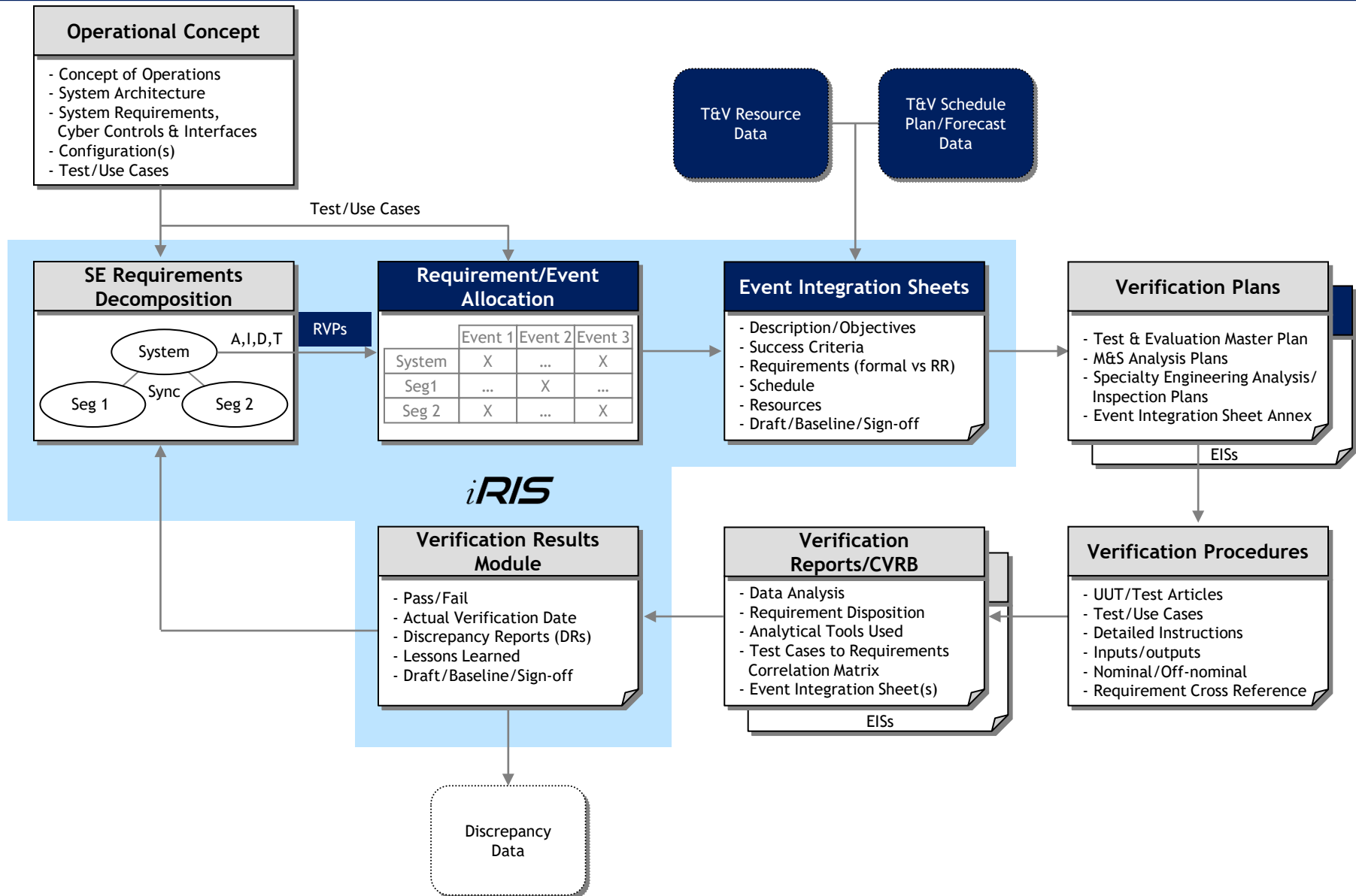# Module 3:
Requirements Verification Planning

Celeris Systems Inc.

3335 E. Miraloma Ave., Suite 143
Anaheim, California 92806
www.celeris-systems.com/iris
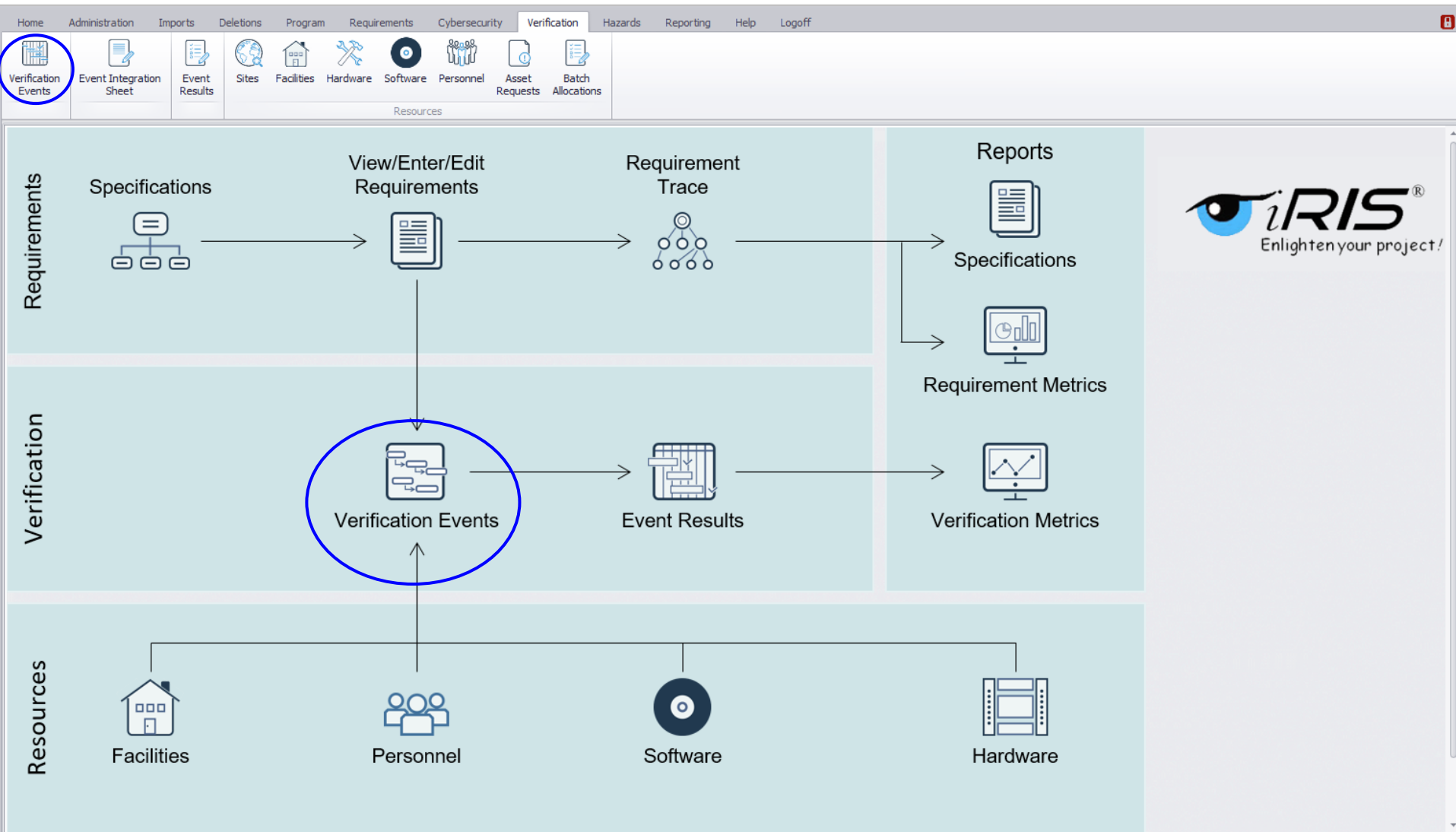
iRIS in the Verification Planning Workflow

Operational Concept
- Concept of Operations
- System Architecture
- System Requirements, Cyber Controls & Interfaces
- Configuration(s)
- Test/Use Cases

T&V Resource Data

T&V Schedule Plan/Forecast Data

Test/Use Cases

SE Requirements Decomposition

A,I,D,T

System

Sync

Seg 1   Seg 2

RVPs

Requirement/Event Allocation

	Event 1	Event 2	Event 3
System	X	...	X
Seg1	...	X	...
Seg 2	X	...	X

Event Integration Sheets
- Description/Objectives
- Success Criteria
- Requirements (formal vs RR)
- Schedule
- Resources
- Draft/Baseline/Sign-off

Verification Plans
- Test & Evaluation Master Plan
- M&S Analysis Plans
- Specialty Engineering Analysis/ Inspection Plans
- Event Integration Sheet Annex

EISs

*i*RIS

Verification Results Module
- Pass/Fail
- Actual Verification Date
- Discrepancy Reports (DRs)
- Lessons Learned
- Draft/Baseline/Sign-off

Verification Reports/CVRB
- Data Analysis
- Requirement Disposition
- Analytical Tools Used
- Test Cases to Requirements Correlation Matrix
- Event Integration Sheet(s)

EISs

Verification Procedures
- UUT/Test Articles
- Test/Use Cases
- Detailed Instructions
- Inputs/outputs
- Nominal/Off-nominal
- Requirement Cross Reference

Discrepancy Data

Module Objective: Understand how to use EBP/iRIS to support verification planning

- EIS Creation & Updates
  - Event IDs
  - How to assign team member EIS responsibilities
  - How to research requirements
  - How to allocate/remove requirements to/from an EIS
    - Test/Use Case Requirement Allocation
  - How to allocate resources to an EIS
    - Facilities/hardware/software/personnel
  - Working with gantt view of events
- EIS Configuration Management
  - How to lock an event and manage changes
  - Electronic Signature Approval

Entering the Requirements Verification Planning Workspace

Verification Event List View

CelerisSystems ℠

Assigning EIS Responsibilities

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- Assigned by iRIS Admin
- Can update any Module of the EIS, including assigning Prime Team Members, Customers & Stakeholders below

EIS Owners

Researching Requirements

- The iRIS Requirements Module Helps Identify Requirements that may need to be allocated to an EIS:

Key Word Searches

Parent/child Traceability

Allocating Requirements to an EIS

Removing Requirements from an EIS

Test/Use Case Requirement Allocation

Requirement/Event Formal Tagging

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Master Resource List
- Labs/Facilities
- Personnel
- Hardware
- Software

iRIS Inventory Module
- Managed by SE&I T&V
- Unique Resource IDs
- Resource Source Information
- Operational Status
- Usage Constraints

iRIS Reservation Module
- Event Owner Reserves Resources
- Resource Reservation Start/End Dates
- Real time Conflict Notification
  - Event Owners De-conflict
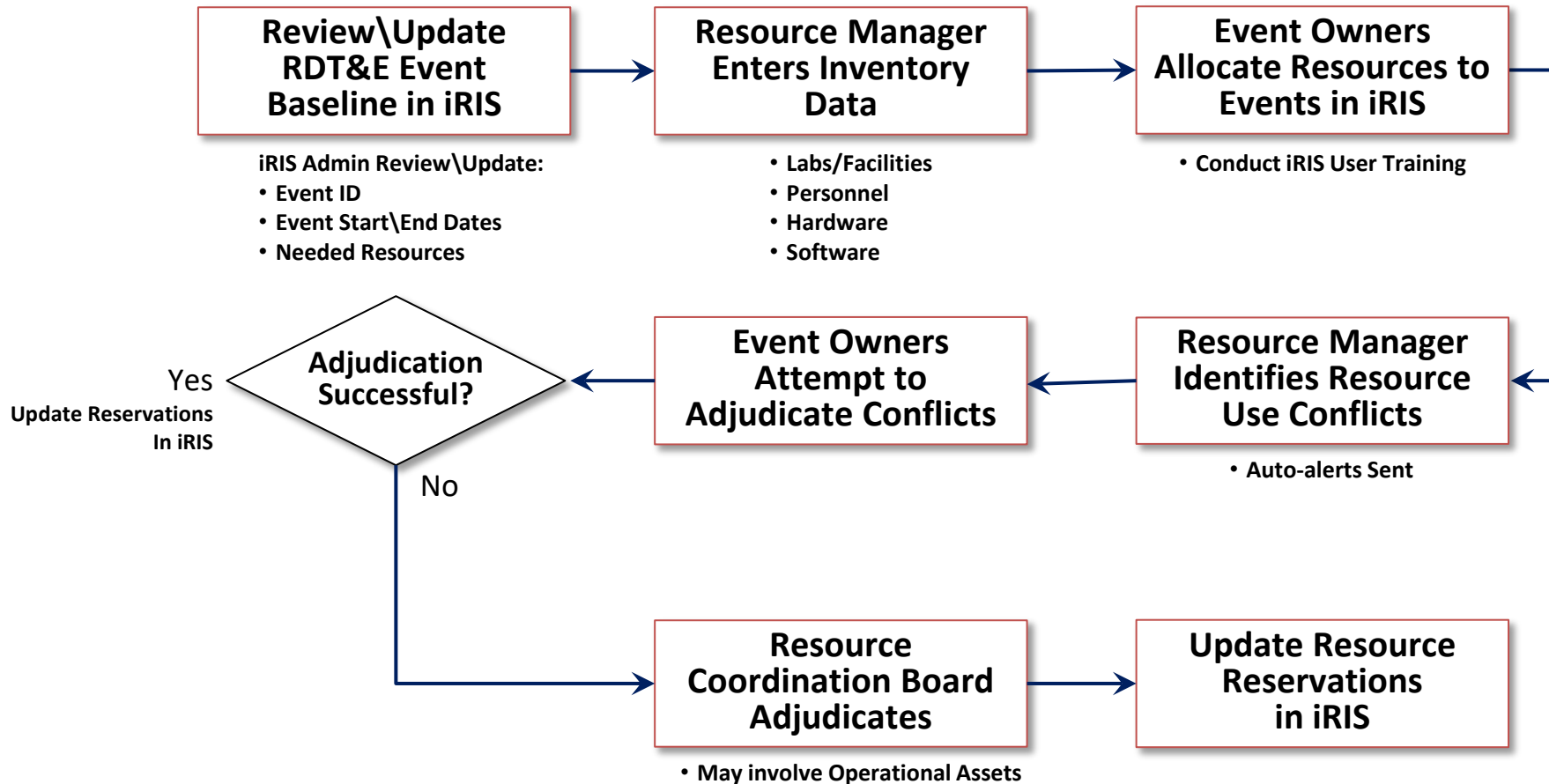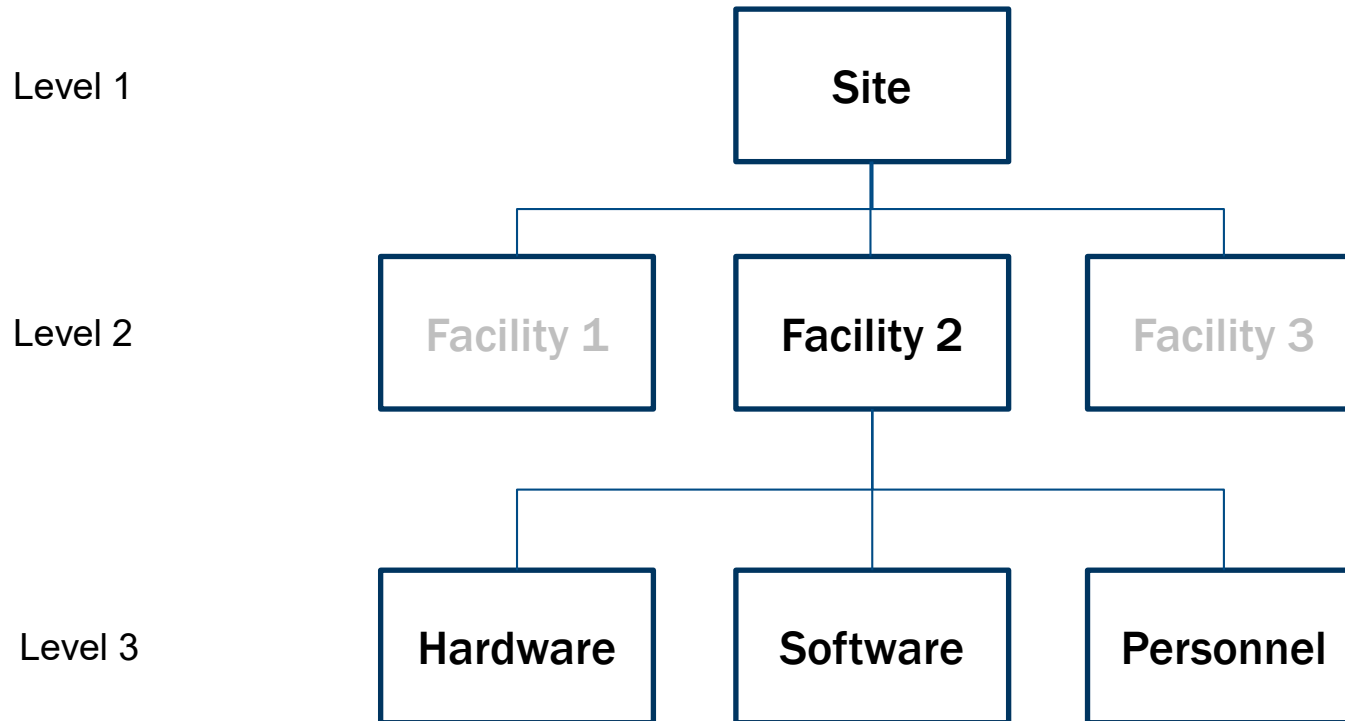- Resource Requests

Sample Resource Management Workflow

Review\Update RDT&E Event Baseline in iRIS

iRIS Admin Review\Update:
- Event ID
- Event Start\End Dates
- Needed Resources

Resource Manager Enters Inventory Data

- Labs/Facilities
- Personnel
- Hardware
- Software

Event Owners Allocate Resources to Events in iRIS

- Conduct iRIS User Training

Adjudication Successful?

Yes
Update Reservations In iRIS

No

Event Owners Attempt to Adjudicate Conflicts

Resource Manager Identifies Resource Use Conflicts

- Auto-alerts Sent

Resource Coordination Board Adjudicates

- May involve Operational Assets

Update Resource Reservations in iRIS

Figure 2. Generic RCM Workflow

Resource Module Data Hierarchy

Level 1 — **Site**

Level 2 — Facility 1 | **Facility 2** | Facility 3

Level 3 — **Hardware** | **Software** | **Personnel**

Accessing Facilities Resource Module

Editing an Existing Facilities Resource

Adding a New Facilities Resource

Editing an Existing Facility Reservation

Adding a New Facility Reservation

Facility Reservations [[No Object ID Given]]: [[No Object Name Given]]

[[No Object ID Given]]: [[No Object Name Given]]

Building Reservations

Reservation ID	<u>Used as unique ID</u>
Reservation Name	
Reservation Description	

UID <u>MS Project Schedule ID</u>

Resource Location

Site: NASA Johnson Space Center [+]

Location: FD: Environment Chamber Testing

Current resource location

Contact

Event ID:

Forecast Date:

Forecast End:

Event resource will be allocated to

Start Date
3/22/2022 2:26:54 PM

End Date
3/22/2022 2:26:54 PM

Reserved By Ma   Reserved Date 3/2...

Note

User Operations

Save	View History	Save and Close	Close

New Reservation

Batch Reservations

EIS Resource Reservations

Working with Gantt Views

- Event dates are the iRIS forecast dates
- Event owners can modify dates in this interface

- Gant views are configured by the iRIS administrator
- Select view from list

Notes on Schedule Data

Plan/Forecast Dates
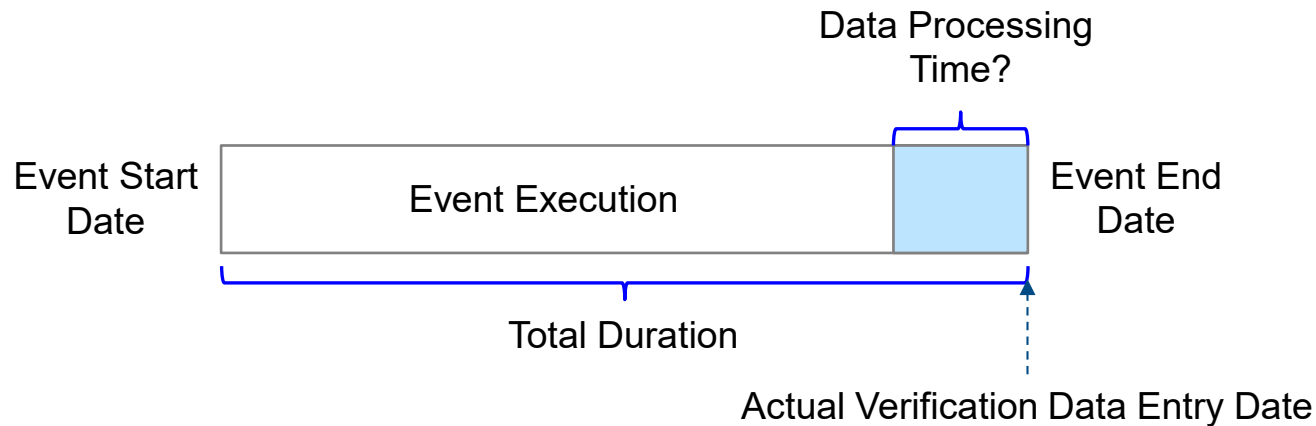
iRIS Plots Time-phased Requirement Verification Metrics Based on the Actual day the Verification Data is Entered so Make Sure Plan/Forecast End Dates Factor in Data Processing Time:
Done = All Requirements Dispositioned

Event Locking

- iRIS admin locks events by direction from EIS owners

- All users can propose changes which get dispositioned and tracked for each change requested

Electronic Signature Approval