

# TURNOVER® FOR ISERIES V100

Tutorial

## Publication information

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## TURNOVER® for iSeries v100

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**Introduction**

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### **INTRODUCTION**

This tutorial contains an example of a TURNOVER® for iSeries v100 application, complete with development, test and production libraries and the necessary source and objects to demonstrate a complete change cycle. The example application corresponds to the sample application definition shipped with the system. These applications can be used as models for setting up TURNOVER® for iSeries v100 on your system. (See *Chapter 2: Planning Your Application Definitions* in the *TURNOVER® for iSeries v100 Application Planning Guide*.)

This tutorial also contains information about activities a TURNOVER® for iSeries v100 administrator might need to perform, such as restoring libraries and creating a separate training environment. Refer to page 33 for this information.

The steps you, the end-user, will perform in this tutorial are similar to those you would use in your actual working environments when you start to use TURNOVER® for iSeries v100. If you set up application definitions and forms just as they are shown, you can replicate these test results.

**Introduction**

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## **PREREQUISITES FOR USING THE TUTORIAL**

There are some things to consider before using the tutorial. First, the tutorial libraries DEVTEST, ACPTTEST, and PRODTEST, which we ship with TURNOVER® for iSeries v100, must exist on your system.

Second, you will need to know what environment the tutorial functions in, if different from your production environment. If there's a separate training environment on your system, select that environment using **F22** on the TURNOVER® for iSeries v100 Main Menu.

Third, regardless of the environment, there must be application definitions for a two-level application called **AP**, and project definitions for projects **SOFT** and **APPR**, for you to complete the tutorial.

If the libraries don't exist on your system (or are causing unexpected results), or if you don't know what environment to use, or if you can't find these application and/or project definitions in any environment, contact your TURNOVER® for iSeries v100 administrator and refer him/her to page 33.

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### **UNICOM Systems, Inc. Recommends**

**Note to the administrator:** Consider creating a separate training environment in TURNOVER® for iSeries v100, and using that to perform tutorials and product training. This way you and your users can experiment with TURNOVER® for iSeries v100 without affecting your production definitions. To create a separate training environment, follow the instructions on page 35.

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# TURNOVER® for iSeries v100 Tutorial

## Prerequisites for Using the Tutorial

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## **STARTING THE TUTORIAL**

To use the tutorial, sign on as user **TURNOVER**; this profile is already set with the proper authority.

As you go through the tutorial, we suggest that you print the worklist, **TURNOVER®** for iSeries v100 forms, and **TURNOVER®** for iSeries v100 Log Reports so that you have a hard copy of these examples to study. We also recommend that you print the AP application definition to familiarize yourself with the defaults and rules defined for this application.

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### **UNICOM Systems, Inc. Recommends**

Sign on as user **TURNOVER** to do the tutorial for the first time. You may want to repeat the tutorial under your own profile after you have been enrolled and authorized to the tutorial application and its related projects, so that you can explore in greater depth.

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**Starting the Tutorial**

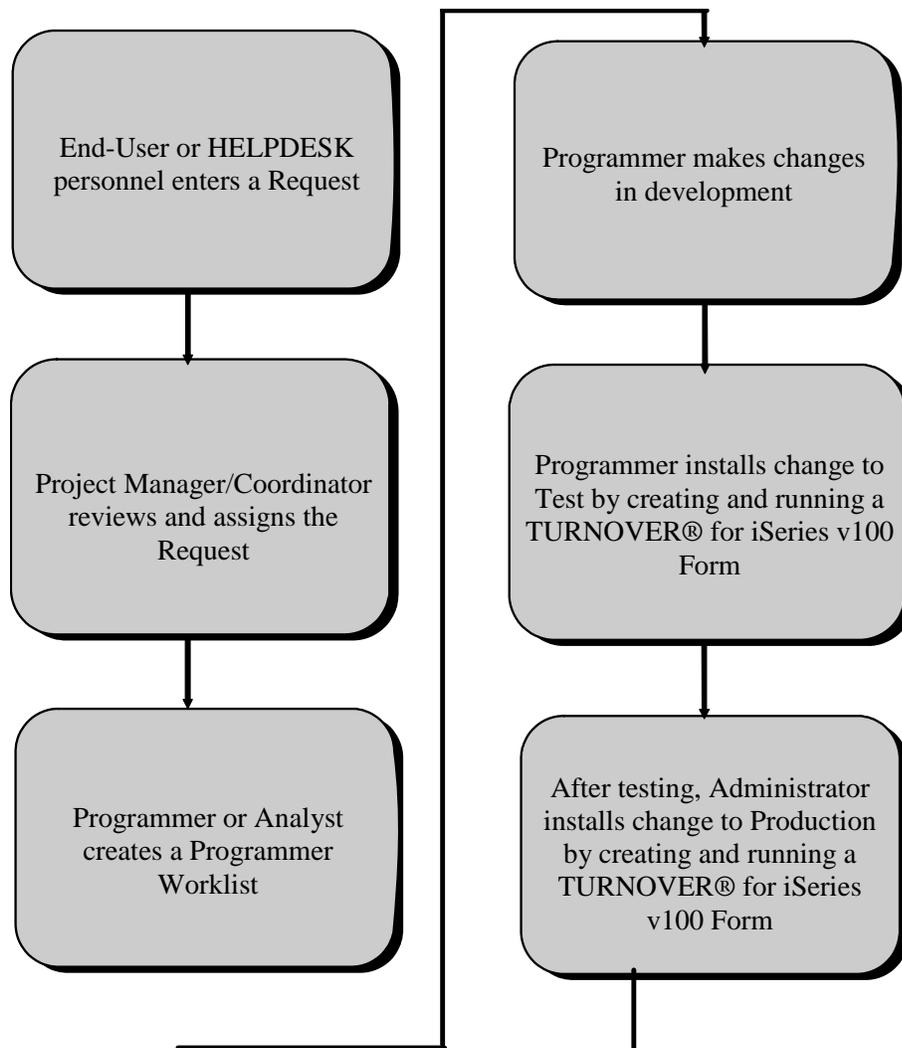
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## OVERVIEW

TURNOVER® for iSeries v100 is a complete change management system – including integrated **HELPDESK** and **PROJECT MANAGEMENT**. In this example, we are going to demonstrate the flow of a normal change, from the entry of a change request through implementation, so you can see just how easy and automated the process can be.

## SUMMARY OF MAJOR CHANGE STEPS

This following diagram shows the major steps that you're already doing for most changes, whether or not you're using TURNOVER® for iSeries v100. We'll use the references in the diagram to mark your progress as you do the tutorial.



Overview

## STUDY YOUR ENVIRONMENT

The most important decisions you will make involve setting up the application *defaults* and *rules*. The schematic below illustrates the environment we'll be using for the tutorial.

The application you'll be using is called **AP** and consists of two levels. Each level defines an environment as well as the *defaults* such as library names, source file names, create methods, authorities, object owner and *rules* such as requiring source to be checked out, requiring a project task to reference the reason for the change, and how many copies of source to archive. Use option **1** from the TURNOVER® for iSeries v100 Main Menu to review the AP application definition in greater detail. (For more about application definitions, see *Chapter 1: Working with Application Definitions* in the *TURNOVER® for iSeries v100 User Guide*.)

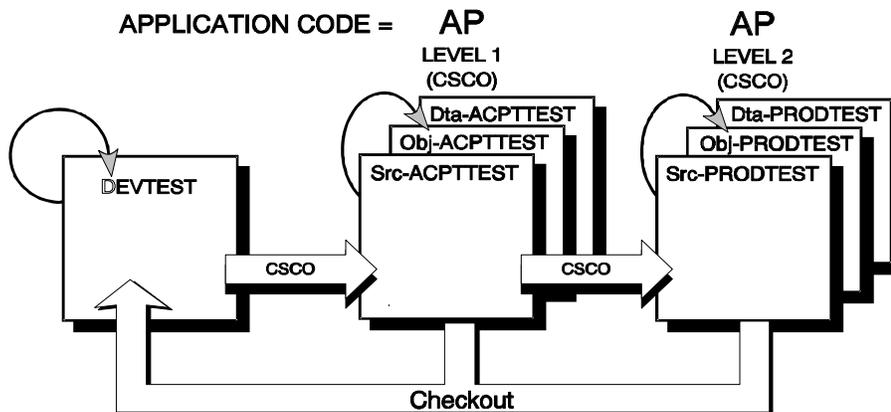
In this exercise, all program changes will be done in a common development library called **DEVTEST**. We'll identify the objects we want to change and add them to a Programmer Worklist. TURNOVER® for iSeries v100 will then check out a copy of the source from production (**PRODTEST**) to development (**DEVTEST**).

### Level 1 is Acceptance Testing

- After we make our changes in development, we'll install them in a library called **ACPTTEST** by creating and running a TURNOVER® for iSeries v100 Level 1 form. The form will copy the source from DEVTEST to ACPTTEST and compile the new object in ACPTTEST. The source and object can be automatically deleted from DEVTEST and the project task will be updated to a status **IN-TEST**.

### Level 2 is Production

- After our change is tested in ACPTTEST, we'll promote the changes into production (**PRODTEST**). The Level 2 form will copy the source from ACPTTEST and compile the new objects in PRODTEST. Source and objects will be deleted from the testing environment, the original source (and optionally the objects) will be archived, the source will be checked in and the project task will be updated to status **DONE**.



## **MAJOR CHANGE STEPS**

The major change steps you will perform are detailed on this page and on the following pages.

### **STEP 1: COLLECTING CHANGE REQUESTS**

Most programming changes are initialized by a *user* or *customer* request. Typically, these requests can be entered directly by Helpdesk personnel or by authorized users.

**Helpdesk personnel** normally would work from the perspective of the customer (or *Requester*). S/he can look up the customer by first name, last name, company, or requester code; see the status of previously entered requests; and quickly enter a new request.

**Authorized Users** can enter their requests directly into the appropriate HELPDESK project. Your authorized users will be able view the status of previously entered requests, and use powerful filtering and search capabilities to research commonly reported problems.

Two commands (*HELPDESK* and *FASTTASK*) are provided for easy access to the HELPDESK system. Because most users don't have access to a command line, you'll add the appropriate command to their iSeries menu. If you have a menu system such as CENTRAL® for iMenu v100, you can quickly set them up as menu options. (If you're using CL menus, you may have just identified your first change management application for TURNOVER® for iSeries v100!)

#### **Enter a change request**



Authorized User or  
HELPDESK person  
enters a Request

For the purpose of this tutorial, you're going to enter the request as an authorized user would in your company. You might have provided the user with a menu option such as *REQ - Enter Problems and Requests*, but we are going to use the FASTTASK command from a command line.

# TURNOVER® for iSeries v100 Tutorial

## Major Change Steps

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1. From the TURNOVER® for iSeries v100 Main Menu, press **F21** for a system command line, and then type **FASTTASK** and press **Enter**. Then, type option **1** next to the **SOFT** Helpdesk project and press **Enter** to enter your request.

```
12/08/10 10:52:47          FASTTASK -- Work with Projects          Demo Environment
                                                                    SLS
Position to project . . . . ____
1=Add task 2=Lookup task 5=View description

  Proj  Description                                          Coordinator
--  ---  -
  CALL  HelpDesk Call Logging                               TURNOVER
  HARD  Hardware Problems                                  TURNOVER
  MSQA  Microsoft Office Questions & Answers              TURNOVER
  OPER  Operations requests                                TURNOVER
  SOFT  User Software Problems and Change Requests        TURNOVER

                                                                    Bottom
F3=Exit  F12=Cancel  F21=System command
```

2. Fill in the requested information, similar to the panel below, and press **Enter**. Press **F4** on the *Requester* field to pick from a list of valid requesters.

```
12/08/10 11:09:40          Add a Problem Report          Demo Environment
                          Project: SOFT User Software Problems and Change Requests

Description . . . . . Tutorial Documentation Test Request

Requestor . . . . . TURNOVER          F4=List
Priority . . . . . 1                  1 to 3
Priority sequence . . . . .
Date needed . . . . . 0/00/00
Task type . . . . . A ASAP          F4=List
Software module . . . . .
Request Category . . . . . Reports    F4=List
                                      F4=List

F3=Exit  F12=Cancel
F7=Requester comments  F21=System command
```

Type the detailed description of your request. Remember, you're an end-user and may not be fluent in the technical requirements of the request. Press **Enter**.

```
12/08/10 11:14:18          Task Details          Demo Environment
                          Task: SOFT 0001         SLS

Call Details:
-----
This is where I would describe the details of my request.  The Task Details
panel is user definable and can be created by anyone with Code Maintenance
Authority.

If more than one Entry Mask were defined, we would have seen a list so we
could select the appropriate entry screen.

Resolution:
-----

*****  END OF DOCUMENT  *****

F3=Exit  F4=Delete  F6=Insert  F12=Cancel  F15=Copy from task  F21=Command          Bottom
```

Press **Enter** when you finish typing your details – that’s all there is to adding a user request. You could add another request if want. When you’re done, press **F3** until you return to the command line and go to **Step 2**.

## Major Change Steps

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### STEP 2: REVIEWING A CHANGE REQUEST

You or someone in your organization will be designated as the **Project Coordinator** for any Helpdesk project you define. As coordinator, you will periodically review pending requests and either assign them to working projects, answer and close them, or defer them to a later date.

The coordinator can also use the *escalation queue* to monitor and prioritize existing requests. (For more information on using the escalation queue, see *Chapter 9: Working with Projects and Tasks* in the *TURNOVER® for iSeries v100 User Guide*.)

#### Review and assign the user's request



Project  
Manager/Coordinator  
reviews and assigns the  
Request

Suppose you have just received a message based on the escalation rules you have defined for this Helpdesk project. The message informs you that a user request has been entered.

- 
1. On the command line, type the **WORKTASK** command and press **Enter**.
  2. Type option **1** next to the **SOFT** project to review all the new requests.
  3. From the Review panel, press **F5** to read the details – you may choose to add specific instructions for the programmer. Press **Enter** to return to the review panel.
  4. In this instance, we're going to assign this request to a *working project* called APPR (AP Problems and Requests). Keep in mind that if this request only required an answer, we could do that in the details and then press **F11** to reject the request, or we could press **F13** to accept it with the intention of assigning it at a later time. For now, press **F2** to assign the request and enter **APPR** as the working project.

- Assign **TURNOVER** as the resource (or yourself if you're doing this tutorial under your own profile) and fill in the scheduling information as indicated on the *Assign a Task* panel.

```

12/08/10 12:40:54          Assign a Task          Demo Environment
                          Project: APPR Demo Project - sample AP problem reports

Description . . . . . Tutorial Documentation Test Report
-----
Resource . . . . . TURNOVER          F4=List
Status . . . . . A ASSIGNED          F4=List
Requestor . . . . . PHILLIPS         F4=List
Application . . . . . AP             F4=List
  Release . . . . . —
  Version . . . . . —
Priority . . . . . 1                  1 to 3
Priority sequence . . . . .
Duration . . . . . Planned:          2.00 Actual:          Units: H
Start date . . . . . Planned:        1/10/99 Actual:        0/00/00
End date . . . . . Planned:          1/13/99 Actual:        0/00/00
Date needed . . . . . 1/15/99
Date promised . . . . . 1/15/99
Task type . . . . . A ASAP           F4=List

F3=Exit  F4=List  F7=Requester comments
F10=Additional parameters  F12=Cancel  F21=System command
More...
    
```

Look at any user-defined fields for the working project by *paging down* to the next panel.

Press **Enter** when you're finished entering the assignment information. (As you continue to press **Enter**, you'll be able to edit project details and print a report.) When you reach the Main Menu, go to **Step 3**.

## Recap

You can define any number of HELPDESK projects to collect requests from your users.

- You can define escalation queue rules with *triggers* to monitor the requests being entered and automate much of the information-gathering and -tracking process.
- You decide *if, when* and *how* you're going to handle each request – while providing a flexible and easy-to-use interface for the end-user or Helpdesk person.

Take a few minutes to experiment with the many filters and options available on the FASTTASK and WORKTASK panels from both a **User's** and **Project Coordinator's** perspective.

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## UNICOM Systems, Inc. Recommends

For more information about the HELPDESK and Project system, see the *Overview* section of **Chapter 9: Working with Projects and Tasks** in the *TURNOVER® for iSeries v100 User Guide*.

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## Major Change Steps

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### STEP 3: ANALYZING CHANGE IMPACT

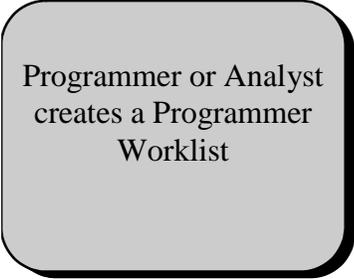
In this step, you are working from the programmer's point of view to determine the impact of a change request.

There are several ways to analyze the impact of a change, check out source, make changes in your development library and install those changes as a programmer who is using TURNOVER® for iSeries v100. You can:

1. Use the Main Menu options to check out source, and then build and run a TURNOVER® for iSeries v100 form.
2. Use PDM user-defined options to do the entire process from within PDM.
3. Use the **Programmer Worklist Manger (PWM)**, a tool that has many PDM-like features for development, but is tightly integrated with TURNOVER® for iSeries v100 to include the necessary analysis, development and change management functions on a single panel. The worklist is the easiest and most productive way to use TURNOVER® for iSeries v100.

We recommend that you take time to review the *TURNOVER® for iSeries v100 Developer's Guide* after you do the tutorial to get a more complete understanding of the worklist.

#### Creating a worklist



Programmer or Analyst  
creates a Programmer  
Worklist

As a programmer, you'll need to decide which objects need to be changed or created to fulfill the request or to fix the problem. With this tutorial, we'll make a simple change to file APPF001 (yes, that's right, a file change can be simple when you use TURNOVER® for iSeries v100). You'll see how the cross-referencing will identify all related objects that will be affected by the change.

1. Select option **9** from the Main Menu to *Work with Projects and Tasks*.
2. Type option **12** next to the **APPR** project and press **Enter** to work with tasks.
3. Type option **20** next to your assigned task and press **Enter** to create your worklist. Because you're creating the worklist from the project task, you can leave the \*PROJECT defaults on the *Create Programmer Worklist* command and press **Enter** to create your worklist.
4. From the *Work with Programmer Worklist* panel, you can press **F6** to add the name of the object you wish to change to the worklist. Type **APPF001** in the object name field and **PF** in the attribute field and press **Enter**. If you were unsure of the object name, you could press **F20** to start PDM and select the names from a list of objects or source members with a PDM user-defined option – typing **AW** from the object or member list will add the name to the worklist.

Remember, at this point in the process, all you're doing is building a list of objects that you need to work on for this request.

Let's review what you're seeing on the worklist now that you've added the first object name.

12/08/10 14:37:19 Work with Programmer Worklist Demo Environment  
 Worklist . . . . APPR0003 Tutorial Documentation Test Request  
 Position to . . . . Apply filters . . . . Y (F17=Filters)

2=Change 3=Copy 4=Delete 11=Move 12=Compare source 99=Next option  
 21=Checkout 22=Change checkout 24=Checkin 25=Task details 26=Conflicts

Object	Attr	Library	Obj	Src	Out	Form	FormSts	ItemSts	Nxt	Opt
— APPF001	PF	PRODTEST	Y	Y	N			NEW		21
— APPF001	PF	ACPTTEST	N	N	N			NEW		46
— APPF001	PF	DEVTEST	N	N	N			NEW		

Parameters or command  
 ==>

F2=Forms F3=Exit F4=Prompt F5=Refresh F6=Add item F9=Retrieve  
 F10=Command entry F11=View2 F19=Batch 21/46 F23=More options F24=More keys

More options:

15=Check X-Ref 16=Related objects 18=Object history  
 32=Edit source 35=Browse source 36=Compile 37=SDA/RLU 38=Pre/post-Cmds

40=Form jobs 41=Error check 42=Edit form 43=Copy form 44=Remove from form  
 45=View form 46=Add to form 47=Run form 48=Form approval 49=Print form

More keys:

F7=Previous Worklists F12=Cancel F13=Repeat F14=WRKSBMJOB F15=HAWKEYE  
 F16=User options F17=Filters F18=Defaults F20=PDM

F21=Print list F22=Add time F23=More options

### Major Change Steps

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The first thing you notice is that there are three lines for the APPF001 file. There is a line for each library in which the object *could* exist, based on the AP application definition. In essence, the worklist is a top-down view of your application environments as represented in the application schematic you saw earlier.

The **highlighted** lines indicate that source and/or an object exists in the library. The **Y/N** under the **Obj** and **Src** columns indicate what's there, or perhaps more importantly when you're using your real applications, what's not there. The **Chk/Out** column lets you know if the source is already checked out. The **F11** key will present several alternate views you can use.

The next thing to familiarize yourself with are *filter settings* and *session defaults*. You'll see just how important and useful these features are as we add more object names to the list.

- **Filters** - Type **Y** or **N** in the **Apply Filters** field at the top of the worklist panel to quickly switch between a subset of your list or the big picture (all the environments). Press **F17** to change the filter settings. Go ahead and do that now – press **F1** to read the online Help on each of the filter fields.
- **Session Defaults** - Press **F18** to view and change the session defaults. You'll find these extremely useful in controlling how the worklist appears and performs. Again, press **F1** and read the online Help on session defaults fields.

Another important feature of the worklist is the **Next Option** field – which is going to help you through the process by identifying the next step you may need to perform for a given level. Remember, it's only a recommendation – when you perform the option is always up to you.

Take a few minutes to experiment with the many powerful features available on the worklist. Don't expect to learn everything that can be done during this quick demonstration, but do take the time to read some of the help and be sure to read the *TURNOVER® for iSeries v100 Developer's Guide* at some point. Also, *Chapter 9: Working with Projects and Tasks* in the *TURNOVER® for iSeries v100 User Guide* includes an introduction to PWM.

5. Now we're ready to use TURNOVER® for iSeries v100's cross-reference file to determine the impact of adding new fields to file APPF001. Type option **15** next to the production level (library PRODTEST) line and press **Enter**.

```

12/01/10 15:15:57          Work with Cross-Reference          Demo Environment
                                X-Ref Depth= 01

Worklist . . . . APPR0003    Tutorial - Test Request
Data set . . . . APDEMO      Apply filters . . . Y (F17=Filters)

1=Add to Worklist  2=Add to Worklist/Checkout  4=Compile in Development library
5=View checkout   6=Work with relationships    8=Browse member
----- Uses/Used-by ----->
  Object      Library  Attr  Object      Library  Attr  How Used  Out U/
  ---
  APPF001     PRODTEST  PF    APLF001A    PRODTEST  LF    PF->LF    N   B
  APPF001     PRODTEST  PF    APLF001B    PRODTEST  LF    PF->LF    N   B
  APPF001     PRODTEST  PF    APRPG001    PRODTEST  RPG    Input     N   B

                                                Bottom

F3=Exit  F4=Prompt  F5=Refresh  F10=Data set information  F12=Cancel
F17=Filters  F19=Submit 1/2  F21=Command line
    
```

The cross-reference panel displays the list of objects that *use* or are *used by* the selected object. You can add any of these objects to the worklist directly from the cross-reference panel by using option **1**. One of the many great features of TURNOVER® for iSeries v100 is that you only have to check out the objects that you actually have to change.

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## Major Change Steps

TURNOVER® for iSeries v100 will check the cross-reference file again when you build the form to promote your change to the next environment. Any logical files that need to be recreated, or programs that need to be recompiled for testing, can be added to the form at that time.

From the cross-reference panel, you can use option **6** to see the relationships for any of the other objects on which you want to work. The **X-Ref Depth** count will increase as you *drill down* the relationships between objects. Any objects you have selected will appear as highlighted lines to help you keep track of where you are.

6. Select LF **APLF001A** and the RPG program **APRPG001** by typing option **1** next to the object names and pressing **Enter** to add them to your worklist.
7. Next, check the relationships for logical by typing a **6** next to logical file **APLF001A**. Press **Enter**. Type a **1** next to **APRPG002** to add this program to your worklist. Then press **F3** to return to the worklist. The second logical can be added from the cross-reference list when we build the level 1 form – if we forget, or don't need LF APLF001B for testing, TURNOVER® for iSeries v100 will add it automatically when we build the level 2 form. Remember, we only have to check out objects we intend to change.
8. Now it's time to use the filters. Press **F17** and enter **\*PROD** in the Level field and press **Enter**. Only the production lines will appear. The next option should be **21**, which indicates that the next step is to **check out** a copy of the production source to your development library. Type **21** next to the first line and press **F13** to repeat the selection. Depending on your session default settings for **F19**, press **Enter** or **F19** to submit the checkout process to batch. (Press **F18** to check your session default settings for **F19**.)

```
12/01/10 10:17:38          Work with Programmer Worklist          Demo Environment
Worklist. . . . . APPR0003      Tutorial - Test Request
Apply filters . . . . . Y (F17=Filters)

2=Change 3=Copy 4=Delete 11=Move 12=Compare source 99=Next option
21=Checkout      22=Change checkout 24=Checkin 25=Task details 26=Conflicts

Object      Object      Chk      Nxt
-----
Object      Attr      Library  Obj  Src  Out      Form      FormSts  ItemSts  Opt
---
APPF001      PF        PRODTST  Y   Y   N        NEW       NEW      21
APLF001A     LF        PRODTST  Y   Y   N        NEW       NEW      21
APRPG001     RPG        PRODTST  Y   Y   N        NEW       NEW      21
APRPG002     RPG        PRODTST  Y   Y   N        NEW       NEW      21

Parameters or command
====>
F2=Forms F3=Exit F4=Prompt F5=Refresh F6=Add item F9=Retrieve
F10=Command entry F11=View2 F19=Inter. 21/46 F23=More options F24=More keys
Note: This is a sub-setted list
```

When the checkout job finishes, press **F5** to refresh. The **Chk Out** column will now be **'Y'** which indicates the source is now checked out.

## STEP 4: MAKING THE PROGRAM CHANGES

Once the source is checked out, you can make the necessary changes using the worklist. You will only see the objects you are working on for this request.

### Edit and compile in development

Programmer makes changes in development

Everything you need to make your change should be available on the worklist. You can edit every source type, access SDA and RLU – all without changing source files – directly from the worklist. You also have access to *source compare*, *source merge*, *cross-referencing*, and the complete *object change history* – directly from the worklist.

1. Press **F17** to change your filters. Type **\*DEV** in the filter by level and press **Enter**. When you return to the list, only the development lines will be displayed. The *Next Option* is now **32** for any line where source actually exists – if you’re creating a new program, enter the **32** to create a new member. Once the source is checked out, you can edit every source type without having to change source files.

If you want to change the sequence of the objects on the list, use the session defaults. Press **F18**, then page down to the second page and type **\*CRTSEQ** in the *List Sequence* field if you want the objects to appear in the order in which you should change and compile them.

```

12/01/10 16:54:29      Work with Programmer Worklist      Your Company, Inc.

                                Change Session Defaults

Save session defaults . . . . . Y          Y, N

List sequence . . . . . *CRTSEQ          *OBJECT, *LIBRARY, *TYPE...
User option file . . . . . TUSROPTF      File name
  Library . . . . . *LIBL                Library name
Position-to default . . . . . *TOP        *TOP, *ITEM
Show perm-lock levels . . . . . N          Y, N

Require X-Ref check . . . . . N          Y, N
X-Ref automatic . . . . . Y             Y, N

Require Related apps check . . . . . N    Y, N
Related apps check automatic . . . . . Y  Y, N

                                Bottom

F3=Exit  F12=Cancel

Note: This is a sub-setted list.
    
```

If you are using your own profile for this tutorial, consider changing your session defaults to match these.

# TURNOVER® for iSeries v100 Tutorial

## Major Change Steps

- Now use option **36** to compile all of these objects. If you enter **36** next to multiple lines, they will be submitted as a single job in the correct compile sequence – regardless of the worklist sequence. The library list used can be controlled in your session defaults, the **\*APP** default is recommended. The compile will be submitted with a library list of your development library followed by the application libraries – in the correct order.

```
12/01/10 11:10:26          Work with Programmer Worklist          Demo Environment
Worklist. . . . . APPR0003      Tutorial - Test Request
                               Apply filters . . . Y (F17=Filters)

15=Check X-Ref  16=Related objects  18=Object history
32=Edit source  35=Browse source  36=Compile  37=SDA/RLU  38=Pre/post-Cmds

      Object          Chk
  Object  Attr  Library  Obj Src Out  Form  FormSts  ItemSts  Opt
36 APPF001  PF   DEVTEST  N  Y  N           NEW      32
36 APLF001A LF   DEVTEST  N  Y  N           NEW      32
36 APRPG001 RPG  DEVTEST  N  Y  N           NEW      32
36 APRPG002 RPG  DEVTEST  N  Y  N           NEW      32

Parameters or command
====>
F2=Forms  F3=Exit  F4=Prompt  F5=Refresh  F6=Add item  F9=Retrieve
F10=Command entry  F11=View2  F19=Inter. 21/46  F23=More options  F24=More keys

Bottom
```

After your compile job finishes, you will see a **Y** under the *Obj* column. You may have to press **F5** to refresh, or **F11** for an alternate view. Remember, the worklist is *real time* – the current status of the objects and source is displayed each time you refresh or change filters.

## STEP 5: INSTALLING THE CHANGES IN ACCEPTANCE

The TURNOVER® for iSeries v100 Level 1 application definition contains all the necessary information for installing the objects in the QA environment. Library names, source file names, creation methods for each object type as well as how to set object attributes and authorities are all defined in the application. As a programmer, all you need to know is the level number to which you want to promote. As you have seen, the worklist presents each level that is defined in the application definition.

### Create level 1 form

Programmer installs change to Test by creating and running a Level 1 TURNOVER® for iSeries v100 Form

After you've *unit tested* your change in the development library, you're ready to promote the changes to the Level 1 *Acceptance Test* environment by building and running a TURNOVER® for iSeries v100 form. Typically, each programmer creates and runs his/her own form for Level 1.

1. Press **F17** and type a "1" in the *Level* field and press **Enter**. When you return to your worklist, you'll now see only the lines for the ACPTTEST library. Notice that none of the lines are highlighted and the **Next Option** is **46 (Add to Form)**.
2. Type a **46** next to the first object name and press **F13** to repeat the selection to the end of the worklist. Then, press **Enter** to submit a job to build the form in batch.

```

12/01/10 11:17:11          Work with Programmer Worklist      Demo Environment

Worklist. . . . . APPR0003      Tutorial - Test Request
Apply filters . . . . Y (F17=Filters)

40=Form jobs  41=Error check  42=Edit form  43=Copy form  44=Remove from form
45=View form  46=Add to form  47=Run form  48=Form approval  49=Print form

      Object      Attr      Object      Chk
      Object      Library  Obj Src Out  Form  FormSts  ItemSts  Nxt
      Opt
--- APPF001      PF      ACPTTEST  N  N  N      NEW      46
--- APLF001A     LF      ACPTTEST  N  N  N      NEW      46
--- APRPG001     RPG     ACPTTEST  N  N  N      NEW      46
--- APRPG002     RPG     ACPTTEST  N  N  N      NEW      46

Parameters or command
====>
F2=Forms  F3=Exit  F4=Prompt  F5=Refresh  F6=Add item  F9=Retrieve
F10=Command entry  F11=View2  F19=Inter. 21/46  F23=More options  F24=More keys
Note: This is a sub-setted list.
    
```

## TURNOVER® for iSeries v100 Tutorial

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When the form build job completes, the word **READY** appears under the *Form Status* column and the *Next Option* should now be **47 (Run form)**. You can use option **42** to edit the form if you need to add any of your own commands or override any of the application defaults, but normally, you'll run the form without editing it.

```
12/01/10 11:17:11          Work with Programmer Worklist          Demo Environment
Worklist. . . . . APPR0003      Tutorial - Test Request
Apply filters . . . Y (F17=Filters)

40=Form jobs  41=Error check  42=Edit form  43=Copy form  44=Remove from form
45=View form  46=Add to form   47=Run form  48=Form approval 49=Print form

      Object      Attr  Library  Obj Src Out   Form  FormSts  ItemSts  Nxt
---  ---
      APPF001     PF    ACPTTEST  N  N  N    27    READY    NEW      47
      APLF001A    LF    ACPTTEST  N  N  N    27    READY    NEW      47
      APRPG001    RPG   ACPTTEST  N  N  N    27    READY    NEW      47
      APRPG002    RPG   ACPTTEST  N  N  N    27    READY    NEW      47

Parameters or command
====>
F2=Forms  F3=Exit  F4=Prompt  F5=Refresh  F6=Add item  F9=Retrieve
F10=Command entry  F11=View2  F19=Batch 21/46  F23=More options  F24=More keys
Note: This is a sub-setted list.
```

- To run the form, type option **47** next to *one* of the lines and press **Enter**. Because all the objects are on the same form, you only need to enter the option once. (**Note:** you must have RUN authority to this level of the application.)
- Accept the defaults on the Submit TURNOVER® for iSeries v100 Form prompt and press **Enter**. This will submit two jobs to job queue QBATCH. The first job, error checking, will run immediately – the job name will be SBM##### (where # = form number). If there are no errors, a second job will be submitted to run the form which will install the source and objects in the ACPTTEST library – the job name will be TO#####G.

You can track the progress of the form by pressing **F5** while the job is **RUNNING**. You'll notice the highlighting and the OBJ and SRC flags will change each time you refresh the worklist panel with **F5**.

When the Level 1 form completes, the Form Status should be **RAN-OK** (you may need to refresh); the objects and source are installed in the ACPTTEST environment and ready for testing. Remove the filters by pressing **F17** and blanking all filters or by setting *Apply Filters* to **N** on the top of the worklist panel. Then press **Enter**. Also note that the objects and source have been deleted from the DEVTEST library.

The Level 1 application definition has been set up to change project task status to **IN-TEST** if the form runs all right. Use option **25** next to any line to review the task information. Notice that TURNOVER® for iSeries v100 has updated the start date.

## Tracking time and updating task details

While you're waiting for the form to finish, you can log your programming time and update the project task details. The worklist name is created from the Project/Task/Subtask composite key. Access to the task and to any time entries made from the worklist is quick and automatic.

### Log your time

1. Press **F22** to display a time entry panel. This assumes you want to log your time for the task associated with the current worklist. Press **F4** on the Project or Task field to log time to a different project/task.
2. Press **F4** on the *Category* field and pick a user-defined category.
3. Type a short comment if necessary – these will be displayed on the *Timesheet* panel and will print on the Timesheet Reports.
4. Type the **From** and **To** times, or type the **Total**. Press **Enter** and follow the panel prompts to finish.

```

12/01/10  9:57:26          Work with Programmer Worklist      Demo Environment

Worklist. . . . . APPR0003      Tutorial - Test Request
                          Apply filters . . . N (F17=Filters)
:
:
2=Chan :                      Add Time Sheet Entry          :
21=Chec :
: Resource . . . TURNOVER   TURNOVER                       :
Obj :
APP : Date . . . . . 4/12/95 Wednesday April 12, 1995    :
APP : Project . . . APPR 0003      F4=List                  :
APP : Category . . . P             F4=List                  :
APL : Comment . . . Doing the Tutorial                      :
APL :
APL : From time . . 00 : 00          HH:MM - 24-Hour Clock  :
APR : To time . . . 00 : 00          HH:MM - 24-Hour Clock  :
APR : --or--
APR : Total time . . 01 : 00          HH:MM
:
Paramet : F3=Exit  F4=List  F12=Cancel
===> : Press Enter to Add Time Entry or F3 to Exit
F21=Pri :
:.....
    
```

### Update task details

1. Type option **25** next to any line on the worklist.
2. Press **Enter**.

You'll probably elect to use the *Project Defaults* in the application definition so that TURNOVER® for iSeries v100 will automatically update the task status and the actual start and end dates. If you do not, you can update any of the task information directly from the worklist. You'll probably update the details by pressing **F5** from the *Change a Task* panel. Press **Enter** or **F3** to return to the worklist.

## Major Change Steps

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### STEP 6: INSTALLING CHANGES TO PRODUCTION

After testing, the change is ready to be promoted back to production. An administrator or a project manager might run this step directly from the *Work with TURNOVER® for iSeries v100 Forms* panel. In this case, we are going build the form for Level 2 by copying the Level 1 form from the worklist.

Level 2 of our sample application has been set up to submit the Form Finalization as a secondary batch job. Functions such as source archiving, cross-reference updates and, clean up of the ACPTTEST environment can be deferred – the form status will change to **FIN-OK** as soon as the objects are available for use in the production libraries.

#### Create level 2 form

After testing,  
Administrator installs  
change to Production

Earlier, we decided to check out only one of the logical files that were built over the APPF001 physical file. The second logical (APLF001B) will have to be removed and recreated during install of the production change. TURNOVER® for iSeries v100 will add the LF to the form automatically if you forget to do so.

1. Type option **43** (*Copy form*) next to one of the **RAN-OK** lines to copy the associated form and press **Enter**.

The *Copy form* option will set the level number to the next highest *unlocked* level defined in your application definition if the form you are copying **RAN-OK**, or to **\*SAME** if the previously run form had failed.

The *Copy form* option will check for dependent logical files not on the form and add them automatically. Leave the **Check cross-reference** parameter as **Y** and press **Enter** or **F19** to submit the copy form job to batch. TURNOVER® for iSeries v100 will check the cross-referencing and add any programs that need recompiling to the form – including those that use any logicals that may have been added. TURNOVER® for iSeries v100 will also check for missing LFs during error checking.

Your worklist will now indicate that a form exists for the production level. However, the form status (**APL-PN**) of the Level 2 form indicates that an *Approval* is required before the form can be submitted to run. Before you approve the form, type option **45** next to one of the production level lines to view the form. You will now see that logical file APLF001B and RPG program APRPG003 have been added. The LF was added because it was created over PF APPF001 and the RPG was added because it uses LF APLF0001B.

2. Type option **48** next to one of the lines for the associated form and press **Enter**.

If you're part of the approval group, you can type a 'Y' in the Approved field to approve the change. If you're not signed on as user TURNOVER, you will have to sign on as user TURNOVER and approve the form, or add yourself to the level 2 Approval List from Main Menu option **1** (*Work with Application Definitions*).

Before you approve the form, you may want to press **F9** to view the task information. You should also press **F11** view the form and review any commands that may have been added.

3. After the form has been approved, you can run the production level form by typing **47** next to *one* of the lines for the associated form.

Accept the defaults and press **Enter** from the *Submit TURNOVER® for iSeries v100 Form* panel. (**Note:** You may want to submit the form as a timed-job for your real production level applications.) If you did not add the second LF, you will receive a warning message informing you that a logical file was added to the form.

Our sample application definition is set up to run Level 2 forms in two steps. The first step creates the new objects in the production library (PRODTEST), recopies the data, sets the authorities, and so on. As soon as the objects are ready for the users, the form status will be set to **FIN-OK**. A second job will be submitted to do all the cleanup steps such as source archiving, cross-reference updates, and the cleanup of the test environments.

After the cleanup job completes, the form status should be **RAN-OK** (refresh if necessary). You can now review the audit log. From the worklist panel, type option **SP** (**WRKSPLF**) next to any line on the list or press **F14** to Work with Submitted Jobs.

Notice that two logs are produced with each form job. Type option **5** next to the first **TURRLOGR** file and review the steps that were performed to promote the objects to production. Now look at the second **TURRLOGR** file to see the cleanup steps that were performed to archive source or objects (or both) and to delete test source or objects (or both). You'll get a good understanding of the process.

### Major Change Steps

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## WHAT'S NEXT?

The intent of this tutorial is to introduce you to TURNOVER® for iSeries v100. You should now have a good idea of the overall process from collecting and reviewing the user requests through the analysis, development, and installation of the change. As you can see, TURNOVER® for iSeries v100 is a complete system designed from the ground up with the complete development cycle in mind.

If you're ready to continue your evaluation, you should give us a call and schedule a phone walk-through with one of our experienced staff members. We'll go through the entire product with you and concentrate on areas of the system where you may have questions or look at features you may have missed. We certainly will want to discuss how TURNOVER® for iSeries v100 will be set up in your company. Whether you maintain your own applications or complex vendor applications, TURNOVER® for iSeries v100 can be configured to automate the process and make everyone's life more manageable.

Be sure to review the application models in *Chapter 2: Planning Your Application Definitions* in the *TURNOVER® for iSeries v100 Application Planning Guide*.





## MANAGING THE TUTORIAL

If you're a TURNOVER® for iSeries v100 administrator, you may be asked to restore the tutorial libraries or create a separate training environment. The following topics provide the information you need to satisfy such requests.

## RESTORING THE TUTORIAL LIBRARIES

Someone might ask you to restore the tutorial libraries if:

- Your system was recently upgraded from a previous release.
- The tutorial libraries have been deleted from your system.

Restore the libraries from the new versions stored in the TURNOVER® for iSeries v100 installation library, T54INST.

*You do not need to do this procedure if you have just loaded TURNOVER® for iSeries v100 for the first time (as opposed to upgrading from a previous version).*

You must be signed on as QSECOFR to do this.

To restore the tutorial libraries, do the following:

1. Check to make sure the installation library T54INST exists. If it does, skip this step and continue with **Step 2**.

If the installation library was deleted after you installed TURNOVER® for iSeries v100, you'll have to restore it first, then proceed with restoring the libraries. To restore the installation library, you must load the most recent version of the TURNOVER® for iSeries v100 distribution media on your tape drive. On a command line, type:

```
==>RSTLIB SAVLIB(T54INST) DEV(TAPnn) ENDOPT(*UNLOAD)  
MBROPT(*ALL) ALWOBJDIF(*ALL)
```

2. On a command line, delete the old versions of the tutorial libraries (if they've already been deleted, skip this step and continue with **Step 3**):

```
==>DLTLIB DEVTEST  
==>DLTLIB ACPTTEST  
==>DLTLIB PRODTEST
```

### Managing the Tutorial

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3. On a command line, restore the new versions of the libraries:

```
==>RSTLIB SAVLIB(DEVTEST) DEV(*SAVF) SAVF(T54INST/DEVTEST)  
MBROPT(*ALL) ALWOBJDIF(*ALL)
```

```
==>RSTLIB SAVLIB(ACPTTEST) DEV(*SAVF) SAVF(T54INST/ACPTTEST)  
MBROPT(*ALL) ALWOBJDIF(*ALL)
```

```
==>RSTLIB SAVLIB(PRODTEST) DEV(*SAVF) SAVF(T54INST/PRODTEST)  
MBROPT(*ALL) ALWOBJDIF(*ALL)
```

Once you've restored the libraries, check to see that application definitions **AP level 1** and **2** exist and projects **SOFT** and **APPR** exist. If they do, you'll need to change the tutorial application definition and rebuild the cross-reference file for the AP application:

1. Type the **TURNOVER** command on a command line, or sign on as user **TURNOVER**.
2. On the **TURNOVER® for iSeries v100 Main Menu**, select option **1** to work with application definitions.
3. On the *Work with Application Definitions* panel, type **2** next to the **AP level 2** entry.
4. Select *Application defaults and rules*.
5. Set *X-Ref* method to **\*TURNOVER**.
6. Set *X-Ref Table* to **APDEMO** and press **Enter**.
7. Press **Enter** twice to return to the *Work with Application Definitions* panel.
8. Select the **AP level 2** with option **20** and submit the cross-reference build job.  
(Press **F14** to *Work with Submitted Jobs* and release the job.)

## CREATING A SEPARATE TRAINING ENVIRONMENT

You may have decided to create a separate training environment, regardless if the **AP** application definitions, and **SOFT** and **APPR** project definitions, have been deleted or not. You can define more than one TURNOVER® for iSeries v100 operating environment. TURNOVER® for iSeries v100 is shipped with three product libraries.<sup>1</sup> All of TURNOVER® for iSeries v100's data files are stored in one of these libraries. To define additional environments to TURNOVER® for iSeries v100, you must:

1. Restore TURNOVER® for iSeries v100's data library from a savefile in TURNOVER® for iSeries v100's installation library, T54INST, into a new Tutorial data library, and
2. Create an environment definition record, specifying the Tutorial data library in place of your live data library. When you select to work in the new Tutorial environment, TURNOVER® for iSeries v100 switches the library list to include the Tutorial data library you created.

You must be signed on as QSECOFR to create a training environment.

To create a new Tutorial data library, restore TURNOVER® for iSeries v100's data library into the new library, and give user TURNOVER authority to the new library, type the following commands on a command line:

```

==>CRTLLIB LIB(TURNTUTOR) TEXT('TURNOVER® for iSeries v100
Tutorial Training Library') <Enter>

==>RSTOBJ OBJ(*ALL) SAVLIB(T54PRDD) DEV(*SAVF)
SAVF(T54INST/DATALIB) MBROPT(*ALL) ALWOBJDIF(*ALL)
RSTLIB(TURNTUTOR) <Enter>

==>GRTOBJAUT OBJ(TURNTUTOR/*ALL) OBJTYPE(*FILE) USER(TURNOVER)
AUT(*ALL) <Enter>

```

You can replace the Tutorial library name, **TURNTUTOR**, with any library name you want.

---

### UNICOM Systems, Inc. Caution!

**DO NOT OMIT the RSTLIB parameter on the RSTOBJ command, or you'll overlay the TURNOVER® for iSeries v100 product data library you are now using!**

---

<sup>1</sup> If you've installed all TURNOVER® for iSeries v100 objects into one product library, you will not be able to use multiple environments. Therefore, we recommend that you install TURNOVER® for iSeries v100 to use the default library names. See the *Getting Started with TURNOVER® for iSeries v100 for the iSeries* guide.

# TURNOVER® for iSeries v100 Tutorial

## Managing the Tutorial

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To create a new environment record, type the following on a command line:

**==>WRKTOENV <Enter>**

Press **F6** to add a new environment entry. You'll see this panel:

```
12/01/10      Add TURNOVER® for iSeries v100 Environment      Your Company, Inc.
12:21:49                                           SLS

Type required Environment information and press Enter.

Environment . . . . . TRAINING
Description . . . . . Tutorial Training Environment
Product library . . . . . SOFTTURN

Data library . . . . . TURNTUTOR Name
Language library . . . . . SOFTTURNE Name
Message file . . . . . TNLENGL Name
Coded character set ID _____

Additional environment libraries . .
                                     _____
                                     _____
                                     _____

F3=Exit   F12=Cancel
```

Complete the panel as illustrated above, substituting your tutorial library name in the *Data library* field, and press **Enter**.<sup>2</sup>

Instruct your users to access the tutorial environment by pressing **F22** on the Main Menu and selecting the tutorial environment with option **1**.

---

<sup>2</sup> The product and language library and message file names shown are the default names used by the TURNOVER® for iSeries v100 installation process. You should substitute your own if they differ.