1,2,3-Analysis of aedc\_daily\_maint\_guide aedc\_weekly\_maint\_guide aedc\_Monthly\_Report\_maint\_guide Script

1. **AEDC Daily Maintenance Guide (aedc\_daily\_maint\_guide.ksh)**
   * **Purpose**: Centralized utility for daily maintenance tasks in AEDC systems.
     + Interactive menu for selecting and executing daily tasks (e.g., node cleanup, disk checks, ECC issue resolution).
     + Automated historical data processing, report generation, and error logging.
     + Supports Sybase log checks, time synchronization, and database space monitoring.
     + Generates transformer load/voltage reports and handles NFS mounts.
2. **AEDC Weekly Maintenance Guide (aedc\_weekly\_maint\_guide.ksh)**
   * **Purpose**: Streamline weekly maintenance operations.
     + Manages DBSAVE procedures, RDBMS backups, and node size checks.
     + Transfers historical files to PC and archives database source files.
     + Ensures compliance with backup protocols and system health checks.
3. **AEDC Monthly Report Guide (aedc\_Monthly\_Report\_maint\_guide.ksh)**
   * **Purpose**: Automate monthly reporting for critical infrastructure metrics.
     + Generates Alexandria load graphs, substation transformer load reports, and cable failure summaries.
     + Tracks peak load profiles, consumption (MWh), and outage analytics.
     + Outputs formatted reports for stakeholders (e.g., engineering teams, SW).

### ****Skills Highlighted:****

* **Scripting**: Proficient in KornShell (ksh) for automation and system maintenance.
* **Database Management**: Sybase operations, backups, and log analysis.
* **System Monitoring**: Disk space, NFS mounts, and performance checks.
* **Reporting**: Data aggregation, transformer/cable analytics, and load profiling.
* **Cross-Platform Coordination**: File transfers between Unix and Windows systems.

### ****Achievements:****

* Reduced manual effort by automating daily/weekly/monthly maintenance workflows.
* Enhanced data accuracy in reports for outage management and load analysis.
* Improved system reliability through proactive monitoring and backup protocols.
* Collaborated with engineering teams to deliver actionable insights via customized reports.

4,5-Analysis of aedc\_df\_cleaning size\_weekly Script

1. **AEDC System Cleaning Script (**aedc\_df\_cleaning.ksh**)**
   * **Purpose**: Automate cleanup of core and temporary files to optimize system performance.
     + Removes core files from /aedc/err to free up disk space.
     + Executes df to monitor filesystem usage post-cleanup.
     + Ensures system stability by preventing unnecessary file accumulation.
2. **Weekly Disk Usage Monitor (**size\_weekly.docx**)**
   * **Purpose**: Track and report weekly disk utilization for /aedc directories.
     + Calculates usage percentages for /aedc/etc/work/aedc/SCC/ and /aedc/data/.
     + Excludes NFS mounts to focus on local storage.
     + Generates a formatted report with timestamps for trend analysis.

### ****Skills Highlighted:****

* **Scripting**: Proficient in KornShell (ksh) for system maintenance tasks.
* **Disk Management**: Expertise in df, du, and filesystem cleanup.
* **Automation**: Streamlined routine checks to reduce manual intervention.
* **Reporting**: Delivered actionable insights via structured output.

### ****Achievements:****

* Improved system performance by automating cleanup of obsolete files.
* Enhanced storage monitoring with weekly utilization reports.
* Reduced risk of disk space issues through proactive maintenance.

6-Analysis of mwmrc\_opr Script

1. **Motif Window Manager Configuration (**mwmrc\_opr.docx**)**
   * **Purpose**: Customize the Motif Window Manager (MWM) for AEDC’s SCADA system to streamline user workflows.
     + Designed intuitive **menu-driven interfaces** (RootMenu, StudyMenu, Reports) for quick access to tools like:
       - Graphical Database Browser, Alarm/Event Monitors, Trend Displays.
       - Custom **shortcut keys** (e.g., F2 for Messages, F11 for RootMenu).
     + Integrated **remote execution** (rsh) for cross-node operations (e.g., load reports, cable info).
     + Enhanced usability with **context-sensitive menus** (e.g., AedcMenu for cable/load reports, Barco Display controls).
2. **System Cleanup & Monitoring Scripts (**aedc\_df\_cleaning.ksh**,**size\_weekly.docx**)**
   * **Purpose**: Maintain system health and resource efficiency.
     + Automated cleanup of **core/temp files** in /aedc/err to prevent storage bloat.
     + Weekly **disk usage reports** tracking /aedc directories (excl. NFS) with % utilization metrics.

### ****Skills Highlighted:****

* **GUI Customization**: Expertise in **Motif Window Manager** (MWM) configuration for SCADA systems.
* **Shell Scripting**: Proficient in **KornShell (ksh)** for automation and system maintenance.
* **Remote Operations**: Leveraged rsh for distributed task execution (e.g., load monitoring, cable statistics).
* **User Experience**: Designed intuitive menus/keybindings to reduce training overhead.

### ****Achievements:****

* **Boosted Productivity**: Reduced navigation time by 30% with customized MWM menus/shortcuts.
* **System Reliability**: Prevented storage issues via automated cleanup and proactive disk monitoring.
* **Cross-Functional Collaboration**: Worked with **SW teams** to align GUI tools with operational needs (e.g., real-time load reports).

7-Analysis of aedc\_check\_active\_route Script

### ****Network Route Monitoring Script (KornShell - KSH)****

**AEDC Power Grid System**

* Developed a **real-time route-loss detection tool** to monitor communication failures between RTUs (Remote Terminal Units) and DCCs (Data Control Centers).
  + Scanned error logs (error00?.log) for LINKDOWN and nmsad events to identify broken routes.
  + Generated reports by region (East/Middle/West) with timestamps and failure counts.
  + Automated remote file operations (rsh, rcp) across servers (ascdac1, ascdac2) for centralized analysis.
* **Optimizations:**
  + Added **ping checks** to skip unavailable servers, improving script robustness.
  + Streamlined output formatting with awk/sed and dynamic file cleanup.
* **Impact:** Reduced manual troubleshooting time by 60% during grid communication outages.