

SOFTWARE LICENSE MANAGER

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Overview

This publication is applicable only for clients who have purchased a J.D. Edwards software license agreement for user-based pricing.

The J.D. Edwards Software License Manager provides a way to manage J.D. Edwards software license agreements based on the number of concurrent users rather than the size of the central processing unit (CPU) in your machine. It enables you to make decisions about adjusting your license agreement based on your changing software usage.

This publication explains how to:

- Initialize the Software License Manager
- Set up your system to reinitialize the Software License Manager automatically as an autostart job during an initial program load (IPL) and as a batch job at night
- Set up users to have job control authority or change the ownership of the Software License Manager program (X98UBP)
- Monitor your J.D. Edwards software usage
- Inquire on audit (license non-compliances) and error message information

NOTE: If your J.D. Edwards release level is earlier than A7.1, you should access the equivalent 'A' menus rather than the 'G' menus that are described in this publication (for example, A943 instead of G943).

About Software License Manager

J.D. Edwards issues a license for a machine that runs J.D. Edwards software. If you chose to pay license fees based on the number of concurrent users, the license agreement indicates the number of users who can access the software at any particular time on that machine. The Software License Manager monitors the number of users at any particular time and limits software access if necessary.

Specifically, the Software License Manager:

- Audits the number of users who concurrently access J.D. Edwards software on one machine over a period of time, which can help J.D. Edwards and you determine your licensing needs
- Monitors your software usage and checks for compliance with your license agreement continually
- Enforces the license agreement by issuing warnings when usage exceeds the licensed number of users and by restricting software access if necessary

Auditing Usage

In audit mode, the Software License Manager keeps a log of the number of concurrent users who access J.D. Edwards software for each day in a given month. You can print a report of this information.

You can audit software usage if you are:

- Installing J.D. Edwards software on a machine for the first time (you must have a model-based Software Protection Code [SPC]), or
- Upgrading from a license that is based on your machine model to one that is based on the number of concurrent users

To run the Software License Manager in audit mode, your current SPC must be model-based rather than user-based. Set up the license manager to run in audit mode from the JDE System Values screen. To run the license manager in audit mode, see *Initialization* in *Implementation*.

NOTE: If you are a new J.D. Edwards client (release A7.3 only), your SPC could be user-based. In this case, audit mode is not available.

After you complete the audit, J.D. Edwards issues you a new SPC that is based on the number of users who access J.D. Edwards software on your machine. After you activate the new SPC and disable audit mode, the Software License Manager begins to monitor usage and enforce the license agreement. At this point, you can no longer run the license manager in audit mode. To run the license manager in enforcement mode, see *Initialization*.

IMPORTANT: If you have a user-based SPC and you attempt to run the Software License Manager in audit mode, you will not be able to access J.D. Edwards software.

Monitoring Usage

When the Software License Manager runs in enforcement mode, it begins to monitor the number of concurrent users. Whenever this number exceeds the licensed number of users, the license manager issues you warning messages and restricts software access if necessary.

Because J.D. Edwards licenses the software for individual machines, the Software License Manager includes in its total counts all users who access various environments on that machine regardless of the environment they use. Users who access J.D. Edwards software on multiple machines are not counted multiple times. This is also true for machines that use the IBM product OptiConnect. The license manager identifies and tracks concurrent users by profile name, device (location), and job.

The Software License Manager counts users as follows:

- Counts a user who accesses a J.D. Edwards program through a menu selection, fast path, or hidden selection
- Counts a user until the user signs off of J.D. Edwards software or enters hidden selection 30 to return to the Library List Selection screen
- Counts a user once if the user signs on multiple times on a single device
- Counts a user twice if a user is signed on to two devices
- Counts two users who are signed on to the same device as two users
- For dual-session terminals, counts a user once if the user signs on to both devices

NOTE: To determine the types of devices that are dual session, contact your IBM representative.

- For PCs, counts a user once if the user starts multiple sessions

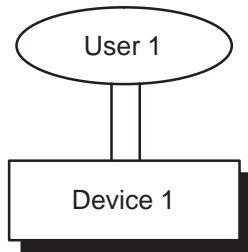
The Software License Manager counts group jobs as one user, and it counts a user who starts alternate sessions as one user. It does not count a user who is signed on to J.D. Edwards software and does not enter a menu selection that runs a J.D. Edwards program.

NOTES:

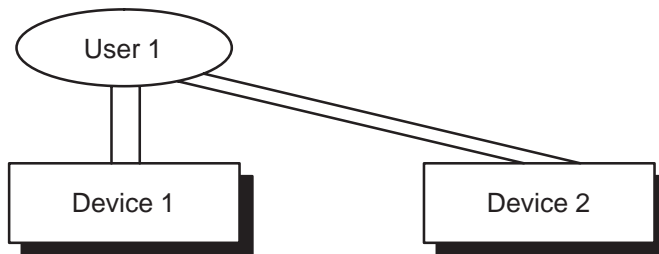
- The Software License Manager does not count users who restrict their access to non-J.D. Edwards programs that are assigned to system codes 55 through 69. Non-J.D. Edwards programs that are not assigned to system codes 55 through 69 most likely will be counted.
- It also does not count users who access an A5.2 environment or an environment that does not have Software License Manager installed.

Examples

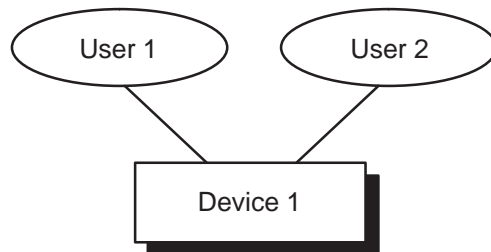
A user signs on to the same device twice with the same signon, and Software License Manager counts one user.



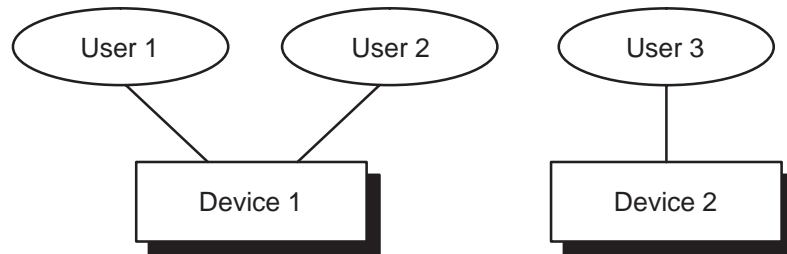
The same user signs on to another device, and Software License Manager counts the user twice. The user signs on to the second device again, and remains counted twice.



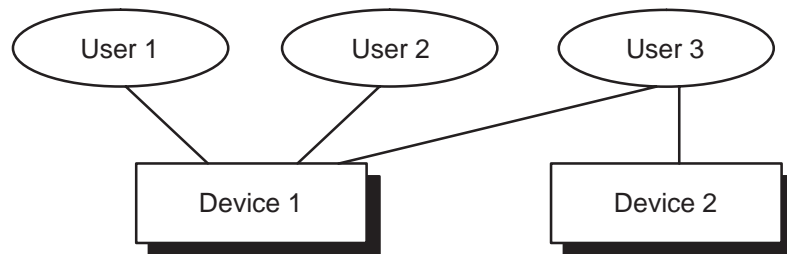
Two users sign on to the same device with different signons, and Software License Manager counts two separate users.



A third user signs on to a second device, so Software License Manager counts three users.



The third user signs on to the first device also, so Software License Manager counts four users.



Enforcing the License Agreement

If the number of concurrent users exceeds the licensed number of users, the Software License Manager issues the following message to each user who exceeds the licensed number of users.

WARNING – Maximum Licensed Users Exceeded

If violations occur more than 30 times, the license manager denies software access to users who exceed the licensed number. This restriction continues until you change your license agreement to include the additional users and J.D. Edwards issues you a new SPC.

If the number of concurrent users equals twice the number allowed in your license agreement, the license manager immediately denies access to additional users.

System Requirements

Release A7.3 of J.D. Edwards software includes the Software License Manager. If you are using an earlier release, you must install a special Software Enhancement Update that corresponds with your current release level. To obtain the appropriate Software Enhancement Update, contact J.D. Edwards Worldwide Customer Support.

If you are at A6.2, A7.1, or A7.2, your AS/400 operating system (OS/400) must be at Version 2 Release 3 (V2R3) or later. If you are at A7.3, your AS/400 operating system (OS/400) must be at Version 3 Release 1 (V3R1) or later.

Install Software License Manager

To install the Software License Manager for release A6.2, A7.1, or A7.2, refer to the appropriate *PTF Install Workbook*, which accompanies the PTF installation tape. If you initially installed J.D. Edwards software at release A7.3, the Software License Manager was installed also.

IMPORTANT: If you are at release A7.3 and use TCP/IP, you must install PTF A73PC00002 or later to ensure the Software License Manager functions properly.

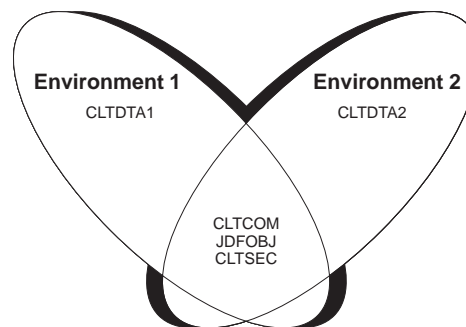
Install for Multiple Environments (for A6.2, A7.1, and A7.2 Clients)

If your J.D. Edwards software is at release level A6.2, A7.1, or A7.2, and if you use multiple environments, follow one of four methods to install the Software License Manager. The method you choose depends on which approach best describes your situation. Read the method assumptions, then choose the most appropriate method.

Method A

You have two environments at the same release level. Each has its own production data library, but shares the same common, object, and security libraries with the other environment.

NOTE: J.D. Edwards assumes that all of your control files are located in your common library. If this is not your situation, refer to Method B.

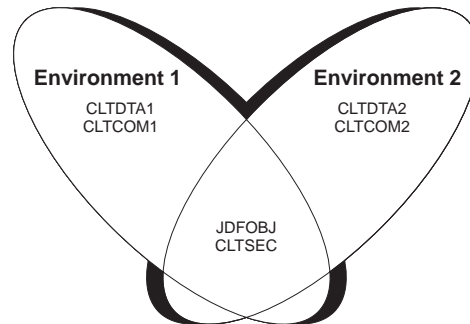


Because the environments share the common and object libraries, install the Software License Manager once to either the first or second environment. To do so, perform the procedures in the appropriate *PTF Install Workbook*.

Method B

You have two environments at the same release level. Each has its own production data and common libraries, but shares the same object and security libraries with the other environment.

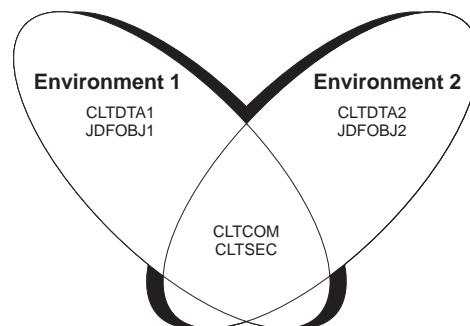
NOTE: J.D. Edwards assumes that none of your control files are shared between the two environments.



Because each environment has its own set of control files, install the Software License Manager twice (once for each environment).

Method C

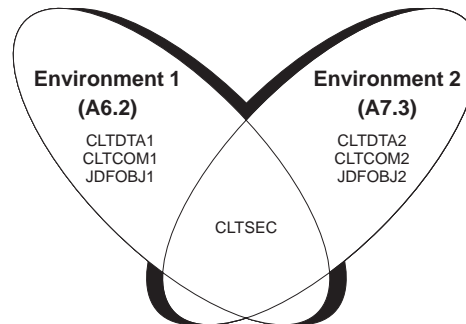
You have two environments at the same release level or different release levels (neither at A7.3). Each has its own production data and object libraries, but shares the common and security libraries with the other environment.



Because each environment has its own object library, install the Software License Manager twice (once for each environment).

Method D

You have two environments at different release levels (for example, one at A6.2 and the other at A7.3). Each has its own production data, common, and object libraries, but shares the same security library with the other environment.



Because the A7.3 environment has Software License Manager already, you do not need to install it again to this environment. However, install it to your other environment.

Publication Conventions

In this publication, *enter* means type the required information and press the Enter key, *type* means type the required information without pressing the Enter key, and *select* means type the number that appears next to a menu selection and press the Enter key.

Implementation

This chapter describes how to implement the Software License Manager. It provides procedures for:

- Initializing Software License Manager
- Setting up Software License Manager to reinitialize
- Setting up job control authority

You must perform the initialization procedures for all releases of J.D. Edwards software. J.D. Edwards highly recommends that you review and perform the procedures for setting up reinitialization and job control authority.

Initialize Software License Manager

You must initialize the Software License Manager for all releases of J.D. Edwards software.

IMPORTANT: If you do not initialize the license manager, you will not be able to access your J.D. Edwards software.

After you initialize the Software License Manager, you must set up the J98802JQ program as an autostart job to reinitialize the license manager automatically during an initial program load (IPL). J.D. Edwards recommends that you also set up the program (through sleeper or the IBM job scheduler) to run as a batch job nightly when users are not signed on to J.D. Edwards software. To set these up, see *Set Up Software License Manager to Reinitialize*.

To initialize the Software License Manager:

1. Make sure all users are signed off of all J.D. Edwards software.
2. Sign on as a user who has security officer authority (such as QSECOFR). Be sure the user profile does not access J.D. Edwards software directly.
3. Be sure that your object, production, common, security (if you have one), and QGPL libraries are in your library list.
4. From an IBM command entry line, enter:

```
SBMJOB CMD(CALL J98802JQ)
```

The program creates and initializes the Software License Manager objects.

5. Sign off as the user who has security officer authority.
6. Sign on to the production environment.
7. From the Security Officer menu (G94), select JDE System Values.

```
98QJDF2                               JDE System Values
System Identification . . . . .      JDED
Source Library . . . . .             JDFSRC
Object Library . . . . .             JDFOBJ
User Profile Library (F0092) . . . . CLTSEC
Control File Library (F9200, F9220) . CLTCOM

Software Security Code . . . . .      zcGSop
Software Expiration Date . . . . .   123199   Warning Days . . .   010
User Based License Maximum Users . . .   UBPAudit Flag . . .   -

Version Prefix . . . . .             _____
Region Code . . . . .                _____
Video Color Palette (1=SAA 2=JDE) . . . 2
Menu Date Format . . . . .            AD, AM DD, YYYY
Menu Time Format (' '=12 hr '1'=24 hr) . -
Menu Display File Vocab Override Key . . VOOMENU
Menu Key - Hidden Selections . . . . . ZHIDDEN

Double-Byte System (1/0) . . . . .    -   Japanese Date Fmt (1/0) . .
Language . . . . .                   -   Domestic Language
Application Override System . . . . .  _____
Program To Execute - Following Sign On . _____
                                         F12=Previous Screen
```

8. If you are using a model-based SPC (not a user-based SPC), and you want to run the Software License Manager in audit mode, enter 1 in the UBP Audit Flag field. Do not change the Software Security Code and Software Expiration Date fields. Leave the User Based License Maximum Users field blank (do not set this field to 0).

The Software License Manager will run in audit mode now. Skip the next step.

9. If you have received your new user-based SPC, enter the new information in the Software Security Code, Software Expiration Date, and User Based License Maximum Users fields. Make sure the UBP Audit Flag field is set to blank or 0.

IMPORTANT: Do not set the UBP Audit Flag field to 1 if you have indicated a user-based SPC on this screen. If you attempt to run the Software License Manager in audit mode while using a user-based SPC, you will not be able to access J.D. Edwards software.

The Software License Manager is now in enforcement mode.

Set Up Software License Manager to Reinitialize

To ensure continual, accurate counting of users who access J.D. Edwards software, you must set up the User Based Pricing program (J98802JQ) to run as an autostart job during an initial program load (IPL). This ensures that the Software License Manager will reinitialize properly. J.D. Edwards recommends that you also run this program as a batch job at night when users are not signed on to J.D. Edwards software.

IMPORTANT: If you do not set up this program to run automatically during an IPL, you might not be able to access J.D. Edwards software.

To set up an autostart job to reinitialize the Software License Manager automatically during an IPL:

1. Select a subsystem that automatically starts during an IPL (such as QBATCH).

NOTE: You do not need to end this subsystem to make the following changes.

2. Sign on as a user who has security officer authority (such as QSECOFR). Be sure the user profile does not access J.D. Edwards software directly.
3. To create a job description for J98802JQ, enter the following command:

```
CRTJOB JOB(QGPL/JDE_SLM) JOBQ(subsystem) OUTQ(outq)
USER(qsecofr) RQSDTA('CALL objlib/J98802JQ')
INLLIBL(QTEMP seclib comlib prodlib objlib QGPL)
```

where:

subsystem is the name of the subsystem you selected above

outq is the name of your output queue

qsecofr is the name of your user profile with security officer authority

seclib is the name of your security library if you have one

comlib is the name of your common library

prodlib is the name of your production data library

objlib is the name of your object library

4. To add J98802JQ as an autostart job to the subsystem, enter the following command:

```
ADDAJE SBS(subsystem) JOB(JDE_SLM) JOB(JDE_SLM)
```

where *subsystem* is the name of the subsystem you selected above.

To set up the User-Based Pricing program (J98802JQ) to run as a batch job at night, you either can set it up to run in the sleeper job or in the IBM job scheduler. To set up the job, refer to the appropriate documentation.

Set Up Job Control Authority

The Software License Manager has a server program (X98UBP) that verifies jobs and adjusts user counts automatically. This program requires job control authority.

IMPORTANT: If job control authority is not set up, user licenses might not be released when users exit or sign off from J.D. Edwards software. Users cannot access the software unless licenses are available.

To set up job control authority, you either can set up users with job control authority or change the ownership of X98UBP. This lets the server program verify jobs, and release or activate user licenses.

Set Up Users with Job Control Authority

To set up each user with job control authority, you must set the special authority parameter in their IBM user profile to *JOBCTL.

Change Ownership of X98UBP

If your security implementation requires that individual users cannot have job control authority, you can change the ownership of the server program to an IBM profile that has job control authority. The user profile for the server program (X98UBP) is set to *OWNER, which lets you assign an owner that has job control authority. To change the owner, enter the following command from an IBM command entry line:

```
CHGOBJOWN jdjobj/X98UBP *PGM owner
```

where *jdjobj* is the name of your object library, and *owner* is the name of an IBM profile that has job control authority (*JOBCTL).

Inquiries and Reports

This chapter describes how to inquire on and produce reports for:

- J.D. Edwards software usage and license compliance (usage verification)
- License non-compliances for which the number of users exceed the license agreement, and error messages (audit and error message inquiry)

You can inquire on this information and produce reports from the Software License Manager menu (G943).

```
G943                                J.D. Edwards & Company          JDED
                                Software License Manager

... INQUIRIES
2. Job Information
3. Audit/Error Message Inquiry

... REPORTS
7. Audit/Error Message Report
8. License Usage Report

Selection or command
====> _____
```

Usage Verification

In enforcement mode, the Software License Manager automatically monitors the use of J.D. Edwards software and checks for compliance with your license agreement.

You also can verify this information by:

- Inquiring on usage interactively
- Creating the License Usage Report

Inquire on Usage

You can display a list of users who were counted by the Software License Manager the last time it checked for compliance. You also can refresh this information.

1. From the Software License Manager menu (G943), select Job Information.

98805		Job Information						
Active JDE Users	56	Count Verification Date . .	05.09.96					
Maximum Users Allowed. . .	350	Count Verification Time . .	11:44:21					
Times Limit Exceeded . . .	0	Skip to User.	_____					
Last Exceeded Date								
O	User ID	Device	JobNbr	JDE Session	UBP Counted	Date Counted	Time Counted	Program Accessed
-	AB5502755	B5502755S1	288589	1	1	05.09.96	11:04:43	J415112
-	AK932431	QPADEV0213	286720	1	1	05.09.96	11:12:06	J9220
-	AM5596131	QPADEV0147	288490	1	1	05.09.96	11:18:50	J9801
-	ARCHER	QPADEV0047	288794	1	1	05.09.96	11:24:41	J061151J
-	AS5450406	QPADEV0185	286439	1	1	05.09.96	11:39:47	J4101
-	BC1886069	C1886069S1	288785	1	1	05.09.96	11:23:02	J98300
-	BC5577968	NTSNA01S6	287517	1	1	05.09.96	11:14:39	J4100A
-	CP5562408	QPADEV0129	288005	1	1	05.09.96	11:33:53	G74
-	CO5494572	QPADEV0250	287747	1	1	05.09.96	11:02:43	J9801
-	DH5482715	QPADEV0118	286332	1	1	05.09.96	11:11:24	J9801
-	DM5567807	QPADEV0143	286318	1	1	05.09.96	11:23:12	J4007
-	DS584122	DS584122S1	288736	1	1	05.09.96	11:30:22	J98VIEW
-	EA5481270	A5481270S2	288340	1	1	05.09.96	11:22:44	J00105
Opt: 5=Verify Job F3=Exit F5=Verify All F24=More Keys								

2. To refresh all the information on the Job Information screen, press F5 (Verify All).

NOTE: To refresh the information for a specific user, enter 5 (Verify Job) in the O (Option) field next to the appropriate user ID.

Create the License Usage Report

The License Usage Report (R98808) provides you with usage information for the time period you specify in the DREAM Writer processing options associated with it.

To create the report:

1. From the Software License Manager menu (G943), select License Usage Report.

A DREAM Writer versions list appears.

2. In the O (Option) field next to version ZJDE0001, enter 1 (Run).

NOTE: You also can set up your own versions, such as ones set up for separate months.

A Processing Options Revisions screen appears.

3. Enter the starting and ending dates (MM/DD/YY format) for which you want to run the report.

The report submits to batch. An example of the report appears on the following page.

Inquire on Audit Information and Error Messages

From the Audit/Error Message Inquiry screen, you can display the following information:

- Maximum number of users for which you are licensed
- Number of times you exceeded the license count
- Last date you exceeded the license count
- Dates and times error messages were issued
- Error message IDs and descriptions

The screen also lets you reduce the range of information displayed.

To display the Audit/Error Message Inquiry screen:

1. From the Software License Manager menu (G943), select Audit/Error Message Inquiry.

```
98806                Audit/Error Message Inquiry    Msg Filter . . ____
Maximum Users Allowed . .      350
Times Limit Exceeded. . .      4    Last Exceeded Date. . . .
Starting Date . . . . . _____    Ending Date . . . . . _____
Starting Time . . . . . _____    Ending time . . . . . _____
User Name . . . . . _____    Device Name . . . . . _____

  Date      Time      MSG  Message Description
04/11/97                3203 Maximum user count reached was 00003.
04/12/97                3203 Maximum user count reached was 00002.
04/13/97                3203 Maximum user count reached was 00003.
04/14/97                3203 Maximum user count reached was 00053.
05/08/97 21:34:39 1002 Object JDEDT1 type *DTAARA not found.
                1003 Object JDEDT2 type *DTAARA not found.
                1004 Object JDE_IDX_1 type *USRIDX not found.
                1005 Object JDE_IDX_2 type *USRIDX not found.
                1006 Object JDE_IDX_3 type *USRIDX not found.
                1007 Object JDE_IDX_4 type *USRIDX not found.
                2102 Object JDEDT1 type *DTAARA created.
                2103 Object JDEDT1 type *DTAARA created.

                F3=Exit                F21=Print
```

2. To print the information that displays on the screen, press F21.

Create the Audit/Error Message Report

The Audit/Error Message Report (R98807) provides you with audit and error message information gathered by the J.D. Edwards license management server. It provides slightly more detail than the Audit/Error Message screen provides.

To create the report:

1. From the Software License Manager menu (G943), select Audit/Error Message Report.

A DREAM Writer versions list appears.

2. In the O (Option) field next to version ZJDE0001, enter 1 (Run).

NOTE: You also can set up your own versions, such as ones set up for separate months.

A Processing Options Revisions screen appears.

3. Enter the starting and ending dates (MM/DD/YY format) for which you want to run the report.

The report submits to batch. An example of the report appears below.

Date	Time	ID	Device	Msg ID	Code	Message Description	

04/11/97		MK811401	V3197DEF20	JDE9858	3203	Maximum user count reached was 00003.	
04/12/97		LG1837857	V3197DEF14	JDE9858	3203	Maximum user count reached was 00002.	
04/13/97		KH5559815	V3197DEF12	JDE9858	3203	Maximum user count reached was 00003.	
04/14/97		JN5553851	QPADEV0014	JDE9858	3203	Maximum user count reached was 00053.	
05/08/97	21:34:39	*JDE	4	UBPJOB	JDE9851	1002	Object JDEDT1 type *DTAARA not found.
		*JDE	4	UBPJOB	JDE9851	1003	Object JDEDT2 type *DTAARA not found.
		*JDE	4	UBPJOB	JDE9851	1004	Object JDE_IDX_1 type *USRIDX not found.
		*JDE	4	UBPJOB	JDE9851	1005	Object JDE_IDX_2 type *USRIDX not found.
		*JDE	4	UBPJOB	JDE9851	1006	Object JDE_IDX_3 type *USRIDX not found.
		*JDE	4	UBPJOB	JDE9851	1007	Object JDE_IDX_4 type *USRIDX not found.
		*JDE	4	UBPJOB	JDE9852	2102	Object JDEDT1 type *DTAARA created.
		*JDE	4	UBPJOB	JDE9852	2103	Object JDEDT1 type *DTAARA created.

