

## Supplement #37

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### DISTRIBUTING TO VIRTUAL SYSTEMS WITH LANTURN

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### OVERVIEW

Today's business environment is complex and global. It is not at all uncommon these days to find multiple companies – or multiple divisions of a single company – doing all their business data processing as independent corporate groups on a single iSeries.

These groups are typically separate and autonomous, and they often operate with their own sets of programs and files stored in separate libraries/partitions. Some groups have their own programmers and system administrative staff; in other cases, one staff manages the data processing activities for several groups. Software changes are scheduled and applied by each group independently.

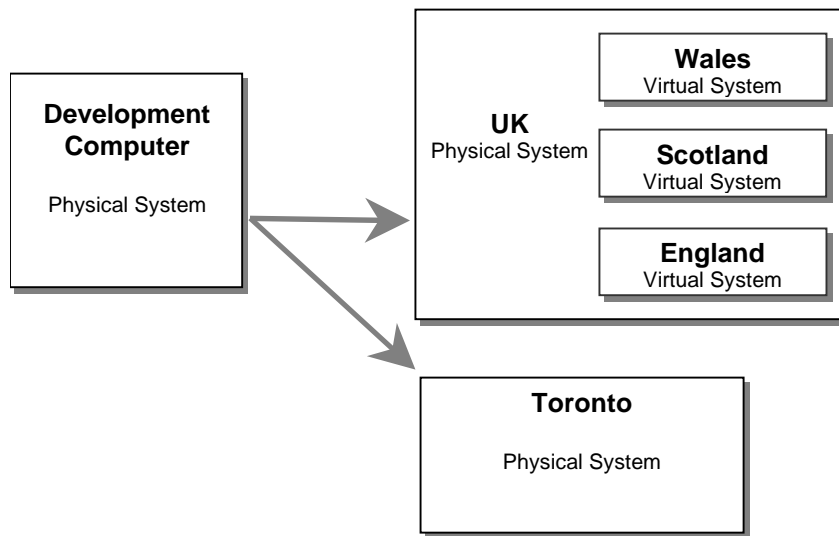
The net effect is that, although they are sharing a single physical computer and its resources, each group thinks and works as though it is operating its own computer.

TURNOVER® for iSeries v100 defines this concept as *virtual systems*.

### Software requirements

Distribution to virtual systems, with LanTurn, is supported in TURNOVER® release 4.2 and later. You must be on a tape date of March 20, 1998 or later for this feature to be fully supported.

The following diagram shows a common distribution scenario that includes virtual systems:



**Figure 1: A Common Virtual System Distribution Scenario**

The development computer distributes its changes to an iSeries that physically resides in the United Kingdom (UK) and to an iSeries that physically resides in Toronto. The iSeries in the UK operates under the concept of virtual systems. The Wales, Scotland, and England virtual systems are all autonomous groups that operate independently and have their own sets of programs and files in separate libraries and partitions on the UK physical system.

The iSeries in Toronto operates as a single physical system, with no virtual systems defined.

The rest of this document outlines the steps necessary to configure TURNOVER® for iSeries v100 and the computers in your iSeries network for virtual system distributing.

# CONFIGURING TURNOVER® FOR ISERIES V100 FOR VIRTUAL SYSTEM DISTRIBUTING

To configure TURNOVER® for iSeries v100 and your iSeries computers for distributing changes to virtual systems, you will do the following steps:

1. Create physical system definitions on the **development** computer.
2. Create virtual system definitions on the **development** computer.
3. **Distribute** the physical computer's system definition from the development computer to the remote production computers.
4. Create an application definition for the physical system on the **development** computer.
5. **Distribute** the application definition for the physical system to the remote production computers.
6. Create virtual system definitions on the **remote** production computer.
7. Create application definitions for the virtual systems on the **remote** production computers.
8. Add control records to virtual systems file TVIRSYSF.
9. Install and configure exit programs for Exits 1 and 11 on the **remote** production computers. (See Step 8 for details.)
10. Ensure the target User ID used for distribution has form authority for the virtual applications on the **remote** production computers.

Each step of the procedure is described on the following pages.

## Distributing LanTurn Objects to Virtual Systems

### Step 1: Create physical system definitions on the development computer

On your development computer, define a physical system for each target computer that must support this feature. Select option **11** from the TURNOVER® for iSeries v100 Main Menu, then option **1**, *Maintain system definitions*. Use **F6** to define the physical system as follows:

- In this example, we will define the physical computer for the UK as system SLSUK:

```
3/16/00          Add a System Definition          QA
11:49:23          YOURSYS

Type choices, press Enter.

System name . . . . . SLSUK
System number . . . . . *DEFAULT
System description . . . System Definition for SLSUK AS/400
Machine type . . . . . 400
Model . . . . . F70
Serial number . . . . . 123456      Char, *LOCAL

Contact name . . . . . _____
Title . . . . . _____
Address Line 1 . . . . . _____
Address Line 2 . . . . . _____
City/State/Zip . . . . . _____
Country/FPC . . . . . _____
Phone . . . . . _____

F3=Exit  F10=System number  F12=Cancel
```

- Fill in the system information on this panel, then press **Enter**. The *System Send Distribution Defaults* panel appears:

```
3/16/00          System Send Distribution Defaults  QA
11:50:59          YOURSYS

System name . . . . . SLSUK      System Definition for SLSUK AS/400
System number . . . . .

Target user id and address . . . . . TURNOVER SLSUK      UserId-Address
Distribution device . . . . . *SNADS      Device, *SNADS, *NONE
Distribute application definitions . . . N      Y, N
Distribute source . . . . . N      Y, N
Distribute objects . . . . . Y      Y, N
Automatically distribute forms . . . . . Y      Y, N
Distribution job schedule time . . . . . *CURRENT      *CURRENT, hhmmss
Schedule elapsed action . . . . . *SBMRLS      *NEXTDAY, *SBMHL, . . .
Submit received forms automatically . . . N      Y, N, *RMTDFTS
Receive logs back . . . . . N      Y, N, *RMTDFTS
Receive confirmations back . . . . . N      Y, N, *RMTDFTS
Receive forms method . . . . . *AUTOSTART      *AUTOSTART, *PASSTHRU

F3=Exit  F12=Cancel
```

- Type the distribution defaults specific to this system, then press **Enter**.

## Distributing LanTurn Objects to Virtual Systems

---

### Step 2: Create virtual system definitions on the development computer

- Now define the virtual systems on the physical production computer. From the *Maintain System Definitions* panel, use **F6** to add the first virtual system. In our example, we will add the virtual system for Wales, **\*VWALES**:

```
3/16/00          Add a System Definition          QA
11:52:36                                               YOURSYS

Type choices, press Enter.

System name . . . . . *VWALES
System number . . . . . *DEFAULT
System description . . . Virtual System Definition for Wales
Machine type . . . . . 400
Model . . . . . 400
Serial number . . . . . *VWALES      Char, *LOCAL

Contact name . . . . . _____
Title . . . . . _____
Address Line 1 . . . . . _____
Address Line 2 . . . . . _____
City/State/Zip . . . . . _____
Country/FPC . . . . . _____
Phone . . . . . _____

F3=Exit   F10=System number   F12=Cancel
```

---

### IMPORTANT!

The virtual system name and serial number must start with “\*V” (quotes not included). Also, virtual system definitions are different from other system definitions in that the serial number is NOT the physical system’s serial number. The serial number for a virtual system definition is the virtual system name.

---

- Type the system information and press **Enter**.

## Distributing LanTurn Objects to Virtual Systems

The *System Send Distribution Defaults* panel appears:

```

3/16/00          System Send Distribution Defaults          QA
11:53:37          YOURSYS

System name . . . . . *VWALES  Virtual System Definition for Wales
System number . . . . .

Target user id and address . . . . . TURNOVER *VWALES  UserId-Add
Distribution device . . . . . *NONE Device, *SNADS, *NONE
Distribute application definitions . . . . . N Y, N
Distribute source . . . . . N Y, N
Distribute objects . . . . . Y Y, N
Automatically distribute forms . . . . . Y Y, N
Distribution job schedule time . . . . . *CURRENT *CURRENT, hhhmss
Schedule elapsed action . . . . . *SBMRLS *NEXTDAY, *SBMHL, . . .
Submit received forms automatically . . . . . N Y, N, *RMTDFTS
Receive logs back . . . . . N Y, N, *RMTDFTS
Receive confirmations back . . . . . Y Y, N, *RMTDFTS
Receive forms method . . . . . *AUTOSTART *AUTOSTART, *PASSTHRU

F3=Exit  F12=Cancel
  
```

In virtual system definitions, the *Distribution device* parameter must be set to **\*NONE**.

- Repeat the definition process until you have defined the same number of virtual systems as resides on the physical computer. In our example, we would also add additional definitions for England and Scotland (systems **\*VENGL** and **\*VSCOT**).

After you have defined all the required virtual systems, the *Maintain System Definitions* panel looks like this:

```

3/16/00          Maintain System Definitions          QA
11:56:00          YOURSYS

2=Change 4=Delete 7=Application definitions 9=Distribution defaults
12=Distribute System 13=Change DDMF definitions 16=Distributed Application

System      Device      System Description
---      ---      ---
*VENGL      *NONE      Virtual System Definition for England
*VSCOT      *NONE      Virtual System Definition for Scotland
*VWALES      *NONE      Virtual System Definition for Wales
BOGGS      510      *SNADS      BOGGS - 5.2
SLSUK      *SNADS      System Definition for SLSUK AS/400

F3=Exit  F6=Add System Definition  F12=Cancel
  
```

Virtual system definitions for England, Scotland, and Wales that are on the UK physical computer.

Physical system definition for the physical computer in the UK.

System SLSUK represents the definition of the physical computer; systems **\*VENGL**, **\*VSCOT**, and **\*VWALES** represent the virtual systems. In addition, note that the physical system, SLSUK, has the device defined as **\*SNADS**. The virtual systems for England, Scotland, and Wales has the device defined as **\*NONE**.

### Step 3: Distribute the physical computer's system definition from the development computer to the remote production computer

Next, distribute the physical system's definition to the remote computer. In our example, we are distributing the definition for system SLSUK from our development computer to the remote production computer, SLSUK itself.

- From the *Maintain System Definitions* panel, use option **12** to distribute the system definition. (You can also access the Remote Configuration Wizard from option **7** on the Distribution Menu.)

*The virtual system definitions cannot be distributed using option 12 and therefore must be created on the remote production computer.* Step 6 addresses this issue.

Remember that the system definition of the development computer must reside on each production computer where distribution between the two systems will take place. If you have not done so already, use option **12** to distribute the development computer's system definition to each production computer.

### Step 4: Create application definition for the physical system on the development computer

- Using option **1** on the TURNOVER® for iSeries v100 Main Menu, create the application definition for the physical system (SKSUK) on your development computer. In our example, application TO is created with two levels, level 1 and level 2. Level 2 distributes to the production computer.

```
3/16/00          Work with Application Definition          QA
                  Appl: TO  Rel:   Ver:                SYSTEM: YOURSYS
Description . . . . . LANSA UK
Emergency . . . . . N

Type options, press Enter.
  2=Change  3=Copy  4=Delete  5=View  6=Print  7=Rename
 20=Sbm XRef 21=Lock/unlock 22=Distribute App 23=Sbm initial build . . .

Opt Lev Description                               Lock XRef
---  ---
  1  1  LANSA    UK   Level 1                               N    N
  2  2  LANSA    UK   Level 2 Distribution to UK           N    N

                                                Bottom

F3=Exit  F5=Refresh  F6=Create level  F12=Cancel  F14=WRKSBMJOB
F16=User options  F21=Command line  F23=More options
```

(Application definitions for the virtual systems are created on the remote production computer(s), as described in Step 7.)

### Step 5: Distribute the application definition for the physical system to the remote production computers

- Once the application definition has been created on the development computer, you can use option **22** to distribute level 2 of the application definition to the production computer. (You can also access the Remote Configuration Wizard to distribute the application definition from option **7** on the Distribution Menu.)

## SIGN ON TO THE REMOTE PRODUCTION COMPUTER

### Step 6: Create virtual system definitions on the remote production computer

- Sign on to each production computer to define the virtual systems residing on that computer.
- Select option **11** from the TURNOVER® for iSeries v100 Main Menu, then option **1**, *Maintain System Definitions*.
- Use **F6** to define the virtual systems as they were defined on your development computer:

The screenshot shows the 'Maintain System Definitions' screen with the following content:

```
3/16/00          QA
11:59:04        SLSUK

2=Change 4=Delete 7=Application definitions 9=Distribution defaults
12=Distribute System 13=Change DDMF definitions 16=Distributed Application

System      Device      System Description
---      ---      ---
*VENGL     *NONE      Virtual System Definition for England
*VSCOT     *NONE      Virtual System Definition for Scotland
*VWALES    *NONE      Virtual System Definition for Wales
BOGGS      510       *SNADS     BOGGS - 5.2
SLSUK      *SNADS     System Definition for SLSUK AS/400
```

Callouts in the image:

- A bracket groups the first three rows (\*VENGL, \*VSCOT, \*VWALES) with the text: "System definitions for England, Scotland, and Wales need to be created on the production computer."
- A line points from the last row (SLSUK) to the text: "System definition for the development computer on the production computer."

At the bottom of the screen, it says: F3=Exit F6=Add System Definition F12=Cancel

Remember, all the system definitions on the production computer **must** match the corresponding system definitions on the development computer.



## Distributing LanTurn Objects to Virtual Systems

### Step 7: Create application definitions for virtual systems on the remote production computer

- Assign application version numbers to the applications that will distribute to your virtual systems.

**Note:** Remember, when you add the virtual system control records to file TVIRSYSF (see Step 8), the versions you enter must match the versions you use for your virtual applications.

```
3/16/00          Work with Application Definitions          QA
                  YOURSYS: BOGGS

Position to . . . Application: ____ (Home) Rel: __ Ver: __

Type options (and Application), press Enter.
  1=Create  2=Change  3=Copy  4=Delete  5=View  6=Print  7=Rename
 14=Create missing items 19=Application relations . . .
```

Opt	Appl	Rel	Ver	Description	Emer.	Rela
___	TO	___	___	TurnOver UK	N	
___	TO	10	___	TurnOver Wales	N	
___	TO	20	___	TurnOver Scotland	N	
___	TO	30	___	TurnOver England	N	
___	WEB	___	___	Web Demo	N	
___	01M	___	___	Model 1	N	
___	02M	___	___	Model 2	N	
___	03M	___	___	Model 3	N	
___	04M	___	___	Model 4	N	
___	05M	___	___	Model 5	N	

```
F3=Exit  F5=Refresh  F6=Create application definition  F12=Cancel
F14=WRKSBJOB  F21=Command line  F23=More options
```

More...

Virtual system version numbers must match these virtual application version numbers.

On the production computer, application definitions must be created for each virtual system. (As mentioned earlier, they cannot be distributed to the production computer from the development computer.) The **Version** parameter differentiates these application definitions by associating them with the correct virtual system, which you specify in file TVIRSYSF (see Step 8).

## Distributing LanTurn Objects to Virtual Systems

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### Step 8: Add control records to virtual systems file TVIRSYSF

On the *receiving* (remote) computer, you must populate file TVIRSYSF (in the TURNOVER® for iSeries v100 data library) with entries for each virtual system. You can do this using DFU, DBU, SQL, a user program, or some other utility that enables the update of data in a file. You need to add the records to the file as shown in this panel:

WORK WITH DATA IN A FILE		Mode . . . . :	ENTRY
Format . . . . :	<u>TVIRSYS</u>	File . . . . :	TVIRSYSF
Physical System Name:	<u>SLSUK</u>		
Physical System #:	<u>0</u>		
Virtual System Name:	<u>*VWALES</u>		
Virtual System #:	<u>0</u>		
Virtual Version:	<u>10</u>		
Reserved 1:	_____		
Reserved 1:	_____		
Reserved 1:	_____		
Reserved 1:	_____		
Reserved 1:	_____		
F3=Exit	F5=Refresh	F6=Select format	
F9=Insert	F10=Entry	F11=Change	

---

### IMPORTANT!

The virtual system name and number must match the virtual system definition created in Step 6. The *version* must match the version used in the application definition that you created in Step 7.

---

In our example, there are three entries in file TVIRSYSF. The entry for Scotland is shown below; the entry for England is shown on the next page.

WORK WITH DATA IN A FILE		Mode . . . . :	ENTRY
Format . . . . :	<u>TVIRSYS</u>	File . . . . :	TVIRSYSF
Physical System Name:	<u>SLSUK</u>		
Physical System #:	<u>0</u>		
Virtual System Name:	<u>*VSCOT</u>		
Virtual System #:	<u>0</u>		
Virtual Version:	<u>20</u>		
Reserved 1:	_____		
Reserved 1:	_____		
Reserved 1:	_____		
Reserved 1:	_____		
Reserved 1:	_____		
F3=Exit	F5=Refresh	F6=Select format	
F9=Insert	F10=Entry	F11=Change	

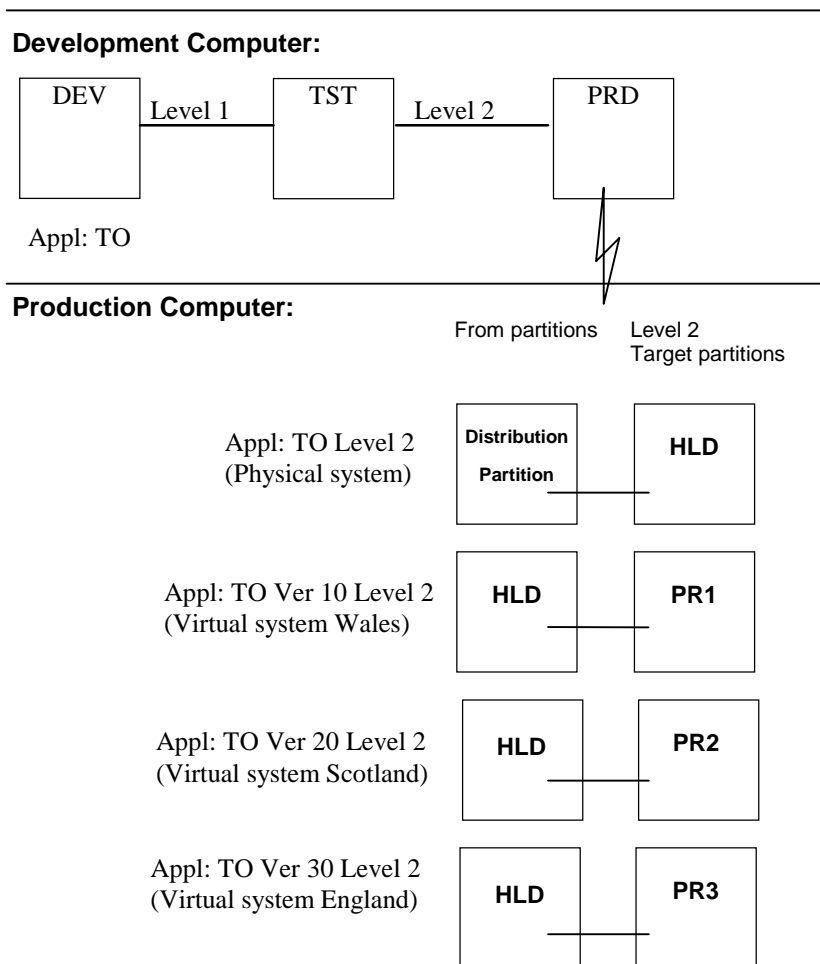
# Distributing LanTurn Objects to Virtual Systems

---

WORK WITH DATA IN A FILE	Mode . . . . :	ENTRY
Format . . . . : <u>TVIRSYS</u>	File . . . . :	TVIRSYSF
<b>Physical System Name:</b> <u>SLSUK</u>		
<b>Physical System #:</b> <u>0</u>		
<b>Virtual System Name:</b> <u>*VENG</u>		
<b>Virtual System #:</b> <u>0</u>		
Virtual Version: <u>30</u>		
Reserved 1: _____		
Reserved 1: _____		
Reserved 1: _____		
Reserved 1: _____		
Reserved 1: _____		
F3=Exit	F5=Refresh	F6=Select format
F9=Insert	F10=Entry	F11=Change

## Distributing LanTurn Objects to Virtual Systems

### A schematic of the virtual system setup in our example



**Figure 2: Sample Application Schematic for Virtual System Distribution**

Referring to the schematic, the target partitions for applications TO Ver 10, TO Ver 20, and TO Ver 30 do not necessarily have to be production partitions. They could be QA or STAGING partitions. Your applications might include additional levels (after level 2) to promote to STAGING, PRODUCTION, and so on.

In our example, application TO level 2 (which is the application definition for the physical system) has a target partition named HLD. From the HLD partition, the information will be copied into the virtual system libraries.

## Distributing LanTurn Objects to Virtual Systems

Now consider our example. Once all the application definitions have been defined for the physical system and all the virtual systems on the production computer, the *Work with Application Definitions* panel on the remote system will look something like this:

```

3/16/00          Work with Application Definitions          Your Company, Inc.
                                                         YOURSYS
Position to . . . Application: ___ Rel: __ Ver: __ Lev: __

Type options (and Application), press Enter.
  1=Create  2=Change  3=Copy  4=Delete  5=View  6=Print  7=Rename
 14=Create missing items  19=Application relations . . .

Opt  Appl  Rel Ver  Lev  Description          Emer  Relations
---  ---  --- ---  ---  ---
___  TO    2    2    LANSA Hold          N     N
___  TO    10   2    LANSA Wales         N     N
___  TO    20   2    LANSA Scotland      N     N
___  TO    30   2    LANSA England       N     N

F3=Exit  F5=Refresh  F6=Create application definition  F12=Cancel
F14=WRKSBJOB  F16=User options  F21=Command line  F23=More options

```

The TO Ver 0 will promote to the HOLD partition.

This is what the library and partition defaults for our application TO level 2 would look like:

```

3/16/00          Library and Partition Defaults          QA
12:17:00        Application: TO  Rel:   Ver:   Lev:  2  SYSTEM: YOURSYS

Type choices, press Enter.

Data objects Target library . . . . . HLDDATA
Target partition . . . . . HLD
Target Lansa library . . . . . DC@PGMLIB

Data objects From library . . . . .
From partition . . . . .
From Lansa library . . . . .

F3=Exit  F12=Cancel  F19=Explode data libraries

```

The *from* fields are blank because the *from* libraries and partition default to the distribution library (TnnnnnnnS) when the form is created.

## Distributing LanTurn Objects to Virtual Systems

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This is what the library and partition defaults for the virtual system application TO version 10 level 2 would look like on the remote production computer (SLSUK):

```
  3/16/00          Library and Partition Defaults          QA
12:17:00      Application: LANX Rel:      Ver:      Lev:      SYSTEM: YOURSYS

Type choices, press Enter.

Data objects Target library . . . . . PR1DATA
Target partition . . . . . PR1
Target Lansa library . . . . . DC@PGMLIB

Data objects From library . . . . . HLDDATA
From partition . . . . . HLD
From Lansa library . . . . . DC@PGMLIB

F3=Exit  F12=Cancel  F19=Explode data libraries
```

### Step 9: Install and configure exit programs for Exit 1 and Exit 11 on the remote production computer

#### Install and compile the Exit programs

**Post-run exit programs** (Exit 1 and 11) are required *on the receiving* (remote) computer. The source for the exit programs are in VSOURCEL52 in your LanTurn product library (Default is LANTURN).

VB01R1 (RPGLE) – Post-run exit program  
VB01C1 (CLLE) – Called by VB01R1  
VB01C2 (CLLE) – Called by VB01R1  
VB01R2 (RPGLE) – Called by VB01C1 to update from partition

VB11R1 (RPGLE) – Post-run exit program. (**Note:** This is optional. If you do not want to send the form logs back to the original sending system, you do not need Exit 11.)

On the remote computer, these programs must be compiled into the TURNOVER® for iSeries v100 product library *or* into another library that is included as an *additional environment library* in your TURNOVER® for iSeries v100 environment definition (**WRKTOENV**). *The latter option is recommended, this way, programs will not be overlaid by future TURNOVER® for iSeries v100 upgrades/changes.*

***TURNOVER® for iSeries v100 product, data and language libraries (i.e., SOFTTURN, SOFTTURND, SOFTTURNE) must be in the library list in order to compile these programs.***

Before compiling program VB01R1, browse the source for the following statement:

```
FLEV ANDEQ2
```

The 2 corresponds to the level of your application from which you distribute. If you do *not* distribute from level 2 (for example, perhaps your application includes an additional QA level, and you distribute from level 3), then you must update this statement to reflect the appropriate level before compiling the program. ***Please be aware that you may need to modify this statement in program VB01R1 if you are distributing from more than one level of your application.***

---

#### UNICOM Systems, Inc. Recommends

Store the source and objects in a production level library on the development computer. You can use TURNOVER® for iSeries v100 to distribute these objects. On the production computer, use the “HOLD” library to store these objects.

---

## Distributing LanTurn Objects to Virtual Systems

### Configure TURNOVER® for iSeries v100 to use the Exit programs

After compiling the programs, you must configure the TURNOVER® for iSeries v100 exits on the production computer:

1. Select option **8 (Utility Menu)** from the TURNOVER® for iSeries v100 Main Menu.
2. Select option **7 (Work with Exits)**.
3. Update Exits 1 and 11 on the *Work with Exits* panel, as follows:

```
3/16/00                      Work with Exits                      QA
13:26:52                                                              YOURSYS

5=Browse exit program  7=Work with sample exits      8=Help

  Exit   Description                Active Program   Library   Library
  -      -      -                    -      -        -        -
EXIT 1   Form Finalization Processing  Y   VB01R1    YOURLIB  *CURRENT
EXIT 2   Pre-Distribution Form Exit    N
EXIT 3   Pre-Distribution Library Exit  N
EXIT 4   Receive of Distribution        N
EXIT 5   Determining Source file names  Y   *NONE     *LIBL
EXIT 6   Object Naming Standards       Y
EXIT 7   Project Entry Verification    Y
EXIT 8   Form Initialization phase     N
EXIT 9   Post-Checkout Exit            N
EXIT 10  Manual check-in                N
EXIT 11  Form Completion Processing    Y   VB11R1    YOURLIB  *CURRENT
EXIT 12  Add a line to TurnOver form   N
EXIT 13  Pre-run Error check Exit      N
EXIT 14  Pre-Checkout Processing       N
EXIT 15  Add PWL Item                  N

                                          More...

F3=Exit   F8=IFS Exits   F12=Cancel  F21=Command line
```

To update Exit 1, type the program name VB01R1 and the library where this program object resides. Change the ACTIVE flag to **Y**. The Library List value should be set to **\*CURRENT** as shown in the above panel. Make sure you press **Enter** to update the changes made.

If you are already using Exits 1 or 11, then *your* exit program must call our virtual system programs or vice versa. The order in which you choose to call exit programs is entirely at your discretion.



## Distributing LanTurn Objects to Virtual Systems

### Step 10: Ensure that the distributing User ID has forms authority for the virtual applications on the remote production computers

It is important that the target User ID specified in the *System Send Distribution Defaults* has the authority to add a form to the virtual applications. Using option **3** from the Main Menu, ensure that the user (in this example, the user is TURNOVER) has authority. Find the user TURNOVER and place a **1** next to the ID and press **Enter**.

```
3/16/00          Application Authority Maintenance          QA
12:59:44

User: TURNOVER   TurnOver System Administrator

1=Authorize User   2=Reset User to default authority

      ----SOURCE-----  ---TURNOVER FORM AUTHORITY---  SYSTEM
      Appl  Rel Ver Lev Chkout  Chk-in  View Add Updt Run Distr Purge  Dfts
-----
      1 TO          10  2    -    -    -    X  X  X  X  -    -    -
      1 TO          20  2    -    -    -    X  X  X  X  -    -    -
      1 TO          30  2    -    -    -    X  X  X  X  -    -    -

F3=Exit   F11=Description   F12=Cancel   F21=Authorize user to all applications
```

Find the virtual application definitions and ensure they have a '1' next to them. The User ID TURNOVER must have view, add, update and run authority for the virtual application definitions.

# FORM CREATION FOR VIRTUAL SYSTEMS ON THE PRODUCTION COMPUTER

When a form is received and the flag to automatically submit a form is set to **Y**, the form will be run automatically to promote source/objects into a holding library. A **post-run exit** program (Exit 1) will be called when this received form completes. This post-run exit program will read file TSYSTEMS to determine if there are any virtual systems associated with the form. For each virtual system, the exit program will create a new form, using the ADDFORM API, as long as each line on the original form has a status of **RAN-OK** or **RAN-WRN**. The form will be created as follows:

<b>Form number</b>	Next available form number
<b>Application</b>	Same as distributed form
<b>Release</b>	Same as distributed form
<b>Version</b>	Version retrieved from TVIRSYSF file entry
<b>Level</b>	Same as distributed form
<b>Description</b>	<i>xx*VVffffff</i> (where <i>xx*</i> = the first 31 positions of the distributed form's description; and <i>ffffff</i> = the distributed form number)

After the form is created for each virtual system, the exit program will copy the lines on the distributed form to the new form.

In this example, the distributed form promotes from the distribution library (TnnnnnnnS) to HOLD (TnnnnnnnS is the temporary library that TURNOVER® for iSeries v100 normally uses as the *from library* on distributed forms; HOLD can be any library name).

The forms that were created by the exit program promote from HOLD to PROD1, PROD2, PROD3, and so on. (HOLD is the target library from the distributed form; PROD1, PROD2, PROD3, and so on can be any libraries that have been specified as target libraries for the virtual system forms.)

When each form promotes into the PROD libraries, the post-run exit (Exit 1) will send the following message to TOMSGRCV on the development computer:

*Form fffffff ran on system \*Vsssvv with status xxxxxxxx.*

## Distributing LanTurn Objects to Virtual Systems

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(where *ffffff* = the form number of *the original distributed form*, retrieved from the last seven characters of the form description; \**Vssvv* = the name used to define the virtual system; and *xxxxxxx* = the status with which the form completed)

This message sent by the post-run exit will cause the virtual systems to be confirmed on the development computer.

As with normal distributions, when the last virtual system form has been confirmed, the original form status will change to a CONFIRM status.

Exit 11 is used to send the form run logs back to the sending system. The logs are sent back to the target user specified within the distribution defaults.

## PARTIAL DISTRIBUTIONS AND RE-DISTRIBUTIONS

A particular form can be distributed to a subset of the virtual systems simply by deselecting one or more virtual systems from *Form Distribution Defaults* at the time you select the form on the development computer. **However, the form *must first be distributed to the physical system in order to distribute to any of the virtual systems.*** To distribute to additional virtual systems, after a partial distribution to one or more virtual systems, the form must be *redistributed* to the *physical* system at the same time. To do this:

1. Select option **6** (*Work with Forms*) from the TURNOVER® for iSeries v100 Main Menu.
2. Type option **11** (*Distribution Status*) next to the form that is to be distributed.
3. Type option **2** (*Change*) next to the *physical* system, and change the *Distributed* parameter to **N**.
4. Select option **11** (*Distribution Menu*) from the TURNOVER® for iSeries v100 Main Menu.
5. Select option **2** (*Distribute Forms*) from the Distribution Menu.
6. Type option **1** (*Select*) next to the form that is to be distributed.
7. Select the *physical* system and any virtual systems to which the form is to be distributed.

As always, if you have any questions concerning the information contained in this document, please call our Technical Support line for assistance at 1-800-545-9485.

Truly yours,

Technical Support Staff