



REV DATAFLOW



Secure File Transfers

Data Transfer between similar and/or different platforms has become an everyday task in corporations as many different:





- Platforms,
 - Operating Systems,
- are now used for day to day operations and data capture.

REV DATAFLOW allows you to execute data transfers in a:

- Totally secure,
 - Encrypted,
 - Authenticated,
- environment that does NOT use FTP.

Same model on all platforms

REV DATAFLOW runs natively on all platforms:

- iSeries 
- UNIX, 
- LINUX 
- WINDOWS 

You control the database locations

The ONLY platform that must have a Local database is iSeries as every i5OS installation has a DB2 instance.

On every other platform you are in total control of the database locations which can be:




- Local,
- Remote.

At RevSoft we do have a simple rule:

'A Mission Critical server should have a Local database.'

Same Data Transfer solution on all platforms

As REV DATAFLOW is exactly the same model on all platforms:

- The same Windows .net User Interfaces are used for all platforms:
 -  Host &  Enterprise Consoles - to manage as well as see and hear all messages as they are being detected and processed,
 -  Engine - to configure, add systems and migrate data.
- One education plan fits all.

Only install User Interfaces where required

As the User Interfaces are very specific as to their functions you only need to install them where they are required - instead of using one large cumbersome interface where only a small portion is required.

There is no security required for all the Windows .net User Interfaces.

30 long System Name

The iSeries System Name is up to 8 characters in length but in RevSoft you can use an Alias Name (on any platform) that can be up to 30 characters in length.

If a server has a System name of S1234567 it can be seen as (in RevSoft) as CUSTOMER_NAME_PROD or TAMPA_QANDA_RED_HAT,

Major Features

- No FTP,
- File Types,
- Procedures supported,
- Execution methods,
- Unattended Transfers,
- RFRTVOBJ,
- RFSNDCMD,
- RFSNDOBJ,
- RFSNDSPLF,
- Pre Scripts,
- Post Scripts,
- Encryption,
- Resend Interrupted,
- Compression,
- Options,
- Data Conversion,
- Run as User,
- Fully Networked,
- Concurrent Transfers,
- Configurable Sounds,
- Comma Separator Values,
- Variables,
- Review Timings,
- Host Procedures,
- Enterprise Procedures,
- Job Queues,
- Job logs.



REV DATAFLOW



No FTP servers are used

REV DATAFLOW does not use FTP (File Transfer Protocol) servers.

All the transfers use REV DATAFLOW transfer mechanism.

File Types

There are 4 basic File types that REV DATAFLOW can transfer:

- Stream Files - these are the standard files found on:
 - AS/400 IFS,
 - UNIX,
 - LINUX,
 - WINDOWS.
- AS/400 Library files - these are files that reside in AS/400 libraries,,
- AS/400 Spooled Files - these are Spooled Files that reside on the AS/400,,
- AS/400 Save Files - - these are Tape image files similar to TAR (Tape ARchive format) files in UNIX..

Processes Supported

There are 4 processes that can be executed:

- RFSNDMCD -Send & Run command - this will Send a command from the :
 - *SOURCE system and execute it on the *TARGET system,
- RFSNDOBJ - Send Object - this will send an object from the :
 - *SOURCE system to the *TARGET system,
- RFRTVOBJ - Retrieve Object - this will retrieve an object from the :
 - *TARGET system to the *SOURCE system.
- RFSNDSPLF - Send Spooled File - this will send a Spooled File from an AS/400 (*SOURCE) system to the *TARGET system,

Process execution methods

The REV DATAFLOW processes can be executed from:

- The REV DATAFLOW Windows interface - in the REV DATAFLOW Console,
- Command on AS/400,
- Command line on AIX, LINUX, UNIX or WINDOWS.

Unattended Transfers

REV DATAFLOW can be run in unattended mode by inserting the commands into automation software such as REV SCHEDULER.



REV DATAFLOW



RFRTVOBJ - Retrieve Object

This procedure will Retrieve an Object:

- From the *TARGET system,
- To the *SOURCE system.

The Object can be a:

- Stream File,
- iSeries Library File,
- iSeries Save File.

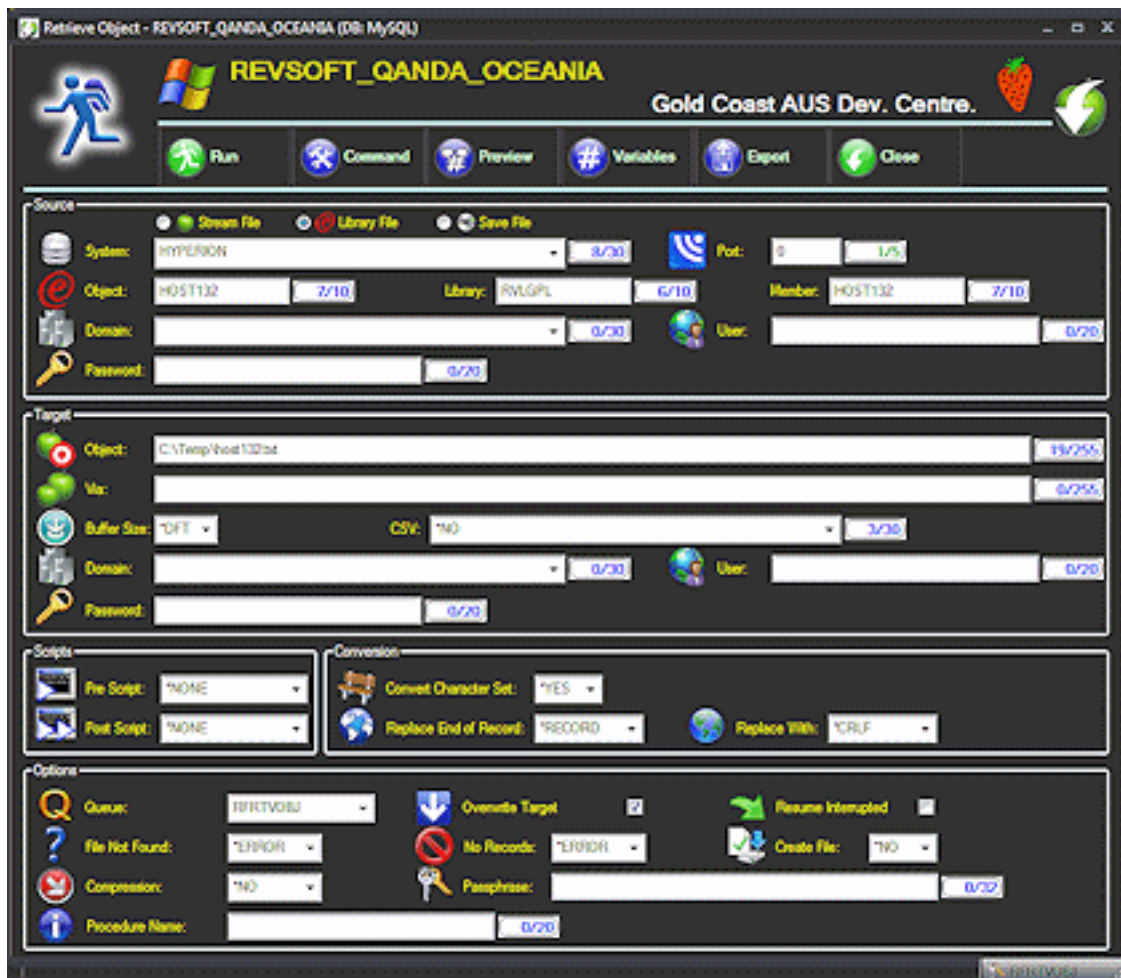
Scripts can be executed:

- Pre transfer on the *SOURCE and/or *TARGET systems,
- Post transfer on the *SOURCE and/or *TARGET systems.

Data can be converted as well as End of Record markers added, removed or changed.

If an iSeries Library file is being used Comma Separator Values (CSV) can be used and can be:

- *NO - this will send as fixed length fields,
- *YES - comma's will separate the field values,
- User entered separator value up to 30 characters in length.





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RFSNDMCD -Send & Run command

This procedure will Send a command from the:

- *SOURCE system,
- To be Run on the *TARGET system.

Scripts can be executed:

- Pre transfer on the *SOURCE and/or *TARGET systems,
- Post transfer on the *SOURCE and/or *TARGET systems.

Any output or data from the execution of this command or command line will be displayed in the Log and the job log.



REV DATAFLOW



RFSNDOBJ - Send Object

This procedure will Send an Object:

- From the *SOURCE system,
- To the *TARGET system.

The Object can be a:

- Stream File,
- iSeries Library File,
- iSeries Save File.

Scripts can be executed:

- Pre transfer on the *SOURCE and/or *TARGET systems,
- Post transfer on the *SOURCE and/or *TARGET systems.

Data can be converted as well as End of Record markers added, removed or changed.

If an iSeries Library file is being used Comma Separator Values (CSV) can be used and can be:

- *NO - this will send as fixed length fields,
- *YES - comma's will separate the field values,
- User entered separator value up to 30 characters in length.

Send Object - REVSOFT_LAB_01 (HYPERION) (DR IBM 062)

REVSOFT_LAB_01 Orlando USA Dev. Centre.

Run Command Preview Variables Export Close

Source

Stream File Library File Save File

Object: F2F0200 6/10 Library: REVSO1 6/10 Member: F2F0200 6/10

Buffer Size: 1024

User: 0/10 CSV: YES 4/30

Target

Stream File Library File Save File

System: REVSOFT_GANDA_OCEANIA 21/00 Port: 7840 4/5

Object: c:\temp\201000 yes.txt 22/255

Ma: 0/255

Domain: 0/30 User: 0/20

Password: 0/20

Scripts

Pre Script: NONE

Post Script: NONE

Conversion

Convert Character Set: YES

Replace End of Record: RECORD

Replace With: CRLF

Options

Queue: []

File Not Found: *NO

Compression: *ND

Procedure Name: 0/20

Override Target: []

No Records: *10

Passphrase: 0/32

Resume Interrupted: []

Create File: *10



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RFSNDSPLF - Send Spooled File

This procedure will send a Spooled File:

- From an AS/400 (*SOURCE) system,
- To the *TARGET system.

Scripts can be executed:

- Pre transfer on the *SOURCE and/or *TARGET systems,
- Post transfer on the *SOURCE and/or *TARGET systems.

Data can be converted as well as End of Record markers added, removed or changed.

If the *TARGET server is a WINDOWS server a .pdf file can also be created during this procedure.

The screenshot shows the 'Send Spooled File' configuration window for REVSOFT LAB_01. The window is titled 'Send Spooled File - REVSOFT_LAB_01 (HYPERION) (DB: IBM DB2)'. It features a navigation bar with icons for Run, Command, Preview, Variables, Export, and Close. The configuration is divided into several sections:


- Source:** AS/400 Job: DATA_T01 (8/10), User: QSYSOPR (7/10), Number: 716303 (6/6), Spooled File: QPRINT (6/10), It: 1 (1/5), Control Char: %CFC, Buffer Size: TDET.
- Target:** System: REVSOFT_QANDA_OCEANIA (21/30), Port: 2840 (4/5), Object: c:\temp\data_jcp_qprint.txt (21/255), Create PDF, PDF File: c:\temp\data_jcp_qprint.pdf (21/255), Domain: (0/30), User: (0/20), Password: (0/20).
- Scripts:** Pre Script: NONE, Post Script: NONE.
- Conversion:** Convert Character Set: YES, Replace End of Record: RECORD, Replace With: CRLF.
- Options:** Compression: NO, Resume Interrupted: , Override Target: , Encryption Passphrase: (0/32), Procedure Name: SNDSPLF_HYP_OCEANIA (19/20).



REV DATAFLOW



Pre Scripts

 Pre Scripts are a list of pre defined Scripts that can be executed on the:

- *SOURCE,
 - *TARGET,
- systems.

Any messages that are detected during the Pre Script process are sent back to the Source system and can be viewed in the Log.

Post Scripts

 Post Scripts are a list of pre defined Scripts that can be executed on the:

- *SOURCE,
 - *TARGET,
- systems.


Any messages that are detected during the Post Script process are sent back to the Source system and can be viewed in the Log.

Encryption

 To further enhance the security of the transfer REV DATAFLOW uses AES (Advanced Encryption Standard) for every data transfer.

The encryption pass phrase is only partially entered by the user and as such the entire pass phrase cannot be viewed in any place.

Resend Interrupted

 If a transfer is interrupted and fails (at any point) the process can be restarted at the point where it failed.

The REV DATAFLOW software will detect the actual data bytes sent and restart the transfer process from that point.




Compression

 To effectively utilize the band width REV DATAFLOW can compress the data and maximize the data in each transmission, between the two servers.

The compression used is standard GZip and the space savings will vary depending upon the amount of actual data that can be compressed.

Options

Some of the Transfer options can be manually selected or reference the Tailoring Options to allow for more generic transfers:

-  File Not Found - File is not found (*ERROR, *OK, *TO),
-  No Records - No records to be sent (*ERROR, *OK, *TO)
-  Create File - Create Target file if no records to send (*NO, *YES, *TO),



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Data Conversion

As part of the Transfer process REV DATAFLOW can convert data.

The conversions can be from and to ASCII and EBCDIC.

Carriage Returns (CR) and/or Line Feeds (LF) can also be added or stripped from the data as

End of Record can be Replaced with other characters/markers.

Data from UNIX and WINDOWS can also be treated as a record by record when sending to or from an AS/400.

Run as User

For correct authentication each process can be provided with a:

- User Profile name if AS/400,
- User Name on AIX, LINUX and UNIX,
- Domain, User and Password on WINDOWS.

Fully Networked

REV DATAFLOW can be fully networked (via REV VIEW) to allow for multiple Focal Points on your network.

From a Focal Point all REV DATAFLOW procedures can be:

- Controlled,
- Managed,
- Viewed.

Multiple Concurrent Transfers

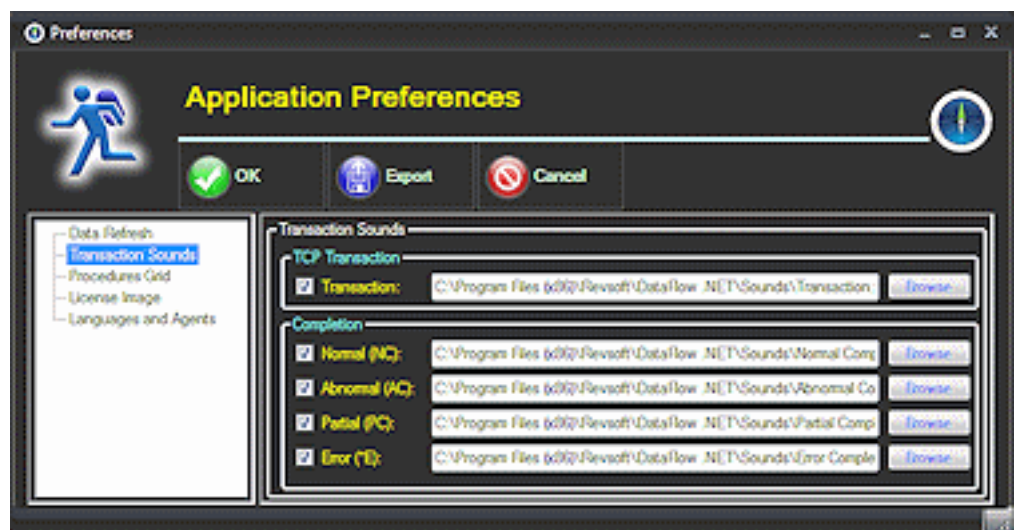
Multiple REV DATAFLOW transfers can be executed concurrently.

Configurable Sounds

The Host and Enterprise Procedures can be configured for sounds to be played based on the detection of status changes of Procedures.

The Procedures can be configured so they:

- Automatically update,
 - Play sounds,
 - Change colors,
- whenever a REV DATAFLOW procedure is being executed in your network.





REV DATAFLOW



Comma Separator Values

If an iSeries Library file is being used Comma Separator Values (CSV) can be used and can be:

- *NO - this will send as fixed length fields,
- *YES - comma's will separate the field values,
- User entered separator value up to 30 characters in length.

Variables

The variables that can be used in REV DATAFLOW fall into 2 areas:

- Procedure variables,
- System variables.

When variables are used there is also a Preview that allows you to view the:

- Defined value:

SNDDMSG MSG('Starting #PRCCMD which is #PRCNAME ID - #PRCINTID from Server #PRCSOURCE')
TOUSR(*SYSOPR),

- Execution value:

SNDDMSG MSG('Starting RFSNDOBJ which is SEND_EDI_ORDERS - 201217100000019 from Server
WIN_EDI_SERVERS_01') TOUSR(*SYSOPR).

The variables can be used in the:

- Pre Scripts,
- Transfer object names,
- Post Scripts.

All variables (Procedure and System) can all be identified by the # character.

Some of the System shipped variables are as follows:

- | | | | |
|--------------|-------------------------------------|--------------|--------------------------|
| • #PRCENDD | - End Date, | • #PRCCMD | - Command Name, |
| • #PRCENDT | - End Time, | • #PRCNAME | - Procedure Name, |
| • #PRCSTRD | - Start Date, | • #PRCSOURCE | - Source Machine, |
| • #PRCSTRT | - Start Time, | • #PRCTARGET | - Target Machine, |
| • #PRCOBJ | - From Object, | • #PRCTOBJ | - To Object, |
| • #PRCVOBJ | - Via Object, | • #PRCCOMP | - Compression, |
| • #PRCPRE | - Pre Script Name, | • #PRCPOST | - Post SScript Name, |
| • #PRCCRT | - Create File, | • #PRCFNF | - File Not Found, |
| • #PRCNOR | - No Records, | • #PRCCSV | - Comma Separator Value, |
| | | | |
| • #SYSDATE | - 6 long date in System Format, | | |
| • #SYSDOW3 | - Day of week - MON, TUE etc., | | |
| • #SYSJOBNAM | - i5OS Job Name, | • #DOMAIN | - Domain Name, |
| • #SYSUSRNAM | - i5OS User Name, | • #USER | - User Account, |
| • #SYSNB | - i5OS Job Number, | | |
| • #SYSJOB28 | - Job/User/Number, | | |
| • #SYSMTH3 | - Short month name - JAN, FEB etc., | | |
| • #SYSTEM | - System Name, | | |
| • #SYSNAME | - Alias Name. | | |



REV DATAFLOW



Review Timings

As a REV DATAFLOW procedure is running all the timings for sub processes are registered and can be reviewed and reported.

Live Timings can be reviewed as the process is executing and updated automatically.

Progress Bars show the current status of the transfer.

The screenshot shows the 'Procedure Timing' window for 'REVSOFT_LAB_01' at the 'Orlando USA Dev. Centre'. The window displays a table of procedure steps, transfer progress, and compression statistics.

Start Date	Start Time	Elapsed	CC	CC - Status	PCC Pre Script	OCC Post Script
Mon 18-Jun-2012	15:51:41	2	2	Submitted		
Mon 18-Jun-2012	15:51:43	18	18	InProgress		
Mon 18-Jun-2012	15:52:01	59	59	Sending		
Mon 18-Jun-2012	15:53:00	1:17	1:17	End Normal		

Transfer Details:
 Resume Interrupted:
 Already Sent: 2,384,976 bytes (16.58%)
 Transfer Details: 12,001,968 bytes of 14,386,944 bytes (83.42%)
 Byte Transferred:
 Progress: 100.00%
 Transfer Rate: 209,296
 Send Delay: 0 Retrieve Delay: 0

Options:
 CCSID: 00000
 CSV: *NO
 Overwrite Target:
 File Not Found: *TO
 No Records: *TO
 Create File: *TO
 Transfer with Encryption:

Compression:
 Compress and Decompress Data During Transfer: *YES
 Saving: 65.92%
 Network Transferred: 4,091,083 bytes of 12,001,968 bytes

Conversion:
 Convert Character Set: *NONE
 Replace End of Record: *NONE
 Replace With: *NONE

Transaction processed for REVSOFT_LAB_01 - RFSNDOB1 at Mon 18-Jun-2012 15:54:04

If a Resend of an Interrupted transfer occurs the original data is also visible.

Compression statistics are also displayed.

All Transfer options are clearly visible.

In this example the previous transfer had sent 2,384,976 of the total object size of 14,386,944.

When the Resend Interrupted is initiated REV DATAFLOW will detect the actual data bytes sent and restart the transfer process from that point onwards.

In this example the remaining 12,001,968 bytes were sent to complete the transfer.

The compression rate was 65.92% as the total bytes sent was 4,091,083.



REV DATAFLOW



Procedures Panels

When REV DATAFLOW Procedures are executing (or have been executed) you need to have a mechanism to control and manage them - this is performed by the Procedures Panels.

This will show all the Procedures that have been executed or are being executed on a date or the date range.

As jobs are running they will:

- Change colors,
 - Play Sounds,
- to reflect the current status of the REV DATAFLOW Procedures.

From the Procedures Panel you can:

- Re Send,
 - Re Send Interrupted,
 - Investigate and Manage,
- REV DATAFLOW Procedures.

The Procedures Panel will be the panel most used by the operations personnel within your corporation to control the Transfers executed by REV DATAFLOW.

Host Procedures



An Host Procedures Panel to allow you to control and manage Procedures on a Server.

Enterprise Procedures



An Enterprise Procedures Panel to allow you to control and manage Procedures on all networked Servers.

The screenshot shows the 'Enterprise Procedures - REVSOFT_LAB_01 (HYPERION (D6: BM D62))' window. The interface includes a header with the system name, date (Mon 18-Jun-2012 14:58), and location (Orlando USA Dev. Centre). Below the header are buttons for Refresh, Summary, Export, and Close. The main area contains filters for Date Range (From: CURRENT, To: CURRENT), Time Range (From: 00:00, To: 0:59), Sort By (TIME, COMMAND, OTHERS), and a Schema dropdown (FALL). A status bar shows 58 total items, with 4 in progress. The main table displays the following data:

Date	System	Source	Target	%	Transfer	Subst	Start
Mon 18 Jun 2012							
1	REVSOFT_LAB_01	REVSOFT_LAB_01	OCEANIA				14:45 14:45
2	REVSOFT_LAB_01	REVSOFT_LAB_01	OCEANIA				13:45 13:45
3	REVSOFT_LAB_01	REVSOFT_LAB_01	OCEANIA				13:45 13:45
4	REVSOFT_GANDA_OCEANIA	REVSOFT_GANDA_OCEANIA	HYPERION				11:28 11:30
5	REVSOFT_GANDA_OCEANIA	HYPERION	REVSOFT_GANDA_OCEANIA	100.00%			11:28 11:30
6	REVSOFT_GANDA_OCEANIA	REVSOFT_GANDA_OCEANIA	HYPERION	100.00%			11:28 11:30
7	REVSOFT_GANDA_OCEANIA	PORTIA	REVSOFT_GANDA_OCEANIA	100.00%			11:28 11:29
8	REVSOFT_GANDA_OCEANIA	ITIANA	REVSOFT_GANDA_OCEANIA	100.00%			11:28 11:29
9	REVSOFT_GANDA_OCEANIA	REVSOFT_GANDA_OCEANIA	PORTIA				11:28 11:29
10	REVSOFT_GANDA_OCEANIA	REVSOFT_GANDA_OCEANIA	HYPERION				11:28 11:29
11	REVSOFT_GANDA_OCEANIA	REVSOFT_GANDA_OCEANIA	ITIANA				11:28 11:28
12	REVSOFT_GANDA_OCEANIA	REVSOFT_GANDA_OCEANIA	HYPERION	100.00%			11:28 11:28
13	REVSOFT_GANDA_OCEANIA	REVSOFT_GANDA_OCEANIA	AMERICAS				11:28 11:28



REV DATAFLOW



Job Queues (LINUX, UNIX & WINDOWS only)

Jobs Queues allow you to control the streaming of the execution of Data Transfers.

A single streamed Job Queue will only allow 1 Data Transfer to be executed at a time.

	Queue Name	Size	Procedures	Hold	Description
1	RFRTVOBJ	5	0	<input type="checkbox"/>	Default queue for RFRTVOBJ.
2	RFSNDCMD	5	0	<input type="checkbox"/>	Default queue for RFSNDCMD.
3	RFSNDOBJ	1	0	<input type="checkbox"/>	Default queue for RFSNDOBJ.
4	WIN_HIGH	5	0	<input type="checkbox"/>	High priority queue to AMERICAS.
5	WIN_LOW	5	0	<input type="checkbox"/>	Low priority queue to AMERICAS.

All Job Queues are user defined and controlled where you can:

- Define new Job Queues,
- Define and update the depth of the Job Queue,
- Hold and Release the Job Queue,
- Work with the Data Transfers on the Job Queue.

Job logs (LINUX, UNIX & WINDOWS only)

All Data Transfers executed create a job log and this shows complete details of the execution of the Procedure.

The header of the job log contains:

- Version and Build of the Engine,
- Details of the:
 - System name,
 - Alias name,
 - Platform,
 - Type,
 - DB location,
 - Process Id,
- Command Line Name,
- Run Id.

Job logs can be exported as:

- .pdf,
 - .txt,
- files.

```

Tue 19-Jun-12 00:05:04
Tue 19-Jun-12 00:05:04
Tue 19-Jun-12 00:05:04 Log for RFRTVOBJ
Tue 19-Jun-12 00:05:04
Tue 19-Jun-12 00:05:04 Version - ENT-10.2.1243
Tue 19-Jun-12 00:05:04 REVSOFT -
Tue 19-Jun-12 00:05:04 User - buyt
Tue 19-Jun-12 00:05:04 System - OCEANIA
Tue 19-Jun-12 00:05:04 Alias - REVSOFT_GANDA_OCEANIA
Tue 19-Jun-12 00:05:04 Platform - WINDOWS
Tue 19-Jun-12 00:05:04 Type - WINDOWS
Tue 19-Jun-12 00:05:04 DSN - Rev-REVSOFT_GANDA_OCEANIA.FLW
Tue 19-Jun-12 00:05:04 DB Host - (refer the DSN)
Tue 19-Jun-12 00:05:04 PID - 43504
Tue 19-Jun-12 00:05:04
Tue 19-Jun-12 00:05:04
Tue 19-Jun-12 00:05:04
Tue 19-Jun-12 00:05:04 Sending FLW/STATUS(ADD to REVSOFT_LAB_01 via View
Tue 19-Jun-12 00:05:04 Sending FLW/PTRC_UPD(ADD to Control Center on REVSOFT_GANDA_OCEANIA
Tue 19-Jun-12 00:05:04 Sending FLW/PTRC_UPD(ADD to REVSOFT_LAB_01 via View
Tue 19-Jun-12 00:05:04 New job created, ID = 20121710000019
Tue 19-Jun-12 00:05:04 Procedure 20121710000019 starting on REVSOFT_GANDA_OCEANIA
Tue 19-Jun-12 00:05:04 Sending FLW/JOB_LOG(ADD to REVSOFT_LAB_01 via View
Tue 19-Jun-12 00:05:08 Ready for next job in queue (size=5, active=0)
Tue 19-Jun-12 00:05:08 Job is ready to go...
Tue 19-Jun-12 00:05:08 Sending FLW/CMD_UPD(ADD to REVSOFT_LAB_01 via View
Tue 19-Jun-12 00:05:08 Sending FLW/STATUS(ADD to REVSOFT_LAB_01 via View
Tue 19-Jun-12 00:05:08 Sending FLW/PTRC_UPD(ADD to Control Center on REVSOFT_GANDA_OCEANIA
Tue 19-Jun-12 00:05:09 Sending FLW/PTRC_UPD(ADD to REVSOFT_LAB_01 via View
Tue 19-Jun-12 00:05:09 Opening C:\Temp\host132.txt
Tue 19-Jun-12 00:05:09 Warning object already exists (overwriting) C:\Temp\host132.txt
Tue 19-Jun-12 00:05:09 Locking object C:\Temp\host132.txt...
Tue 19-Jun-12 00:05:09 Sending retrieve object request to HYPERION
Tue 19-Jun-12 00:05:09 Source name = /QSYS.LIB/TVLGPL.LIB/HOST132.FILE/HOST132.MBR
Tue 19-Jun-12 00:05:09 Local name = C:\Temp\host132.txt

```