

Appendix A - Submit Description File Commands

In table below, the most used commands with their meaning in the submit files of a HTCondor job [\[26\]](#).

Arguments	List of arguments to be supplied to the executable as part of the command line.
Error	A path and file name used by HTCondor to capture any error messages the program would normally write to the screen. When the job exits, the resulting file is transferred back to the machine where the job was submitted, and the path is utilized for file placement. More than one job should not use the same error file, since this will cause one job to overwrite the errors of another.
Executable	An optional path and a required file name of the executable file for the job cluster.
Log	It is used to specify a file name where HTCondor will write a log file of what is happening with the job cluster, called a job event log. For example, HTCondor will place a log entry into this file when and where the job begins running, when the job produces a checkpoint, or moves (migrates) to another machine, and when the job completes. If no log entry is specified, HTCondor does not create a log for this cluster.
Output	The output file is written (by the job) in the remote scratch directory of the machine where the job is executed and it captures any information the program would ordinarily write to the screen (that is, this file becomes <code>stdout</code>).
Queue	An integer number is required. Places zero or more copies of the job into the HTCondor queue.
Request_cpus	A requested number of CPUs (cores). If not specified, the number requested will be 1.
Request_disk	The requested amount of disk space in KB requested for the job.
Request_memory	It determines the amount of required RAM in MB.
Request_<name>=<quantity>	In general, this string represents the requirements of the job. For instance, machines that have available GPUs can define <code><name></code> to be <code>GPUs</code> .
Should_transfer_files	This command setting is used to define if HTCondor should transfer files to and from the remote machine where the job runs. If equal to <code>YES</code> , this will cause HTCondor to always transfer files for the job, otherwise <code>NO</code> disables HTCondor's file transfer mechanism.
Transfer_input_files	A comma-delimited list of all the files and directories to be transferred into the working directory for the job, before the job is started.
Transfer_output_files	This command forms an explicit list of output files and directories to be transferred back from the temporary working directory on the execute machine to the submit machine. If there are multiple files, they must be delimited with commas.
Universe	The <code>vanilla</code> universe is the default (except where the configuration variable <code>DEFAULT_UNIVERSE</code> defines it otherwise). Use the <code>vanilla</code> universe to submit shell scripts to HTCondor.
When_to_transfer_output	This setting command allows or does not allow HTCondor to transfer the job's output files back to the submitting machine when the job completes.
+<attribute>=<value>	<p>A line that begins with a '+' (plus) character instructs <code>condor_submit</code> to insert the given <i>attribute</i> into the job ClassAd with the given <i>value</i>. For example:</p> <ul style="list-style-type: none">• <code>+owner=undefined</code>; this is necessary in the submit description file of a grid job because this setting command allows the Computing Element to identify the user through the own certificate;• <code>+wantgpu=true</code>; if the job has to use GPUs for running. <p>You can see Job ClassAd Attributes [27] for a list of HTCondor job attributes.</p>