

TWIN-010c — Require Authorization for Resource State Changes

[Go to TWIN-010 — Control Twin Interaction](#)

Statement

The [DIDO-TE](#) SHALL require authorization for each permitted interaction that changes the state of a [Resource](#).

Source

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

Rationale

A permitted interaction may change the state of a [Resource](#) participating in or affected by a [Twin Relationship](#).

Permission to perform an interaction does not establish authority to change Resource state.

Requiring authorization establishes a separate control decision for state-changing interactions and prevents technical capability, connectivity, interface availability, DDS discovery, Topic matching, or other implementation mechanisms from being interpreted as authority to modify a Resource.

This requirement establishes the authorization requirement. TWIN-010d separately prevents execution when the required authorization is absent or denied.

Applies To

- [DIDO-TE](#)
- [Twin Relationship](#)
- [Resource](#)
- [Configuration](#)
- [Test Execution](#)

Verification

Verification confirms that:

1. Each permitted interaction that changes Resource state requires authorization.
2. Interaction permission does not substitute for authorization.
3. Interaction direction does not substitute for authorization.
4. Technical connectivity or interface access does not establish authorization.
5. The authorization requirement is associated with the Resource whose state may change.
6. The authorization requirement is traceable to the governing Configuration.

Verification includes at least one permitted interaction that changes Resource state and confirms that authorization is required independently of interaction permission.

Traceability

Plugin Backlinks: Nothing was found.

ConOps Relationship

This requirement establishes the authorization prerequisite for a permitted interaction that changes Resource state.

TWIN-010d governs enforcement of that prerequisite by preventing execution when the required authorization is absent or denied.

Delivery Phase

TBD

Requirement Status

Draft

Statement Reference

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{{section>dido:03-dido-te:99-annexes:annex-c-requirements:03-functional-requirements:03-03-twin-node-requirements:twin-010-control-twin-interaction:twin-010c-require-authorization-for-resource-state-changes#Statement&noheader&nofooter&noeditbtn}}
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Last update: 2026/08/21 17:35

