[wct-en] 07 Demo & Test Procedures

Repeatable demonstrations, acceptance tests, verification steps and expected results. Edition: WCT English — OpenC5ISR (openc5isr-en.wallacecorptech.com).

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Start Here

Start Here

Field	Value
Distribution	WCT English — OpenC5ISR
Product	OpenC5ISR
Release	0.15.1
Deployment	`openc5isr-en.wallacecorptech.com`
Source	`/srv/wct/releases/OpenC5ISR-v0.15.0`
Evidence	Documentation structure and release scan
Source fingerprint	`63d2b1097707e25d666401cdc6362e395968600a40a08690210cd8c0b75fbf50`
Status	Generated baseline — human review required

> **Verification boundary:** This page combines platform design guidance with static evidence from the release. It does not prove that every detected interface is enabled, reachable, secure, or operational in the deployed environment.

Purpose

This book turns demonstrations into repeatable tests. Every procedure should state prerequisites, exact steps, expected results, evidence to capture and cleanup/reset actions.

Contents

Section	What it contains
Foundational Tests	Platform, service, interface and dependency smoke tests.

Section	What it contains
Operational Workflows	Repeatable demonstrations that cross components and preserve evidence.
Acceptance & Evidence	API and release acceptance with expected/actual results.

How to maintain this book

Generated sections are replaced from release evidence on each run. Put reviewed corrections, deployment-specific facts, links and decisions in the Maintainer Notes area below the generated block. Mark pages as reviewed only after testing them against the named distribution and release.

Maintainer Notes

Add human-reviewed deployment notes, corrections, decisions, screenshots, and links here. Content outside the generated block is preserved on future runs.

Demo and Test Index

Demo and Test Index

Field	Value
Distribution	WCT English — OpenC5ISR
Product	OpenC5ISR
Release	0.15.1
Deployment	`openc5isr-en.wallacecorptech.com`
Source	`/srv/wct/releases/OpenC5ISR-v0.15.0`
Evidence	Reference test catalog
Source fingerprint	`63d2b1097707e25d666401cdc6362e395968600a40a08690210cd8c0b75fbf50`
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Demo/test catalog

Procedure	Operational point	Primary capabilities
Platform Smoke Test	Core service and public-route readiness	All enabled editions
Track-to-Task Workflow	Collect, associate, collaborate and task	OpenTrack, OpenCOP, OpenTask, OpenBus
OpenEyes Sensor Product	Capture/upload, persist, display, associate and share imagery	OpenEyes, OpenFiles, OpenBus
OpenRF Spectrum Workflow	Edge processing and real-time spectrum product	OpenRF, SDR agent, OpenPNT

Procedure	Operational point	Primary capabilities
OpenLVC / FlightGear Workflow	Live/virtual track interoperability and tasking	OpenLVC, FlightGear, OpenTrack, OpenCOP
API Acceptance	Authentication, schema, error and policy behavior	Published REST/WebSocket interfaces
Release Acceptance	Full deployment gate and rollback decision	0.15.1

Evidence package for every run

- Distribution/release version and source fingerprint.
- Date/time, tester, environment and participating devices/services.
- Configuration profile with secrets excluded.
- Exact test data/commands, screenshots or recordings, logs and correlation identifiers.
- Expected versus actual result, timing/quality measures and pass/fail rationale.
- Cleanup/reset completed and defects/tasks created.

Maintainer Notes

Add human-reviewed deployment notes, corrections, decisions, screenshots, and links here. Content outside the generated block is preserved on future runs.

Foundational Tests

Managed documentation for Foundational Tests.

Platform Smoke Test

Platform Smoke Test

Field	Value
Distribution	WCT English — OpenC5ISR
Product	OpenC5ISR
Release	0.15.1
Deployment	`openc5isr-en.wallacecorptech.com`
Source	`/srv/wct/releases/OpenC5ISR-v0.15.0`
Evidence	Reference smoke test plus detected health routes
Source fingerprint	`63d2b1097707e25d666401cdc6362e395968600a40a08690210cd8c0b75fbf50`
Status	Generated baseline — human review required

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Objective

Prove the release is running, routed correctly, connected to required shared services and able to complete one representative transaction before a deeper demonstration.

Prerequisites

- [ ] Release activated and rollback target known.

- [ ] DNS/TLS and time synchronization healthy.
- [ ] Test user/service identities available without exposing credentials.
- [ ] Representative dependencies and test data available.

Candidate health routes

- No candidate health route detected; use verified local/public roots and primary APIs.

Procedure

1. Record active release and service state.
2. Verify local backend response on each enabled instance.
3. Verify public HTTPS route for `openc5isr-en.wallacecorptech.com` and certificate.
4. Log in with a non-admin test user and verify expected edition/branding.
5. Exercise one read and one authorized write operation.
6. Verify the operation appears in the intended UI/API and audit/log trail.
7. Review logs for new errors and measure response time.

Pass criteria

All intended services remain stable; public and local paths return expected results; authorization is correct; a representative transaction completes; and no critical error/security regression appears.

Maintainer Notes

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Operational Workflows

Managed documentation for Operational Workflows.

Track-to-Task Workflow

Track-to-Task Workflow

Field	Value
Distribution	WCT English — OpenC5ISR
Product	OpenC5ISR
Release	0.15.1
Deployment	`openc5isr-en.wallacecorptech.com`
Source	`/srv/wct/releases/OpenC5ISR-v0.15.0`
Evidence	Reference cross-component acceptance test
Source fingerprint	`63d2b1097707e25d666401cdc6362e395968600a40a08690210cd8c0b75fbf50`
Status	Generated baseline — human review required

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Objective

Demonstrate the operational chain from track ingestion through visualization, semantic association, collaboration and an acknowledged/completed task.

Prerequisites

- ☐ OpenTrack, OpenCOP, OpenTask and required OpenBus/knowledge services are healthy.

- [ ] A controlled track generator or recorded input is available.
- [ ] Two test users/roles are available for assignment and acknowledgement.

Procedure

1. Create or ingest a uniquely identified test track with known position, time, type and source.
2. Verify OpenTrack receives/updates it and OpenCOP displays it in the correct location/type.
3. Open the track details and confirm source time, provenance and semantic type.
4. Create an OBSERVE, INVESTIGATE, TRACK or other allowed task from the track.
5. Assign it to the second user/asset; acknowledge, execute and complete it.
6. Verify task state is visible in OpenTask/OpenCOP and correlated to the original track.
7. Capture messages/events/logs proving the state transitions.

Pass criteria

Track position/type/time are correct; task creation and authorization succeed; all state transitions are visible and correlated; duplicate updates do not create duplicate tasks; evidence is retained.

Cleanup

Delete or mark the test track/task complete according to the test-data policy and verify no generator continues publishing.

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OpenEyes Sensor Product Workflow

OpenEyes Sensor Product Workflow

Field	Value
Distribution	WCT English — OpenC5ISR
Product	OpenC5ISR
Release	0.15.1
Deployment	`openc5isr-en.wallacecorptech.com`
Source	`/srv/wct/releases/OpenC5ISR-v0.15.0`
Evidence	Reference operational demonstration
Source fingerprint	`63d2b1097707e25d666401cdc6362e395968600a40a08690210cd8c0b75fbf50`
Status	Generated baseline — human review required

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Objective

Demonstrate that imagery captured by OpenEyes or uploaded from a phone persists as a sensor product, appears in the OpenEyes product strip, carries source/time/context metadata, and can be

associated or pushed to an OpenFiles workspace/release group.

Prerequisites

- ☐ OpenEyes asset/device session is healthy and authorized.
- ☐ Local sensor-product storage is writable and persistence survives page refresh/service restart.
- ☐ Phone upload script has endpoint/token configured outside the script or uses a safe prompt.
- ☐ OpenFiles target workspace/release group exists and permissions are verified.

Procedure

1. Capture one image from the FPV view and record the asset/session ID and capture time.
2. Verify a thumbnail appears in Sensor Products and opens the full image.
3. Refresh the page and restart only the OpenEyes service; verify the product remains.
4. Run the phone upload script with a uniquely named image and verify it appears in the same product strip.
5. Inspect metadata: product ID, device/uploader, source time, receipt time, MIME type, size, checksum and optional position/track/task.
6. Push the product to the selected OpenFiles workspace/release group and verify recipient access.
7. Verify audit/provenance links from OpenEyes product to the OpenFiles artifact.

Pass criteria

Both captured and uploaded images persist, render correctly, have accurate metadata/checksum, are access-controlled, transfer once without corruption, and retain the source-to-share provenance trail.

Negative tests

- Unauthorized upload or workspace push is rejected and audited.
- Unsupported/oversize/corrupt content is rejected safely.
- Duplicate retry does not create uncontrolled duplicate products.
- Metadata does not expose token, local file-system path or sensitive EXIF beyond policy.

Maintainer Notes

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OpenRF Spectrum Workflow

OpenRF Spectrum Workflow

Field	Value
Distribution	WCT English — OpenC5ISR
Product	OpenC5ISR
Release	0.15.1
Deployment	`openc5isr-en.wallacecorptech.com`
Source	`/srv/wct/releases/OpenC5ISR-v0.15.0`
Evidence	Reference SDR/edge demonstration plus technology indicators
Source fingerprint	`63d2b1097707e25d666401cdc6362e395968600a40a08690210cd8c0b75fbf50`
Status	Generated baseline — human review required

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Objective

Demonstrate registered SDR discovery, synchronized/located collection, edge spectrum processing and a low-latency spectrum or detection product visible through OpenRF without transporting unnecessary raw samples.

Procedure

1. Register the radio agent/device with stable ID, driver, capabilities, location profile and time source.
2. Confirm agent health, radio enumeration and selected center frequency/sample/bandwidth/gain settings.
3. Start a bounded scan or known FM/spectrum example and observe local processing load/drop indicators.
4. Open the OpenRF view and verify live spectrum/detection product, labels, units and timestamps.
5. Change one authorized setting and verify acknowledgement plus visible result.
6. Record latency, update rate, sample/drop quality and time/PNT status.
7. Stop the task and verify radio resources are released.

Pass criteria

Correct radio/profile is used; settings are bounded and authorized; product units/time are correct; view remains responsive; loss/degradation is visible; stop releases hardware; no raw bandwidth flood occurs across the WAN.

Observed technology indicators

Indicator	Occurrences
PTP/PPS	1064
camera/video	362
UHD/USRP	324
AIS	154
FlightGear	121
DIS	85
PlutoSDR	56
HackRF	55
SoapySDR	54
ADS-B	46

Maintainer Notes

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OpenLVC and FlightGear Workflow

OpenLVC and FlightGear Workflow

Field	Value
Distribution	WCT English — OpenC5ISR
Product	OpenC5ISR
Release	0.15.1
Deployment	`openc5isr-en.wallacecorptech.com`
Source	`/srv/wct/releases/OpenC5ISR-v0.15.0`
Evidence	Reference LVC integration test
Source fingerprint	`63d2b1097707e25d666401cdc6362e395968600a40a08690210cd8c0b75fbf50`
Status	Generated baseline — human review required

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Objective

Demonstrate a virtual FlightGear entity entering the same operational representation used by live tracks, then being observed, correlated, tasked and replayed without hiding its simulation

provenance.

Procedure

1. Start a controlled FlightGear scenario with known aircraft, position, heading, speed and scenario time.
2. Start the OpenLVC bridge and verify its input/output endpoint and entity identifier.
3. Verify OpenTrack receives updates with correct coordinates, altitude, velocity, time and LVC provenance.
4. Display the entity in OpenCOP and compare against the FlightGear state.
5. Create an observation/follow/intercept task and verify state transitions without issuing unsafe real-world effects.
6. Record scenario/event stream for OpenAAR-MR and replay the segment.
7. Verify live and virtual entities remain distinguishable by source/provenance while sharing common semantics.

Pass criteria

Track error remains within test tolerance; update rate/time mapping is stable; provenance is explicit; task workflow completes; replay reproduces the operational sequence; no virtual input crosses a prohibited live-effect boundary.

Maintainer Notes

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Acceptance & Evidence

Managed documentation for Acceptance & Evidence.

API Acceptance Test

API Acceptance Test

Field	Value
Distribution	WCT English — OpenC5ISR
Product	OpenC5ISR
Release	0.15.1
Deployment	`openc5isr-en.wallacecorptech.com`
Source	`/srv/wct/releases/OpenC5ISR-v0.15.0`
Evidence	Static API inventory plus acceptance standard
Source fingerprint	`63d2b1097707e25d666401cdc6362e395968600a40a08690210cd8c0b75fbf50`
Status	Generated baseline — human review required

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Scope

Test the 11 REST/HTTP and 8 WebSocket candidates identified by the static scan, then publish only verified interfaces as authoritative.

Per-endpoint test matrix

Test	Expected

Authorized valid request	Documented success status and schema.
Unauthenticated request	Rejected without data leakage.
Authenticated but unauthorized	403/policy rejection and audit event.
Malformed/invalid data	Deterministic validation error; no crash/partial mutation.
Duplicate/retry	Idempotent result or explicitly documented duplicate behavior.
Rate/size/timeout boundary	Controlled rejection/backpressure and observable metric/log.
Dependency failure	Safe error, no secret/stack leakage, recovery after dependency returns.
Audit/correlation	Actor, action, target, outcome and correlation ID present.

Evidence record

```
Endpoint and release:
Authentication role:
Request (secrets removed):
Expected status/schema:
Actual status/schema:
Latency/size:
Audit/correlation ID:
Pass/fail and defect/task:
Tester/date:
```

Maintainer Notes

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Release Acceptance Test

Release Acceptance Test

Field	Value
Distribution	WCT English — OpenC5ISR
Product	OpenC5ISR
Release	0.15.1
Deployment	`openc5isr-en.wallacecorptech.com`
Source	`/srv/wct/releases/OpenC5ISR-v0.15.0`
Evidence	Release evidence and acceptance standard
Source fingerprint	`63d2b1097707e25d666401cdc6362e395968600a40a08690210cd8c0b75fbf50`
Status	Generated baseline — human review required

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Release gate

- [ ] Artifact/version/checksum/source recorded.
- [ ] Configuration diff and secret rotation requirements reviewed.
- [ ] Database/ontology/data migrations tested with backup and rollback.
- [ ] Service, local health, public TLS/proxy and WebSocket checks pass.
- [ ] Primary workflows for enabled components pass with correct authorization.
- [ ] Performance/latency/resource behavior acceptable for demo/operational load.
- [ ] Logs/audit show no critical regression or credential leakage.

- [ ] Backup/restore and rollback path remain available.
- [ ] Known issues, owners and workarounds documented.
- [ ] Release approved by named technical/operational reviewer.

Static coverage indicators

Area	Count
Files inventoried	1383
Detected components	23
REST candidates	11
WebSocket candidates	8
Service candidates	10
Nginx candidates	1

Decision record

```
Decision: APPROVE / APPROVE WITH LIMITATIONS / REJECT / ROLL BACK
Release:
Environment:
Tests executed:
Open defects/limitations:
Operational risk:
Rollback state:
Approver/date:
```

Maintainer Notes

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