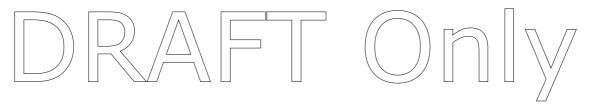


DCS-M04-GDDR OPERATIONS GUIDE

OPERATORS GUIDE TO GDDR



Abstract GDDR Operations Guide

Document Reference

Document Type Operators Guide to GDDR

Project/Application DCS-GDDR

 Version
 01.01

 Status
 DRAFT

Date of Issue 14 February 2005

File Location DCS:\M00-Mainframe\DCS M04 GDDR Operations Guide.doc

Pages 61

Produced by	Phil Davies
Reviewed by	Didier Lemaitre, Renaud Colin, Michael Quigley, Kurt X Vanderheyden, Dominique Dewulf
Authorised by	Didier Lemaitre

© euroclear 2005 1 29 June 2016



TABLE OF CONTENTS

1. INTRODUCTION3
1.1 SCOPE
1.2 Objectives3
1.3 Intended audience3
1.4 REFERENCES3
1.5 CHANGE HISTORY3
1.6 FORECAST CHANGES4
1.7 ABBREVIATIONS4
1.8 Definitions4
2. GDDR OPERATORS INTERFACE6
2.1 GDDR OPERATORS INTERFACE DESCRIPTION
2.1.1 OPS/MVS user Applications
2.1.1 OPS/MVS User Applications
2.1.3 GDDR Operations – Run Planned Scripts
2.11.4 GDDR Operations - Run Unplanned Scripts
2.1.5 GDDR Operations - Run Resumption Scripts
3. SCRIPT OPERATIONS17
3.1 PLANNED SCENARIO SCRIPT OPERATIONS
3.1.1 Option 12 - Swap from Site DC1 to DC217
3.1.2 Option 21 - Swap from Site DC2 to DC117
3.1.3 Option 30 – Restart Production LPAR's at DC3 Only18
3.1.4 Option 31 – Restart Production LPAR's at DC3, JA to DC118
3.1.5 Option 32 – Restart Production LPAR's at DC3, JA to DC219
3.1.6 Option 33 – Test Restart of Production LPAR's at DC319
3.2 UNPLANNED SCENARIO SCRIPT OPERATIONS24
3.2.1 Option U31 - Start or Re-start Unplanned_Takeover_ALLSITEn24
3.2.2 Option RJ0 - Start J0 Link After an Unplanned Swap24
3.3 RESUMPTION SCENARIO SCRIPT OPERATIONS
3.3.1 Option R33 – Resume JA Link after DC3 Test26
3.3.2 Option SS - Start SNOW'ing to DC3 (from either DC1 or DC2)26
4. UNPLANNED OPERATIONS27
4.1 LOCAL DISASTER OPERATIONS (LDR)27
4.2 REGIONAL DISASTER (RDR) OPERATIONS
5. TROUBLE SHOOTING30
5.1 Detecting and Resolving Problems
6. APPENDIX32
6.1 Expected Output32
6.2 PLANNED SCENARIO'S EXPECTED OUTPUT
6.2.1 Option 12 – Swap from Site DC1 to DC233
6.2.2 Option 21 – Swap from Site DC2 to DC141
6.2.3 Option 33 – Test Restart of Production LPAR's at DC349
6.3 RESUMPTION SCENARIO'S EXPECTED OUTPUT
6.3.1 Option R33 – Resume JA Link after DC3 Test52
6.3.2 Option SS - Start SNOW'ing to DC3 (from either DC1 or DC2)57

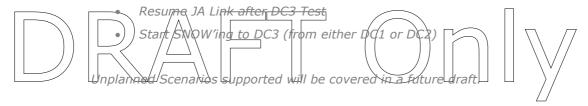


1. Introduction

1.1 Scope

This document describes how to Operate GDDR Release 1 in-order to run the following GDDR Scripts in a STAR environment only:

- Planned Swap from Site DC1 to DC2
- Planned Swap from Site DC2 to DC1
- Restart Production LPAR's at DC3 Only (no JA to DC1 or DC2)
- Restart Production LPAR's at DC3, JA to DC1
- Restart Production LPAR's at DC3, JA to DC2
- Test Restart of Production LPAR's at DC3 (Network Isolation)



1.2 Objectives

It is the intention of this document to describe in detail how to run a GDDR Planned Script from the Operators perspective.

1.3 Intended audience

Euroclear Management, DCS Project Leaders and all stakeholders of the DCS program.

1.4 References

Ref. nbr.	Reference	Title
[1]		Project Definition Report
[2]		Project High Level Technical Design
[3]		

1.5 Change history

Version	Nature of change	Date
00.00	Create Document (draft)	14-02-2005
01.01	Latest Draft – GDDR Release 1 with STAR support only	12-04-2005
01.02		



04.00	
N3 N2	
U1.U3	

1.6 Forecast changes

Version	Nature of change	Date

1.7 Abbreviations



Abbreviation	Full text	
DCS /\	Data Center Strategy	
HLTLS /	High Level Test & Launch Strategy	
GDDR	Geographically Dispersed Disaster Recovery	
ConGroup	EMC Software Product Consistency Group	
K1	GDDR K-System at the DC1 Site	
К2	GDDR K-System at the DC2 Site	
КЗ	GDDR K-System at the DC3 Site	

1.8 Definitions

Terminology	Definition
Systems	The word system or systems used in this document refers to an z/OS Image and all systems tasks and applications running in it.
K-System	A controlling LPAR, one in each of DC1, DC2 and DC3. Monitors the status of the DASD and DASD mirroring to DC2 and DC3.
K-System Master Function	The K-System that is currently responsible for monitoring the status of DASD and DASD mirroring. Is also responsible for taking action when problems with DASD and DASD mirroring are detected.
Primary Site	The live site where the Production z/OS Images run. Usually DC1.
Secondary Site	The backup site that has a synchronous copy of the Production data. Usually DC2.
Tertiary Site	A backup site that has an asynchronous copy of the Production data. Always DC3.
Freeze	In terms of GDDR ONLY, a Freeze is the point immediately a planned autoswap has completed successfully and upto and including the point at which SRDF/S is re-established successfully (in the opposite direction).
CA-OPS/MVS MSF	CA-OPS/MVS Multi System Facility



Trip	The action ConGroup takes when it detects that one or more R1 devices in a consistency group cannot propagate data to their corresponding secondary (R2) devices. During a trip, ConGroup suspends all the primary (R1) devices in the consistency group. This suspension ensures that the data flow to the secondary (R2) side is halted and the data on the remote side of the configuration is consistent.	
J0	Journal-0 is EMC's term for SRDF/S	
JA	Journal-A is EMC's term for SRDF/A Symmetrix Native Ordered Writes is another name for SRDF/A	
SNOW		





2. GDDR OPERATORS INTERFACE

2.1 GDDR Operators Interface Description

The GDDR Operators Interface is used by Operations and Support Staff to run GDDR Planned Scripts.

The GDDR Operators Interface can be found via the OPS/MVS Panel Option OPS (from the Primary TSO ISPF Panel).

CA-OPS/MVS II --- SYK2 --- OPSVIEW Primary Options Menu ---- Subsystem **OPSS** Option ===> 0 Parms Set OPSVIEW and ISPF default values User ID - ECSLPS Browse OPSLOG OPSLOG Ø9:05 Time AQF Rules, REXX programs, SQL Tables Editors Version. Sys Cntl Display/Modify System Resources Service 4 Control Control CA-OPS/MVS II **Pack** 5 Support Support and Bulletin Board information 6 Command Enter JES2/MVS/IMS/VM commands directly 7 Utilities Run CA-OPS/MVS II Utilities A AutoMate AutoMate rules edit and control I ISPF Use ISPF/PDF services S SYSVIEW/E CA-SYSVIEW/E T Tutorial Display information about OPSVIEW User-defined applications U User X Exit Exit OPSVIEW CA-OPS/MVS II Copyright (C) 1986,2000 Computer Associates International, Inc. Press END or enter X to terminate OPSVIEW

From the Primary OPS/MVS Menu, select option 'U' to display the following panel – User Applications:



2.1.1 OPS/MVS User Applications

To invoke the GDDR Operator Interface, select option 2 – GDDR Operations and hit enter.

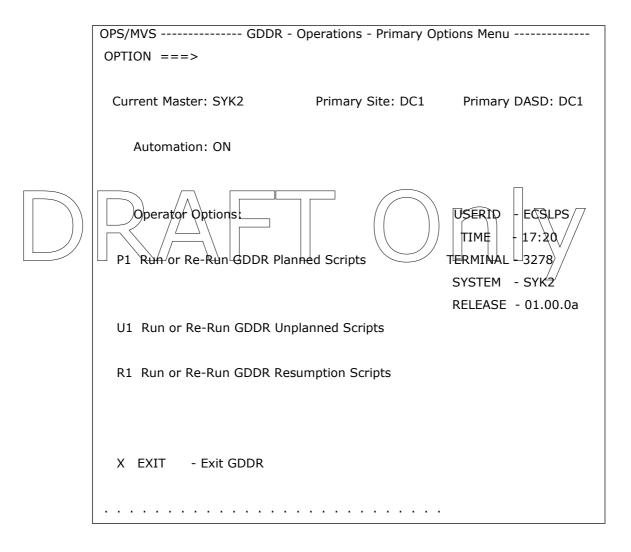
User Applications O P S V I E W Option ===>
1 GDDR Admin Administer Geographically Dispersed Disaster Recovery 2 GDDR Operations Operate Geographically Dispersed Disaster Recovery 3 Application 3 comment .
N Application N comment Enter END command to return to primary options.

Selecting option 2 – GDDR Operations will display the following panel:



2.1.2 GDDR Operations - Primary Options Menu

The GDDR Operations Primary Options Menu provides the following options:



2.1.2.1 Field Descriptions

The GDDR Operations Primary Options Menu displays the current values for the following GDDR control variables:

2.1.2.1.1 Current Master

This is the K-System that currently owns the GDDR Master Function. Planned scripts can only be run from the Current Master K-System.

As a general rule the Master K-System is located in the opposite site from where the Business Applications are currently running.

2.1.2.1.2 Primary Site



The Primary Site is the current location where the Business Applications are currently running.

2.1.2.1.3 Primary DASD

The Primary DASD is the current location of the R1 DASD. Generally the Primary Site and Primary DASD sites should be equal.

2.1.2.1.4 Automation

Displays the current state of GDDR Automation. Can be either ON or OFF. When ON, GDDR Planned and Unplanned Scripts can be run. When OFF Planned scripts can not be run. Unplanned scripts can still be run.

2.1.2.2 Operator Options

To run one of the following script types, enter the appropriate option on the command line and hit the enter key.

2.1.2/2.1

Run Planned Scripts

To run a planned script, enter P1 on the command line and hit enter. See section GDDR Operations – Run Planned Scripts' in this document for further details.

2.1.2.2.2 Run Unplanned Scripts

To run an unplanned script, enter U1 on the command line and hit enter. See section 'GDDR Operations – Run Unplanned Scripts' in this document for further details.

2.1.2.2.3 Run Resumption Scripts

To run a resumption script, enter R1 on the command line and hit enter. See section 'GDDR Operations – Run Resumption Scripts' in this document for further details.

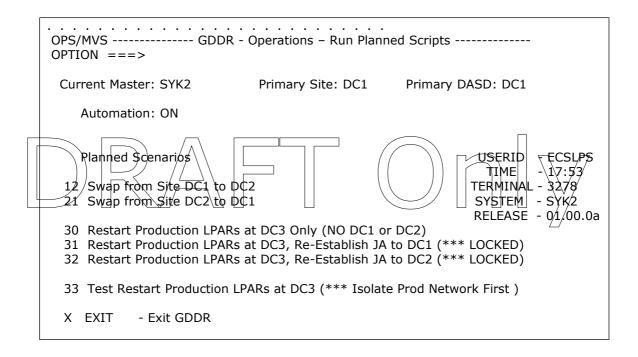
© euroclear 2005 9 29 June 2016



2.1.3 GDDR Operations - Run Planned Scripts

The GDDR Operations Run Planned Scripts Menu provides the following options:

Planned Scripts can only be run on the Current Master K-System.



2.1.3.1 Running a Planned Script

Select the option required by typing the equivalent option number on the command line and hitting enter.

The user is then placed in EDIT mode with the generated JCL for the selected planned script.

Submit the job to start the chosen Planned Script. Once the job starts, the operators will be prompted (via WTOR) to confirm the run of the Planned Script. A reply of "Yes" will although the script to continue, a reply of "No" will terminate the run of the script.

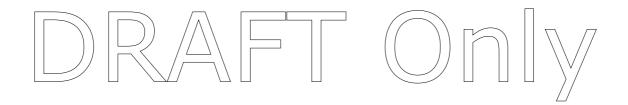
For scripts that Restart Systems/Workloads at DC3 and/or Test the Restart of Systems/Workloads at DC3 the generated jobs are automatically submitted (without placing the generated JCL in EDIT mode).



2.1.3.2 Re-Running a Planned Script

Should any step of a Planned Script complete with a non-zero Return Code the Script will terminate.

The reason for the failure should be investigated and rectified. Once the cause of the failure has been rectified, the Planned Script should be submitted again, no JCL changes are required. GDDR will determine at the step from which to resume processing, normally it will be from the step that previously failed.

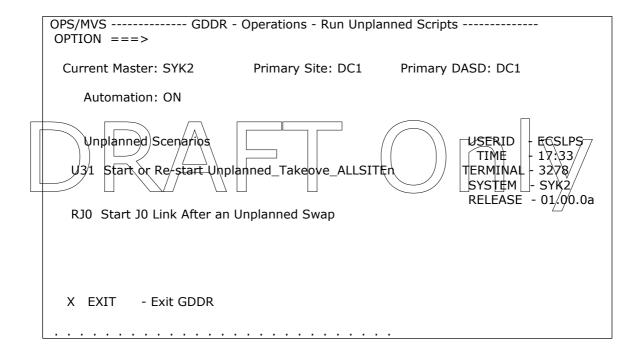




2.1.4 GDDR Operations - Run Unplanned Scripts

The GDDR Operations Run Unplanned Scripts Menu provides the following options:

Unplanned Scripts can only be run on the Current Master K-System.



2.1.4.1 Running an Unplanned Script

Select the option required by typing the equivalent option number on the command line and hitting enter.

The user is then placed in EDIT mode with the generated JCL for the selected unplanned script.

Submit the job to start the chosen Unplanned Script. Once the job starts, the operators will be prompted (via WTOR) to confirm the run of the Unplanned Script. A reply of "Yes" will although the script to continue, a reply of "No" will terminate the run of the script.



2.1.4.2 Re-Running an Unplanned Script

Should any step of a Unplanned Script complete with a non-zero Return Code the Script will terminate.

The reason for the failure should be investigated and rectified. Once the cause of the failure has been rectified, the Unplanned Script should be submitted again, no JCL changes are required. GDDR will determine at the step from which to resume processing, normally it will be from the step that previously failed.

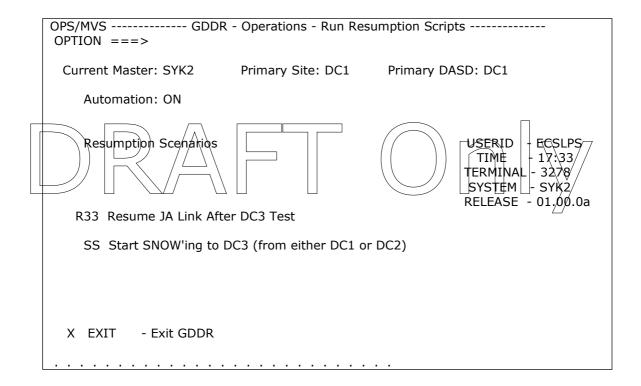




2.1.5 GDDR Operations – Run Resumption Scripts

The GDDR Operations Run Resumption Scripts Menu provides the following options:

Resumption Scripts can only be run on the Current Master K-System.



2.1.5.1 Running a Resumption Script

Select the option required by typing the equivalent option number on the command line and hitting enter.

The user is then placed in EDIT mode with the generated JCL for the selected resumption script.

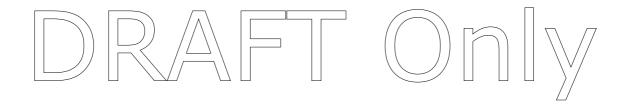
Submit the job to start the chosen Resumption Script. Once the job starts, the operators will be prompted (via WTOR) to confirm the run of the Resumption Script. A reply of "Yes" will although the script to continue, a reply of "No" will terminate the run of the script.



2.1.5.2 Re-Running a Resumption Script

Should any step of a Resumption Script complete with a non-zero Return Code the Script will terminate.

The reason for the failure should be investigated and rectified. Once the cause of the failure has been rectified, the Resumption Script should be submitted again, no JCL changes are required. GDDR will determine at the step from which to resume processing, normally it will be from the step that previously failed.







3. SCRIPT OPERATIONS

3.1 Planned Scenario Script Operations

The following provides a description of each Planned Script that may be run from the GDDR Operators Interface.

3.1.1 Option 12 - Swap from Site DC1 to DC2

3.1.1.1 Usage

This option is used to swap the DASD and Business Applications from site DC1 to DC2

3.1.1.2 Restrictions

Before the Planned Script starts any processing it will verify the following, if any of these checks are failed, the script will terminate with a non-zero return code and an error message.

- The script must be run from the Current Master K-System on DC2.
- The Current Primary Site and Current Primary DASD Site must be DC1.

3.1.2 Option 21 - Swap from Site DC2 to DC1

3.1.2.1 Usage

This option is used to swap the DASD and Business Applications from site DC2 to DC1.

3.1.2.2 Restrictions

Before the Planned Script starts any processing it will verify the following, if any of these checks are failed, the script will terminate with a non-zero return code and an error message.

- The script must be run from the Current Master K-System on DC1.
- The Current Primary Site and Current Primary DASD Site must be DC2.



3.1.3 Option 30 - Restart Production LPAR's at DC3 Only

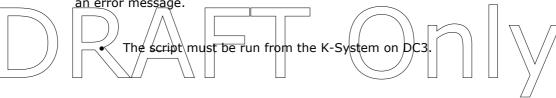
3.1.3.1 Usage

This option is used to restart the Production LPAR's at Site DC3 Only, ie. There will be no SRDF/A connection to either DC1 nor DC2.

This script will only be run in the event of a major failure at both the DC1 and DC2 sites.

3.1.3.2 Restrictions

Before the Planned Script starts processing, it will verify the following, if any of these checks are failed, the script will terminate with a non-zero return code and an error message.



3.1.4 Option 31 - Restart Production LPAR's at DC3, JA to DC1

3.1.4.1 Usage

This option is used to restart the Production LPAR's at Site DC3 and to reestablish SRDF/A (JA) to Site DC1.

This script will only be run in the event of a major failure that prevents the Production workload from been run from either DC1 or DC2.

3.1.4.2 Restrictions

Before the Planned Script starts processing, it will verify the following, if any of these checks are failed, the script will terminate with a non-zero return code and an error message.

• The script must be run from the K-System on DC3.

WARNING - MUST only be run on request of Management as data at DC1 will be over-written.



3.1.5 Option 32 - Restart Production LPAR's at DC3, JA to DC2

3.1.5.1 Usage

This option is used to restart the Production LPAR's at Site DC3 and to reestablish SRDF/A (JA) to Site DC2.

This script will only be run in the event of a major failure that prevents the Production workload from been run from either DC1 or DC2.

3.1.5.2 Restrictions

Before the Planned Script starts processing, it will verify the following, if any of these checks are failed, the script will terminate with a non-zero return code and an error message.

The script must be run from the K-System on DC3.

WARNING - MUST only be run on request of Management as data at DC2 will be over-written.

3.1.6 Option 33 - Test Restart of Production LPAR's at DC3

3.1.6.1 Usage

This option is used to Test the restart of the Production LPAR's at Site DC3. There will be no SRDF/A (JA) restart.

This script is used to verify that DC3 will actually work in the event of a disaster at DC1 and DC2, ie. This tests/verifies Option 30 – Restart Production LPAR's at DC3 Only (NO DC1 or DC2).

Points to Note:

- Normal Production and Contingency workload will continue to run at DC1 and DC2.
- J0 will continue to operate normally between DC1 and DC2.
- JA will be suspended between DC1 and DC3 for the life of the DC3 Test.
- After the DC3 Test JA will have to be resumed using Option R33 from the Run Resumption Scripts panel, ie. Resume JA Link after DC3 Test.



3.1.6.2 Restrictions

Before the Planned Script starts processing, it will verify the following, if any of these checks are failed, the script will terminate with a non-zero return code and an error message.

• The script must be run from the K-System on DC3.

WARNING - The Production Network must be isolated from DC3 First

3.1.6.3 Running Below is an example of what an Operator will see when selecting this option. Upon entering 33' and hitting enter, the following panel is displayed: OPS/MVS -----Row 1 to 2 of OPTION ===> Current Master: SYK2 Primary Site: DC1 Primary DASD: DC1 USERID - ECSLPS Select One of the Following Options: TIME - 10:42 X=Initiate Script to Restart System at DC3 TERMINAL - 3278 SYSTEM - SYK2 RELEASE - 01.00.0a DC3 DC3 DC3 Sel Sysname Usual Site Load Address Load Parameter Target LPAR --- ---------------EOCJ DC1 6335 630cd2m1 CPAEOC70 **EOCG** DC2 6335 630cd2m1 CPBEOC71 ************************ Bottom of Data **************

3.1.6.3.1 Field Descriptions

The GDDR Operations Test Restart at DC3 panel displays the following information:

3.1.6.3.1.1 Sysname



A list of z/OS systems, these are a list of all Production and Contingency systems being managed by GDDR that are eligible for restart at DC3.

3.1.6.3.1.2 Usual Site

Is the Site where the z/OS system runs.

3.1.6.3.1.3 DC3 Load Address

The Load Address that GDDR will use when IPL'ing this system at DC3.

A value of "UNDF" indicates that no DC3 Load Address has been defined yet.

3.1.6.3.1.4 DC3 Load Parameter

The Load Parameters that GDDR will use when IPL'ing this system at DC3.

A value of "UNDF" indicates that no DC3 Load Parameter has been defined yet.

3.1.6.3.1.5 DC3 Target LPAR

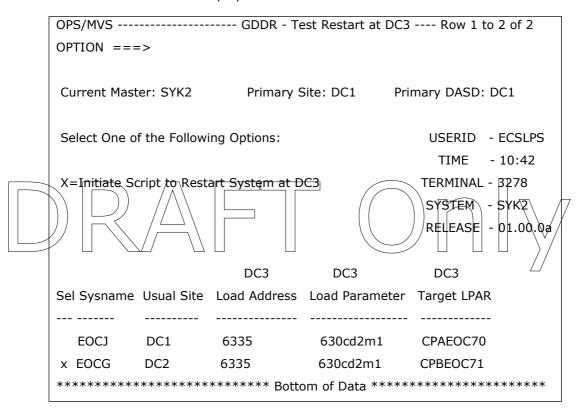
The LPAR on the DC3 Processor that will be activated and where the selected system will be IPL'ed from.

A value of "UNDF" indicates that no DC3 Target LPAR has been defined yet.

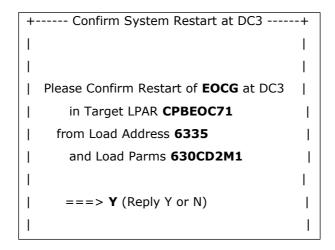


3.1.6.3.1.6 Sel

To select a system for restart at DC3, enter an x' in this field and hit enter, the confirmation window will be displayed:



To run the script enter 'Y' and hit enter, the batch job to run the script will be submitted automatically.





+-----

Once a script is submitted, the Operators get one further chance to confirm or deny the run. The following WTOR is issued to the Master Console:

*nn GDDRPA07: CONFIRM RUN OF PLANNED ACTION ALLSITE3 TEST EOCG FROM ***DC3*** (YES/NO)

The Operators should reply '**Yes**' to confirm the run of the script, or reply '**No**' to cancel the run of the script.





3.2 Unplanned Scenario Script Operations

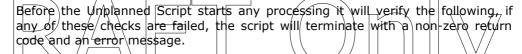
The following provides a description of each Unplanned Script that may be run from the GDDR Operators Interface.

3.2.1 Option U31 - Start or Re-start Unplanned_Takeover_ALLSITEn

3.2.1.1 Usage

This option is used to start or restart the recovery actions after an Unplanned Swap has completed successfully.

3.2.1.2 Restrictions



The script must be run from the Current Master K-System.

WARNING - MUST only be run on request of Management.

3.2.2 Option RJO - Start JO Link After an Unplanned Swap

3.2.2.1 Usage

This option is used to resume the J0 Link to the secondary DASD site after there has been an Unplanned Swap (due to the loss of the Primary DASD, either via Hardware Failure, Network Failure or Site Failure) and the Secondary DASD is now accessible.

3.2.2.2 Restrictions

Before the Unplanned Script starts any processing it will verify the following, if any of these checks are failed, the script will terminate with a non-zero return code and an error message.

The script must be run from the Current Master K-System.

WARNING - MUST only be run on request of Management.





3.3 Resumption Scenario Script Operations

The following provides a description of each Resumption Script that may be run from the GDDR Operators Interface.

3.3.1 Option R33 - Resume JA Link after DC3 Test

3.3.1.1 Usage

This option is used to restore the JA link to DC3 (from either DC1 or DC2 depending upon where the Production Workload is currently running) after a Test in DC3.

Before the Resumption Script starts processing, it will verify the following, if any of these checks are falled, the script will terminate with a non-zero return code and an error message.

• The script must be run from the Current Master K-System.

WARNING - MUST only be run on request of Management after ALL DC3 Testing is complete...as all DC3 Systems/LPAR's are RESET CLEAR/DEACTIVATED.

3.3.2 Option SS - Start SNOW'ing to DC3 (from either DC1 or DC2)

3.3.2.1 Usage

This option is used to restore the JA link to DC3 (from either DC1 or DC2 depending upon where the Production Workload is currently running) after an unplanned or planned stop of SRDF/A (JA).

3.3.2.2 Restrictions

Before the Resumption Script starts processing, it will verify the following, if any of these checks are failed, the script will terminate with a non-zero return code and an error message.

• The script must be run from the Current Master K-System.



4. Unplanned Operations

4.1 Local Disaster Operations (LDR)



4.2 Regional Disaster (RDR) Operations





5. TROUBLE SHOOTING

5.1 Detecting and Resolving Problems

This section documents the process for detecting and resolving problems encountered while running GDDR scripts.

GDDR scripts should always end with Return Code=0 indicating the desired action has been completed successfully.

If a GDDR script does not complete with Return Code=0, to identify the problem first examine the joblog of the job that ran the script. Examine the SYSTSPRT and SYSPRINT DD's for any error messages and non-zero Return Codes.

GDDR Error messages should first be looked up in the GDDR Messages and Codes manual, the Operator should then perform any Operator indicated Action.







6. APPENDIX

6.1 Expected Output

The following section shows the expected output from each of the Planned scripts, the output will be displayed on the System Console and in the SYSLOG.

Access to the SYSLOG is via SDSF.

Output from the scripts may also be found in the output of the script job itself (ddname=SYSTSPRT) and in the OPS/MVS OPSLOG (option OPS.1).

Any Errors encountered during the running of a script will be reported to the TNG Console. The first error encountered in a running script will terminate that script.





6.2 Planned Scenario's Expected Output

The following are displays of what the Operators should expect to see from the successful runs of the indicated scripts.

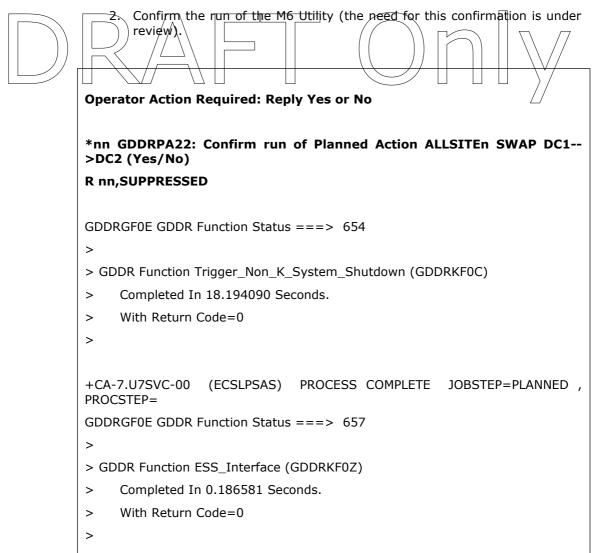
Required Operator replies are highlighted in bold.

6.2.1 Option 12 – Swap from Site DC1 to DC2

The following is the output displayed by GDDR (to the MVS Console and Syslog) during the running of Planned Script **Planned_Action_ALLSITEn**.

The only Operator Intervention/Action required, is highlighted in **bold**, specifically they are required to:

1. Confirm the run (or re-start) of the script.



GDDRGF0E GDDR Function Status ===> 660



```
>
> GDDR Function Discover_HMC_Objects (GDDRKF0J)
     Completed In 1.999246 Seconds.
     With Return Code=0
GDDRGF0E GDDR Function Status ===> 663
> GDDR Function Issue_HWMCA_Commands (GDDRHMC2)
     Completed In 0.990294 Seconds.
>
     With Return Code=0
GDDRGF0E GDDR\Fundtion Status ===> 666
Ы
> GDDR Function Issue_HWMCA_Commands (GDDRHMC2)
     Completed In 0.988692 Seconds.
>
     With Return Code=0
>
>
GDDRGF0E GDDR Function Status ===> 728
> GDDR Function Wait_For_JA_Session_Consistency (GDDRGF0G)
     Completed In 50.210058 Seconds.
     With Return Code=0
F EMCRSPAK, MSC, PENDDROP
*nn GDDR001A: GDDR Waiting for MSC to Drop.
R nn, SUPPRESSED
GDDRGF0E GDDR Function Status ===> 800
> GDDR Function Planned_Kill_SNOW (GDDRKF0P)
     Completed In 25.502005 Seconds.
>
     With Return Code=0
>
```

© euroclear 2005 34 29 June 2016



```
GDDRGF0E GDDR Function Status ===> 808
> GDDR Function Check_4_Invalid_Tracks (GDDRKF0Y)
     Completed In 4.488794 Seconds.
     With Return Code=0
GDDRGF0E GDDR Function Status ===> 864
> GDDR Function Manage_BCVs (GDDRKF01)
     Completed In 94.614594 Seconds.
     With Return Code=0
GDDRGF0E GDDR Function Status ===> 868
>
> GDDR Function Update_Current_Mirroring_Status (GDDRGF02)
     Completed In 6.701605 Seconds.
     With Return Code=0
>
GDDRGF0E GDDR Function Status ===> 495
> GDDR Function Perform_EMCCGRP_Shutdown (GDDRGF08)
     Completed In 610.867068 Seconds.
     With Return Code=0
>
GDDRGF0E GDDR Function Status ===> 945
> GDDR Function Delete_JA_Device_Pairs (GDDRKF2Q)
     Completed In 423.258796 Seconds.
     With Return Code=0
GDDRGF0E GDDR Function Status ===> 026
```



```
>
> GDDR Function Perform_Personality_Swap (GDDRKF23)
     Completed In 64.383356 Seconds.
     With Return Code=0
GDDRGF0E GDDR Function Status ===> 949
> GDDR Function Re_Establish_J0 (GDDRKF24)
     Completed In 993.976965 Seconds.
     With Return Code=0
GDDRGF0E GDDR\Fundtion Status ===> 960
Ы
> GDDR Function Special_Processing_For_J0 (GDDRKF0X)
     Completed In 7.025558 Seconds.
>
     With Return Code=0
>
>
GDDRGF0E GDDR Function Status ===> 483
> GDDR Function Perform_EMCCGRP_Startup (GDDRGF09)
     Completed In 147.984917 Seconds.
     With Return Code=0
GDDRGF0E GDDR Function Status ===> 494
> GDDR Function Update_Current_Mirroring_Status (GDDRGF02)
     Completed In 10.884111 Seconds.
     With Return Code=0
GDDRGF0E GDDR Function Status ===> 714
> GDDR Function Manage_BCVs (GDDRKF01)
```



```
Completed In 226.792100 Seconds.
>
     With Return Code=0
>
>
GDDRGF0E GDDR Function Status ===> 746
> GDDR Function Create_Star_SNOW_Pairs (GDDRKF0W)
     Completed In 946.948427 Seconds.
     With Return Code=0
Operator Action Required; Reply Yes or No
GDDRGFOL/GDDR Confirmation ===> 748/
   Please Confirm Run of M6 Using...
    Gatekeeper Device: A6BF
           MSC Group: DC1_MSCG
*nn GDDRGF0L Please Confirm Run of M6 Utility (Yes/No):
R nn, SUPPRESSED
GDDRGF0E GDDR Function Status ===> 756
> GDDR Function Run_M6_MSC_Cleanup (GDDRGF0H)
     Completed In 17.415030 Seconds.
     With Return Code=0
GDDRGF0E GDDR Function Status ===> 830
> GDDR Function Delta_Resume_SRDFA_DCn_2_DC3 (GDDRKF0D)
     Completed In 40.605343 Seconds.
     With Return Code=0
F EMCRSPAK, MSC, REFRESH
```



*nn GDDR001A: GDDR Waiting for MSC Task to Enable.

R nn, SUPPRESSED

>SC GLOBAL, PARM_REFRESH

*nn GDDR001A: GDDR Waiting for MSC Group DC2_MSCG_LAB2 to become Active.

R nn, SUPPRESSED

GDDRGF0E GDDR Function Status ===> 234

>

> GDDR Function Start_MSC_STAR (GDDRKF0S)

> Completed In 284.152865 Seconds.







>

- > GDDR Function Wait_For_JA_Session_Consistency (GDDRGF0G)
- > Completed In 348.774771 Seconds.
- > With Return Code=0

>

Operator Action Required: Reply Yes or No

*nn GDDRHMC1: Confirm IPL of System EOCG Using Address/Parms 9335/930CX1M1 (Yes/No)

R nn, SUPPRESSED

GDDRGF0E GDDR Function Status ===> 667

>

- > GDDR Function Issue_HWMCA_Commands (GDDRHMC2)
- > Completed In 49.470613 Seconds.
- > With Return Code=0

>

Operator Action Required: Reply Yes or No

*nn GDDRHMC1: Confirm IPL of System EOCJ Using Address/Parms 9335/930CX1M1 (Yes/No)

R nn, SUPPRESSED

GDDRGF0E GDDR Function Status ===> 163



```
>
> GDDR Function Manage_BCVs (GDDRKF01)
    Completed In 140.592402 Seconds.
     With Return Code=0
GDDRGF0E GDDR Function Status ===> 072
> GDDR Function Manage_BCVs (GDDRKF01)
    Completed In 339.624167 Seconds.
>
     With Return Code=0
GDDRGF0E GDDR\Fundtion Status ===> 856
Ы
> GDDR Function Check_Production_Systems_Up (GDDRGF0B)
     Completed In 178.529883 Seconds.
>
     With Return Code=0
>
>
GDDRGF0E GDDR Function Status ===> 860
> GDDR Function Trigger_Non_K_System_Startup (GDDRKF0I)
     Completed In 0.067143 Seconds.
     With Return Code=0
+CA-7.U7SVC-00 (ECSLPSAS) PROCESS COMPLETE JOBSTEP=PLANNED ,
PROCSTEP=
GDDRGF0E GDDR Function Status ===> 882
> GDDR Function ESS_Interface (GDDRKF0Z)
     Completed In 0.248226 Seconds.
     With Return Code=0
F EMCCGRP, TAKEOVER, DCSK
GDDRGF0E GDDR Function Status ===> 072
```



> > GDDR Function Transfer_Autoswap_Ownership (GDDRKF0E) Completed In 10.874429 Seconds. With Return Code=0 GDDRGF0E GDDR Function Status ===> 757 > GDDR Function Transfer_Master_Function_Ownership (GDDRKF0H) Completed In 36.012782 Seconds. With Return Code=0 GDDRGF0E GDDR\Fundtion Status ===> 759 \geq > GDDR Function Planned_Action_ALLSITEn (GDDRPA22) Completed In 5082.38335 Seconds. > With Return Code=0 > > The End

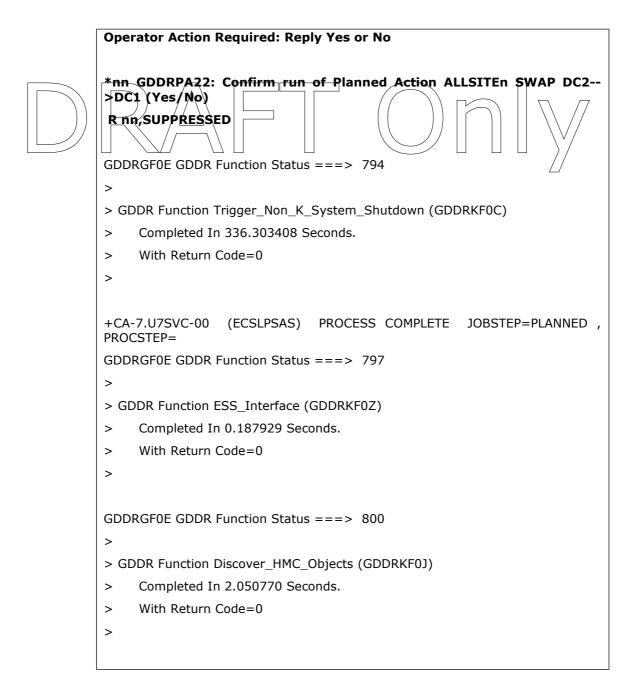


6.2.2 Option 21 – Swap from Site DC2 to DC1

The following is the output displayed by GDDR (to the MVS Console and Syslog) during the running of Planned Script **Planned_Action_ALLSITEn**.

The only Operator Intervention/Action required, is highlighted in **bold**, specifically they are required to:

- 1. Confirm the run (or re-start) of the script.
- 2. Confirm the run of the M6 Utility (the need for this confirmation is under review).





```
GDDRGF0E GDDR Function Status ===> 803
> GDDR Function Issue_HWMCA_Commands (GDDRHMC2)
     Completed In 1.004259 Seconds.
     With Return Code=0
GDDRGF0E GDDR Function Status ===> 806
> GDDR Function Issue_HWMCA_Commands (GDDRHMC2)
     Completed In 0.984985 Seconds.
     With Return Code=0
GDDRGF0E GDDR Aundtion Status ===> 849
>
> GDDR Function Wait_For_JA_Session_Consistency (GDDRGF0G)
     Completed In 51.739305 Seconds.
>
     With Return Code=0
>
>
F EMCRSPAK, MSC, PENDDROP
*nn GDDR001A: GDDR Waiting for MSC to Drop.
R nn, SUPPRESSED
GDDRGF0E GDDR Function Status ===> 933
> GDDR Function Planned_Kill_SNOW (GDDRKF0P)
     Completed In 27.572660 Seconds.
     With Return Code=0
GDDRGF0E GDDR Function Status ===> 943
> GDDR Function Check_4_Invalid_Tracks (GDDRKF0Y)
     Completed In 3.562123 Seconds.
     With Return Code=0
```



```
>
GDDRGF0E GDDR Function Status ===> 089
> GDDR Function Manage_BCVs (GDDRKF01)
     Completed In 101.841293 Seconds.
     With Return Code=0
GDDRGF0E GDDR Function Status ===> 093
> GDDR Function Update_Current_Mirroring_Status (GDDRGF02)
     Completed In 6 719266 Seconds.
    With Return Code=0
GDDRGF0E GDDR Function Status ===> 246
> GDDR Function Perform_EMCCGRP_Shutdown (GDDRGF08)
     Completed In 45.263590 Seconds.
>
     With Return Code=0
>
GDDRGF0E GDDR Function Status ===> 409
>
> GDDR Function Delete_JA_Device_Pairs (GDDRKF2Q)
     Completed In 128.002753 Seconds.
     With Return Code=0
GDDRGF0E GDDR Function Status ===> 496
> GDDR Function Perform_Personality_Swap (GDDRKF23)
     Completed In 63.485945 Seconds.
     With Return Code=0
```



```
GDDRGF0E GDDR Function Status ===> 391
> GDDR Function Re_Establish_J0 (GDDRKF24)
     Completed In 992.216196 Seconds.
     With Return Code=0
GDDRGF0E GDDR Function Status ===> 402
> GDDR Function Special_Processing_For_J0 (GDDRKF0X)
     Completed In 6.986777 Seconds.
     With Return Code=0
GDDRGF0E/GDDR\Rundtion Status ===> 827
>
> GDDR Function Perform_EMCCGRP_Startup (GDDRGF09)
     Completed In 157.980292 Seconds.
>
     With Return Code=0
>
>
GDDRGF0E GDDR Function Status ===> 831
> GDDR Function Update_Current_Mirroring_Status (GDDRGF02)
     Completed In 6.715642 Seconds.
>
     With Return Code=0
GDDRGF0E GDDR Function Status ===> 081
> GDDR Function Manage_BCVs (GDDRKF01)
     Completed In 297.171242 Seconds.
     With Return Code=0
GDDRGF0E GDDR Function Status ===> 991
```



> GDDR Function Create_Star_SNOW_Pairs (GDDRKF0W) Completed In 933.025049 Seconds. With Return Code=0 > Operator Action Required: Reply Yes or No **GDDRGF0L GDDR Confirmation ===> 993** ************ Please Confirm Run of M6 Using... **Gatekeeper Device: 96BF** MSC Group: DC2_MSCG *nn GDDRGF0L Please Confirm Run of M6 Utility (Yes/No) R nn, SUPPRESSED GDDRGF0E GDDR Function Status ===> 999 > GDDR Function Run_M6_MSC_Cleanup (GDDRGF0H) Completed In 23.700471 Seconds. > With Return Code=0 GDDRGF0E GDDR Function Status ===> 099 > GDDR Function Delta_Resume_SRDFA_DCn_2_DC3 (GDDRKF0D) Completed In 36.530005 Seconds. With Return Code=0 F EMCRSPAK, MSC, REFRESH *nn GDDR001A: GDDR Waiting for MSC Task to Enable. R nn, SUPPRESSED >SC GLOBAL,PARM_REFRESH *nn GDDR001A: GDDR Waiting for MSC Group DC1_MSCG_LAB2 to become Active.



R nn, SUPPRESSED GDDRGF0E GDDR Function Status ===> 538 > GDDR Function Start MSC STAR (GDDRKF0S) Completed In 310.657580 Seconds. With Return Code=0 GDDRGF0E GDDR Function Status ===> 879 > GDDR Function Wait_For_JA_Session_Consistency (GDDRGF0G) Completed\In 31\$.415060 \$\,\text{e}conds. With Return Code=0 **Operator Action Required: Reply Yes or No** *nn GDDRHMC1: Confirm IPL of System EOCJ Using Address/Parms A335/A30CX1M1 (Yes/No) R nn, SUPPRESSED GDDRGF0E GDDR Function Status ===> 886 > GDDR Function Issue_HWMCA_Commands (GDDRHMC2) Completed In 20.947446 Seconds. > With Return Code=0 > **Operator Action Required: Reply Yes or No** *nn GDDRHMC1: Confirm IPL of System EOCG Using Address/Parms A335/A30CX1M1 (Yes/No) R nn, SUPPRESSED GDDRGF0E GDDR Function Status ===> 370 > GDDR Function Manage_BCVs (GDDRKF01) Completed In 360.745806 Seconds. With Return Code=0 >



```
GDDRGF0E GDDR Function Status ===> 629
> GDDR Function Check_Production_Systems_Up (GDDRGF0B)
     Completed In 39.899256 Seconds.
     With Return Code=0
GDDRGF0E GDDR Function Status ===> 633
> GDDR Function Trigger_Non_K_System_Startup (GDDRKF0I)
     Completed In 0,061013 Seconds,
     With Return Code=0
                 (ECSLPSAS) PROCESS COMPLETE
+CA-7.U7SVC-00
                                                    JOBSTEP=PLANNED ,
PROCSTEP=
GDDRGF0E GDDR Function Status ===> 649
>
> GDDR Function ESS_Interface (GDDRKF0Z)
     Completed In 0.239476 Seconds.
>
     With Return Code=0
>
F EMCCGRP, TAKEOVER, DCSR
GDDRGF0E GDDR Function Status ===> 677
>
> GDDR Function Transfer_Autoswap_Ownership (GDDRKF0E)
     Completed In 10.861428 Seconds.
>
     With Return Code=0
>
GDDRGF0E GDDR Function Status ===> 738
> GDDR Function Transfer_Master_Function_Ownership (GDDRKF0H)
     Completed In 13.413697 Seconds.
     With Return Code=0
```



GDDRGF0E GDDR Function Status ===> 740

>

- > GDDR Function Planned_Action_ALLSITEn (GDDRPA22)
- > Completed In 4403.94508 Seconds.
- > With Return Code=0

>

The End

DRAFT Only



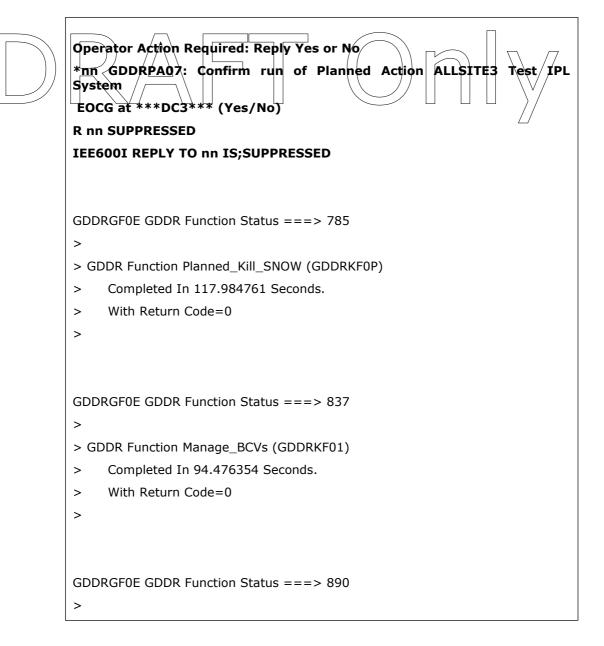
6.2.3 Option 33 - Test Restart of Production LPAR's at DC3

This script will typically be run after SRDF/A has stopped as either the result of an error or by operator command.

The following is the output displayed by GDDR (to the MVS Console and Syslog) during the running of Planned Script **Planned_Action_ALLSITE3_Test_DC3**.

The only Operator Intervention/Action required, is highlighted in **bold**, specifically they are required to:

- 1. Confirm the run (or re-start) of the script.
- 2. Confirm the run of the M6 Utility (the need for this confirmation is under review).





- > GDDR Function Issue_Commands_2_JA_RDFGRP (GDDRGF0J)
- > Completed In 20.504236 Seconds.
- > With Return Code=0

>

GDDRGF0E GDDR Function Status ===> 893

>

- > GDDR Function Discover_HMC_Objects (GDDRKF0J)
- > Completed In 2.907374 Seconds.
- > With Return Code=0



GDDRGF0E GDDR Function Status ===> 907

- > GDDR Function Issue_HWMCA_Commands (GDDRHMC2)
- > Completed In 20.393641 Seconds.
- > With Return Code=0

>

Operator Action Required: Reply Yes or No

*nn GDDRHMC1: Confirm Test IPL of System EOCG at DC3 Using Address/Parms 6335/630CD3M1 (Yes/No)

R nn SUPPRESSED

IEE600I REPLY TO nn IS; SUPPRESSED

GDDRGF0E GDDR Function Status ===> 058

>

- > GDDR Function Issue_HWMCA_Commands (GDDRHMC2)
- > Completed In 131.169097 Seconds.
- > With Return Code=0

>

GDDRGF0E GDDR Function Status ===> 060

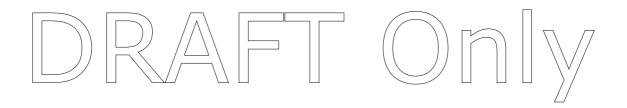


>

- > GDDR Function Planned_Action_ALLSITE3_Test_DC3 (GDDRPA07)
- > Completed In 398.313622 Seconds.
- > With Return Code=0

>

The End





6.3 Resumption Scenario's Expected Output

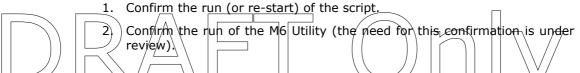
The following are displays of what the Operators should expect to see from the successful runs of the indicated scripts.

Required Operator replies are highlighted in bold.

6.3.1 Option R33 - Resume JA Link after DC3 Test

The following is the output displayed by GDDR (to the MVS Console and Syslog) during the running of Planned Script Planned_Action_RESUME_After_DC3_Test.

The only Operator Intervention/Action required, is highlighted in **bold**, specifically they are required to:



Operator Actions Required: Reply Yes or No

*nn GDDRPA08: Confirm run of Planned Action RESUME Normal JA Operations

After Test at ***DC3*** (Yes/No)

R nn SUPPRESSED

GDDRGF0E GDDR Function Status ===> 050

>

- > GDDR Function Discover_HMC_Objects (GDDRKF0J)
- > Completed In 22.663331 Seconds.
- > With Return Code=0

>

GDDRGF0E GDDR Function Status ===> 150

>

- > GDDR Function Issue_HWMCA_Commands (GDDRHMC2)
- > Completed In 37.018790 Seconds.
- > With Return Code=0

>



GDDRGF0E GDDR Function Status ===> 173 > GDDR Function Issue_Commands_2_JA_RDFGRP (GDDRGF0J) Completed In 22.864660 Seconds. With Return Code=0 F EMCCGRP, DISABLE LAB2STAR CGRP282I DISABLE LAB2STAR *nn GDDR001A: GDDR Waiting for ConGroup to Disable Group LAB2STAR. GRP154W CONGROUP LAB2STAR IS DISABLED FOR CTLR∓000287890402 R nn SUPPRESSED IEE6001 REPLY TO nn IS; SUPPRESSED CGRP167I CONGROUP LAB2STAR SUCCESSFULLY DISABLED GDDRGF0E GDDR Function Status ===> 479 > GDDR Function Toggle_ConGroup_Groups (GDDRKF0G) Completed In 59.057958 Seconds. > With Return Code=0 > GDDRGF0E GDDR Function Status ===> 514 > GDDR Function Issue_Commands_2_JA_RDFGRP (GDDRGF0J) Completed In 15.303049 Seconds. With Return Code=0 GDDRGF0E GDDR Function Status ===> 290 > GDDR Function Issue_Commands_2_JA_RDFGRP (GDDRGF0J) Completed In 926.106934 Seconds. With Return Code=0

© euroclear 2005 53 29 June 2016



```
>
GDDRGF0E GDDR Function Status ===> 727
> GDDR Function Re_Establish_SNOW (GDDRKF0B)
    Completed In 2166.72325 Seconds.
>
    With Return Code=0
GDDRGF0E GDDR Function Status ===> 931
 GDDR Function Toggle_ConGroup_Groups (GDDRKF0G)
    Completed In 123.377090 Seconds.
Ы
    With Return Code=0
>
GDDRGF0E GDDR Function Status ===> 997
>
> GDDR Function Wait_4_SNOW_Synch_Up (GDDRGF0M)
    Completed In 11.408340 Seconds.
    With Return Code=0
Operator Action Required: Reply Yes or No
GDDRGF0L GDDR Confirmation ===> 999
************
   Please Confirm Run of M6 Using...
    Gatekeeper Device: A6BF
        MSC Group: DC1_MSCG
**************
*nn GDDRGF0L Please Confirm Run of M6 Utility (Yes/No):
```



R nn SUPPRESSED

IEE600I REPLY TO nn IS; SUPPRESSED

GDDRGF0E GDDR Function Status ===> 005

>

- > GDDR Function Run_M6_MSC_Cleanup (GDDRGF0H)
- > Completed In 46.473833 Seconds.
- > With Return Code=0

>



GDDRGF0E GDDR Function Status ===> 075/



- > Completed In 36.218392 Seconds.
- > With Return Code=0

>

GDDRGF0E GDDR Function Status ===> 447

>

- > GDDR Function Start_MSC_STAR (GDDRKF0S)
- > Completed In 298.077236 Seconds.
- > With Return Code=0

>

GDDRGF0E GDDR Function Status ===> 765

>

- > GDDR Function Wait_For_JA_Session_Consistency (GDDRGF0G)
- > Completed In 298.783398 Seconds.
- > With Return Code=0

>

GDDRGF0E GDDR Function Status ===> 009



The End

> GDDR Function Manage_BCVs (GDDRKF01)
> Completed In 306.770679 Seconds.
> With Return Code=0
>

GDDRGF0E GDDR Function Status ===> 011
> GDDR Function Planned_Action_RESUME_After_DC3_Test (GDDRPA08)
> Completed In 4310.88345 Seconds.
> With Return Code=0

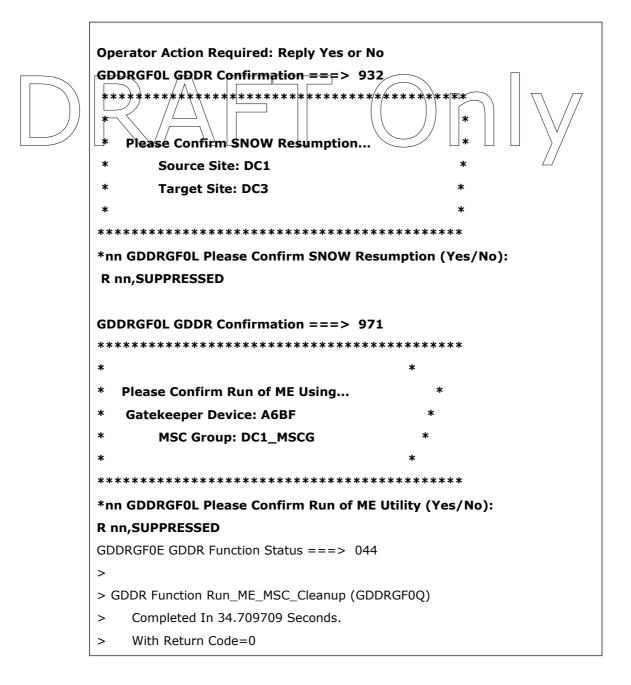


6.3.2 Option SS - Start SNOW'ing to DC3 (from either DC1 or DC2)

The following is the output displayed by GDDR (to the MVS Console and Syslog) during the running of Planned Script **Planned_Action_RESUME_SNOW**.

The only Operator Intervention/Action required, is highlighted in **bold**, specifically they are required to:

- 3. Confirm the run (or re-start) of the script.
- 4. Confirm the run of the M6 Utility (the need for this confirmation is under review).





```
>
GDDRGF0E GDDR Function Status ===> 167
> GDDR Function Issue Commands 2 JA RDFGRP (GDDRGF0J)
     Completed In 28.146455 Seconds.
     With Return Code=0
GDDRGF0E GDDR Function Status ===> 193
SDDR Function Toggle_ConGroup_Groups (GDDRKROG)
    Completed In 5 452631 Seconds.
     With Return Code=0
GDDRGF0E GDDR Function Status ===> 222
>
> GDDR Function Issue_Commands_2_JA_RDFGRP (GDDRGF0J)
    Completed In 13.170779 Seconds.
>
     With Return Code=0
>
GDDRGF0E GDDR Function Status ===> 233
> GDDR Function Issue_Commands_2_JA_RDFGRP (GDDRGF0J)
     Completed In 7.819136 Seconds.
     With Return Code=0
GDDRGF0E GDDR Function Status ===> 244
> GDDR Function Re_Establish_SNOW (GDDRKF0B)
    Completed In 6.318844 Seconds.
```



```
With Return Code=0
>
>
GDDRGF0E GDDR Function Status ===> 939
> GDDR Function Toggle_ConGroup_Groups (GDDRKF0G)
    Completed In 147.354175 Seconds.
    With Return Code=0
GDDRGF0E GDDR Fundtion Status ===> 951

| GDDR Function Walt 4_SNOW $ynch_Up (GDDRGF0M)
    Completed In 12.826333 Seconds.
>
    With Return Code=0
>
>
Operator Action Required: Reply Yes or No
GDDRGF0L GDDR Confirmation ===> 953
************
  Please Confirm Run of M6 Using...
   Gatekeeper Device: 96BF
          MSC Group: DC2_MSCG
************
*nn GDDRGF0L Please Confirm Run of M6 Utility (Yes/No):
GDDRGF0E GDDR Function Status ===> 275
> GDDR Function Run_M6_MSC_Cleanup (GDDRGF0H)
    Completed In 276.586655 Seconds.
    With Return Code=0
```



> GDDRGF0E GDDR Function Status ===> 306 > GDDR Function Delta_Resume_SRDFA_DCn_2_DC3 (GDDRKF0D) Completed In 36.679844 Seconds. With Return Code=0 > GDDRGF0E GDDR Function Status ===> 396 GDDR Function Start_MSC_STAR (GDDRKF0\$) Completed In 897.139668 Seconds. \geq With Return Code=0 GDDRGF0E GDDR Function Status ===> 461 > > GDDR Function Wait_For_JA_Session_Consistency (GDDRGF0G) Completed In 44.490282 Seconds. With Return Code=0 GDDRGF0E GDDR Function Status ===> 463 > GDDR Function Planned_Action_RESUME_SNOW (GDDRPA09) Completed In 1476.02566 Seconds. With Return Code=0 The End



#