**EGI policy for the usage of the TMPDIR variable in jobs’ environment**

# Introduction

Virtual Organisations list the minimum resources needed by the users’ jobs to properly run on a Worker Node. Those information are published in the VO ID card, and every site who support a specific VO needs to make sure that the WNs fulfil the requirements.

One parameter that VOs can require is the amount of disk space for the job’s temporary files, the **scratch space**.

This document provides a policy that aims to uniform across the sites the usage of environment variables used to communicate to the jobs the location of such scratch area.

Without a specific policy accepted throughout the infrastructure every site can implement his own policy, assuming that the scratch area is either the user’s home directory, job work-directory or a path advertised using a job’s environment variable.

With a common best practice in place, users can expect the same configuration -regarding this topic- in every execution environment, and adjust the code or the jobs’ wrappers accordingly.

## To which services the policy applies

The policy applies to the sites deploying *CREAM CEs* and *WN* (both EMI and gLite). Other middleware stacks seem to not have this ambiguity. An extension of this policy for other middleware stacks can be added in the further releases, if needed.

## Use of TMPDIR variable

The policy consists in three points:

1. In a grid job’s environment, the **TMPDIR** variable always contains the path to the location that can be used by the job as a scratch area for temporary files
2. If the **TMPDIR** variable is not set, the jobs can consider the **current working directory** as the assigned scratch area.

The following comments clarify the boundaries of the policy:

1. The scratch area should have enough free space to fulfil the VO ID card requirements (if it does not, users should open a GGUS[[1]](#footnote-1) ticket VS the site)
2. The current version of the policy does not assume that the scratch areas are shared between worker nodes. This document will be refined to include also this information (the location of a shared area if needed by parallel jobs) in the job’s environment, or a new policy will be released.  
    More in general, this policy does not assume that the scratch area has any specific feature, but the disk space.
3. If the TMPDIR variable contains an invalid path, this does not mean that the job’s current workdir can be considered the assigned scratch area. This is a configuration error and the users should open a GGUS ticket VS the affected site.
4. The GLUE schema contains the attribute *GlueSubClusterWNTmpDir,* the CEs should not publish such attribute, to avoid that users could erroneously use it to configure their jobs.

1. https://ggus.eu/pages/ticket.php [↑](#footnote-ref-1)