currently sent from CMS jobs to the dashboard

 indicates site error

- **Error exit code of the cmsRun application itself - range 0-10000**
- **Exit codes in 1-255 are standard ones in Unix and indicate a CMSSW abort that the cmsRun did not catch as exception**
  - ◆ 1 - 255 those exit codes are usually returned by `bash` when it is interrupted by a fatal signal. The exit code is set to `128+signal number` as per [https://www.gnu.org/software/bash/manual/html\\_node/Exit-Status.html](https://www.gnu.org/software/bash/manual/html_node/Exit-Status.html). The list of standard linux signal can be read from `man -s 7 signal`
  - ◆ For convenience we have collected a list of most common such exit codes: `StandardExitCodes`
- **cmsRun (CMSSW) exit codes. range 7000-9000** \***These codes may depend on specific CMSSW version, the list is maintained in here** [and you should look at tags there to find out what is appropriate for a given CMSSW release.](#) The situation as of 11\_0\_X is below
  - ◆ // The first three are specific categories of CMS Exceptions.
  - ◆ 7000 - Exception from command line processing
  - ◆ 7001 - Configuration File Not Found
  - ◆ 7002 - Configuration File Read Error
  - ◆ 8001 - Other CMS Exception
  - ◆ 8002 - std::exception (other than bad\_alloc)
  - ◆ 8003 - Unknown Exception
  - ◆ 8004 - std::bad\_alloc (memory exhaustion)
  - ◆ 8005 - Bad Exception Type (e.g throwing a string)
  - ◆ // The rest are specific categories of CMS Exceptions.
  - ◆ 8006 - ProductNotFound
  - ◆ 8007 - DictionaryNotFound

- ◆ 8008 - InsertFailure
- ◆ 8009 - Configuration
- ◆ 8010 - LogicError
- ◆ 8011 - UnimplementedFeature
- ◆ 8012 - InvalidReference
- ◆ 8013 - NullPointerError
- ◆ 8014 - NoProductSpecified
- ◆ 8015 - EventTimeout
- ◆ 8016 - EventCorruption
- ◆ 8017 - ScheduleExecutionFailure
- ◆ 8018 - EventProcessorFailure
- ◆ 8019 - FileInPathError
- ◆ ⚠ 8020 - FileOpenError (Likely a site error) (see [HERE](#).)
- ◆ ⚠ 8021 - FileReadError (May be a site error)
  - ◇ The following link can help, please check:  
<https://twiki.cern.ch/twiki/bin/view/CMSPublic/WorkBookWhichRelease#DifferentReleases>
- ◆ 8022 - FatalRootError
- ◆ 8023 - MismatchedInputFiles
- ◆ 8024 - ProductDoesNotSupportViews
- ◆ 8025 - ProductDoesNotSupportPtr
- ◆ 8026 - NotFound (something other than a product or dictionary not found)
- ◆ 8027 - FormatIncompatibility
- ◆ ⚠ 8028 - FileOpenError with fallback
- ◆ 8029 - NoSecondaryFiles, in practice list of pileup files (for MixingModule) was empty
- ◆ 8030 - Exceeded maximum allowed VSize (ExceededResourceVSize).
- ◆ 8031 - Exceeded maximum allowed RSS (ExceededResourceRSS).
- ◆ 8032 - Exceeded maximum allowed time (ExceededResourceTime).
- ◆ ⚠ 8033 - Could not write output file (FileWriteError) (usually local disk problem)
- ◆ 8034 - FileNameInconsistentWithGUID
- ◆ 9000 - cmsRun caught (SIGINT and SIGUSR2) signal.
- ⚠ **Failures related to the environment setup - range 10000-19999**
  - ◆ 10001 - Connectivity problems
  - ◆ 10002 - CPU load is too high
  - ◆ 10003 - CMS software initialisation script cmsset\_default.sh failed
  - ◆ 10004 - CMS\_PATH not defined
  - ◆ 10005 - CMS\_PATH directory does not exist
  - ◆ 10006 - scramv1 command not found
  - ◆ 10007 - Some CMSSW files are corrupted/non readable
  - ◆ 10008 - Scratch dir was not found
  - ◆ 10009 - Less than 5 GB/core of free space in scratch dir
  - ◆ 10010 - Could not find X509 certificate directory
  - ◆ 10011 - Could not find X509 proxy certificate
  - ◆ 10012 - Unable to locate the glidein configuration file
  - ◆ 10013 - No sitename detected! Invalid SITECONF file
  - ◆ 10014 - No PhEDEx node name found for local or fallback stageout
  - ◆ 10015 - No LOCAL\_STAGEOUT section in site-local-config.xml
  - ◆ 10016 - No frontier-connect section in site-local-config.xml
  - ◆ 10017 - No callib-data section in site-local-config.xml
  - ◆ 10018 - site-local-config.xml was not found
  - ◆ 10019 - TrivialFileCatalog string missing
  - ◆ 10020 - event\_data section is missing
  - ◆ 10021 - no proxy string in site-local-config.xml
  - ◆ 10022 - Squid test was failed
  - ◆ 10023 - Clock skew is bigger than 60 sec

- ◆ 10031 - Directory VO\_CMS\_SW\_DIR not found
  - ◆ ⚠ 10032 - Failed to source CMS Environment setup script such as cmsset\_default.sh, grid system or site equivalent script
  - ◆ ⚠ 10034 - Required application version is not found at the site (see [HERE](#).)
  - ◆ ⚠ 10040 - failed to generate cmsRun cfg file at runtime
  - ◆ ⚠ 10042 - Unable to stage-in wrapper tarball.
  - ◆ ⚠ 10043 - Unable to bootstrap WMCore libraries (most likely site python is broken).
  - ◆ ⚠ 10050 - WARNING test\_squid.py: One of the load balance Squid proxies
  - ◆ ⚠ 10051 - WARNING less than 20 GB of free space per core in scratch dir
  - ◆ ⚠ 10052 - WARNING less than 10MB free in /tmp
  - ◆ ⚠ 10053 - WARNING CPU load of last minutes + pilot cores is higher than number of physical CPUs
  - ◆ ⚠ 10054 - WARNING proxy shorter than 6 hours
- **Executable file related failures - range 50000-59999**
    - ◆ 50110 - Executable file is not found
    - ◆ 50111 - Executable file has no exe permissions
    - ◆ 50113 - Executable did not get enough arguments
    - ◆ 50115 - cmsRun did not produce a valid job report at runtime (often means cmsRun segfaulted)
    - ◆ 50116 - Could not determine exit code of cmsRun executable at runtime
    - ◆ 50513 - Failure to run SCRAM setup scripts
    - ◆ 50660 - Application terminated by wrapper because using too much RAM (RSS)
    - ◆ 50661 - Application terminated by wrapper because using too much Virtual Memory (VSIZE)
    - ◆ 50662 - Application terminated by wrapper because using too much disk
    - ◆ 50663 - Application terminated by wrapper because using too much CPU time
    - ◆ 50664 - Application terminated by wrapper because using too much Wall Clock time
    - ◆ 50665 - Application terminated by wrapper because it stay idle too long
    - ◆ 50669 - Application terminated by wrapper for not defined reason
- **Staging-OUT related troubles- range 60000-69999**
    - ◆ 60302 - Output file(s) not found (see [HERE](#).)
    - ◆ 60307 - Failed to copy an output file to the SE (sometimes caused by timeout issue). Or by the issues mentioned [HERE](#).
    - ◆ ⚠ 60311 - Local Stage Out Failure using site specific plugin
    - ◆ 60312 - Failed to get file TURL via lcg-lr command
    - ◆ ⚠ 60315 - ProdAgent StageOut initialisation error (Due to TFC, SITECONF etc)
    - ◆ 60316 - Failed to create a directory on the SE
    - ◆ 60317 - Forced timeout for stuck stage out
    - ◆ 60318 - Internal error in Crab cmscp.py stageout script
    - ◆ 60319 - Failure to do AlcaHarvest stageout (WMAgent)
    - ◆ 60320 - Failure to communicate with ASO server
    - ◆ ⚠ 60321 - Site related issue: no space, SE down, refused connection.
    - ◆ 60322 - User is not authorized to write to destination site.
    - ◆ 60323 - User quota exceeded.
    - ◆ 60324 - Other stageout exception.
    - ◆ 60401 - Failure to assemble LFN in direct-to-merge by size (WMAgent)
    - ◆ 60402 - Failure to assemble LFN in direct-to-merge by event (WMAgent)
    - ◆ 60403 - Timeout during attempted file transfer - status unknown (WMAgent)
    - ◆ 60404 - Timeout during staging of log archives - status unknown (WMAgent)
    - ◆ 60405 - General failure to stage out log archives (WMAgent)
    - ◆ 60407 - Timeout in staging in log files during log collection (WMAgent)
    - ◆ 60408 - Failure to stage out of log files during log collection (WMAgent)
    - ◆ 60409 - Timeout in stage out of log files during log collection (WMAgent)

- ◆ 60450 - No output files present in the report
  - ◆ 60451 - Output file lacked Adler32 checksum (WMAgent)
  
  - **Failures related only for WMAgent.- range 70000-79999**
    - ◆ 71101 - No sites are available to submit the job because the location of its input(s) do not pass the site whitelist/blacklist restrictions (WMAgent) Twas 61101
    - ◆ 71102 - The job can only run at a site that is currently in Aborted state (WMAgent)
    - ◆ 71103 - The JobSubmitter component could not load the job pickle (WMAgent)
    - ◆ 71104 - The job can run only at a site that is currently in Draining state (WMAgent)
    - ◆ 71300 - The job was killed by the WMAgent, reason is unknown (WMAgent)
    - ◆ 71301 - The job was killed by the WMAgent because the site it was running at was set to Aborted (WMAgent)
    - ◆ 71302 - The job was killed by the WMAgent because the site it was running at was set to Draining (WMAgent)
    - ◆ 71303 - The job was killed by the WMAgent because the site it was running at was set to Down (WMAgent)
    - ◆ 71304 - The job was killed by the WMAgent for using too much wallclock time (WMAgent) Job status was Running.
    - ◆ 71305 - The job was killed by the WMAgent for using too much wallclock time (WMAgent) Job status was Pending.
    - ◆ 71306 - The job was killed by the WMAgent for using too much wallclock time (WMAgent) Job status was Error.
    - ◆ 71307 - The job was killed by the WMAgent for using too much wallclock time (WMAgent) Job status was Unkown.
    - ◆ 70318 - Failure in DQM upload.
    - ◆ 70452 - No run/lumi information in file (WMAgent)
  
  - **Failures related only for CRAB3- range 80000-89999**
    - ◆ 80000 - Internal error in CRAB job wrapper
    - ◆ 80001 - No exit code set by job wrapper.
    - ◆ 80453 - Unable to determine pset hash from output file (CRAB3).
  
  - **Other problems which does not fit to any range before.- range 90000-99999**
    - ◆ 90000 - Error in CRAB3 post-processing step (currently includes basically errors in stage out and file metadata upload).
    - ◆ 99109 - Uncaught exception in WMAgent step executor
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