eFT213

NetEx/eFT™ for z/OS™ Systems

Release 5.4

Migration Guide

Revision Record

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Portions of text which have been changed or added at this revision are indicated by a bar ("│" in the margin. Minor editorial revisions are not indicated.

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Preface

The purpose of this guide is to describe the changes that may affect customers who are migrating from USER-Access, or older releases of eFT213 to eFT213 5.4 on z/OS platforms.

Reference Material

The following manuals contain related information.

Number	Title and Description
MAN-API-H210IPZ	*H210IPZ NetEx/IP for z/OS Systems Programming Reference Manual*
MAN-REF-EFT213-R5.4	*eFT213 NetEx/eFT™ for z/OS™ Systems Software Reference Manual*
MAN-OPR-H210IPZ	*H210IPZ NetEx/IP for z/OS Systems Operator Reference Manual*
MTU-eFT213-R5.4.4	*eFT213 NetEx/eFT™ for IBM z/OS™ Systems Memo to Users*

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The diagnostic tools and programs described in this manual are **not** part of the products described.

Notice to the Customer

The installation information supplied in this document is intended for use by experienced System Programmers.

Document Conventions

The following notational conventions are used in this document.

Format	Description
`displayed information`	Information displayed on a CRT (or printed) is shown in `this font`.
`user entry`	*This font* is used to indicate the information to be entered by the user.
UPPERCASE	The exact form of a keyword that is not case-sensitive or is issued in uppercase.
MIXedcase	The exact form of a keyword that is not case-sensitive or is issued in uppercase, with the minimum spelling shown in uppercase.
bold	The exact form of a keyword that is case-sensitive and all or part of it must be issued in lowercase.
lowercase	A user-supplied name or string.
value	Underlined parameters or options are defaults.
<label>	The label of a key appearing on a keyboard. If "label" is in uppercase, it matches the label on the key (for example: <ENTER>). If "label" is in lowercase, it describes the label on the key (for example: <up-arrow>).
<key1><key2>	Two keys to be pressed simultaneously.
No delimiter	Required keyword/parameter.

Contents

Introduction

The purpose of this guide is to describe the changes that may affect customers who are migrating from USER-Access, or older releases of eFT, to eFT 5.4 on z/OS platforms.

This guide is intended as a reference for the end-user, as well as for those responsible for implementing or administering eFT. Implementers and Administrators will be interested in the following topics:

- Security
- TCP Port Usage
- Configuration File Changes
- eFT Service Names
- eFT Library Names
- Software License Key
- SIO Appendage
- EFT Server JCL Changes
- Client Logon Procedures
- Client Command Lists
- Client Batch JCL with Catalogued Procedures
- Client Batch JCL

End-users will be interested in the following topics:

- Client Command Lists
- Client Batch JCL with Catalogued Procedures
- Client Batch JCL

Issues to Consider

Security

There are no additional security restrictions or limitations in eFT that are different than what exist in USER-Access. The following points should be taken into consideration:

- All eFT jobs, started tasks, and both local and remote users require a minimum of "read" level security access to all product data sets.

- All remote users require a minimum of "read" level security access to the "hlq.TEXT" and "hlq.LOAD" data sets and panels, skels, and msgs for the EFT ISPF support.

- All eFT jobs, started tasks, and both local and remote users require the appropriate level of security access to be able to send and/or receive the user data files.

- The eFT Server may need to be defined to your security system as an authorized Started Task.

- The eFT client logon procedure name may need to be defined to your security system to identify it as an authorized TSO procedure.

- The eFT remote logon procedure name may need to be defined to your security system to identify it as an authorized TSO procedure.

- All eFT dataset high level qualifiers (HLQ) must be the same.
  All eFT dataset low level names MUST remain unchanged. ie: .text, .load, .loado, .clist, .msgs, .panels, and .skels.
  If the HLQ is changed, the recommended procedure is to rerun the install with the new HLQ.
  If this cannot be done, and the datasets are renamed, then all clists, all panels, all JCL for the server, all JCL for the client in batch, any JCL for TSO client MUST be modified.

Whether some or all of the above steps are required depends on the level of security deployed on your system.

TCP Port Usage

The following TCP ports are used by eFT and/or USER-Access

- 6900: eFT Server

- 6901: eFT Standalone Server (if used)

- xxxx: installation specified range of ephemeral ports used for data connections
  port_min: beginning of user defined range
  port_max: end of user defined range
  or
  the systems ephemeral port range of port_min & port_max are 0
  These may be overridden in the EFTMCONF member of the TEXT PDS.

- 6900: USER-Access Server

- 6901: USER-Access Standalone Server (if used)

Be sure the appropriate port numbers are accessible through any firewall definitions and are not restricted by any other security definitions.

Caution: If multiple versions of USER-Access and/or eFT are going to be run in parallel (e.g. in a test environment, where both products will be running concurrently), then an alternate set of port numbers and ISPF panels must be specified for each product/version. The eFT and USER Access assume port number 6900 and service names "EFT", "eft", "USER", and "user". These names to port associations should be entered into your "TCPIP.ETC.SERVICES" data set. To change port numbers for eFT and/or USER Access, change the local "TCPIP.ETC.SERVICES" file, as well as the equivalent "ETC.SERVICES" files on all remote eFT hosts, to define the desired port numbers. The service name that eFT/USER Access will use are defined in the EFTMCONF/NUAMCONF member of the TEXT library.

Configuration File Changes

The following configuration files have been changed:

- EFTMCONF:
  Two FAILURExx statements have been added
  FAILURExx   LICENSE EXPIRED
  FAILURExx   FAILED TO OPEN PRODUCT CONFIG

- SSERVER:

  The statement {GT({len(LicMSG:rem)},0,"text {LicMSG:rem}")} has been added so that a remote client will be aware of license issues.

eFT Service Names

The default service name for the eFT server and client is "EFT" (or "eft"). The default service name for the USER-Access server and client is "USER" (or "user").

Caution: ***If multiple versions of eFT and/or USER-Access need to interoperate (i.e. an eFT client connecting to a USER-Access Server, and/or a USER-Access client connecting to an eFT Server), the correct service name must be specified on the 'connect' commands or set by SCLIENT or CLIENT startup commands.*** *For example, an eFT client wishing to communicate with the USER-Access server must specify '-service user' on a 'connect' command; and similarly, a USER-Access client wishing to communicate with the eFT server must specify '-service eft' on a 'connect' command. This additional service name parameter can either be specified directly on the 'connect' command, or can be set as a default with the 'set connect service' command prior to issuing the 'connect' command. Refer to the eFT Software Reference Manual for the format of the 'connect' and 'set connect' commands.*

eFT Library Names

The library names specified for the eFT installation must be unique from the USER-Access library names. If both eFT and UA are going to be used in parallel during a migration period, the eFT and UA libraries cannot be in LNKLST or LPALIB, since the eFT and UA load module names are the same,

Caution: In previous versions of USER Access and eFT, you could not rename any of the eFT installation libraries, or copy the eFT installation "hlq.TEXT" library to a data set having a different name. If eFT or USER Access needed to be installed on another system, or if it needed to be moved to a different set of libraries, the LINK phase of the installation job had to be tailored and rerun. ***Starting with eFT 5.4, the "hlq"can***

*be renamed. A DD statement of TEXTLIB for the TXT library or NUALIB for the LOAD library overrides the internally configured library name and **hlq**. Other library allocations will be made assuming the new hlq. Therefore, the hlq.LOAD and hlq.CLIST libraries must also be copied or renamed to the new hlq. Any CLIST members containing the hlq must be modified for the new hlq. If the ISPF panels are being used, they must also be modified for the new hlq. The TEXTLIB DD statement is included in all eFT clists and JCL. STDOUT, STDERR and PRODCONF are also allocated by default in all clists and EFT JCL and SHOULD NOT be included in LOGIN PROCS.*

However, in all cases the low-level-qualifier names cannot be changed, and must remain as *.TEXT, *.CLIST, *.LOAD, etc.

Software License Key

eFT requires a software license key to make it operational. Please refer to the eFT213 "Memo to Users" for the procedure on obtaining the key, and how to deploy it in eFT.

SIO Appendage

eFT uses a SIO appendage as part of the software license verification. There is no SIO appendage used in USER-Access, so there is no conflict with appendage names. Refer to the eFT213 Memo-to-Users for a description and implementation procedures of the eFT SIOAPP appendage.

EFT Server JCL Changes

The NEW sample EFT Server PROC that is provided with the product distribution contains ALL allocations required to run the eFT Rel 5.4 Server.

The differences between the eFT Server JCL and the USER-Access Server JCL are as follows:

- The PRODCONF DD statement, identifying the location of the software key, must be included in the eFT Server JCL. Please refer to the eFT213 Memo-to-Users for a description of the format and contents of the PRODCONF file.

- The TEXTLIB DD statement identifies the dataset name of eFT's TEXTlib dataset. This is an optional DD statement that can be used to override the ROOTDIR library that was specified (or defaulted) during product installation. This DD statement is normally not needed, but must be used if the eFT installation libraries are moved to datasets having different names than what was specified during installation.

- STDERR and STDOUT DD statements must be included in the eFT Multiplex Server JCL. These DD statements are in addition to the existing SYSPRINT, SYSERR and SYSOUT DD statements. The format of these DD statements is as follows:

```
//SYSPRINT    DD SYSOUT=*
//STDOUT      DD SYSOUT=*
//SYSOUT      DD SYSOUT=*
//STDERR      DD SYSOUT=*
//SYSERR      DD SYSOUT=*
```

Caution: DCB information should not be specified on the SYSPRINT, STDOUT, SYSOUT, STDERR, or SYSERR DD statements.

- EFTMCONF, EFTVCONF, and EFTMLOG DD statements replace the NUAMCONF, NUAVCONF, and NUAMLOG DD statements. Refer to the eFT213 Memo-to-Users for a description of these data sets.

Client Logon Procedures

The NEW logon command lists that are provided with the product distribution contain ALL allocations required to run an eFT TSO Client. If these command lists are used by TSO Client users, then no changes are required in the TSO logon procs.

Refer to the "Client Command Lists" section for a description of the changes provided in the command lists

Client Command Lists

The NEW default command lists that are provided with the product distribution contain ALL allocations required to run an eFT TSO Client, and to logon and execute from a remote system without utilizing a special logon proc.

The provided EFT and EFTUSER command lists can be used to invoke eFT from a TSO Client. They contain the following changes from previous product releases.

- Allocation for the PRODCONF file, which identifies the location of the software key file. If the PRODCONF DD statement is omitted, the software key is assumed to be located in file: "hlq.TEXT(PRODCONF)" Please refer to the eFT213 Memo-to-Users for a description of the format and contents of the PRODCONF file.

- Allocation for the TEXTLIB file, which identifies the dataset name of eFT's TEXTlib dataset. This is an optional allocation that can be used to override the ROOTDIR library that was specified (or defaulted) during product installation. This allocation is normally not needed, but must be used if the eFT installation libraries are moved to datasets having different names than what was specified during installation.

- Allocations for STDOUT, STDERR, SYSOUT, and SYSERR files.

- Allocations for STDIN and SYSIN files.

Client Batch JCL with Catalogued Procedures

The NEW sample batch JCL contains ALL allocations required to run a batch TSO Client.

If existing USER-Access client batch JCL is used when starting up USER-Access Client sessions, and the JCL invokes a catalogued procedure, the following changes may be required to the catalogued procedure in order for it to work with eFT:

- The PRODCONF DD statement identifies the location of the software key, and may need to be added to the client batch catalogued procedure. However, if this DD statement is omitted, the eFT Client will look for the software key in "hlq.TEXT(PRODCONF)". Please refer to the eFT213 Memo-to-Users for a description of the format and contents of the PRODCONF file.

- The TEXTLIB DD statement identifies the dataset name of eFT's TEXTlib dataset, and may need to be added to the client batch catalogued procedure. This is an optional DD statement that can be used to override the ROOTDIR library that was specified (or defaulted) during product installation. This

DD statement is normally not needed, but must be used if the eFT installation libraries are moved to datasets having different names than what was specified during installation.

- STDOUT and STDERR DD statements must be added to the client batch catalogued procedure. These DD statements are in addition to the existing SYSOUT and SYSERR DD statements. However, if OLDDDNAMES(YES) was specified during eFT installation, then existing SYSOUT and SYSERR DD statements will continue to work, and STDOUT and STDERR DD statements do not need to be added. Refer to the EFT Server JCL Changes for a description and format of these DD statements.

- SYSIN DD statement usage when OLDDDNAMES(NO) was specified during eFT installation: If there is a "//SYSIN DD DDNAME=SYSIN" statement in the catalogued procedure, it must be replaced with a "//STDIN DD DDNAME=STDIN" statement. A "//SYSIN DD *" statement in the batch JCL that invokes this procedure must be changed to "//STDIN DD *".

- SYSIN DD statement usage when OLDDDNAMES(YES) was specified during eFT installation: If there is a "//SYSIN DD DDNAME=SYSIN" statement in the catalogued procedure, this JCL will continue to work with eFT without requiring any changes. The "//SYSIN DD *" statement in the batch JCL that invokes this procedure, will continue to work with eFT without requiring any changes.

- The program invoked must be eFT rather than USER-Access. If a STEPLIB is used in the batch JCL, it must be changed to point to the eFT load library.

Client Batch JCL

The NEW sample batch JCL contains ALL allocations required to run a batch TSO Client.

If the existing USER-Access client batch JCL is used when starting up USER-Access Client sessions, the following changes may be required to the JCL in order for it to work with eFT:

- The PRODCONF DD statement identifies the location of the software key, and may need to be added to the client batch JCL. However, if this DD statement is omitted, the eFT Client will look for the software key in "hlq.TEXT(PRODCONF)". Please refer to the eFT213 Memo-to-Users for a description of the format and contents of the PRODCONF file.

- The TEXTLIB DD statement identifies the dataset name of eFT's TEXTlib dataset, and may need to be added to the client batch JCL. This is an optional DD statement that can be used to override the ROOTDIR library that was specified (or defaulted) during product installation. This DD statement is normally not needed, but must be used if the eFT installation libraries are moved to datasets having different names than what was specified during installation

- STDOUT and STDERR DD statements must be added to the client batch JCL. These DD statements are in addition to the existing SYSOUT and SYSERR DD statements. However, if OLDDDNAMES(YES) was specified during eFT installation, then existing SYSOUT and SYSERR DD statements will continue to work, and STDOUT and STDERR DD statements do not need to be added. Refer to the EFT Server JCL Changesfor a description and format of these DD statements.

- SYSIN DD statement usage when OLDDDNAMES(NO) was specified during eFT installation: The "//SYSIN DD *" statement in the batch JCL must be changed to "//STDIN DD *".

- SYSIN DD statement usage when OLDDDNAMES(YES) was specified during eFT installation: The "//SYSIN DD *" statement in the batch JCL will continue to work with eFT without requiring any changes.

- The program invoked must be eFT rather than USER-Access. If a STEPLIB is used in the batch JCL, it must be changed to point to the eFT load library.

Migrating eFT into Production

When migrating from USER-Access to eFT, there are three recommended migration scenarios that can be followed. These can either be used as they are, or can serve as guidelines to help with developing your own migration plan. Note: Refer to eFT Library Names for naming restrictions.

Scenario 1: Migrating eFT into production when common shared catalogued procedures and command lists are used

In this scenario, most (or all) invocations of eFT occur by using common shared procedures and command lists. All of the required changes can be deployed by changing shared JCL and command lists that are used by a large number of end-users. Note: Refer to eFT Library Names for naming restrictions.

1. Prior to cutover

a. Add the PRODCONF, STDOUT, STDERR, and TEXTLIB DD statements to the eFT Server JCL; or create new JCL for the eFT Server. Remove the DCB parameter from the STDOUT, STDERR, SYSOUT, and SYSERR DD statements.

b. Create copies of all existing USER-Access batch catalogued procedures, USER-Access logon procedures, and USER-Access startup command lists. Add an allocation for the PRODCONF file if the software key file is NOT located at "hlq.TEXT(PRODCONF)", Remove the DCB parameter from the STDOUT, STDERR, SYSOUT, and SYSERR DD statements. Replace the SYSIN DD statement with a STDIN DD statement. If a STEPLIB is contained in the copied catalogued procedure, change it to point to the eFT load library.

2. At cutover

a. Rename the existing USER-Access catalogued procedures, logon procedures, and startup command lists to backup names; rename the members created in step 1b to the production names.

Example.:   Rename 'hlq1.PROCLIB(UATCP)' to 'hlq1.PROCLIB(UATCPUA)'
            Rename 'hlq1.PROCLIB(EFTTCP)' to 'hlq1.PROCLIB(UATCP)'
            … perform remaining renames of members created in step 1b…

b. After these renames are completed, all batch and interactive users, along with the eFT Server, will execute eFT.

3. Fallback

a. Rename the existing eFT catalogued procedure names, logon procedures, and startup command lists to backup names; rename the members saved in step 2a to the production names.

Example.:   Rename 'hlq1.PROCLIB(UATCP)' to 'hlq1.PROCLIB(EFTTCP)'
            Rename 'hlq1.PROCLIB(UATCPUA)' to 'hlq1.PROCLIB(UATCP)'
            … perform remaining renames of saved members created in step 2a…

b. After these renames are completed, all batch and interactive users, along with the eFT Server, will execute USER-Access.

Scenario 2: Migrating eFT into production when common shared procedures and command lists are not used

In this scenario, there are fewer (or none) sets of shared procedures and command lists used. There are a larger number of individual user batch JCL streams and/or command lists to modify. Note: Refer to eFT Library Names for naming restrictions.

1. Prior to cutover

a. Add the PRODCONF, STDOUT, STDERR, and TEXTLIB DD statements to the USER-Access eFT Server JCL; or create new JCL for the eFT Server. Remove the DCB parameter from the STDOUT, STDERR, SYSOUT, and SYSERR DD statements.

b. Create copies of all existing USER-Access batch JCL, USER-Access logon procedures, and USER-Access startup command lists. Add an allocation for the PRODCONF file if the software key file is NOT located at "hlq.TEXT(PRODCONF)". Remove the DCB parameter from the STDOUT, STDERR, SYSOUT, and SYSERR DD statements. Replace the SYSIN DD statement with a STDIN DD statement. If a STEPLIB is contained in the copied JCL, change it to point to the eFT load library.

2. At cutover

a. Rename the existing USER-Access batch JCL, logon procedures, and startup command lists to backup names; rename the members created in step 1b to the production names.

Example.: Rename 'user1.JCLLIB(UAJOB)' to 'user1.JCLLIB(UAJOBUA)'
           Rename 'user1.JCLLIB(EFTJOB)' to 'user1.JCLLIB(UAJOB)'
           … perform remaining renames of members created in step 1b…

b. After these renames are completed, all batch and interactive users, along with the eFT Server, will execute eFT.

3. Fallback

a. Rename the existing eFT batch JCL, logon procedures, and startup command lists to backup names; rename the original members saved in step 2a to the production names.

Example: Rename 'user1.JCLLIB(UAJOB)' to 'user1 JCLLIB(EFTJOB)'
           Rename 'user1.JCLLIB(UAJOBUA)' to 'user1 JCLLIB(UAJOB)'
           … perform remaining renames of saved members created in step 2a…

b. After these renames are done, all batch and interactive users, along with the eFT Server, will execute USER-Access.

Scenario 3: Migrating eFT into production when it is not possible to change all user batch JCL

In this scenario, there are fewer (or no) sets of shared procedures and command lists used. Due to the large number of individual user batch JCL streams, it is not possible to change them all to conform to the new eFT JCL requirements. Note: Refer to eFT Library Names for naming restrictions.

1. Prior to cutover

a. Install eFT with the OLDDDNAMES(YES) installation parameter.

b. Add the PRODCONF, STDOUT, STDERR, and TEXTLIB DD statements to the eFT Server JCL; or create new JCL for the eFT Server. Remove the DCB parameter from the STDOUT, STDERR, SYSOUT, and SYSERR DD statements.

c. Make sure "hlq.TEXT(PRODCONF)" points to the software key license file. This eliminates the requirement to add a PRODCONF DD statement to the Client batch JCL.

2. At cutover

a. Rename the existing USER-Access load library to a backup name; rename the eFT load library to match the production USER-Access load library name.

   Example: Rename 'ua-hlq.LOAD' to 'ua-hlq.LOAD.BACKUP'
                 Rename 'eft-hlq.LOAD' to 'ua-hlq.LOAD'

b. After this rename is done, all batch and interactive users, along with the eFT Server, will execute eFT. **eFT will dynamically allocate PRODCONF, TEXTLIB and NUALIB based on the hlq from the install.**

3. Fallback

a. Rename the eFT load library to a backup name; rename the original USER-Access load library to the production USER-Access load library name.

   Example: Rename 'ua-hlq.LOAD' to 'eft-hlq.LOAD'
                 Rename 'ua-hlq.LOAD.BACKUP' to 'ua-hlq.LOAD'

b. After this rename is done, all batch and interactive users, along with the USER-Access Server, will execute USER-Access.