Supplement #24

EMERGENCY CHANGES IN TURNOVER® FOR ISERIES V100

This document describes the two methods available in TURNOVER® for iSeries v100 for performing emergency software changes.

Of the two methods for performing emergency software changes, an emergency change application is the recommended method. However, you can also use the multiple checkout feature. The difference between the two methods is:

- The emergency change application is usually a single-level application that allows you to make a change while someone else is working on an object. Those who are authorized to make emergency changes are usually restricted.

- The multiple checkout feature lets two programmers check out the same object at the same time, without defining a separate application. This might be a viable solution for your company.

USING AN EMERGENCY CHANGE APPLICATION

TURNOVER® for iSeries v100 allows you to define one or more application definitions as an emergency change application. These allow you to check out TURNOVER® for iSeries v100 source that may be checked out to someone else. This method enables you to make changes and test them in a separate development library prior to returning them to production.

To define an application as an emergency change application, change the *Emergency* flag to **Y** on the *Work with Application Definition* panel. For more information, see *Chapter 1: Working with Application Definitions* in the *TURNOVER® for iSeries v100 User Guide*.

An application that is defined as an emergency change application is the same as a 'normal' application, with one exception. When you need to make an emergency change using an emergency change application, you are allowed to check out source that has already been checked out to another programmer. In all other respects, works as any other application normally works. With TURNOVER® for iSeries v100's source-compare utility, TURNOVER® for iSeries v100 submits a compare job to compare the original production source with the changed source in the development library. TURNOVER® for iSeries v100 sends special messages to the programmer who currently has source checked out, to the application administrator (of the emergency change application), and to **QSECOFR**.

When you view checked out source, you see a record of source checked out under both the emergency change application and the regular application. The **Emergency change** entry is highlighted to alert you that emergency changes are being processed.

Our recommendations follow.

UNICOM Systems, Inc. Recommends

1. We recommend that you create one single-level emergency application definition to correspond with each of your applications. (If all of your applications target the same production library, then you can get by with just one emergency application definition to manage all of your emergency changes.)

2. Set up a special emergency change development library, with the appropriate source files, which are used exclusively to manage emergency changes. This eliminates the risk of overlaying any source that is already checked out.

3. Be sure to set up the source compare defaults (option **11** on the Utility Menu) if you are using a source compare utility other than the one supplied by TURNOVER® for iSeries v100. TURNOVER® for iSeries v100 generates source compare output when the form runs.

USING THE MULTIPLE CHECKOUT FEATURE

The *multiple checkout feature* is another way of setting up your TURNOVER® for iSeries v100 system to allow multiple users to check out the same object.

To set up this feature on your system, select option **8**, then option **5** on the TURNOVER® for iSeries v100 Main Menu.   This allows you to set global defaults. On the *Set Global TURNOVER Defaults (SETGLOBE)* panel, set the *Allow group checkout* parameter to **Y**. This setting enables several changes in TURNOVER® for iSeries v100.

Once you have enabled the *Allow group checkout* parameter, the *Exclusive lock* parameter appears on the Checkout command prompts. When you check out an object, you must specify whether or not you want to lock it. By setting *Exclusive lock* to *YES, you prevent other users from checking out the same object. By setting *Exclusive lock* to **NO**, you allow others to check out an object while you are working on it. On other panels, such as *View Checked Out* and *Change Checkout*, you can view and change this parameter.

If you attempt to check out something that someone else has checked out, you have a chance to confirm that you still want to check out the object. If you do, then all programmer(s) who have it checked out receive a message informing them that you have checked it out. When you promote an object, if any other programmers have promoted the same object <u>while</u> you had it checked out, you see a panel showing you all of the objects on your form that have been changed while you were working on it, along with who changed them and when. Before you can run your form, you must indicate that you have merged any changes the other programmer(s) made into your version (see the panel on the next page).

The system retains the fact that the programmer confirmed that s/he has reconciled the changes in this way. If you want a "Higher-authority" to confirm that all changes have been made, then attach an approval list to your applications and ensure that the person(s) responsible for approving and/or running the form confirms that the changes have been made.

RESOLVING CONCURRENT CHANGES

If concurrent changes result from either emergency change method (emergency change application or multiple checkout feature), you can resolve them as described below.

At any time, you can run a command called **CHKCHGOBJ** (**Check Changed Objects**) to view any objects you have checked out now that were changed concurrently by another programmer. When you type **CHKCHGOBJ** on a command line and press **Enter**, you see this panel:

```
                     Multiple Checkout Approval            Your Company Inc.

The objects listed below have been turned over by other programmers while
checked out to JIMCLARK    Changes made by those programmers must be
included in changes made by JIMCLARK
                                            Position to object . . . . _____
                                            Filter by programmer . . . _____
                                            Filter by reference  . . . _____
Type options, press Enter.
 1=Approve   4=Cancel approval    5=View form    7=Project details


                                                   Run
  Object   Library  Type    Programmer   Form     Date     Reference  Approved
_ SLSF001  SLSLIB   RPG     ABFORTIS     10431    04/30/93 SLPR0321   PSMITH






 F3=Exit   F5=Refresh  F12=Cancel  F14=Display all
```

By selecting option **1=Approve**, you confirm that the changes made by the other programmer have been made to your own version of the object.

This command is run automatically from the *Work with Programmer Worklist* panel whenever you build a form and, if not resolved then, again when you submit the form to run.

A variant of this command is also run when you exit from editing a TURNOVER® for iSeries v100 form and again during the pre-run error-check. When you have the multiple checkout feature enabled, TURNOVER® for iSeries v100 does not run a form that contains objects you have not confirmed.

If you try to promote an object to an intermediate level while another programmer's work is in process (at the same target level), TURNOVER® for iSeries v100 prevents you from doing so. However, you can check out an object from an intermediate level. Keep in mind that the multiple checkout rules apply to any level.

UNICOM Systems, Inc. Caution!

Whenever you are not sure whether your version of source matches another version of source, use TURNOVER® for iSeries v100's source compare command, **CMPSRCMBR** or select the *Compare source* option on the Programmer Worklist. Assume nothing!

If you have any questions about the information in this document, please contact a UNICOM Systems, Inc. Technical Support Representative by phone, fax, or email at the locations shown at the beginning of this document.