
PD95-0315-9

LTXF/MVS

LOGON TIMEOUT EXTENSION FACILITY FOR MVS TSO

PROGRAM DESCRIPTION AND OPERATION

Version 2 Release 18

March 2009

COPYRIGHT Australian Systems Engineering Pty. Ltd. 2009

This material always remains the property of Australian Systems Engineering Pty. Ltd.

Manual and Product identifiers.

This manual is identified by a publication number **PD95-0315** combined with a revision level number (sometimes called a dash level) **-9**.

The licensed software product, of which this manual is a part, is identified by a **Product Name** or **Product Acronym** and an **Edition Number**. Edition numbers are made up of a **Version number** and a **Release number** within that version.

The material in this manual is intended to be used with **LTXF/MVS Version 2 Release 18** and later editions of that product. The edition number may appear in licensed material in abbreviated forms such as the following: **V2R18** and **V218**.

Activities described in this manual cover both installation and operation of LTXF. This manual is intended to be used in conjunction with the information contained in the various members of the LTXF INSTALL LIBRARY referred to herein.

From time to time ASE may issue replacements for, and/or additions to, the pages in this manual.

Each time the entire manual is replaced by a later version then the revision level (the dash level) part of the publication identifier will be increased by 1.

Related Publications

PD95-0315 superseded publication PD84-0614

Published by

Australian Systems Engineering Pty. Ltd.

20 Andrew Street, Northcote, VIC 3070, Australia

telephone: 61-3-9419-4200

facsimile: 61-3-9489 8704

email: help@ase.com.au

web: <http://www.ase.com.au>

Logon Timeout eXtension Facility for MVS TSO

CONTENTS

INTRODUCTION.....	5
THE PROBLEM.....	5
HOW LTXF HELPS.....	5
IN SUMMARY.....	5
TSO OPERATION IN AN ACF2 OR RACF ENVIRONMENT	6
PASSWORD VALIDATION.....	6
FULL SCREEN MODE.....	7
LINE MODE.....	7
USING THE CANCELLATION PASSWORD TO RECOVER AN IDLE TERMINAL.....	7
INSTALLATION.....	9
CREATING AN INSTALL WORK LIBRARY	9
INSTALLATION OVERVIEW - SMP/E.....	9
INSTALLATION OVERVIEW - POST-SMP/E.....	9
THE SMP/E INSTALLATION TASKS.....	10
MINIMUM REQUIRED SMP/E LEVEL.....	10
ALLOCATING LIBRARIES SMP/E REQUIRES	10
SAMPLE JCL FOR CREATING LTXF LIBRARIES.....	11
PREPARING THE SMP/E ENVIRONMENT FOR LTXF INSTALLATION.....	11
SMP/E PROCESSING TASKS.....	12
WHAT THE SMP/E PROCESS HAS DONE.....	14
POST-SMP/E INSTALLATION TASKS.....	15
COPY SAMPLIB MEMBERS TO INSTALL LIBRARY	15
INSTALL THE LTXF SVC.....	15
ENSURE THE RIGHT LPALIB MEMBERS WILL BE LOADED.....	15
CREATING THE LTXF PARAMETER MODULE LTX2WORK.....	16
ASSEMBLING THE LTX2WORK MODULE.....	16
OBTAINING THE LTXF SERIAL NUMBER FOR YOUR SYSTEM.....	16
TAILORING THE LTXFLTXW MACRO STATEMENT.....	17
WHEN LTX2UTL CALLS A PRE-EXISTING IEFUTL.....	18
CREATING THE ADDRESS SPACE CATEGORY TABLE	19
CATEGORY TABLE OVERVIEW	19
CODING EXAMPLES.....	22
CREATING A CATEGORY TIME LIMITS EXIT ROUTINE.....	24
CREATING THE PASSWORD VALIDATION EXIT ROUTINE.....	25
VALIDATION EXIT INTERFACE DESCRIPTION	25
CREATING THE NOTIFICATION EXIT ROUTINE.....	26
NOTIFICATION EXIT INTERFACE DESCRIPTION	26
MODIFYING THE PASSWORD VERIFICATION SCREEN	28
MESSAGES.....	31

This page intentionally left blank.

INTRODUCTION

The problem

LTXF/MVS addresses a serious security exposure in MVS TSO environments - a terminal session being left unattended by its rightful owner. Any such session allows all data accessible to that logon to be deliberately or accidentally misused for as long as the session remains usable. With significant access privileges, such a session risks the security and integrity of the entire system

To reduce this risk many installations cut the TSO idle session time limit as much as the users will stand, to perhaps as short as 10 minutes. The resultant arbitrary system 522 abends irritate, lowering the morale and efficiency of all users. Furthermore, because this limit is controlled by a single parameter, the SMF JOB WAIT TIME specified in the SMFPRMxx member of SYS1.PARMLIB, batch jobs waiting for tape mounts or other resources may be abended as well.

With a short TSO idle time many users get used to the idea that they need to press ENTER often to burn a few CPU cycles and thus avoid being terminated. Apart from being an unwanted distraction, this technique cannot be used when the applications is waiting for ENTER to proceed.

How LTXF helps

LTXF provides the security of a short SMF JOB WAIT TIME but removes the need to cancel the job at the expiration of that time. Rather than cancel the TSO session with a system 522 abend, the session can be locked internally. To proceed the user must enter his or her password. If successful the session continues without loss of data or continuity.

LTXF requires 2 site-defined time parameters for each group or category of users:-

- **Password Wait eXtension Time** - The amount of time after which a session will require password validation (typically the SMF JOB WAIT TIME)
- **Continuous Wait eXtension Time** - The amount of time after which a session will be cancelled (typically 1 to 4 hours).

The site can code simple rules to provide values for these two parameters. Each rule defines a group of users, based on a combination of User-ids and/or LU-names. The site can either provide the two parameters for the group as part of the rule, or make a call to RACF or ACF2 to obtain the information. The flexibility of these rules allows groups of terminals (e.g. operator screens), groups of user-id's (e.g. low security enquiry users) or LU's driven by another application (e.g. MAI sessions under System Center's NETMASTER) to be treated differently. Date and time criteria can also be specified as part of the rule. This allows the parameters for a group of users to vary depending on the time of day, date or day of the week.

Separate rules can be defined for BATCH, TSO and STARTED TASKS.

LTXF provides an immediate locking command, LOCK, which a TSO terminal user can use to prevent access to their terminal session while they are absent. LOCK releases the terminal only after successfully validating the user's password.

In summary

LTXF enhances MVS security by maintaining the effective exposure of unattended TSO sessions to the SMF JOB WAIT TIME interval. Since sessions are no longer cancelled this time can be reduced significantly. Legitimate TSO users may continue operation without loss of data or disruption to their work after extended idle periods and batch jobs can be protected from system 522 abends. The LOCK command provides immediate user-initiated terminal session security.

TSO OPERATION IN AN ACF2 OR RACF ENVIRONMENT

Whenever the SMF JOB WAIT TIME (specified by keyword JWT(hhmm) in PARMLIB member SMFPRMxx) is exceeded, LTXF gains control. Based on the rules provided by the installation in the Category Table (refer to *CREATING THE ADDRESS SPACE CATEGORY TABLE* on page 19), one of 3 actions will be taken:-

- The session will be cancelled with a System 522 abend (i.e. if the **Continuous Wait eXtension Time** (CWXT) has been exceeded)
- The session will be extended by a further SMF JOB WAIT TIME interval and the user will be required to enter a password before continuing keyboard operations (i.e. if the **Password Wait eXtension Time** (PWXT) has been exceeded). All attention exit scheduling is deferred.
- The session will be extended by a further SMF JOB WAIT TIME interval but the user will not be required to enter a password before continuing keyboard operations (i.e. if the PWXT has not been exceeded).

If password validation is required, the current data on the screen remains undisturbed. The user may continue to change any non-protected areas on the screen until the ENTER key, a PF key or a PA key is pressed.

When one of these keys is used, input entered on the screen is read and preserved and the following screen is displayed:-

```
LTXF/MVS Version 2.18          Copyright 2009 ASE          Serial # xxxxxxxxxxxx
PASSWORD ==>> _              PGM: ISREDIT +ISREDIT  USER: ASE03    LUNAME: SC0TCP03

+-----+
|
|   This session on system SYS1 was locked by LTXF at 16:05 because
|   it was unused for an extended period.
|
|   To resume your application, type your password above and press
|   ENTER . The screen will be rebuilt and the keyboard unlocked.
|
|   If you have been absent from your terminal you should review
|   the screen to ensure the correctness of any fields and then
|   proceed as you would normally.
|
|   If you wish to cancel the session type .CANCEL and press ENTER
|
+-----+
|
|   Messages may be typed in the area below:
|   ==>
|
+-----+
```

Password Validation

Password validation is done by the **Password Validation Exit**. Exits suitable for ACF2 and RACF are supplied. For other security packages an installation security programmer can create a validation exit using the sample exits as a guide.

LTXF installation parameters allow the specification of minimum password length and the maximum number of incorrect password attempts.

Logon Timeout eXtension Facility for MVS TSO

The sample exit supplied for ACF2 will cause the bad password count to be incremented for each bad password entered that meets the minimum valid length criteria. If the installation-specified bad password limit has been reached then the logon is suspended.

If the maximum number of password attempts is reached without entry of a valid password the address space is cancelled and the following message is written to both the User's screen and the system log. The message remains on the screen for several seconds before the abend S222 occurs.

```
LTXF04I SESSION CANCELLED - PASSWORD VERIFICATION FAILED
```

Full Screen Mode

When terminals are in full screen mode, if password validation is successful then the screen is displayed exactly as it was immediately before the interrupt key (ENTER, PF or PA) was pressed. The user should check that no changes were made to the screen during his or her absence and then re-press the appropriate interrupt key. Pressing PA2 will redisplay the screen with all changes removed. ISPF is the prime example of a full screen mode application.

Line Mode

When terminals are in line mode, if password validation is successful then the following message is displayed followed by the last input data. The user should check that no changes were made to the input data during his or her absence and then repress the ENTER key.

```
LTXF06I PLEASE VERIFY THE FOLLOWING INPUT IS CORRECT BEFORE PROCEEDING
```

Using the Cancellation Password to Recover an Idle Terminal

The installation of LTXF can mean that sessions which would have been cancelled after (say) 15 minutes will continue under the protection of LTXF for much longer periods. This may cause problems in an environment where terminals are shared between users. To enable a terminal protected by LTXF to be recovered quickly, LTXF allows the installation to specify a cancellation password which will be effective for every logon. If the cancellation password is entered on the screen which is requesting the user password, then LTXF will place the following message on both the users screen and the system log. The address space is then cancelled.

```
LTXF05I SESSION CANCELLED - TERMINAL USER REQUEST
```

ACF2/RACF bad password counts are not updated by this feature.

LTXF comes with a suggested value of **.CANCEL** for this cancellation password but the installation can choose any combination of from 1 to 8 characters.

The LOCK command will display the following screen to indicate that the screen has been locked and that a password is requested. After the password is entered, the screen from which LOCK was invoked is redisplayed. The cancellation password will also be accepted to terminate the session. This provides a rapid method for a user to logoff since he can enter the LOCK command followed by the cancellation password.

Logon Timeout eXtension Facility for MVS TSO

```
LTXF/MVS Version 2.18          Copyright 2009 ASE          Serial # xxxxxxxxxxxx
PASSWORD ==> _                PGM: LOCK                  USER: ASE03          LUNAME: SC0TCP03
+-----+
|
|  This session on system SYS1 was locked by LTXF at 16:05 because
|  the user entered the LOCK command.
|
|  To resume your application, type your password above and press
|  ENTER . The screen will be rebuilt and the keyboard unlocked.
|
|  If you have been absent from your terminal you should review
|  the screen to ensure the correctness of any fields and then
|  proceed as you would normally.
|
|  If you wish to cancel the session type .CANCEL and press ENTER
|
+-----+
|  Messages may be typed in the area below:
|  ==>
|
+-----+
```

If a cancellation password of 8 spaces is defined by the installation, this feature will be disabled and the messages regarding cancellation not displayed.

INSTALLATION

Creating an install work library

You will need a convenient library where you can create the various batch jobs and tailored source units involved in the installation process. You should follow your installation's convention for naming install work libraries. In case you need inspiration, other sites use names like SYS2.LTXF218.CNTL or PRODUCTS.ASEL218.CNTL. or perhaps INSTALL.LTXF218.CNTL.

The following DCB and space characteristics are typical for this library:

```
LTXF install work library      DSN=your.ltxf.install.library,
                               DCB=(RECFM=FB,LRECL=80,BLKSIZE=0),
                               SPACE=(CYL,(1,1,20))
```

Installation overview - SMP/E

The SMP/E portion of the install process will build three new libraries:

```
LTXFAMAC
LTXFAMOD
LTXFMAC
```

And will update the following system libraries:

```
SYS1.SAMPLIB
SYS1.LINKLIB
SYS1.LPALIB
```

Note that the LTXF FMID is **ASEL218**

Installation overview - post-SMP/E

The installer will copy the LTXF sample source and JCL members from SYS1.SAMPLIB to the LTXF install work library.

A user SVC number is assigned to LTXF and a method is chosen to make the SVC available in the MVS system.

An IEALPAxx member is created, or an existing one modified, to ensure that IEFUTL and the LTXF SVC are loaded at IPL time.

The LTXF parameter module is created by tailoring these source units:

```
LTXF parameter module
Address Space Category Table
Notification Exit Routine (most installations won't want to change this)
Password Verification Exit (if you use RACF or ACF2 you just choose one)
```

An assemble-and-link job is then tailored and run to create the LTX2WORK module.

The JWT(hhmm) value in SMFPRMxx should be reviewed and possibly changed.

The system should be IPLed with MLPA, or CLPA, to activate LTXF. If you have an OS/390 system at 2.4 or later you can do MLPA on the fly.

The SMP/E installation tasks

It is beyond the scope of this manual to describe how to use SMP/E. It is assumed the reader is familiar with SMP/E. The following manuals should be consulted for further detail:

SMP/E User's Guide, SC28-1302

SMP/E Reference, SC28-1107

Minimum required SMP/E level

LTXF must be installed using **SMP/E Release 5** or a later release in the system (MVS) CSI. Earlier releases cannot be used.

Allocating Libraries SMP/E requires

The SMP/E install process will build three libraries and update SYS1.LINKLIB, SYS1.LPALIB and SYS1.SAMPLIB.

The libraries are listed below along with DASD space estimates for 3390s.

Note that lowest level of the dataset name must be as shown - this is required by SMP/E. However, the higher levels may be whatever the installation requires (e.g. SYS3.CPUA.LTXFAMAC or ASE.LTXFAMAC, etc.).

Macro distribution library `DSN=ASE.LTXFAMAC,`
 `DCB=(RECFM=FB,LRECL=80,BLKSIZE=0),`
 `SPACE=(CYL,(1,1,20))`

Module distribution library `DSN=ASE.LTXFAMOD,`
 `DCB=(RECFM=U,BLKSIZE=32760),`
 `SPACE=(CYL,(1,1,20))`

Macro target library `DSN=ASE.LTXFAMAC,`
 `DCB=(RECFM=FB,LRECL=80,BLKSIZE=0),`
 `SPACE=(CYL,(1,1,20))`

Sample JCL for creating LTXF libraries.

```
//ALOCDSN EXEC PGM=IEFBRL4
//*
//LTXFAMOD DD DSN=ASE.LTXFAMOD,
//          DISP=(,CATLG),
//          DCB=(RECFM=U,BLKSIZE=32760),
//          SPACE=(CYL,(1,1,20)),
//          UNIT=SYSDA,VOL=SER=_____ <- insert the desired DASD volume
//LTXFAMAC DD DSN=ASE.LTXFAMAC,
//          DISP=(,CATLG),
//          DCB=(RECFM=FB,LRECL=80,BLKSIZE=0),
//          SPACE=(CYL,(1,1,20)),
//          UNIT=SYSDA,VOL=SER=_____ <- insert the desired DASD volume
//LTXFMAC  DD DSN=ASE.LTXFMAC,
//          DISP=(,CATLG),
//          DCB=(RECFM=FB,LRECL=80,BLKSIZE=0),
//          SPACE=(CYL,(1,1,20)),
//          UNIT=SYSDA,VOL=SER=_____ <- insert the desired DASD volume
```

Preparing the SMP/E environment for LTXF installation

If you decide to have SMP/E dynamically allocate to the LTXF target and distribution libraries rather than placing your own DD statements into your SMP/E jobs then you must define the required DDDEF entries. Here is an example of UCLIN commands to do this in the target zone:

```
SET   BDY(yourtargetzone). /* set to target zone */
UCLIN.
ADD   DDDEF(LTXFAMOD)      /* DLIB object library */
      DATASET(ASE.LTXFAMOD)
      SHR.
ADD   DDDEF(LTXFAMAC)      /* DLIB macro library */
      DATASET(ASE.LTXFAMAC)
      SHR.
ADD   DDDEF(LTXFMAC)       /* Target macro library */
      DATASET(ASE.LTXFMAC)
      SHR.
ENDUCL.
```

Here is an example of UCLIN commands to define the required DDDEF entries in the distribution zone:

```
SET   BDY(yourdlibzone). /* set to DLIB zone */
UCLIN.
ADD   DDDEF(LTXFAMOD)      /* DLIB object library */
      DATASET(ASE.LTXFAMOD)
      SHR.
ADD   DDDEF(LTXFAMAC)      /* DLIB macro library */
      DATASET(ASE.LTXFAMAC)
      SHR.
ENDUCL.
```

Logon Timeout eXtension Facility for MVS TSO

SMP/E processing tasks

The LTXF product is supplied as a single file inline SMPMCS dataset. This dataset may be supplied on tape or via email or on CD.

If the dataset is supplied via email or on CD then it will be stored in file LTXF218.SMP. This file should be transferred to a sequential dataset on the mainframe with attributes as shown below. LTXF218.SMP is in EBCDIC and therefore must not be translated when file transferred.

```
SMPMCS dataset  DSN=your.ltxf.smpmcs,
                DCB=(DSORG=PS,RECFM=FB,LRECL=80,BLKSIZE=0),
                SPACE=(TRK,(10,5))
```

Before installing LTXF you should check the A.S.E support website at <http://www.ase.com.au> and obtain the latest install bucket. This document will contain up to date information on installing LTXF and any additional APAR fixes that are required.

Perform the four steps described below as RECEIVE, APPLY, ACCEPT and RECEIVE AND APPLY APAR FIXES. LTXF should be installed in the same SMP/E CSI as MVS.

Receive

Use the SMP/E ISPF dialog or a batch job to receive the LTXF function. Here is an example of a RECEIVE command to do this:

```
SET BDY(GLOBAL).          /* Set to global zone      */
RECEIVE SYSMODS.          /* LTXF                      */
```

If you are using a batch job to receive the LTXF function then the distribution dataset must be allocated to DD name SMPPTFIN. The following is typical JCL for when LTXF was shipped on tape:

```
//SMPPTFIN DD DSN=SMPMCS,
//          UNIT=TAPE,
//          VOL=SER=_____,
//          LABEL=(1,SL),
//          DISP=SHR
```

The following is typical JCL for when LTXF was shipped by email or CD:

```
//SMPPTFIN DD DSN=uploaded.dataset.name,
//          DISP=SHR
```

Apply

Use the SMP/E ISPF dialog or a batch job to update your target libraries. Here are examples of APPLY CHECK and APPLY commands to do this:

Logon Timeout eXtension Facility for MVS TSO

```
SET BDY(yourtargetzone)./* Set to target zone      */
APPLY S(ASEL218) GROUP /* LTXF product            */
    CHECK              /* don't update libraries */
    BYPASS(ID).        /* bypass ID check       */

SET BDY(yourtargetzone)./* Set to target zone      */
APPLY S(ASEL218) GROUP. /* LTXF product            */
```

Your APPLY job will probably finish with RC=4 and give the following warning message:

```
GIM23913W  LINK-EDIT PROCESSING FOR SYSMOD ASEL218 WAS SUCCESSFUL FOR MODULE
           modname IN LMOD lmodname IN THE libname LIBRARY. THE RETURN CODE WAS 04.
           DATE yy.ddd - TIME hh:mm:ss - SEQUENCE NUMBER nnnnnn - SYSPRINT FILE
           SMPnnnnn.
```

The above SMP/E message will be associated with the following binder message:

```
IEW2454W   9203 SYMBOL name UNRESOLVED. NO AUTOCALL (NCAL) SPECIFIED
```

These messages are normal and can be ignored.

Accept

Use the SMP/E ISPF dialog or a batch job to update your distribution libraries. Here are examples of ACCEPT CHECK and ACCEPT commands to do this:

```
SET BDY(yourdlibzone). /* Set to DLIB zone      */
ACCEPT S(ASEL218) GROUP /* LTXF product          */
    CHECK              /* don't update libraries */
    BYPASS(ID).        /* bypass ID check       */

SET BDY(yourdlibzone). /* Set to DLIB zone      */
ACCEPT S(ASEL218) GROUP /* LTXF product          */
RETRY(YES).            /* recover from X37 abends */
```

Your ACCEPT job will probably finish with RC=4 and give the following warning message:

```
GIM23913W  LINK-EDIT PROCESSING FOR SYSMOD ASEL218 WAS SUCCESSFUL FOR MODULE
           modname IN LMOD modname IN THE LTXFAMOD LIBRARY. THE RETURN CODE
           WAS 04. DATE yy.ddd - TIME hh:mm:ss - SEQUENCE NUMBER nnnnnn - SYSPRINT
           FILE SMPnnnnn.
```

The above SMP/E message will be associated with the following binder message:

```
IEW2454W   9203 SYMBOL name UNRESOLVED. NO AUTOCALL (NCAL) SPECIFIED.
```

These messages are normal and can be ignored.

Logon Timeout eXtension Facility for MVS TSO

Receive and Apply APAR fixes

Transfer the install bucket to a suitable library on your MVS system. Use ISPF EDIT to review the contents of the install bucket. If there are APAR fixes that need to be applied, cut them out and create a separate member for each APAR fix to be applied. It is usual to use the APAR number (ASZnnnn) as the member name. Some APAR fixes may be optional, read carefully.

RECEIVE and APPLY any fixes that are required. Note, that multiple APAR fixes that contain ++ZAP updates for the same module cannot be applied at the same time. If you attempt to APPLY them at the same time you will receive the following message:

```
GIM4100E **  APPLY PROCESSING FAILED FOR sysmod2 BECAUSE BOTH sysmod2 AND sysmod1
              CONTAIN ZAP UPDATES FOR MODULE mod. ONLY ONE OF THESE SYSMODS CAN
              BE PROCESSED AT A TIME.
```

If you receive this message, you will have to run separate APPLY jobs for each of the APAR fixes.

The SMP/E phase of the LTXF installation process is now complete.

What the SMP/E process has done

The LTXFAMAC, LTXFAMOD and LTXFMAC libraries have been built.

The following modules and ALIASs have been installed in SYS1.LPALIB:

```
IEFUTL
LOCK      an alias of IEFUTL
LTX2SVC
LTX2UTL   an alias of IEFUTL
```

The following modules have been installed in SYS1.LINKLIB:

```
LTX2CXIR
LTX2DSPL
LTX2PAN0
LTX2SVCS
LTX2TEST
LTX23270
```

The following members have been installed in SYS1.SAMPLIB:

```
LTXFACFX
LTXFASMP
LTXFLPA
LTXFPANL
LTXFPARM
LTXFSVC
LTXFSVCL
LTX2ACF2
LTX2CEXT
LTX2NEXR
LTX2RACF
LTX2WORK
```

POST-SMP/E INSTALLATION TASKS

Copy SAMPLIB members to Install library

At this point use ISPF 3.3 to copy all the LTXF.. and LTX2.. members from SYS1..SAMPLIB to your LTXF install work library. The following sections will tailor many of these members before running an assembly and link to create the LTX2WORK load module.

Install the LTXF SVC

A user SVC number must be assigned by the installation.

Choose one of the following methods to make the LTXF SVC available in MVS.

1. The IEASVCxx method...

The LTXF SVC has been installed by SMP/E into SYS1.LPALIB as member LTX2SVC. You can get MVS to assign the SVC number your installation has assigned to LTXF to module LTX2SVC (SVC # 221 in this example) by adding an entry to IEASVC00 that looks like:

```
SVC Parm 221, REPLACE, TYPE(3), APF(NO), EPNAME(LTX2SVC) /* LTXFSVC */
```

(If you use this method then ignore the LTXFSVCL sample member)

You also have to get this module loaded at IPL time as part of the Link Pack Area (LPA). That will be covered under *ensure the LPALIB members will be loaded* below.

2. The IGC00nnx method...

This is an older method that must be used if your MVS system is earlier than SP 3. Refer to the sample member LTXFSVCL if you want to hook the LTXF SVC in this way.

Ensure the right LPALIB members will be loaded

The LTXF programs installed in SYS1.LPALIB must be loaded at IPL time.

If your next IPL is with CLPA then the modules will be loaded anyway. Most sites will not want to do CLPA and will prefer to use MLPA to get the LTXF modules loaded at IPL time.

The following is an example of an IEALPaxx member that will ensure that the LTX2SVC and IEFUTL and its alias LOCK are loaded from SYS1.LPALIB at IPL time.

Format of IEALPaxx members for MVS SP 4 or later...

```
INCLUDE LIBRARY(SYS1.LPALIB)
      MODULES(LTX2SVC,
              IEFUTL,
              LOCK)
```

Format of IEALPaxx members for pre-MVS SP 4...

```
SYS1.LPALIB LTX2SVC,LTX2UTL,LOCK,IEFUTL
```

This example assumes that you have used the first method of hooking the LTXF SVC number to the LTXF SVC module, namely the IEASVCxx method.

If you use the second method, the IGC00nnx method, then you will need an include for the IGC00nnx module instead of the LTX2SVC module. The following example assumes that the LTXF SVC # chosen was 221

Logon Timeout eXtension Facility for MVS TSO

Format of IEALPAXX members for MVS SP 4 or later...

```
INCLUDE LIBRARY(SYS1.LPALIB)
      MODULES(IGC0022A,
             IEFUTL,
             LOCK)
```

Format of IEALPAXX members for pre-MVS SP 4...

```
SYS1.LPALIB IGC0022A,LTX2UTL,LOCK,IEFUTL
```

Creating the LTXF Parameter module LTX2WORK

The LTXF parameter module must be tailored, assembled and linked into a LINKLIST library. See sample members LTXFPARM and LTX2WORK.

LTX2WORK contains:

LTXFLTXW macro invocation statement. The keyword operands on this statement will require tailoring to suit your installations needs.

Address Space Category Table (refer to [CREATING THE ADDRESS SPACE CATEGORY TABLE](#) on page 19), see sample member LTX2CEXT. You will always need to tailor the LTX2CEXT sample member to establish suitable categories for your installation.

This task might also involve creating one or more Category Time Limits Exit routines. There is a very simple Category Time Limits Exit routine in the LTX2CEXT sample member at label MYEX and this is referenced by the EXIT=MYEX operand on the third LTXFCAT macro invocation statement.

See sample member LTXFACFX for an example of a Category Time Limits Exit suitable for use with the ACF2 security package. You can certainly install LTXF initially without using Category Time Limits Exits and then add one later if you think you need one.

Password Validation Exit (refer to [CREATING THE PASSWORD VALIDATION EXIT ROUTINE](#) on page 25). See sample members LTX2ACF2 and LTX2RACF. If you have either ACF2 or RACF as your security system then you will most likely be able to use the appropriate sample member unchanged.

Notification Exit (refer to [CREATING THE NOTIFICATION EXIT ROUTINE](#) on page 26). See sample member LTXFNEXR. You should be able to use the sample member unchanged initially.

Assembling the LTX2WORK module

When you have finished tailoring the source units, tailor the LTXFPARM JCL to create a job that will assemble and link the LTX2WORK module into a link-listed library. Remember to include your LTXF install work library as one of the macro libraries so that the copy statements find the source units you have tailored. You may find that UNIT=DISK needs to be changed to a DASD unit supported in your system.

Obtaining the LTXF Serial number for your system

After Version 2.10 the LTXF serial number which is supplied to each customer by ASE is CPU dependent. To obtain the serial number for your LTXF install, please do the following z/OS system command:

```
D M=CPU
```

and then cut-and-paste the resulting report into an email to HELP@ASE.COM.AU along with your contact details. ASE will respond with the serial number required to allow you to complete the following task: *Tailoring the LTXFLTXW Macro statement.*

Logon Timeout eXtension Facility for MVS TSO

The serial numbers can be specified in any order. LTXF will scan the serial numbers and use the first valid serial number for the machine it is running on.

See: [Obtaining the LTXF Serial number for your system](#) above.

SVC The SVC number assigned for the LTXF SVC.

PANEL The name of the panel load module to be displayed. It must begin with **LTX2**. Refer to [MODIFYING THE PASSWORD VERIFICATION SCREEN](#) on page 28.

When LTX2UTL calls a pre-existing IEFUTL

LTX2UTL will always pass control to CSECT IEFUTL (if one is present in the load module) for non wait time excession entry calls. If CALLUTL=YES is specified on the LTXFLTXW macro in LTX2WORK then LTXF will pass control to CSECT IEFUTL (if one is present in the load module) prior to canceling the user with a S522 abend. The values returned by csect IEFUTL will override the values that LTXF would return. This could cause the user's wait to be extended. If CALLUTL=NO an existing IEFUTL CSECT will not be called by LTXF prior to a S522 abend.

ASE recommends that CALLUTL=YES only be specified when your existing IEFUTL CSECT performs processing that is not related to extending the wait time.

If your installation already has an IEFUTL and wishes to replace its functionality with LTXF then you must specify CALLUTL=NO.

CREATING THE ADDRESS SPACE CATEGORY TABLE

Category Table overview

LTXF requires 2 parameters to determine what action to take when the SMF JOB WAIT TIME has been exceeded. These are:-

- the **Continuous Wait eXtension Time (CWXT)**. This time defines how long the session can remain idle before being cancelled with a System 522 abend. Typically this time could be in excess of 60 minutes.
- the **Password Wait eXtension Time (PWXT)**. This time defines how long the session can remain idle before the user is required to enter a password.

Both times are in minutes. LTXF will round them up to a multiple of the SMF JOB WAIT TIME.

See sample member LTX2CEXT. Create the category table by coding LTXFCAT statements to define categories of users and the associated CWXT and PWXT values. There is a COPY statement in the LTX2WORK source which includes the LTX2CEXT source member at assembly time. The CEXT= operand of the LTXFLTXW macro in LTX2WORK must specify the name of the label on this table.

The LTXFCAT statement has the following format:-

```
LTXFCAT      type,
             NAME=(name1,name2,...),
             NOTNAME=(name1,name2,...),
             LU=(luname1,luname2,...),
             NOTLU=(luname1,luname2,...),
             CWXT=nnnn,
             PWXT=mmmm,
             EXIT=label,
             DATE=(yyyymmdd,yyyymmdd),
             TIME=(hhmm,hhmm),
             DAYS=(dayname1,dayname2,....),
             NOTDATE=(yyyymmdd,yyyymmdd),
             NOTTIME=(hhmm,hhmm),
             NOTDAYS=(dayname1,dayname2,....)
```

Where:-

- type** Specifies whether the LTXFCAT statement applies to TSO sessions, Started Tasks or Batch Jobs. This operand is required and must be one of TSU/STC/JOB/*. An * indicates that this entry specifies DATE=/NOTDATE=,TIME=/NOTTIME= and DAYS=/NOTDAYS= defaults for subsequent LTXFCAT statements.
- NAME=** Is a list of prefixes of User-id's to be included. If the address space name does not match any entry in this list then checking continues with the next LTXFCAT Macro. Omission of this operand will cause any name to be accepted.
- NOTNAME=** Is a list of prefixes of User-id's to be excluded. If the address space name matches any entry in this list then checking continues with the next LTXFCAT Macro. Omission of this operand will cause no name to be excluded.
- LU=** Is a list of prefixes of LU's to be included. If the address space LU-name does not match any entry in this list then checking continues with the next LTXFCAT Macro. Omission of this operand will cause any LU-name to be accepted.

Logon Timeout eXtension Facility for MVS TSO

- NOTLU=** Is a list of prefixes of LU's to be excluded. If the address space LU-name matches any entry in this list then checking continues with the next LTXFCAT Macro. Omission of this operand will cause no LU-name to be excluded.
- CWXT=** Is the maximum time in minutes that a session may remain idle before LTXF will cancel it (1440 implies never). This time will be rounded up to a multiple of the JWT interval defined in the SMFPRMxx member of SYS1.PARMLIB.
- PWXT=** Is the maximum time in minutes that a session may remain idle before LTXF will force the user to enter his or her password when the next attempt is made to use the session (1440 implies never). This time will be rounded up to a multiple of the JWT interval defined in the SMFPRMxx member of SYS1.PARMLIB.
- EXIT=** This operand is optional. It may be used to specify the label on a Category Time Limits Exit. Refer to *CREATING A CATEGORY TIME LIMITS EXIT ROUTINE* on page 24.
- DATE=** This operand is optional. It specifies an inclusive date range in which this LTXFCAT entry applies. If the current date is not within this range then checking continues with the next LTXFCAT macro. The default range is 19000101 - 20991231.
- TIME=** This operand is optional. It specifies an inclusive time range in which this LTXFCAT entry applies. If the current time is not within this range then checking continues with the next LTXFCAT macro. The default range is 0000 - 2359.
- DAYS=** This operand is optional. It specifies a list of days (MON,TUE,WED,THU,FRI,SAT,SUN) for which this LTXFCAT entry applies. If the current day is not specified then checking continues with the next LTXFCAT macro. The default list is MON,TUE,WED,THU,FRI,SAT,SUN.
- NOTDATE=** This operand is optional. It specifies an inclusive date range in which this LTXFCAT entry does not apply. If the current date is within this range then checking continues with the next LTXFCAT macro. NOTDATE= cannot be specified with DATE=.
- NOTTIME=** This operand is optional. It specifies an inclusive time range in which this LTXFCAT entry does not apply. If the current time is within this range then checking continues with the next LTXFCAT macro. NOTTIME= cannot be specified with TIME=.
- NOTDAYS=** This operand is optional. It specifies a list of days (MON,TUE,WED,THU,FRI,SAT,SUN) for which this LTXFCAT entry does not apply. If the current day is specified then checking continues with the next LTXFCAT macro. NOTDAYS= cannot be specified with DAYS=.

Note:

1. LU and NOTLU can only be coded with TSU.
2. Since LTXF processes the LTXFCAT statements in order until it finds a match on the User-id, LU name, date, time and day of week, the order of the statements is important. It should be in the order of most specific to least specific.
3. It is recommended that the last 4 statements should be of the form:-

```
LTXFCAT *,DATE=(19000101,20991231),TIME=(0000,2359),
          DAYS=(MON,TUE,WED,THU,FRI,SAT,SUN)
LTXFCAT TSU,PWXT=???, CWXT=???,
LTXFCAT STC,CWXT=???,
LTXFCAT JOB,CWXT=???,
```

To ensure that some appropriate value is returned for all calls to the routine. If such statements are not included and a user-id/LUname reaches the end of the list of LTXFCAT Macros without achieving a match, a CWXT value of 0 is returned, causing immediate cancellation of the session.

Logon Timeout eXtension Facility for MVS TSO

4. If you find coding of the NOTNAME and NOTLU operands confusing, remember that in all instances the equivalent effect can be achieved by coding multiple LTXFCAT statements. e.g.:-

```
LTXFCAT TSU, NAME=OPS, NOTNAME=OPSA, PWXT=1440, CWXT=1440
LTXFCAT TSU, PWXT=0, CWXT=240
```

is equivalent to:-

```
LTXFCAT TSU, NAME=OPSA, PWXT=0, CWXT=240
LTXFCAT TSU, NAME=OPS, PWXT=1440, CWXT=1440
LTXFCAT TSU, PWXT=0, CWXT=240
```

5. For entries in the NAME, NONAME, LU and NOTLU operands, the current address space name, or the LUname, is padded with blanks on the right or truncated on the right to be the same length as the value given in the LTXFCAT statement before comparison is carried out. Thus a name value in the statement of NM1 will cause a match with address space names of NM1, NM1AAA and NM1BBBB but not with NM or NM21.
6. It is possible that the CWXT value for a category could cause the address space to be extended outside the period defined by the DATE/NOTDATE, TIME/NOTTIME and DAYS/NOTDAYS operands. In this case LTXF will determine the next LTXFCAT that would apply and calculate CWXT and PWXT values for the combined period.

If the CWXT value extends the user into a category with a higher CWXT value, then the higher CWXT value will be used. If the CWXT value for the new category is lower, then the CWXT value returned will be the minimum of:

- 1) The first CWXT value.
- 2) The sum of the time remaining in the first category and the new CWXT.

If the CWXT value extends the user outside the period defined, then the PWXT value returned will be:

- 1) The initial PWXT value if it is shorter than the time remaining in the period.
- 2) The initial PWXT value if it is shorter than the next time period PWXT.
- 3) The initial PWXT value if it is shorter than sum of the next PWXT value and the time remaining in the current period.
- 4) The time remaining in the period plus the PWXT for the next time period.

Example:

```
LTXFCAT TSU, TIME=(0900,1700), CWXT=240, PWXT=60
LTXFCAT TSU, NOTTIME=(0900,1700), CWXT=60, PWXT=15
```

Logon Timeout eXtension Facility for MVS TSO

The following table lists the CWXT and PWXT values that would be returned if a TSO user exceeds the SMF job wait time at the time specified in the IDLE TIME column:

IDLE TIME	INITIAL CWXT	INITIAL PWXT	USER EXTENDED OUTSIDE PERIOD	RETURNED CWXT	RETURNED PWXT
03:00	60	15	NO	60	15
07:00	60	15	NO	60	15
08:30	60	15	YES	240	15
08:50	60	15	YES	240	15
10:00	240	60	NO	240	60
12:00	240	60	NO	240	60
15:00	240	60	YES	180	60
16:30	240	60	YES	90	45
18:00	60	15	NO	60	15

Coding Examples

- All TSO Users whose logonids begin with "OPS", with 4 exceptions, can be idle for up to 4 hours before being cancelled. Specify that password checking is not to be done if they resume activity within the 4 hours:

```

LTXFCAT TSU,NAME=(OPS),           Any OPS..User except:      X
      NOTNAME=(OPS020,           Temporary print jockey      X
      OPS021,                     .....                      X
      OPS022,                     .....                      X
      OPS023),                   .....                      X
      PWXT=240,CWXT=240
    
```

- All TSO Users whose terminal session LU-names begin with "NMA" or "NMB" can be idle for up to 2 hours before being cancelled. Specify that password checking is not to be done if they resume activity within the 2 hours:

```
LTXFCAT TSU,LU=(NMA,NMB),PWXT=120,CWXT=120
```

- For all TSO Users, the CWXT and PWXT values are to be obtained from the exit routine labelled "MYEX".

```
LTXFCAT TSU,EXIT=MYEX
```

- All Batch Jobs and Started Tasks whose names begin with the letter "P" can be idle for any time period.

```

LTXFCAT JOB,NAME=P,CWXT=1440
LTXFCAT STC,NAME=P,CWXT=1440
    
```

- All Started Tasks are to be terminated after 30 minutes of contiguous wait time.

```
LTXFCAT STC,CWXT=30
```

- Set default time range. No code is generated. These values will be used for subsequent LTXFCAT macros that do not specify date and time ranges.

```

LTXFCAT *,
      TIME=(0900,1700),           FROM 9 AM TO 5 PM
      DATE=(19980101,19981231)   JAN 1 1998 TO DEC 31 1998
    
```

- The following category will be given the time and date range set above.

Logon Timeout eXtension Facility for MVS TSO

```
LTXFCAT TSU,NAME=(HELP), ANY HELP...USER  
CWXT=240,PWXT=240
```

- 8 Reset default date and time range.

```
LTXFCAT *,  
TIME=(0000,2359), ALL DAY  
DATE=(19000101,20991231), EVERY DAY  
DAYS=(MON,TUE,WED,THU,FRI,SAT,SUN)
```

9. Define different CWXT values depending on the day of the week and time of day. If it is Saturday or Sunday give a CWXT of 30 minutes. If it is a weekday and it is between 9am and 5pm, give a CWXT of 120 minutes, otherwise give a CWXT of 60 minutes.

```
LTXFCAT TSU,NAME=(U), ANY U.. USER  
CWXT=30,PWXT=0,  
DAY=(SAT,SUN)
```

```
LTXFCAT TSU,NAME=(U), ANY U.. USER  
CWXT=120,PWXT=0,  
TIME=(0900,1700)
```

```
LTXFCAT TSU,NAME=(U), ANY U.. USER  
CWXT=60,PWXT=0,  
NOTTIME=(0900,1700)
```

10. For logons beginning with T, define a 90 minute CWXT on any day except those in June 1998.

```
LTXFCAT TSU,NAME=(T), ANY T.. USER  
CWXT=90,PWXT=0,  
NOTDATE=(19980601,19980630)
```

11. Give the same users 120 minutes in June 1998.

```
LTXFCAT TSU,NAME=(T), ANY T.. USER  
CWXT=120,PWXT=0,  
DATE=(19980601,19980630)
```

12. For logons beginning with S, define a 60 minute CWXT on weekdays.

```
LTXFCAT TSU,NAME=(S), ANY S.. USER  
CWXT=60,PWXT=0,  
NOTDAY=(SAT,SUN)
```

13. It is recommended that the following 4 statements be coded last to "catch" all address spaces that have fallen through the earlier statements. These define the default values for each type of address space.

```
LTXFCAT *,DATE=(19000101,20991231),TIME=(0000,2359),  
DAYS=(MON,TUE,WED,THU,FRI,SAT,SUN)  
LTXFCAT JOB,CWXT=30 Batch jobs 30 minutes  
LTXFCAT STC,CWXT=30 Started Tasks 30 minutes  
LTXFCAT TSU,CWXT=30, TSO Users 30 minutes and  
PWXT=0 require password validation
```

CREATING A CATEGORY TIME LIMITS EXIT ROUTINE

LTXF will call an installation supplied Category Time Limits Exit to allow the site to alter the PWXT and CWXT time limits defined in a specific LTXFCAT macro statement.

See sample member LTX2CEXT at label MYEX. This exit is referenced by the EXIT=MYEX operand on the third LTXFCAT macro statement in that sample member.

See sample member LTXFACFX for an example where PWXT and CWXT values are obtained from ACF2.

At entry :

- R0 contains a value 0, 4 or 8 indicating whether the address space is a Batch Job, Started Task or a TSO session
- R1 contains the address of the current Jobname or TSO logon-id
- R2 contains the address of the current LU-name
- R4 contains the CWXT total for this job or user in minutes.
- R5 contains the PWXT total for this job or user in minutes.
- R15 contains the address of the category exit routine
- R14 contains the return address
- R13 contains the address of an 18-word save area.

At exit :

- R4 must contain the amended CWXT total for this job or user in minutes. If an unlimited CWXT is to apply then R5 must contain 1440.
- R5 must contain the amended PWXT total for this job or user in minutes. If an unlimited PWXT is to apply then R5 must contain 1440.

If your Category Time Limits Exit code needs storage for work areas for, say, a call to a security package routine, then insert DS statements in the module source (LTX2WORK is REUSable)

CREATING THE PASSWORD VALIDATION EXIT ROUTINE

LTXF operation involves soliciting a password from a TSO user who has exceeded the current MVS SMF JOB WAIT TIME interval and validating that password in some way.

LTXF calls the *Password Validation Exit routine* to perform this validation. See sample members LTX2ACF2 and LTX2RACF for sample validation exits suitable for those installations who use the ACF2 or RACF security packages.

There is a COPY statement in the LTX2WORK source which includes this code at assembly time.

Specify the name of the label at the start of your password validation exit using the VEXR= operand of the LTXFLTXW macro invocation statement in your LTX2WORK source unit.

Validation Exit interface description

At entry :

R1	contains the address of the entered password
R0	contains the length of the entered password
R15	contains the address of the validation exit routine
R14	contains the return address
R13	contains the address of an 18-word save area.

At exit :

R15	must contain one of :
	00 indicating that the password is ok .
	04 indicating that the password is incorrect .
	08 indicating that the user should be cancelled immediately.

If your validation exit code needs storage for work areas for, say, a call to a security package routine, then insert DS statements in the module source (LTX2WORK is reusable).

Note that the password validation exit is not called when the cancellation password has been entered.

CREATING THE NOTIFICATION EXIT ROUTINE

LTXF will call an installation-supplied *Notification Exit routine* if one is provided in the LTX2WORK module. This exit is identified by coding its label on the NEXR= operand of the LTXFLTXW macro in that module. See sample member LTX2NEXR.

There is a COPY statement in the LTX2WORK source which includes this code at assembly time.

The notification exit is called at the point where IEFUTL is about to return to MVS with the replacement SMF JOB WAIT TIME value in register 0 (in seconds).

Typical uses of this exit might be to write messages to operators warning them of impending system 522 abends for a job or to solicit the operators permission to give further extensions to a job that is about to be terminated with a system 522 abend.

The sample LTX2NEXR writes a message that looks like this:

```
PWFC=NN,BPCT=NN,XTOT=NNNN,CW#M=NNNN,CWTX=NNNN,FUNC=NNN,TODI=yymmdd-hhmmss-day
```

where:

PWFC=nn nn is the value specified on the PWFC= operand of the LTXFLTXW macro, ie. the maximum number of tries a user is allowed to get the password right before being cancelled.

BPCT=nn nn is the current bad password count. The number of bad passwords entered by this user during the current password solicitation cycle.

XTOT=nnnn nnnn is the total extension of the current contiguous wait time interval (CWTI) in minutes.

CW#M=nnnn nnnn is the current contiguous wait time limit in minutes.

CWTX=nnnn nnnn is the most recent wait time extension value for this user

FUNC=nnn nnn is the internal LTXF function code (000-004) being performed when user terminated:

TODI=.. where .. is the current time in the form yymmdd-hhmmss-day where day is MON, TUE, etc.

Notification Exit interface description

At entry :

R0 contains the replacement SMF JOB WAIT TIME interval value about to be returned to MVS. This is a number of seconds. If this value is less than 1 then MVS will terminate this address space with a system 522 abend.

A value of -1 or -2 indicates that LTXF was unable to prompt the user for a password because the address space was not in a Terminal Input wait or Terminal Output wait. For example, the address space might be in some ENQ wait for a logical resource.

A value of -3 indicates that the User is about to be cancelled due to a password error.

A value of 0 indicates that the TSO address space was in Terminal Input or Output wait and no further wait time extensions are allowed.

R1 contains the total of all previous wait time replacement values returned to MVS during this continuous wait interval except when R2 contains 1440.

Logon Timeout eXtension Facility for MVS TSO

- R2 contains the CWXT limit in minutes for this address space. If this value is 1440 then this address space will always be given further time by LTX2UTL.
- R15 contains the address of the notification exit routine
- R14 contains the return address
- R13 contains the address of an 18-word save area.

At exit :

R0, R1, R2 LTXF uses the quantities returned in R0, R1 and R2 as operative values. Thus the notification exit can alter the values returned to achieve variations on the normal LTXF operation. For example, if LTXF was about to return a zero wait time value (R0=0) and the notification exit code decided that in this particular case a wait time value of 5 minutes should be set then the exit code could achieve this by setting R0 to 300 (5 X 60) seconds.

R15 may contain any value - LTXF ignores R15.

If your notification exit code needs storage for work areas then insert DS statements in the LTX2NEXR source (LTX2WORK is a reusable module).

MODIFYING THE PASSWORD VERIFICATION SCREEN

LTXF comes with the following screen layout presented to the user when password verification is required.

```

LTXF/MVS Version 2.18          Copyright 2009 ASE          Serial # xxxxxxxxxx
PASSWORD ==> _                PGM: ISREDIT +ISREDIT    USER: ASE03    LUNAME: SCOTCP03

+-----+
|
|   This session on system SYS1 was locked by LTXF at 16:05 because
|   it was unused for an extended period.
|
|   To resume your application, type your password above and press
|   ENTER . The screen will be rebuilt and the keyboard unlocked.
|
|   If you have been absent from your terminal you should review
|   the screen to ensure the correctness of any fields and then
|   proceed as you would normally.
|
|   If you wish to cancel the session type .CANCEL and press ENTER
|
+-----+
|
|   Messages may be typed in the area below:
|   ==>
|
+-----+

```

This screen is defined in the LTXFPANL sample member. If changes are to be made to this screen it should be copied to another member LTX2PANx. The required changes should be made to the LTXF3270 macros and the panel reassembled using the job supplied in the sample member LTXFASMP. The LTXFLTXW macro in LTX2WORK must be updated with the name of the panel and a new LTX2WORK module created.

Once this is done, the panel can be tested by running TSO command LTX2TEST, making sure that the user is using the new LTX2WORK module via a STEPLIB or some other means.

NOTE: The panel name MUST start with LTX2.

The following definitions of the LTXF3270 macro parameters apply:-

SBA(line,row)

the Set Buffer Address parameter allows the programmer to explicitly specify the current buffer address by defining the line and the row on the screen. An asterisk for either variable indicates to continue using the current value for that variable. A value of W for row will set the Buffer Address to the end of the current line.

SF(attriblist)

the Start Field order specifies that an *attribute byte* is to be built at the current buffer address. The screen positions that follow this attribute byte up to but not including the next attribute byte will have the attributes specified by attriblist. Keywords allowed in attriblist include:

- HI** this field is to be displayed in high intensity
- NON** this is a non-display field
- PROT** this field is to be protected from data entry by the terminal user
- NUM** the terminal user can enter only decimal digits in this field

Logon Timeout eXtension Facility for MVS TSO

INPUT the terminal user may type data into this field.

If attriblist is omitted **LOW** and **PROT** are assumed by default

NL
write blank spaces to the end of this line.

IC
Insert the Cursor at the current buffer address.

BOX(depth,width)
Will draw a box of depth DEPTH and width WIDTH. The Buffer address is not altered by this command.

Text within single quotes will be printed starting at the Current Buffer Address.

Names within parenthesis are treated as variable names defined to the program displaying the screen. Variables used within this screen are:-

PASSWORD The password entered by the user

USERID The userid of this user

LUNAME The LU-name of this screen

TIME The time the terminal was locked in HH:MM format.

CANPSWD The site defined cancellation password (normally .CANCEL)

RMSG Error message

RMSG1 A message displayed to explain why the terminal has been locked. The two messages displayed are:-
"it was unused for an extended period"
or
"the user entered the LOCK command"

MSG2, MSG3, MSG4, MSG5
This provides an area where anyone can type a message. This can be used by the person locking the terminal to explain why it has been locked, or by someone wishing to leave a message for the owner of the TSO session.

CMSG1 A message "if you wish to cancel the session type"

CMSG2 A message "and press"

CMSG3 A message "Enter"
(These 3 messages are set to blanks if the session cancellation feature has been disabled)

SERIAL Serial number as defined in the LTX2WORK.

PGM A 17 byte string identifying the current TSO or ISPF program being used. If in split screen mode of ISPF, the first 8 characters will represent the program active on one screen while the last 8 represent the program active on the other screen.

Logon Timeout eXtension Facility for MVS TSO

Any of these variables (except SERIAL) can be omitted from the screen. Any other variables will be ignored by the screen display routine. If SERIAL is omitted from the screen the following warning message will be written to the console whenever LTXF is invoked.

```
LTXF09E LTXF SERIAL NUMBER DOES NOT APPEAR ON PANEL
```

The example given will fit on an 24 row by 80 column screen plus all screens that are bigger. Care must be taken to ensure that the screen image will fit on the smallest screen used at the installation.

For non-3270 terminals (TWX/telnet) the following messages are displayed on the terminal when password verification is required:

```
LTXF/MVS Version 2.18      Copyright 2009 ASE      Serial # XXXXXXXX
PGM:          USER:      LUNAME:
This session on system SYS1 was locked by LTXF at 16:05 because
it was unused for an extended period.
To resume your application, type your password and press ENTER
If you wish to cancel the session type .CANCEL and press ENTER
```

This screen is also defined in the LTXFPANL sample member. The messages can be changed by modifying the LTXFLINE macros and reassembling the panel as described above.

The LTXFLINE macro is similar to the LTXF3270 macro but only supports text within single quotes and variable names within parenthesis. The messages must contain at least one instance of the SERIAL variable.

Once LTXFPANL is reassembled, the messages can be tested by running TSO command "LTX2TEST LINE", making sure that the user is using the new LTX2WORK module via a STEPLIB or some other means.

MESSAGES

The following messages may be generated by LTXF.

LTXF01E INVALID INPUT - ABENDING

The SVC has been called with the wrong parameters.

LTXF02W PASSWORD VALIDATION FAILED - RENTER PASSWORD

The password entered was incorrect. The user is given a number of attempts specified by PWFC in the LTXFLTXW macro (refer to [Tailoring the LTXFLTXW Macro statement](#) on page 17).

LTXF03I PASSWORD ENTERED IS TOO SHORT - REENTER

The password was shorter than the minimum length specified in parameter PWML in the LTXFLTXW macro (refer to [Tailoring the LTXFLTXW Macro statement](#) on page 17).

LTXF04I SESSION CANCELLED - PASSWORD VERIFICATION FAILED

This will occur after a certain number of incorrect passwords have been entered. This number is defined by PWFC in the LTXFLTXW macro (refer to [Tailoring the LTXFLTXW Macro statement](#) on page 17).

LTXF05I SESSION CANCELLED - TERMINAL USER REQUEST

The user entered the password defined by PWSC in the LTXFLTXW macro to recover the terminal (refer to [Tailoring the LTXFLTXW Macro statement](#) on page 17).

LTXF06I VERIFY THE FOLLOWING INPUT IS CORRECT BEFORE PROCEEDING

This message is issued after password validation when in line mode. The last input is then redisplayed on the screen to allow it to be checked before proceeding.

LTXF06I Input Ignored, verify and re-enter the following before proceeding

This message is issued after password validation when using a non-3270 terminal.. The last input is then redisplayed on the screen. This input is ignored by the application program and must be re-entered.

LTXF07E 3270 DATASTREAM REBUILD BUFFER TOO SMALL

The size of the buffer allocated to receive the 3270 datastream to rebuild the screen display has been exceeded. ASE support should be contacted to increase the default buffer size.

LTXF09E LTXF SERIAL NUMBER DOES NOT APPEAR ON PANEL

This message will be displayed on the console whenever LTXF is invoked if the SERIAL parameter is removed from the Password Verification Screen (refer to [MODIFYING THE PASSWORD VERIFICATION SCREEN](#) on page 28.)

Logon Timeout eXtension Facility for MVS TSO

LTXF10I VARIABLE STRING LINE LENGTH ERROR
LTXF11I UNKNOWN TERM IN LINE DEFINITION

These messages indicate an error in the LTXF panel (LTXFPANL) macros used to define the messages displayed on a non 3270 terminal. Verify that the LTXFLINE macros are correct and re-assemble the panel.

LTXF12E BLDL FAILED FOR LTX2WORK

A BLDL macro issued for module LTX2WORK failed. Ensure that module LTX2WORK can be accessed via the system linklist.

LTXF13E LOAD FAILED FOR LTX2WORK

A LOAD macro issued for module LTX2WORK failed. Ensure that module LTX2WORK can be accessed via the system linklist. The system may issue CSV prefixed messages to indicate the cause of the problem.

LTXF14E INVALID SERIAL NUMBER – CONTACT ASE

A serial number specified in the LTXFWORK module is invalid. Check that the serial number specified on the LTXFLTXW macro when assembling LTXFWORK was correct. Check that you have the correct serial number for the CPU that you are running on.

LTXF15E WARNING: SERIAL NUMBER EXPIRES IN nn DAYS

Your serial number will expire in the specified number of days. LTXF will not work once the serial number expires. Contact ASE immediately to obtain a new serial number.

Logon Timeout eXtension Facility for MVS TSO

Publication number: PD95-0315-9 This manual serves as a reference source for data processing staff who use and configure the LTXF/MVS product. Please use this form to comment on the publication in terms of its organization or content with the understanding that ASE may use or distribute the information that you supply in any way that it believes appropriate without incurring an obligation to you.

If you require further copies of this publication please order them directly from ASE. If you require assistance in the installation, configuration or use of the LTXF/MVS product please contact ASE for support. ASE contact details are inside the front cover of this publication.

Suggested aspects which might be addressed by your comments include:

Clarity Accuracy Completeness Organization Examples Legibility

Please give your name and contact details if you require a reply:

Name:

Contact details:

Occupation:

Comments: