

TWIN-005a — Establish the Initial State of a Twin Realization

[Go to TWIN-005 — Access Twin Realization State](#)

Statement

The [DIDO-TE](#) SHALL establish the initial state of each [Twin Realization](#) before that Twin Realization participates in [Test Execution](#).

Source

- [\[DTE1\] U.S. Patent Application US20220237111A1](#), virtual and physical Twin Node concepts, baseline test results, modification of Twin Nodes, and comparison of results
- [\[DTE2\] Non-Traditional BAA Submission](#), Digital Twin concepts, real-time monitoring, scenario testing, and Twin Nodes Selection
- [\[DTE9\] Distributed Immutable Data Object Reference Architecture \(DIDO-RA\)](#), Digital Twin and distributed data concepts

Rationale

A controlled initial state establishes the starting condition from which changes in the represented characteristics of a [Twin Realization](#) are observed and interpreted.

Without an established initial state, subsequent synchronization, simulation, comparison, [Validation](#), or [Test Execution](#) results may lack a reproducible starting condition.

The initial state derives from the characteristics represented by the [Twin Relationship](#), the associated [Twin Data Mappings](#), and the governing [Configuration](#).

Establishing the initial state does not require a Twin Realization to reproduce every characteristic of its referent. It establishes the condition of the characteristics represented within the Twin Relationship.

Applies To

- [DIDO-TE](#)
- [Twin Identity](#)
- [Twin Relationship](#)
- [Twin Realization](#)
- [Twin Data Mapping](#)
- [Configuration](#)

- [Test Definition](#)
- [Test Execution](#)

Verification

Verification confirms that:

1. Each Twin Realization participating in Test Execution has an established initial state.
2. The initial state is established before the Twin Realization participates in Test Execution.
3. The initial state includes the represented characteristics required by the governing Twin Relationship.
4. The initial state conforms to the governing Configuration and Twin Data Mappings.
5. Characteristics outside the scope of the Twin Relationship are not required to establish the initial state.
6. The initial state is determinable before Test Execution begins.
7. The initial state is traceable to the Twin Realization and the governing Test Definition or Configuration.

Verification includes a Test Execution using a Twin Realization and confirms that its initial state is established and recorded before execution begins.

Traceability

Plugin Backlinks: Nothing was found.

ConOps Relationship

This requirement establishes the controlled starting condition of a Twin Realization before Test Execution.

The initial state provides the reference condition for subsequent determination of the current state of the Twin Realization, synchronization, simulation, comparison, Validation, monitoring, and evidence generation.

Delivery Phase

TBD

Requirement Status

Draft

Statement Reference

```
{{section>dido:03-dido-te:99-annexes:annex-c-requirements:03-functional-requirements:03-03-twin-node-requirements:twin-005-acquire-twin-state:twin-005a-establish-the-initial-twin-state#Statement&noheader&nofooter&noeditbtn}}
```

© 2026 Dido Solutions, Inc. and Jackrabbit Consulting, Inc.

From:
<https://wiki.didosolutions.com/> - Dido Solutions, Inc Wiki

Permanent link:
<https://wiki.didosolutions.com/dido/03-dido-te/99-annexes/annex-c-requirements/03-functional-requirements/03-03-twin-node-requirements/twin-005-acquire-twin-state/twin-005a-establish-the-initial-twin-state>

Last update: 2026/08/20 17:04

