# ENV-002g — Enforce Environmental Constraints

Go to ENV-002 — Configure Test Environment

## Statement

The DIDO-TE SHALL enforce each environmental Constraint applicable to a Test Environment before and during Test Execution.

## Derived From

- [DTE5] DIDO-TE Requirements Register, source requirement identifier and obligation to be assigned
- [DTE6] Structured Information Processing Reference Architecture (SIP-RA)
- [DTE7] Federated Data Interpretation Systems Reference Architecture (FDIS-RA)

## Rationale

Environmental Constraints define the physical, virtual, operational, temporal, and resource conditions governing a Test Environment.

Enforcing these Constraints establishes the controlled conditions under which Test Execution occurs. These conditions include applicable limits on capacity, availability, location, isolation, connectivity, timing, temperature, power, processing, memory, storage, and network characteristics.

Maintaining the required environmental conditions supports Reproducibility and assessment of whether an environmental deviation influenced a Test Result.

## Applies To

- Test Environment
- Constraint
- Test Execution
- Test Object
- Node
- Test Resource
- Configuration
- Deployment Target

# Verification

Verification confirms that:

- The DIDO-TE identifies every environmental Constraint applicable to the Test Environment.
- The DIDO-TE enforces each applicable environmental Constraint before and during Test Execution.
- The DIDO-TE observes the environmental conditions governed by each Constraint.
- The observed environmental conditions remain within their specified limits.
- The DIDO-TE records environmental conditions and deviations as Evidence.
- The DIDO-TE maintains Traceability among each environmental Constraint, the governed environmental condition, and the applicable Test Execution.
- The DIDO-TE prevents Test Execution when a required environmental Constraint remains unsatisfied before execution.
- The DIDO-TE identifies a violation occurring during Test Execution and records its relationship to the affected Test Execution and Test Results.
- A missing, unenforced, violated, or untraceable environmental Constraint constitutes nonconformance with this requirement.

Verification includes:

- Inspection of the environmental Constraints applicable to the Test Environment
- Inspection of the mechanisms enforcing each environmental Constraint
- Inspection of environmental observations and Evidence
- Comparison of observed environmental conditions with their specified limits
- Inspection of Traceability records
- A negative assessment using an unsatisfied environmental Constraint before Test Execution
- Confirmation that the DIDO-TE prevents Test Execution when the Constraint remains unsatisfied
- A negative assessment introducing an environmental Constraint violation during Test Execution
- Confirmation that the DIDO-TE identifies and records the violation and its relationship to the affected Test Execution and Test Results

# Referenced By

**Plugin Backlinks: Nothing was found.**

# Related Architecture Sections

- Add links to the architecture sections governing environmental Constraints, Test Environment control, observation, and exception handling.

# Delivery Phase

Assign the applicable delivery phase.

# Requirement Status

Draft

# Statement Reference

Use the following syntax to reference this requirement's Statement section from another DokuWiki page:

```
{{section>dido:03-dido-te:99-annexes:annex-c-requirements:02-test-environment-requirements:env-002-configure-test-environment:env-002g-enforce-environmental-constraints#Statement&noheader&nofooter&noeditbtn}}
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