

InterSession 8.1

TPX Conversion Guide

This document describes how to convert a TPX system to InterSession. Before you start the conversion process, InterSession must be installed by following the instructions in the **Quick Start Guide**.

Make yourself comfortable with InterSession. Spend some time in the **MAINT** application, which is frequently used in the conversion process.

Overview

TPX is a complex product, but the vast majority of the information in a TPX system can be copied using InterSession utilities.

The following is a description of the steps needed to replace TPX with InterSession.

Users and Profiles

User and Profile data is extracted with the TPX batch utility and fed into the InterSession conversion utility (see below). Most of the contents specified in the TPX data will be maintained.

TPX Profiles

All TPX Profiles will be added as InterSession Models and be assigned the InterSession group MODELS. Applications (sessions) on a TPX Profile will be added as InterSession Shared Application Profiles.

TPX users

All TPX users are added as regular InterSession users with the same group as in TPX. Applications (sessions) on a user can be copied as InterSession Personal Application profiles or as InterSession Shared Application profiles. This is controlled by the SESSIONS parameter, see below. The default is Personal Application profiles.

ACLs (session scripts)

The TPX PDS containing ACLs can be read by InterSession directly, without changes or conversion.

Most ACL commands are accepted by InterSession, so a vast majority of ACLs will work without changes..

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InterSession supports scripting for application logon and logoff, which means that ACLs written for other purposes can not be used.

The following is a list of the 44 currently supported ACL commands:

ACLPGM	ADD	BRANCH	CLEAR
COMPARE	DISPLAY	DOWN	ENTER
EOF	HOME	INPUT	KEY
LEFT	MSG	NL	NOP
OPTION	OUTPUT	OUTPUTC	PA
PF	RESET	SEARCH	SEARCHF
SEARCHN	SRCHWAIT	SEND	SET
STOP	SUB	TABB	TABF
TABL	TERMSSESS	UP	GDEFINE
UDEFINE	VDEFINE	GDELETE	UDELETE
VDELETE	WAIT	WAITSTR	WINP

There are 11 seldom used ACL commands that are currently not supported. Support for any of these commands will be added upon customer request (for those customers that need any of them).

ATTN	COMMAND	DELETE	INSERT
LOGOFF	NOTIFY	PAUSE	RESUME
SCAN	SIGNOFF	SUSPEND	

TPX variables

Most of the TPX pre-defined variables are supported, for example the SCREEN variable (can be used for screen scraping).

The TPX Panels and the ACL DISPLAY command

Like TPX, InterSession supports ISPF (Interactive System Productivity Facility) to create Panels to be used in scripts (ACLs) where they are invoked using the ACL DISPLAY command.

The PDS containing the TPX Panels can be read directly by InterSession and does not need any conversion.

Note that InterSession does not use ISPF for administration, but uses proprietary fixed screens in the MAINT and STAT applications. Also, the InterSession ISPF support is a subset of all ISPF functions.

Note that missing functionality in scripting and ISPF support will be implemented on demand.

Define TPX ACLs and Panels to InterSession

In the InterSession startup JCL, add two DD cards to point out your current TPX PDS's:

```
//SCRIPTS DD DSN=tpx scripts,DISP=SHR
//PANELS DD DSN=tpx panels,DISP=SHR
```

In MAINT System Options, specify that PDS's should be used:

```
InterSession ----- Maintenance, Scripting -----
Scripts reside in a PDS ==> x) YES
Using Panel PDS ==> x) YES
```

The TPX Sign On and Menu Panels

InterSession does not use Panels for the sign on and menu screens, but use Screen Layouts. There are pre-defined Screen Layouts resembling competitive products. By using the LIKEPRD1 Screen Layout, the sign on and menu screens looks like this:

```

  IIII  nn nnn  tt  eeee  rr rrr
  II   nnn  nn  tt  ee ee  rrr
  II   nnn  nn  tt  eeeee  rr
  II   nn  nn  tt  ee  rrr
  IIII  nn  nn  tt  eeee  rr

          SSSSS  EEEEEEE  SSSSS  SSS  SSS  IIII  00000  NNN  NNN
          SSS  SSS  EEE  /  E  SSS  SSS  SSS  SSS  III  000 000  NNN  NNN
          SSS  SSS  EEE  /  E  SSS  SSS  SSS  SSS  III  000 000  NNN  NNN
          /  SSSSS  EEEEE  SSSSS  SSSSS  III  000 000  NNN  NNN
          //  SSS  EEE  /  //  SSS  SSS  III  000 000  NNN  NNN
          SSS  SSS  EEE  E  //  SSS  SSS  III  000 000  NNN  NNN
          /  SSSSS  EEEEEEE  SSSSS  /  SSSSS  IIII  00000  NNN  NNN

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Userid:  █                                                    13:04.22
Password:  █                                                    06/24/23
New Password:  █                                                SC0TCP26
                                                    IBM3278-2E
InterSession - the smart alternative
F1-help  ENT-sign on with user id and password
```

```

InterSession Main Menu for ADCDMST      Terminal SC0TCP26
Model IBM3278-2E
Logmode SNX32702
System INTSTEST

Attention key Attn  Jump key PF17
Command key ENT  Cmdchar

Cmd  Sessid  Sesskey  Session Description  Status
MAINT  InterSession maint
STAT  InterSession status
TLOCK  Terminal lock list
ISPROD1  INTSESS update
ISPROD2  INTSESS update
ISTEST1  INTSTEST read
ISTEST2  INTSTEST update
ISDEMO1  INTSESS read
ISDEMO2  INTSESS read

Command ==> █
F1-help  F3-sign off  F7/8-bwd/fwd  ENT-system select
```

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To look exactly like the TPX screens you are using today, minor changes will probably be necessary. This is done in-flight using the InterSession MAINT application.

Before making changes, you should copy LIKEPRD1 to a new Screen Layout, which then will be customized as required.

You can use cut & paste from your current TPX Panels. You must then change the field attribute characters to match the InterSession attributes.

When you have made the changes, the new Screen Layout should be set as the default layout.

Mail lists

With a special InterSession utility (see below), the TPX general mail lists can be copied to InterSession as Distribution Lists. Personal mail lists cannot be copied.

InterSession pre-defined applications

When installing InterSession, a number of predefined applications are defined. These application names may conflict with your current application names. If so, rename or delete the pre-defined applications.

You may also want to hide some of the internal applications, like PROF and OFF. You can do this by setting the Application profile parameter "Hide application = YES".

Application sequence

After running the conversion program, the applications will be in the sequence they have been added to the InterSession data base. You may therefore want to change the sequence later. This can be done in three ways:

- By an administrator, changing the sequence of all Shared Application profiles (a global setting).
- By an administrator, changing the sequence of the Shared Application profiles for the InterSession Models (the former TPX PROFILES). This is a setting unique for each Model.
- By any user, changing the sequence of his own Application profiles (Shared and Personal). This is done by setting the User Profile option "Maintain own profile" to either YES, RES, SEQ or DEF (system DEFault).

The InterSession Models

As mentioned, the conversion program will convert the TPX Profiles to InterSession Models.

With TPX you can define any number of TPX profile names to give an application list for a user.

With InterSession, a user can have up to two hundred (200) model names.

If you have users with more than 200 TPX profile names the conversion program will produce a list of these users.

You must take care of this manually after the conversion, for example by merging two or more profiles into a new profile.

Using RACF to control application access via InterSession Models

To use RACF to control application access, InterSession supports three possible ways to get the same result as with TPX, depending on the TPX setup. It is defined in the setting **System Options, External Security, “Obtain model names from”**:

1. **“XSPROFILE”** means that the TPX Profiles are today defined as RACF Profiles in a class. Users are then added to the RACF Profiles.
2. **“XSGROUP”** means that the TPX Profiles are today defined as RACF Groups, Users are then connected to these groups.
3. **“INSTDATA”** - if you are a former user of TELEVIEW, you may still use this approach by getting the TPX Profile name from the RACF INTSDATA field.

The log file

InterSession can produce a log file either as a regular JES2 output file or as a VSAM wrap around file, where you view this file via the STAT application. This is set in System Options, Other.

Other InterSession Settings to consider

User Option “Can use ad-hoc sessions” for users who needs to start sessions to any VTAM application that are not predefined.

User Option “Maintain own profile” for users who needs to change certain settings in their profile, like application sequence.

System Options, Other, “Use pass mode”:

If set to NO, InterSession will not use pass mode for application sessions.

System Options, Other, “Logmode table name”.

By default, InterSession uses its own logmode table for application sessions, INTSMTAB. The names of the logmode entries in this table is different from the logmode names in TPX. If you are using the TPX supplied logmode table, you may want to keep these names in VTAM and your CICS systems etc. If so, you can use the InterSession logmode table with the name INTSMTPX. It contains the most common used logmodes with the same names as in the TPX logmode table.

Note that you should copy this logmode table to your VTAM environment.

But, instead of copying it to VTAM, you can keep the TPX logmodes for your applications. If so, you must specify `MODETAB=TPXLGMOD` for the InterSession APPLids used for application sessions (the InterSession “pools”).

The Conversion Utility

The Conversion Utility converts TPX users, profiles and applications to the InterSession layouts.

The copy process is made up of three steps:

- 1) The TPX batch utility is executed using the `EXTRACT` command and creating a sequential file.
- 2) The InterSession conversion utility is run, reading the records from step 1 and creating a sequential file with InterSession maintenance records.
- 3) The InterSession maintenance utility is executed to send the maintenance records to the InterSession system, creating the InterSession User and Application profiles.

The TPX EXTRACT commands

The following syntax must be used. The `PROFILE` extract command **must** precede the `USER` extract command.

```
EXTRACT GIVING(filename) PROFILE AND ALL SESSIONS (PIDXNAME(-----))
EXTRACT GIVING(filename) USER AND ALL SESSIONS (UIDXNAME(-----))
```

You can select which profile/users (and their related sessions) to extract by specifying the `PIDXNAME` / `UIDXNAME` parameters.

The output file must be defined with variable blocked records (`RECFM=VB`). The DD card must also have the `DISP=MOD` parameter to prevent the second `EXTRACT` statement from overwriting the first.

z/OS JCL for steps 2 and 3

The following job is supplied in the installation source library under the name `TPXINTS`. Apply changes to the JCL as necessary.

```
//TPX2INTS JOB ,CLASS=A,MSGCLASS=X,REGION=2M
//STEP2    EXEC PGM=TPX2INTS
//STEPLIB  DD DSN=INTS.VER810.INSTALL.LOADLIB,DISP=SHR
//EXTRACT  DD DSN=TPX.EXTRACT.RECORDS,DISP=SHR
//INTSMNT  DD DSN=INTS.MAINT.RECORDS,DISP=(NEW,KEEP),
//          UNIT=unit,VOL=SER=volser,SPACE=(TRK,20),
//          DCB=(RECFM=FB,LRECL=80,BLKSIZE=3200)
//RACFCMD  DD DSN=INTS.RACFCMD.RECORDS,DISP=(NEW,KEEP),
```

```

//          UNIT=unit,VOL=SER=volser,SPACE=(TRK,10),
//          DCB=(RECFM=FB,LRECL=80,BLKSIZE=3200)
//SYSOUT    DD    SYSOUT=*
//SYSIN      DD    *
* PREDEF <USER/APPL> XXX FFF WWW ZZZ ...
* IGNORE <USER/APPL> XXX BBB DDD WWW SSS ...
* RENAME <USER/APPL/LOGM> OLDNAME NEWNAME
* SESSIONS <SHARED/PERSONAL>
* GROUPNAME ACCPROF1
* USERFLD fldname flddata
* SYSTFLD fldnsme flddata
* RACFCMD <SUPGROUP(supgroup)> <OWNER(owner)>
//*
//STEP3      EXEC PGM=INTSUTIL
//STEPLIB    DD    DSN=INTS.VER810.INSTALL.LOADLIB,DISP=SHR
//SYSPRINT   DD    SYSOUT=*
//SYSIN      DD    *
APPLID=INTSUTIL
CONNECT APPLID=INTSESS [USER=systadmin PASSWORD=password]
MAINT INPUT=CARDS
//          DD    DSN=INTS.MAINT.RECORDS,DISP=(OLD,DELETE,DELETE)
//*

```

Take a backup of the system file

Before running the job above, take a backup copy of the INTSFLE VSAM file, to be able to rerun the job with different options. An **IDCAMS** REPRO job will do fine.

Comments to the JCL

The TPX2INTS utility can be customized using the following commands, as seen in the JCL above. All commands are optional, and in most cases no commands are needed.

PREDEF {USER|APPL} name [name...]

IGNORE {USER|APPL} name [name...]

RENAME {USER|APPL} oldname newname [oldname newname...]

SESSIONS {SHARED|PERSONAL}

GROUPNAME ACCPROF1

USERFLD fldname flddata

APPLFLD fldname flddata

RACFCMD <SUPGROUP(supgroup)> <OWNER(owner)>

The names in the PREDEF command are regarded as already existing in InterSession. They will be ignored in the input file but references to them are kept.

The names in the IGNORE command are regarded as not desired. They will be ignored and all references to them are deleted.

The names in the RENAME command will be renamed as defined. You can rename a user, an application or a logmode name defined in an application.

SESSIONS PERSONAL is the default; this means that all sessions defined for a user will be added as InterSession Personal Application profiles.

If you prefer to add the sessions as InterSession Shared Application profiles, specify SESSIONS SHARED.

Note however, that for all your TPX PROFILES, all its sessions will be added as Shared Application profiles.

GROUPNAME ACCPROF1 can be specified if you want the first TPX PROFILE name for a user to be set also as the user's group name. This can be useful if you today have the same group name on all users, and will make it easier to find a specific InterSession User Profile in the MAINT application. If the user does not have a TPX PROFILE assigned, the group name on that user will not be changed.

If you need to set a specific InterSession User Profile or Application profile setting for all your users / applications, you can use the USERFLD or APPLFLD commands.

The command layout is:

- 8 bytes command code USERFLD or APPLFLD
- 8 bytes field name, see Appendix B in the Installation & Customization manual.
- n bytes field data.

You may code up to ten USERFLD/APPLFLD commands.

The RACFCMD command generates RACF ADDGROUP and CONNECT commands for the users application access. The names of all TPX Profiles / InterSession application access User Profiles will be added as RACF groups with the ADDGROUP command. For each user that has been specified with any of these names, a CONNECT command is generated.

If you want to set another owner or superior group, set these options as needed. The RACF commands are written to the RACFCMD file. This file must then be input to a TSO batch job, to implement the commands in RACF. An example of such a job is found in the installation source library under the name TPXRACF.

Note that to implement this in InterSession, you must set the System Option "External security user model = XSGROUP".

Execution of steps 2 and 3

When executing the job, InterSession must be up and running, since the maintenance records are sent over a VTAM session to the online system where the actual update takes place.

In the InterSession system, an Interface of type BATCH must exist, where the VTAM APPLid must match the name of the APPLID card in the job above.

Specify the APPLid of the InterSession system in the CONNECT card.

If you are using an external security system like RACF, ACF2 or Topsecret, make sure you are submitting the job from a TSO user that is also defined as an InterSession System Administrator.

Otherwise, you need also to specify the id and password of an InterSession System Administrator in the CONNECT card.

TPX2INTS return codes

The TPX2INTS utility will terminate with a return code for certain errors. The return codes are:

- 36** Invalid command type
- 24** Invalid command contents
- 20** The TPX extract file contains a record that is not recognized
- 16** The TPX extract file contains a record with invalid record type (UIDXID)

TPX2INTS output on SYSOUT

The TPX2INTS program will produce a listing with statistics and other useful information:

List of users with more than 300 TPX Profiles

This is a listing of users, if any, that has more than three hundred TPX Profiles assigned. This must be handled manually, see above.

List of TPX ACL's

This is a listing of all ACL names found in the TPX files, together with the application names in which they are referred. This will help you remove unnecessary ACLs

List of unreferenced PROFILES

This is a listing of all PROFILES found in the TPX files that do not have a reference among the profile names in the user records.

The UPDATE Batch Utility

At some point in time you might need a tool to do a mass change to set a specific value in some of the options of some or all of the User or Application profiles. You can then use the UPDATE function of the batch utility program INTSUTIL. This function is not specifically related to the TPX conversion but is a general tool.

Mail Lists

With the TPXMLIST function of the INTSUTIL program, TPX general mail lists can be copied to InterSession as Distribution Lists. Note that personal mail lists are not copied. Also, any generic user id specification in the mail lists are ignored (example GHI-----).

First, the mail lists in TPX must be copied to a sequential file with the EXTRACT command. The following syntax should be used:

```
EXTRACT GIVING(filename) USERLIST (MLSTID(-----))
```

The output file must be defined with variable blocked records (**RECFM=VB**) and a maximum blocksize of 8192.

Second, you should run the batch job that is supplied in the installation source library under the name TPXMLIST. Apply changes to the JCL as necessary.

```
//TPXMLIST JOB ,CLASS=A,MSGCLASS=X,REGION=2M
//*
//* NOTE: INTERSESSION MUST BE DOWN!
//*
//TPXMLIST EXEC PGM=INTSUTIL
//STEPLIB DD DSN=INTS.VER810.LOADLIB,DISP=SHR
//INTSFLE DD DSN=INTS.VER810.FILE,DISP=SHR
//EXTRACT DD DSN=TPX.MLIST.EXTRACT,DISP=SHR
//SYSPRINT DD SYSOUT=*
//SYSIN DD *
TPXMLIST
/*
```

When you run the job, InterSession must be down since the InterSession file is updated directly from INTSUTIL.

After the job has run, check the control list on SYSPRINT for any errors.

A rough estimate of man resources required for the conversion.

This is an important factor when converting from another session manager, but difficult to estimate. The primary concern is the experience and skill of the technical people inhouse doing the conversion, and their knowledge of the TPX systems setup in place.

Even though the vast majority of the work is automated by InterSession, you must confirm runs and results; and implement some manual tasks..

Here some of the work required – needing approximately 4-5 man-days – to get InterSession working successfully on your Test System. Before rollout to production!

Job item	Man Hours	
Manuals review / run-through	2 -4	
Planning	8	
Installing with the Quick Start Guide	4	
Get acquainted, learning the system structure via MAINT,	3	
Review documentation structure	2	
Extracting data from TPX	2	
Run the conversion & information transfer jobs	2	
Application access controlled by RACF/TSS/ACF	2	Add also RACF people
Changing the Screen Layout	2	Depends on number
Connecting the ACLs and Panels	1	
Testing some, many or all ACLs and Panels	1-20	Depends on number
Setting system default values for users/apps	1	
Polish, log file etc	3	
User Mistakes e.g. Rerun transfer from TPX	0	Hopefully none
Rounded (4 hours on ACLs, no mistake)	33	