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## 1. Introduction

### 1.1 Purpose

This manual provides operational instructions for end-users of the Aegis-Link Control Software. It covers all major functions required for the day-to-day monitoring and control of the Synthetic Systems naval communications suite.

### 1.2 Scope

This manual is intended for trained operators. It assumes the user has a basic understanding of naval communication systems. The procedures herein cover the user-facing functions defined in **SS-AEG-SRS-001: Aegis-Link Software Requirements Specification (SRS)**.

### 1.3 Getting Started

To launch the software, double-click the 'Aegis-Link' icon on the desktop. The application will initialize and present the login screen.

## 2. User Login and Interface Overview

### 2.1 Logging In

1. At the login screen, enter your assigned **Username**.
2. Enter your **Password**.
3. Click the **Login** button.
4. Upon successful login, the main dashboard will be displayed.

*Note: As per security requirements, the system will automatically log you out after 30 minutes of inactivity.*

### 2.2 Main Dashboard Overview

The main dashboard is the central hub for all operations. It is divided into three main sections:

- **System Health Panel (Left):** Provides a consolidated, at-a-glance view of all connected hardware components.
- **Detailed Status View (Center):** Displays detailed telemetry and status information for the currently selected hardware component.

- **Control Panel (Right):** Contains the interactive controls for the selected hardware component.

### 3. System Monitoring Procedures

#### 3.1 Viewing Consolidated System Health

The **System Health Panel** on the left of the screen provides a summary of all connected systems.

- **Green:** Indicates the system is online and operating without faults.
- **Amber:** Indicates a non-critical condition or that a Built-In Test is in progress.
- **Red:** Indicates a critical fault has been detected.

#### 3.2 Viewing Detailed Hardware Status

1. In the **System Health Panel**, click on the component you wish to inspect (e.g., 'Hydra-C4' or 'Trident-S').
2. The **Detailed Status View** in the center of the screen will update to show specific information for that component.
  - **For Hydra-C4:** This view shows power status, internal temperature, current data throughput, and the results of the last BIT.
  - **For Trident-S:** This view shows current azimuth and elevation, signal strength, and satellite lock status.

### 4. System Control Procedures

#### 4.1 Initiating a Built-In Test (BIT) on Hydra-C4

1. Select the **Hydra-C4** module from the System Health Panel.
2. In the **Control Panel** on the right, locate the 'Diagnostics' section.
3. Click the **Initiate BIT** button.
4. A confirmation dialog will appear. Click **Confirm**.
5. The status of the Hydra-C4 will change to 'Amber' while the test is in progress. The result will be displayed in the Detailed Status View upon completion.

#### 4.2 Commanding the Trident-S Antenna

1. Select the **Trident-S** module from the System Health Panel.
2. In the **Control Panel**, locate the 'Antenna Control' section.
3. **To Acquire a Satellite:**
  - Select a satellite from the 'Target Satellite' dropdown list.
  - Click the **Acquire Signal** button. The antenna will begin moving to the target coordinates.
4. **To Change Polarization:**
  - Select 'LHCP' or 'RHCP' from the 'Polarization' dropdown menu. The change is

applied immediately.

## 5. Log Management

### 5.1 Viewing Event Logs

1. From the main menu bar, select **Logs > View Event Logs**.
2. The Log Viewer window will open, displaying a time-stamped list of all significant system events and operator actions.
3. You can use the filter bar at the top to search for specific events.

### 5.2 Exporting Event Logs

1. Open the Log Viewer as described above.
2. Click the **Export Logs** button.
3. A standard 'Save As' dialog will appear. Choose a location on an external storage device and click **Save**. The logs will be exported as a .csv file.

## 6. Basic Troubleshooting

This section describes common error messages and their solutions.

Error Message	Meaning	Recommended Action
"Login Failed: Invalid Credentials"	The username or password entered is incorrect.	1. Re-enter your username and password, checking for typos.   2. If the problem persists, contact your Administrator to reset your password.
"Connection to Hardware Lost"	The software can no longer communicate with a hardware component (e.g., Hydra-C4).	1. Check for network connectivity issues between the operator console and the equipment rack.   2. Verify that the hardware component is powered on.
"Antenna Blockage Detected"	The Trident-S antenna's path to the satellite is obstructed by the ship's superstructure.	This is an informational message. The system will attempt to re-acquire the signal once the blockage is cleared. No action is required.
"BIT Failed: See Logs for Details"	The Hydra-C4 Built-In Test has detected an internal hardware fault.	1. View the event logs for a specific error code.   2. Power cycle the Hydra-C4

		module.   3. If the fault persists, raise a fault report.
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## 7. Problem and Change Requests

Continuous improvement is a core part of the Synthetic Systems ethos. Operator feedback is critical to this process.

If you encounter an error not listed in the troubleshooting guide, or if you have a suggestion for a new feature or an improvement to an existing one, you are encouraged to submit a formal request.

**Action:** For all unlisted errors or feature requests, please submit a **Problem/Change Request (PCR)**. The formal process for initiating and managing a PCR is defined in the **SS-CM-PLAN-001: Configuration Management Plan**. Contact your system administrator or supervisor to obtain a PCR form.