Common User Environment Variable Definitions

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Version 1.1

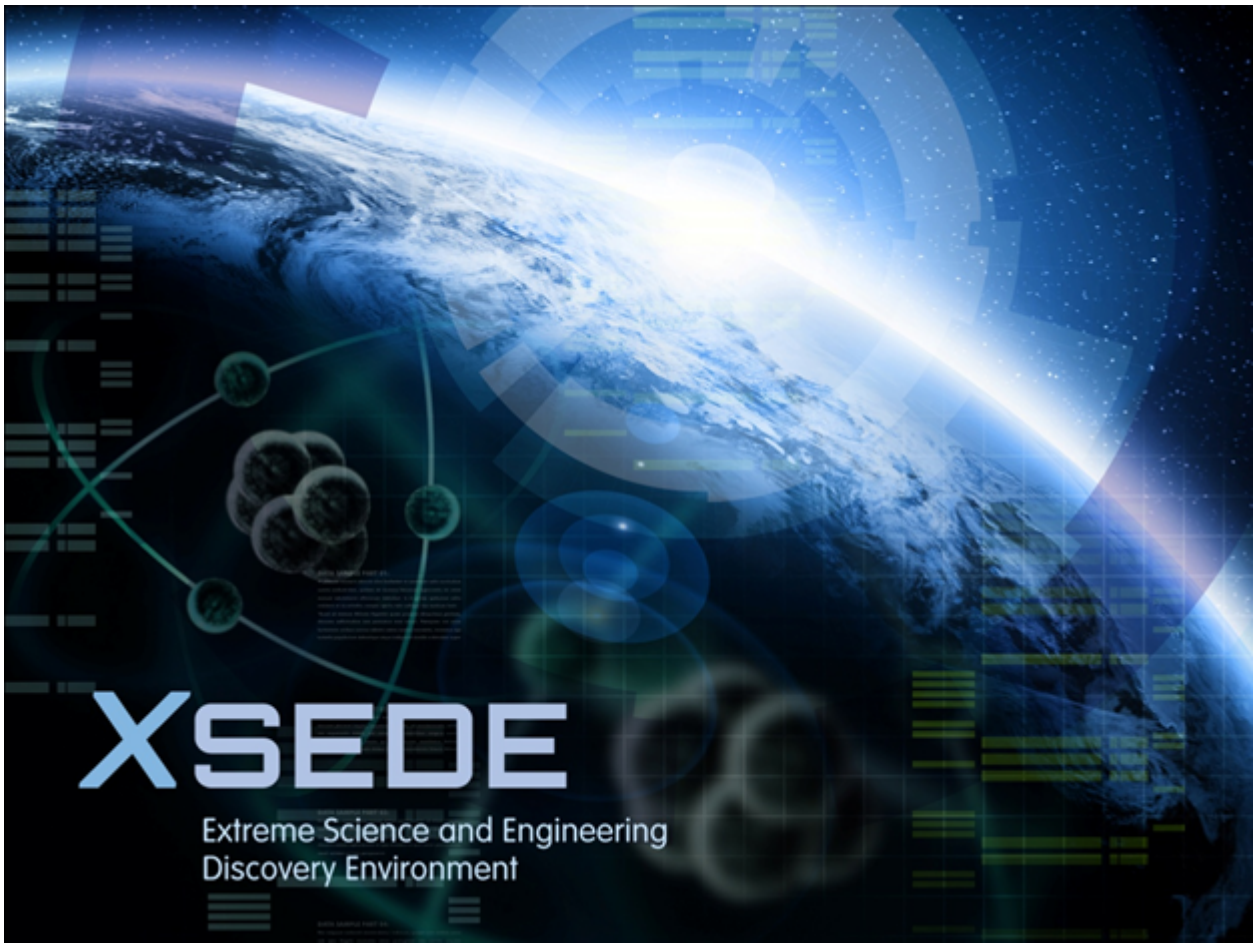

Table of Contents

A. Document History

Relevant Sections	Version	Date	Changes	Author
Entire Document	1.00	02/16/2015	Baseline	Chris Hempel
Changes throughout with change tracking on	1.1	2/19/2015	Put XSEDE for TG in intro paragraph, Changed Figure 1 to Table 1, changed CIS to XCDB in table 1	

B. Common User Environment (CUE)

In the TeraGrid (TG) project's final year a TG Requirement Assessment Team defined a set of Common User Environment (CUE) variables. The CUE variables would enable users to optionally set and add common environment variables to their interactive and batch environments via Modules capability. These variables would provide a unified environment variable set across all XSEDE resources, defining commonly used environment variables automatically sparing the user time spent learning resource-specific intricacies. It was proposed that modulefile *cue-login-env* be defined and deployed across Service Providers (SP). This modulefile defines CUE login shell environment variables in Table 1 below.

XSEDE Operations and User Services groups recommend implementation of the *cue-login-env* module by SPs with XRAC allocated resources (at any SP Level). This module will provide variables containing resource information (e.g. hostname), reference location information (e.g. URLs to documentation, paths to community spaces) as well as defining the user's Home, Work & Scratch directories and other file spaces.

Table 1. The CUE variables, definition of each, and an example value for each.

CUE Variable	Description	Example Value
Resource Specific Variables		
CUE_HOSTNAME	The fully qualified (DNS) host name that the shell is running on.	$env(HOSTNAME)
CUE_PROMPT_HOST	A default hostname substring that can be used in defining a default shell prompt that identifies what system the shell is running on.	$system.stampede
CUE_RESOURCE_ID	The resource identifier string for this host in the XSEDE central database (XCDB). Queries to the XCDB should be able to use this resource ID to filter results specific to this host. This resource ID should be unique across all hosts in the XCDB. The resource ID may look like a DNS hostname, but that is a coincidence and is not required to resolve via DNS to a specific host.	stampede.tacc.xsede.org
Reference/Location Variables		
CUE_DOCS	URL for documentation specific to the current system.	http://portal.xsede.org/tacc-stampede
Home directory variables		
CUE_HOME	Path to the current user's home directory visible on login nodes and compute nodes.	$env(HOME)
CUE_HOME_TYPE	File system type of the node's local home file system. This value should include a version number if implementations and client commands differ between versions of the file system type.	lustre-2.4.1

CUE_CLUSTER_HOME	Path to the current user's home directory visible on login nodes and compute nodes.	$env(HOME)
Scratch Directory Variables		
CUE_NODE_SCRATCH	Path on a compute node to local scratch file space for that node (not necessarily visible to other compute nodes); node scratch file system local to the node may be deleted upon job completion.	$env(SCRATCH)
CUE_NODE_SCRATCH_TYPE	File system type of the node local scratch file system. This value should include a version number if implementations and client commands differ between versions of the file system type.	lustre-2.4.1
CUE_SCRATCH	Path to the user's scratch directory on a shared file system visible to all compute nodes.	$env(SCRATCH)
CUE_SCRATCH_TYPE	File system type of the scratch file system visible to all compute nodes. This value should include a version number if implementations and client commands differ between versions of the file system type.	lustre-2.4.1
CUE_CLUSTER_SCRATCH	Path to the current user's scratch directory visible on login nodes and compute nodes.	$env(SCRATCH)
Work Directory Variables		
CUE_WORK	Path to the user's work directory on a shared file system visible to all compute nodes.	$env(WORK)
CUE_WORK_TYPE	File system type of the work file system visible to all compute nodes. This value should include a version number if implementations and client commands differ between versions of the file system type.	lustre-2.4.1
CUE_CLUSTER_WORK	Path to the current user's work directory visible on login nodes and compute nodes.	$env(WORK)