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EWC3I - DF STATION

USER MANUAL

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1.0 INTRODUCTION

The EWC3I Workstations provide an automated command and control network for land EW stations. The EWC3I Workstations are designed to be paired with the EWCC, EWOC (Analyst), FEWOC, DF Stations and Jammer Stations.

The DF Station EWC3I Workstation (DEW) software provides reports tools that support transmission, reception and administration of reports including DF taskings. The DEW software enables a DEW configured as the DF Master Station to create and send DF Tasking Reports to other DEWs configured as DF Slave Stations. This tool enables the DF Master Station to keep the Slave Stations up to date with the current DF taskings as they change or to pass the current DF taskings to a DF Station that is about to assume the responsibilities of DF Master Station.

This document describes the functionality and user interface of the DEW software.

2.0 DF INTERFACE DESCRIPTION

This section describes the startup and shutdown procedures for the DEW software and the user interface and functionality of the communications and DF tasking tools.

2.1 Startup / Shutdown

This section describes the procedures to startup and shutdown the DF Station software. The other menu selections from the DF Station Menu are also described.

2.1.1 DF Station Startup

The procedure to startup the DF Station software is as follows:

1. Select the DF Station Menu sub-menu from the main system menu
2. From the sub-menu select the "start Actra" menu item
3. From the sub-menu select the "start DF station" menu item

This procedure initializes and starts the appropriate tasks for the DF Station software.

2.1.2 DF Station Shutdown

The procedure to conduct a controlled shutdown of the DF Stations software is as follows:

1. Select the DF Station Menu sub-menu from the main system menu
2. From the sub-menu select the "shut down DF Station" menu item
3. From the sub-menu select the "shut down Actra" menu item

2.1.3 DF Station Configuration Browser

The DF Station Configuration Browser (shown in figure 2.1.3-1) is used to define and maintain the parameters associated with the DF Station software. The parameters can be broken down into the following categories:

- The station type
- The default MEROD addresses
- The default report parameters

CELS Configuration	
Station type:	Slave Station
CELS Merod addr:	31
FEWOC merod addr:	22
EWOC merod addr:	23
EUCC merod addr:	24
Default send address:	22
Exercise name:	Ex
Report directory:	DFN
Classification:	UNCLASSIFIED

Figure 2.1.3-1
DF Configuration Browser

The procedure to invoke the DF Station Configuration Browser is as follows:

1. Select the DF Station Menu sub-menu from the main system menu
2. From the sub-menu select the "configure DF Station" menu item

2.1.3.1 DF Station Type

The first pane in the DF Configuration Browser represents the station type of the DF station as either the master or slave station.

To change the station type perform the following:

- Select the pane menu item "choose station type"

-
- Select the appropriate station type from the list displayed
 - Select the "OK" button to effect the change or the "CANCEL" button to make no changes

2.1.3.2 DF Station default MEROD address

The five panes following the "Station Type" define the MEROD addresses of the EWC3I stations.

The default send address defines the MEROD address that reports are sent to if no other address is specified.

The other address panes define the MEROD addresses for the following stations:

- DF Station
- FEWOC
- EWOC
- EWCC

To make changes to these addresses, delete the current address and type in the new address. After making the changes press return.

2.1.3.3 DF Station Default Report Parameters

The default report parameters provide the default setting required by the Reports Browser. The parameters defined are as follows:

- Exercise name
- Directory used to save reports
- Default classification of the reports
- Default MEROD send address
- DF Station MEROD address

To make changes to the report parameters, delete the current parameters, type in the change and press return.

To change the default report classification, bring up the pane menu and perform the following:

- Select the "choose report classification" menu item
- From the displayed list choose the appropriate classification
- Select the "OK" button when the selection has been made or the "CANCEL" button to make no changes

2.1.3.4 Closing the DF Station Configuration Browser

On closing the DF Configuration Browser, if changes have been made in the browser, the user is prompted as to whether these changes should be saved. If the "CANCEL" button is selected all edited changes are lost and the browser is closed. If the "OK" button is selected the changes are saved and the browser is closed. No prompter is displayed if no changes have been made.

2.1.4 MEROD Address Configuration Browser

The MEROD Address Configuration Browser is common to all of the EWC3I stations and is used to define and maintain a library of station names and corresponding MEROD addresses.

The procedure to invoke the MEROD Address Configuration Browser is as follows:

1. Select the DF Stations Menu sub-menu from the main system menu
2. From the sub-menu select the "browse Merod Station addresses" menu item

The browser consists of three panes; a list pane showing all of the current station names, an address pane and a comment pane. The address pane and comment pane show the current state of the station selected in the list pane. The MEROD Address Configuration Browser is shown in figure 2.1.4-1.

MEROD Address Configuration Browser	
DFMASTER	Address: 55
EUCC	
EUOC	
FEUOC	Comment: new
SLAVE	

Figure 2.1.4-1
MEROD Address Configuration Browser

2.1.4.1 Adding and Deleting Stations

The menu for the list pane has two selections, one for creating a new station and the other for deleting the currently selected station.

Selecting the delete option deletes the selected item from the browser.

Selecting the create option invokes a series of prompts as follows:

- Enter the name of the station to be added
- Enter the new station's address
- Enter a comment

The list pane is then updated with the new station name. The selection of cancel for the first and second prompt will result in the create process being stopped, but the selection of cancel on the comment prompt will result in no comment and the create process will complete.

On deletion of a MEROD address set in the DF Station Configuration Browser, if the MEROD Address Configuration Browser is closed and re-opened, the address will automatically be restored.

2.1.5 Report Browser

The Reports Browser software is common to all of the EWC3I stations and provides the interface to the MERODs for communications between the EWC3I stations. This browser shows all incoming and outgoing reports. It provides the capability to create and send reports, as well as browse and send reports created by other DF Station tools. When incoming reports are received the browser is automatically updated to show the new report. The reports browser is opened by selecting the "report preparation" menu item from the DF Station sub-menu of the main system menu. The Reports Browser user interface and functionality are fully described in section 2.2.

2.1.6 DF Station DF Tasking Browsers

The DF Tasking/Task Browser provides the DF Station with the ability to organize and task other DF Stations. There are two DF tasking browsers available for use on the DF station. They are the "DF Tasking Browser" and the "DF Tasks Browser". Only a station configured to be the DF Master can invoke the DF Tasking Browser, while both stations can invoke the DF Tasks Browser. The DF Tasking Browser and DF Tasks Browser user

interface and functionality are fully described in section 2.3.

2.2 Reports Browser

The Reports Browser (see figure 2.2-1) is invoked by selecting the "report preparation" menu item from the DF Station Menu sub-menu of the main system menu.

The browser is composed of three panes:

- a list pane of all reports and their send/receive states
- basic report information
- text

Reports I/O Browser	
ADM061424Z DEC 91	From: BT
EUS061558Z DEC 91	
ADM061616Z DEC 91	To: IL
	Op Name: EX
	Classification: UNCLASSIFIED
	1. (U) NO ACTIVITY ON ANY ASSIGNED FREQUENCY

Figure 2.2-1
Reports Browser

The list pane menu will allow the user to perform the following functions:

- print the selected report
- save the selected report to disk
- send the selected report over the MEROD to the default address
- send the selected report to other MEROD station(s)
- delete the selected report (from the report database and disk)

The sending of a report to other MEROD stations will result in a multiple list chooser being displayed. The report is sent to all addresses selected in the chooser when the "OK" button is selected. If the "CANCEL" button selected the send is cancelled.

The report keys in the list pane of the Reports Browser are coded strings that provide the state of the reports. The key string includes the following fields:

- Receive state
- Send State
- Print State
- Type Code
- Date Time Group

The receive, send and print states are indicated by the letters "R" (if the report has been received), "P" (if the report has been printed) and "S" (if the report has been sent) respectively and are separated by a "|". If a State is false for the report, a blank or " " will appear between the separators.

The valid types codes and their associated types are as follows:

ADM	Adminstration Report
DAT	DF Alert Tasking Report
DF	DF Report
DMT	DF Movement Tasking Report
DTR	DF Tasking Report
DTT	DF Tasks Tasking Report
EWS	EW Summary Report
JMT	Jammer Movement Tasking Report
JTR	Jammer Tasking Report
JTT	Jammer Tasks Tasking Report
ORD	Orders
TAC	Tactical Report
TXT	Text Report

The sending of a report to other MEROD stations will result in a multiple list chooser being displayed. The report is sent to all addresses selected in the chooser when the "OK" button is selected. If the "CANCEL" button is selected ,the send is cancelled.

The basic report information panes (To,From,Op name, and Classification) cannot be edited after the report has been saved.

The text pane menu allows the user to perform the following functions:

-
- Basic text edit functions (restore, copy, paste, search)
 - Create a report of a certain type (administration, EW summary, orders, tactical, and text report)
 - Save created or changed report to disk
 - Browse contents of disk

A new report can only be created when there are no reports selected in the list pane. When the "create a report of type" menu item is selected, the user is prompted to select the type of report from a list displayed. If the cancel button is selected or if no type is selected, the creation of a new report is stopped. When a type is selected and the "OK" button is pressed a new report is displayed. The To, From, Op Name and Classification panes are initialized to the default parameters from the information stored in the DF Station Configuration Browser. The defaults may be changed by editing these panes before the report is saved.

2.3 DF Station DF Tasking Browsers

There are two DF tasking browsers for use on the DF Station. They are the "DF Tasking Browser" and the "DF Tasks Browser". Only a station configured to be the DF Master can invoke the DF Tasking Browser, while both stations can invoke the DF Tasks Browser.

The tasking startup procedure is as follows:

1. Select the DF Station Menu sub-menu from the main system menu
2. From the sub-menu select the "browse DF Tasks" menu item

This startup procedure will invoke the DF Tasking Browser for a DF Station configured as a DF Master, or the DF Tasks Browser for a DF Station configured as a DF Slave.

The following sections describe the functionality and user interface for the browsers.

2.3.1 DF Master Station DF Tasking Browser

The DF Master station uses the DF Master Station DF Tasking Browser to update the DF slave station(s) as to the current DF taskings. For this reason only a station configured as the Master Station will have access to this browser. The DF Master Station DF Tasking Browser is shown in figure 2.3.1-1.

The DF Master Station DF Tasking Browser provides the functionality to:

- Create new tasks
- Organize by task types
- Construct a DF tasking message based on organization of the task within the browser

DF Tasking Browser for DF Master	
Current Tasks	
2	Date Time: 061202Z DEC 91
	Task State: ASSIGNED
	Freq: 40.0 MHz
	Comments:
New tasks to be assigned	
4	Date Time: 061202Z DEC 91
	Task State: CREATE
	Freq: 200.0 MHz
	Comments:
Tasks to be cancelled	
3	Date Time: 061202Z DEC 91
	Task State: TO BE CANCELLED
	Freq: 600.0 MHz
	Comments:

Figure 2.3.1-1
DF Master Station DF Tasking Browser

The browser is divided into three distinct task type sections:

- Currently assigned tasks
- Tasks to be assigned
- Tasks to be cancelled

Each area is composed of the same number and kind of panes. The panes are as follows:

- List pane of tasks indicated by task id
- Time of creation pane
- State pane
- Frequency pane
- Comments pane

A task can have one of five states, but will be displayed in only one task type section as follows:

- Create - Tasks to be assigned
- Assigned - Currently assigned tasks
- To be cancelled - Tasks to be cancelled
- Cancelled - Not displayed
- Re-use of old task - Tasks to be assigned

2.3.1.1 Currently Assigned Task Section

The menu for the current task list pane provides the following functions:

- Remove the currently selected assigned task and place it in the list pane for the tasks to be cancelled (enabled only if task is selected)
- Open a DF Task Browser
- Create a new DF Task report (see section 2.3.1.4)

On the selection of the "Remove assigned task" menu item, the task selected in the current task list pane is moved to the tasks to be cancelled list pane.

On selection of the "Browse all tasks" menu item, the DF Tasks Browser is displayed. This browser is described in section 2.3.2.

2.3.1.2 Tasks to be Assigned Section

The menu for the new tasks to be assigned list pane provides the following functions:

- Create a new task
- Delete selected task
- Retrieve an old task that was cancelled (enabled only if cancelled tasks exist)

-
- Create a new DF task report (see section 2.3.1.4)

On selection of the "Create new task" menu item, the user is prompted for the task id, the frequency, and a comment. A new task is created and time stamped with the current time and is added to the tasks to be assigned area of the browser. If a task id is entered that already exists, the new task information will over write the existing task.

On selection of the "Delete task" menu item, the currently selected task in the tasks to be assigned list pane is removed.

On selection of the "Retrieve old Task" menu item, a list prompter is displayed requesting the selection of the task to be retrieved. The tasks are displayed as task ids and frequencies. On selection of a task the user is prompted for a new comment. The old task is then retrieved , time stamped with the current time and added in the tasks to be assigned section.

2.3.1.3 Cancelled Tasks Section

The menu item for the tasks to be cancelled list pane provides the following functions:

- Change selected task back to assigned (enabled only if task is selected)
- Create a new DF task report (see section 2.3.1.4)

On selection of the "change selected task back to assigned" menu item, the task selected in the tasks to be cancelled list pane is moved back to the currently assigned tasks list pane.

2.3.1.4 Creation of a New DF Task Report

On selection of the "create new DF task report" menu item:

- All tasks in the new tasks to be assigned pane are moved to the current list pane
- All tasks in the tasks to cancelled pane are removed from the browser
- A new report is generated and will appear in the Report Browser. The report contains a list of tasks to be assigned and a list of tasks to be cancelled

2.3.2 DF Tasks Browser

The DF Tasks Browser is available on either the master or slave DF stations. DF Master Stations use the browser to keep track of all tasks regardless of the state of the task. DF Slave Stations use the browser to keep track of those tasks currently assigned to the station.

The DF Tasks Browser (see figure 2.3.2-1) provides the functionality to:

- Create new tasks
- Delete a selected task
- Browse all tasks regardless of state

The DF Tasks Browser is composed of the following panes:

- List pane of all tasks, listed by task id
- Four data entry panes showing, date and time of creation, creating station name, frequency tasked, and a comments

When the "Create new task" menu item is selected the user is prompted for the task id, the frequency, and a comment. A new task is created and time stamped with the current time and the new task is added to the browser. If a task id is entered that already exists, the new task information will over write the existing task.

Selection of the "delete selected DF task" menu item will result in the selected task id being removed from the list pane.

The screenshot shows a window titled "DF Tasks Browser". On the left is a list of task IDs: 5, 6, and 7. Task ID 6 is selected. To the right of the list is a form with four fields:

5	Date Time: 041405Z DEC 91
6	CELS Station: DF Master
7	Freq: 120.0 MHz
	Comments:

Figure 2.3.2-1
DF Tasks Browser

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This document describes the functionality and user interface of the DEW software.


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