



**CBL Software
Install Guide for z/OS Systems**

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CBL Software Install Guide for z/OS Systems

Documentation Notes

This document describes the steps required to install CBL products, SELCOPY and CBLVCAT, on an MVS system. It also details configuration of the SELCOPY/i interactive environment for SELCOPY and CBLVCAT.

Note:

As of 2009/03/22, **SELCOPY/i** is the new name for **CBLi**, the CBL interactive environment for users of SELCOPY and CBLVCAT. The rebranding of CBLi to SELCOPY/i will be gradual and the two names may be used interchangeably in CBL documentation to refer to the same software.

CBL Software Install Guide for MVS Systems may be obtained from the CBL web pages at:

<http://www.cbl.com>

Related documentation including the **SELCOPY**, **CBLVCAT** and **SELCOPY/i** User Manuals and New Features are also available from this web site.

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Section 01: Introduction

This guide describes the install of CBL Software on z/OS and OS/390 IBM mainframe operating systems. Please read it carefully and **contact CBL if you need help**.

CBL Software products, SELCOPY and CBLVCAT, are distributed as a single, downloadable install package which also includes the CBL Interactive (SELCOPY/i) environment. SELCOPY/i is eligible for install as part of the SELCOPY and/or CBLVCAT licence agreement.

Previously, each software item was installed via separate procedures that had to be carefully co-ordinated to avoid repetition of common steps.

Throughout this install procedure, references are made to data sets with the prefix "&PREFIX". This refers to an MVS JCL symbol that represents your chosen prefix qualifiers for install target libraries and configuration data sets. The low level qualifiers used in this guide are those used at CBL.

The JCL symbol **PREFIX** and the low level qualifiers are configured in the SETOPTS JCL library member at the start of the install process. (See [Section 4, Step 4.](#))

The target libraries and configuration data sets should be at least Read Only to all users of CBL software on your system.

Section 02: Hardware Requirements

As part of the CBL software install for z/OS, target libraries and configuration data sets are created. The following table lists the minimum storage requirements for each generated data set.

Dataset Name	Org	RecFm	Block Size	Blocks	Dir Blocks
&PREFIX..PACK	Seq	FB	22528	350	-
&PREFIX..PACK.SDEDATA	Seq	FB	22528	10	-
&PREFIX..UNPK	Seq	VS	32740	310	-
&PREFIX..TXT	PDS(E)	FB	3120	105	3
&PREFIX..JCL	PDS(E)	FB	3120	195	5
&PREFIX..LST	PDS(E)	FBA	23408	60	5
&PREFIX..SRC	PDS(E)	FB	3120	3015	5
&PREFIX..MAC	PDS(E)	FB	3120	120	1
&PREFIX..OBJ	PDS(E)	FB	3120	960	5
&PREFIX..EXE	PDS(E)	U	23476	90	5
&PREFIX..EXE.LLD	PDS(E)	U	23476	90	5
&PREFIX..ISPEXEC	PDS(E)	FB	3120	15	1
&PREFIX..ISPLIB	PDS(E)	FB	3120	15	1
&PREFIX..ISPTLIB	PDS(E)	FB	3120	15	1
&PREFIX..SELCOPY.NAM	Seq	VB	23476	1	-
&PREFIX..CBLI.INI	Seq	VB	23476	2	-
&PREFIX..CBLI.HELP.HTML	PDS(E)	VB	23476	2014	300
&PREFIX..CBLI.DIST.CBLE	PDS(E)	VB	23476	152	50
&PREFIX..CBLI.DIST.CMX	PDS(E)	VB	23476	32	5
&PREFIX..CBLI.SDE.SAMP.F80	PDS(E)	FB	3120	10	1
&PREFIX..CBLI.SDE.SAMP.VAR	PDS(E)	VB	23476	2	1

Section 03: Configuration Files

CBLNAME

CBL software products, SELCOPY and CBLVCAT (both including SELCOPY/i), each load the CBLNAME module at runtime to determine configuration options, in particular:

1. The DSN of the SELCOPY system wide configuration file (SELCNAM).
2. The DSN of the SELCOPY/i system wide configuration file (CBLiINI).
3. The CBLVCAT password and operational date range licence information.

SELCNAM

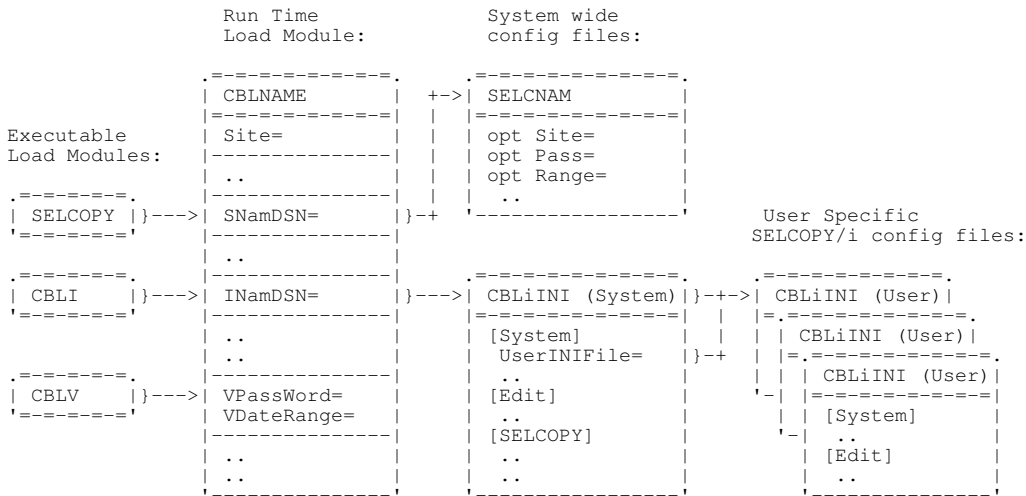
The SELCNAM data set is a plain text file containing system wide configuration options for SELCOPY that override equivalent options set in CBLNAME.

Most importantly, SELCNAM contains the SELCOPY site, password and operational date range licence information required for successful execution.

CBLiINI

The CBLiINI (System) data set is a plain text file containing system wide configuration options for SELCOPY/i.

User specific SELCOPY/i configuration files may be defined by each user. The DSN of each user CBLiINI file is identified based on the DSN of the system CBLiINI file or via the [System] UserINIFile option. (See [Section 4, Step 16.](#))



Section 04: Software Install & Configuration

Step 1: Download and Unzip the CBL Software Bundle

The CBL software bundle is available to download from the CBL web site at:

<http://www.cbl.com/selcdl.html>

The download file is in a ZIP format which should be expanded using an unzip utility (e.g. PKZIP, WinZip, etc.) Extract the contents of the .zip file to a temporary directory. The following directories are included:

\MainFrame

FileId	Description
CBL_yyyymmdd_MVS.BIN	The Install binary data for MVS Platforms.
CBL_yyyymmdd_SDEDATA_MVS.BIN	Sample data for Structured Data Environment.
CBL_Install_MVS.PDF	This Installation Guide.
SELCOPY_2.01_New_Features.PDF	New Features document for SELCOPY Rel 2.01
SELCOPY_2.02_New_Features.PDF	New Features document for SELCOPY Rel 2.02
CBLVCAT_2.12_New_Features.PDF	New Features document for CBLVCAT Rel 2.12
SELCOPYi_1.70_New_Features.PDF	New Features document for SELCOPY/i Rel 1.70
Readme.TXT	Additional information. (e.g. Zaps created since distribution.)
JOBCARD	JCL Job card member.
SETOPTS	JCL SET commands member.
CBLALLOC	JCL to allocate MVS Install and SDE Sample binary data sets.
CBLINS01	JCL install job 1 to unpack the install binary.

\WindowsPC

FileId	Description
readme.wnt	Installation instructions and general info on SELCOPY/WNT for Microsoft Windows.
snf%S%.txt	SELCOPY New Features for the %S% Release. i.e. Release Notes showing changes and corrections implemented.
slc%S%_%B%.exe	SELCOPY main executable.
slc%S%_%B%.ca.dll	slccall Dynamic Link Library. Primitive slccall Shared Object which is loaded dynamically at execution time if a CALL stmt is used.
slccall.c	C Source code for the "slc%S%.ca.dll" Shared Object which you can modify to add your own CALL rtns, then recompile and link, to create your own "slccall.dll" Dynamic Link Library.
slccall.h	C Header info for the slccall.c source.
selcopy.nmx	Original skeleton for "selcopy.nam" file. Copy this to create your own "selcopy.nam" file.
selcopy.msg	Editable text file of SELCOPY Error messages, which is required at run time. It is release independent.

Step 2: Install SELCOPY/WNT for MS-Windows PC execution

This step is applicable to install of **SELCOPY**.

A number of SELCOPY for Windows PC licenses are included as part of the SELCOPY Mainframe product package. A separate license key for SELCOPY/WNT will have been provided along with Mainframe license keys.

Please follow the instructions in the `\WindowsPC\readme.wnt` text file to install SELCOPY/WNT on your PC.

Step 3: FTP the Bootstrap Install Job Streams to MVS

Use your local file transfer methods to import bootstrap JCL job streams JOBCARD, SETOPTS, CBLALLOC and CBLINS01 from the `\MainFrame` directory to an existing job library on your MVS system.

Please note that the DSN of your existing job library must **not** match any of the install library DSNs created by job CBLINS01 as `DISP=NEW` in [Step 6](#). You may wish to transfer these 4 bootstrap job members to a new job library with a DSN prefix that matches that of the generated install libraries. e.g. `&PREFIX..STARTUP`.

Beware that, when using FTP client to transfer library members, then members of the same name that already exist in the library will be replaced without warning.

JOBCARD, SETOPTS, CBLALLOC and CBLINS01 are RECFM=F LRECL=80 job streams used to initiate the install procedure and must be transferred to a job library that is already allocated.

In the following example FTP session, 'SYSA.OEM.CBL.STARTUP' is the MVS bootstrap job library, 'c:\tmp\cbl' is the directory that contains the extracted CBL install files.

```
ftp> cd 'SYSA.OEM.CBL.STARTUP'
      250 The working directory "SYSA.OEM.CBL.STARTUP" is a partitioned data set
ftp> lcd c:\tmp\cbl\MainFrame
      Local directory now C:\tmp\cbl\MainFrame.
ftp> ascii
      200 Representation type is Ascii NonPrint
ftp> put JOBCARD
      200 Port request OK.
      125 Storing data set SYSA.OEM.CBL.STARTUP (JOBCARD)
      250 Transfer completed successfully.
      ftp: 386 bytes sent in 0.00Seconds 386000.00Kbytes/sec.
ftp> put SETOPTS
      200 Port request OK.
      125 Storing data set SYSA.OEM.CBL.STARTUP (SETOPTS)
      250 Transfer completed successfully.
      ftp: 1122 bytes sent in 0.00Seconds 1122000.00Kbytes/sec.
ftp> put CBLALLOC
      200 Port request OK.
      125 Storing data set SYSA.OEM.CBL.STARTUP (CBLALLOC)
      250 Transfer completed successfully.
      ftp: 621 bytes sent in 0.00Seconds 621000.00Kbytes/sec.
ftp> put CBLINS01
      200 Port request OK.
      125 Storing data set SYSA.OEM.CBL.STARTUP (CBLINS01)
      250 Transfer completed successfully.
      ftp: 7977 bytes sent in 0.00Seconds 7977000.00Kbytes/sec.
```

Step 4: Configure JOBCARD and SETOPTS Members

The JOBCARD member contains an INCLUDE for the SETOPTS member and will be inserted at the beginning of all the job streams used in the software install process.

Modify the JOB and JCLLIB statements in JOBCARD and the SET statements in SETOPTS to conform to your system standards.

In particular, the **STALIB** variable must be set to be your bootstrap job library DSN and **PREFIX** set to be the high level qualifiers of the install libraries and configuration data sets.

Step 5: FTP the Product Bundle to MVS

The product bundle, CBL_yyyymmdd_MVS.BIN, and SDE sample data, CBL_yyyymmdd_SDEDATA_MVS.BIN, are both binary input to the IBM TRSMAIN (TERSE/UNTERSE) utility and must exist on your MVS system as a sequential RECFM=F(B) LRECL=1024 data set with a DSN as defined by the **PACKED** variable in SETOPTS.

Insert JOBCARD and then execute the CBLALLOC job stream member to allocate these data set prior to file transfer.

Use your local file transfer methods to import CBL_yyyyymmdd_MVS.BIN and CBL_yyyyymmdd_SDEDATA_MVS.BIN as binary objects into the newly allocated data set.

In the following example FTP session, the SETOPTS variable **PREFIX** is defined as 'SYSA.OEM.CBL' so that 'SYSA.OEM.CBL.PACK' and 'SYSA.OEM.CBL.PACK.SDEDATA' are the destination MVS sequential files.

```
ftp> binary
200 Representation type is Image
ftp> put CBL_20080418_MVS.BIN 'SYSA.OEM.CBL.PACK'
200 Port request OK.
125 Storing data set SYSA.OEM.CBL.PACK
250 Transfer completed successfully.
ftp: 3845120 bytes sent in 3.55Seconds 1084.35Kbytes/sec.
ftp> put CBL_20080418_SDEDATA_MVS.BIN 'SYSA.OEM.CBL.PACK.SDEDATA'
200 Port request OK.
125 Storing data set SYSA.OEM.CBL.PACK.SDEDATA
250 Transfer completed successfully.
ftp: 5120 bytes sent in 0.00Seconds 5120000.00Kbytes/sec.
```

Step 6: Unpack the Install Binaries & Allocate/Load Install Libraries

The CBLINS01 job stream must be run to perform the following tasks:

1. Execute the IBM TRSMAN utility program to unpack the install and SDEDATA sequential data sets. TRSMAN is used to compress/decompress data exchanged with IBM and is freely available from the following URL:

<http://techsupport.services.ibm.com/390/trsman.html>

2. Allocate the install libraries.
3. Execute IEBCOPY to Load the libraries with members from the unpacked install data set.
4. Execute IEBCOPY to copy your JOBCARD, SETOPTS, CBLALLOC and CBLINS01 bootstrap members to the &PREFIX..JCL library.

The SET commands in SETOPTS member (modified in Step 4) reference the packed and unpacked data sets. It also controls the PREFIX to be used on allocation of the install libraries.

Modify member CBLINS01 as described in the comment data in the job and submit it.

The install libraries, allocated by CBLINS01, and their contents are as follow:

Library	Member	Description
&PREFIX..TXT	@REPORT	Reports the build level information for SELCOPY/i (CBLi). This file is a record of the level of SELCOPY/i that was installed.
	SELCIVP	SELCOPY installation verification sample job. (See "SELCOPY Interactive" in the HOME command centre following startup of SELCOPY/i.)
&PREFIX..JCL	JOBCARD	Skeleton JOB card member containing INCLUDE for SETOPTS member.
	SETOPTS	Member containing JCL symbol definitions.
	CBLALLOC	Allocates the install and SDE sample data (Unpacked) sequential data set bundles.
	CBLINS01	Unpacks the install and SDE sample data bundles then allocates and loads the install libraries.
	CBLINS02	Link Edits the SELCOPY, CBLVCAT, SELCOPY/i and associated modules.
	CBLINS03	Allocates and loads the SELCOPY configuration data set (SELCNAM.)
	CBLINSN4	Allocates a new, installation specific SELCOPY/i text editor (CBLe) REXX macro library.
	CBLINS04	Allocates and loads the SELCOPY/i configuration data set (CBLIINI.)
	CBLINSN5	Allocates and loads a new CBLNAME assembler source data set.
	CBLINSX5	Imports an existing CBLNAME assembler source data set into the install source library.
	CBLINS05	Assembles and Link Edits CBLNAME. (Loaded by SELCOPY, CBLVCAT and SELCOPY/i at run time.)
	CBLINS06	Allocates and loads the SELCOPY/i Help library.
CBLINS07	Allocates and loads the SELCOPY/i text editor (CBLe) REXX macro library.	
CBLINS08	Allocates and loads the SELCOPY/i sample command execution file (CMDTEXT) library.	

	CBLINSV9	Checks the status of the CBLVCAT Interactive (VCI) SVC/ESR in System CBLiNI.
	CBLINS09	Link Edits the CBLVCAT Interactive (VCI) SVC.
	CBLINS10	Dynamically adds the VCI SVC to the SVC table.
	CBLINS11	Verifies SELCOPY installation.
	CBLINS12	Binds the default SELCOPY DB2 plan and verifies SELCOPY/DB2 interface installation.
	CBLINS13	Link edits the SELCOPY ADABAS interface module.
	CBLINS14	Verifies CBLVCAT installation.
	CBLINS15	Copy target load library to distribution library.
	CBLIVTAM	Sample procedure to start the SELCOPY/i VTAM application.
&PREFIX..SRC	ULCBLE	Unloaded sample CBL macros. These must be loaded into libraries with the utility CBLAVARL.
	ULCMX	Unloaded sample CMX files. These must be loaded into libraries with the utility CBLAVARL.
	ULHELP	Unloaded SELCOPY/i help files. These must be loaded into libraries with the utility CBLAVARL.
&PREFIX..MAC	CBLNAME	The CBLNAME Assembler macro.
&PREFIX..OBJ	APEEINIT	The SELCOPY/i initialisation object deck.
	APEETERM	The SELCOPY/i termination object deck.
	CBLAVARL	The SELCOPY/i RECFM=V file install utility program object deck.
	CBLAVCII	The CBLVCAT Interactive (VCI) SVC install utility program object deck.
	CBLDLL	The CBL Dynamic Link Library object deck.
	CBLI	The CBL Interactive (SELCOPY/i) control program object deck.
	CBLVDUMP	The SELCOPY/i DUMP subtask object module. (MVS Only)
	CBLVIMSS	Program invoked by DFSRR00 for interactive SELCOPY execution with IMS/DL1.
	CBLVIMST	The SELCOPY/i IMS/DL1 interface subtask control program object module.
	CBLVSQL0	The SELCOPY/i SQL interface subtask control program object module.
	CBLVSVC	The CBLVCAT Interactive (VCI) SVC object deck.
	CBLXREXX	The SELCOPY/i REXX interface subcommand environment control program object deck.
	SDELIB	The SELCOPY/i Structured Data Environment Library object deck.
	SELC202	The SELCOPY Rel 2.02 object deck.
	SELCOPLE	The SELCOPY Language Environment Interface.
	SELCOPQL	The SELCOPY DB2 SQL Interface.
	SELCOPQX	DBRM source for SELCOPY DB2 plan bind.
	CBLV212	The CBLVCAT Rel 2.12 Build 156 object deck.
&PREFIX..ISPEXEC	SELCOPYI	REXX exec to invoke SELCOPY/i
&PREFIX..ISPTLIB	CBLIPROF	SELCOPY/i ISPF application profile member.
&PREFIX..ISPLLIB	CBL3270	SELCOPY/i main ISPF panel used when running in ISPF mode.
	CBL3270E	SELCOPY/i error message ISPF panel used when running in ISPF mode.
&PREFIX..LST	UNTERSE1	SYSPRINT output from CBLINS01 UNTERSE1 job step.
	UNTERSE2	SYSPRINT output from CBLINS01 UNTERSE2 job step.
	LOAD	SYSPRINT output from CBLINS01 LOAD job step.
	GETMEMS	SYSPRINT output from CBLINS01 GETMEMS job step.
&PREFIX..CBLI.SDE.SAMP.F80	COBSALES	COBOL Copy Book for SDE sample file &PREFIX..CBLI.SDE.SAMP.VAR(DATSALES).
	COBTYPES	COBOL Copy Book for SDE sample file &PREFIX..CBLI.SDE.SAMP.VAR(DATTYPES).
	COBDELIV	COBOL Copy Book for demonstration of SDECOPYF record/field copy macro.
	PL1SALES	PL/1 Copy Book equivalent of COBOL COBSALES Copy Book.
	PL1TYPES	PL/1 Copy Book equivalent of COBOL COBTYPES Copy Book.
	PL1DELIV	PL/1 Copy Book equivalent of COBOL COBDELIV Copy Book.
&PREFIX..CBLI.SDE.SAMP.VAR	DATSALES	Sample member containing structured record sales data.

	DATYPES	Sample member containing structured records using different field data types.
&PREFIX..EXE	-	Target Load Library for CBL product load modules.
&PREFIX..EXE.LLD	-	Distribution Load Library for CBL product load modules.

Check output in &PREFIX..LST(UNTERSE1), &PREFIX..LST(UNTERSE2), &PREFIX..LST(LOAD) and &PREFIX..LST(GETMEMS).

&PREFIX..JCL contains the job streams used in the subsequent install steps.

Your modified JOBCARD, SETOPTS, CBLALLOC and CBLINS01 bootstrap members are automatically copied to &PREFIX..JCL, replacing members of the same name.

Step 7: Link Edit the CBL Program Modules

Modify member CBLINS02 as described in the comment data in the job and submit it to Link Edit the CBL product object modules. The resultant load modules are generated in &PREFIX..EXE.

Note that SETCODE AC(1) is used to link the following as authorised programs:

Load Module	Description
CBLV	CBLVCAT Program
CBLAVCII	CBLVCAT Interactive (VCI) SVC Install program.
CBLI	SELCOPY/i (CBL Interactive Environment) Program.

In addition to this, the &PREFIX..EXE library should be made APF authorised if either of the following is true:

1. SELCOPY/i will also be executed as a VTAM application (RACF logon is required.)
2. CBLVCAT is to be installed.

To make the &PREFIX..EXE load library APF Authorised, configure your PROGxx member in the system PARMLIB so that it contains the following:

```
APF ADD DSNAME(&PREFIX..EXE) SMS
```

&PREFIX. should be substituted accordingly. "SMS" is required if the library is SMS managed, otherwise "VOLUME=volser" should be specified instead.

The PROGxx APF statement is documented in "MVS Initialisation and Tuning Reference" under "PROGxx".

To avoid having to schedule an IPL, the library can be dynamically added to the APF authorised library list using either of the following methods.

1. Execute the following MVS system command:

```
SETPROG APF,ADD,LIB=&PREFIX..EXE,SMS
```

2. Having configured PROGxx, execute the following MVS system command:

```
SET PROG=xx
```

SET and SETPROG are documented in "MVS System Commands".

To verify that the library is in the APF list, execute the following MVS command:

```
DISPLAY PROG,APF,DSNAME=&PREFIX..EXE
```

Step 8: Apply Product Maintenance

Any available CBL product maintenance should be applied to load modules in the target library before proceeding.

Latest fixes may be reviewed and downloaded from the following locations:

CBL Product Element	Support Download Page
SELCOPY	http://www.cbl.com/selcsupp.html
CBLVCAT	http://www.cbl.com/cblvsupp.html
SELCOPY/i Interactive Interface	http://www.cbl.com/cblisupp.html

See "[Section 6: Applying Maintenance](#)" for details on how to apply CBL product maintenance.

Step 9: Allocate and Load the SELCNAM data set

This step is applicable to install of **SELCOPY**.

The SELCNAM data set contains system wide configuration options for SELCOPY overriding equivalent options set in the CBLNAME run time module. (See [Step 10](#).)

CBL distributes updated licence details (SITE, RANGE and PASS options) to every customer for continued use of the software. For SELCOPY, these options need to replace existing values in the SELCNAM data set. e.g.

```
opt SITE='John Smith Ltd - London, UK'
opt RANGE='1979/07/12-2009/07/13'
opt PASS=x'C10D,BB59,981A,07FE'
```

The licence details are independent of the release of the software. i.e. They apply to all releases of SELCOPY.

Other SELCNAM Options

The SELCNAM data set may contain other OPTION parameters that apply to all executions of SELCOPY. e.g.

```
opt RDW SSN=DB2G
```

These options would override the equivalent settings for **SRDW** and **DB2SubSys** in CBLNAME. The SELCOPY Manual documents the options that may be set in the SELCNAM data set.

SELCNAM and CBLNAME

The relationship between the SELCNAM data set and CBLNAME load module is maintained as follows:

1. The SELCNAM DSN must be specified on the SNameDSN option in the CBLNAME source prior to assemble and link edit of CBLNAME. (See [Step 10](#).)
2. Following successful install of the CBL software, if you intend to rename SELCNAM before it is promoted into your production environment, then CBLNAME will also have to be re-assembled and link edited to reference the new SELCNAM DSN.
3. The CBLNAME SNameDSN option supports use of system symbols. e.g.

```
SNameDSN=' &&SYSNAME..OEM.CBL.SELCOPY.NAM',
```

('&&' is translated to '&' by High Level Assembler.)

Existing SELCOPY Users

Where SELCOPY is already installed, a SELCNAM data set should already exist containing the current licence information. If so, the DSN of the existing SELCNAM should be specified on the CBLNAME SNameDSN option. If SELCNAM is missing, create a new version using job member CBLINS03.

If preferred, the existing SELCNAM data set may be copied to a different DSN and the new DSN specified on the CBLNAME SNameDSN option instead. (See "SELCNAM and CBLNAME" above.)

New SELCOPY Users

If SELCNAM does not already exist, then modify member CBLINS03 as described in the comment data of the job and submit it to load a new SELCNAM data set (&PREFIX..SELCOPY.NAM).

Step 10: Assemble and Link Edit CBLNAME

This step is applicable to install of both **SELCOPY** and **CBLVCAT**.

The CBLNAME module is loaded by all CBL software products at run time in order to establish operational licence information for the product and other system wide options.

The CBLNAME assembler source must be reviewed and, if necessary, modified for every install of CBL software.

Note:

1. The characters ampersand (&) and apostrophe/single quote (') have special meaning to High Level Assembler. Where these characters occur in data strings, they must be repeated (i.e. & becomes && and ' becomes "). Where apostrophe/single quote is a string delimiter, it should not be repeated.

This most commonly arises in the Site, SNameDSN and INameDSN options. e.g.

```
Site='James && Sons - Peterboro'' UK',
SNameDSN='&&SYSNAME..OEM.CBL.SELCOPY.NAM',
```

Important CBLNAME options

The following CBLNAME options must be configured for licensed CBL products.

Site='Your site name - location'

Your company name and location. This must be entered exactly as supplied by CBL (i.e. Upper/lower case characters must be respected.)

SNameDsn='your.selcnam.file'

For SELCOPY only, the DSN of your SELCNAM file (see SLCNAM JCL symbol in SETOPTS.) The DSN specified may contain system symbols.

This data set will contain system wide configuration options for SELCOPY. All users will require a minimum of read-only access to this data set, however, read-write access is not advised.

Beware that, if the SELCNAM file is renamed for any reason following this install, then the SNameDSN option may have to be updated and CBLNAME re-assembled and link edited.

INameDsn='your.cbli.ini.file'

The DSN of your System CBLiNI file (see CBLINI JCL symbol in SETOPTS.) This may contain system symbols or the special SELCOPY/i variable &USER (or %USER%) to denote the user's RACF user name.

This data set will contain system wide configuration options for SELCOPY/i. All users will require a minimum of read-only access to this data set, however, read-write access is not advised.

Like SELCNAM, if the System CBLiNI file is renamed following this install, then the INameDSN option may have to be updated and CBLNAME re-assembled and link edited.

VPassword='XXXX,XXXX,XXXX,XXXX'

For CBLVCAT only, the CBLVCAT Password as supplied by CBL.

VDateRange=(yyyy/mm/dd-YYYY/MM/DD)

For CBLVCAT only, the CBLVCAT operational date range as supplied by CBL.

DB2SubSys=DB2A

For SELCOPY/DB2 users, the default DB2 subsystem name. (See [Step 23](#).)

DB2Plan=CBLPLAN0

For SELCOPY/DB2 users, the SELCOPY DB2 plan name. (See [Step 23](#).)

Other CBLNAME options and their valid arguments are documented in the macro &PREFIX..MAC(CBLNAME).

Existing SELCOPY/CBLVCAT Users

The CBLNAME source already exists on your system.

Modify member CBLINSX5 as described in the comment data in the job and submit it to copy your existing CBLNAME source to the install library &PREFIX..SRC ready for assemble and link edit.

To cater for new CBLNAME options, the CBLNAME source must be in a format that invokes the CBLNAME macro (found in library &PREFIX..MAC). Older versions of the CBLNAME source consisted simply of a CBLNAME CSECT containing data constant (DC) definitions. If your CBLNAME source is in the old format or you are unable to locate your CBLNAME source, then please contact CBL for assistance.

Review and modify the options in the CBLNAME source member (in particular, include and tailor the INameDSN option) then modify and submit job CBLINS05 to assemble and link edit it.

Check assembly output in &PREFIX..LST(CBLNASM).

New SELCOPY/CBLVCAT Users

Review and modify the CBLNAME options in job CBLINSN5, as described in the comment data in the job, and submit it to load the CBLNAME source member in library &PREFIX..SRC.

Modify and submit job CBLINS05 to assemble and link edit CBLNAME.

Check assembly output in &PREFIX..LST(CBLNASM).

Step 11: Load the SELCOPY/i Help members

This step is applicable to install of both **SELCOPY** and **CBLVCAT**.

Modify member CBLINS06 as described in the comment data in the job and submit it to allocate and populate the SELCOPY/i Help library (&PREFIX..CBLI.HELP.HTML).

CBLINS06 executes CBLAVARL in the &PREFIX..EXE library to extract files from the &PREFIX..SRC(ULHELP) member.

Over 1000 members will be added to the SELCOPY/i help library, so this job may take a few minutes to execute.

Check output in &PREFIX..LST(CBLIHELP)

Step 12: Load the SELCOPY/i Text Editor (CBLe) Rexx Macros

This step is applicable to install of both **SELCOPY** and **CBLVCAT**.

Modify member CBLINS07 as described in the comment data in the job and submit it to allocate and populate the SELCOPY/i text editor (CBLe) REXX macro library (&PREFIX..CBLI.CBLE).

CBLINS07 executes CBLAVARL in the &PREFIX..EXE library to extract files from the &PREFIX..SRC(ULCBLE) member.

Check output in &PREFIX..LST(CBLICBLE)

Step 13: Load the SELCOPY/i sample CMDTEXT members

This step is applicable to install of both **SELCOPY** and **CBLVCAT**.

Modify member CBLINS08 as described in the comment data in the job and submit it to allocate and populate the sample SELCOPY/i CMDTEXT library (&PREFIX..CBLI.CMX).

CBLINS08 executes CBLAVARL in the &PREFIX..EXE library to extract files from the &PREFIX..SRC(ULCMX) member.

Check output &PREFIX..LST(CBLICMX)

Step 16: Configure SELCOPY/i Site-Wide Options

This step is applicable to install of both **SELCOPY** and **CBLVCAT**.

SELCOPY/i Site-Wide Options are contained in the System CBLiINI data set and apply to SELCOPY/i running in any of the supported environments (TSO, ISPF and VTAM.)

Because new options are supported by CBLiINI for each new release, it is recommended that this step is executed for each install of a SELCOPY/i new release.

Where SELCOPY/i is already installed, a System CBLiINI data set already exists. Copy the active System CBLiINI data set to the DSN specified by the **CBLIINI** JCL symbol in SETOPTS before continuing. This should match the INamDSN argument specified in the CBLNAME module. (See [Step 10](#).)

We now use the SELCOPY/i program itself to guide the installer through setup of site-wide options as follows. (Note that DSNs must not be quoted):

1. From the ISPF command line, start SELCOPY/i using the SELCOPYI REXX exec. If the SELCOPY/i application does not start, review and, if necessary, correct actions taken in [Step 15](#).

```
>TSO SELCOPYI
```

The following messages and, in some cases, RACF ICH408I messages are expected:

```
Open system ini file cbl.ini.dsn
Open failed R0=16(dec) R15=292205016(dec)
```

2. If the CBLe text editor is not opened automatically on startup (the desktop is visible displaying the SELCOPY/i logo) then, from the command line, manually start the CBLe editor, e.g.

```
>Edit CBLI.TEST.FILE
```

The fileid chosen is not relevant but should be a non-existent file. An edit session will start showing 'CBLI.TEST.FILE'

3. If the edit error message "EDT051E Macro PROFILE not found." appears then, from the CBLe editor command line, define the MACROPATH as follows:

```
>MACROPath prefix.CBLI.DIST.CBLE
```

Where 'prefix.CBLI.DIST.CBLE' is the name of the library created in [Step 12](#) "Load the SELCOPY/i Text Editor (CBLe) REXX Macros".

4. Start the FIRSTUSE CBLe REXX macro with the SITE option:

```
>FIRSTUSE SITE
```

If FIRSTUSE does not execute, then the CBLe macro library has not been installed successfully. (See [Step 12](#))

5. Follow the prompts to configure site dependent options for the site-wide (System) CBLiINI data set. The procedure will also allocate the following:

- ◆ The SELCOPY/i SYSTEM CBLiINI file, as defined in CBLNAME.
- ◆ A CBLe REXX library for site-specific macros.

6. When the procedure is complete, the new, unsaved System CBLiINI data set is in the current CBLe edit view. Save this file and use PF3 to exit the CBLe text editor and the SELCOPY/i program.

Note:

1. When a user starts or logs into SELCOPY/i for the first time, the FIRSTUSE macro is automatically started to prompt the user for User CBLiINI file generation. (See [Step 21](#).)
2. Following successful install of the CBL software, if you intend to rename the System CBLiINI before it is promoted into your production environment, then CBLNAME will also have to be re-assembled and link edited to reference the new System CBLiINI DSN.

Step 17: Enable Access to SELCOPY/i from VTAM USS

This step is applicable to install of both **SELCOPY** and **CBLVCAT**.

The following must be actioned to define the SELCOPY/i application to VTAM:

1. Create new member CBLIAPPL in a library pointed to by the VTAMLST data definition statement in the VTAM procedure. Insert the following applid definition:

```
CBLIAPPL  VBUILD TYPE=APPL
CBLIVTAM  APPL  EAS=005,ACBNAME=CBLIVTAM,AUTH=(ACQ,BLOCK,PASS)
```

2. Add member name CBLIAPPL to the list of members in ATCCONxx. This will ensure that the applid CBLIVTAM is available following IPL.
3. Enter the following MVS system command to activate the applids in member CBLIAPPL:

```
VARY NET,ACT,ID=CBLIAPPL
```

Starting the SELCOPY/i VTAM Application

Modify member CBLIVTAM as described in the comment data in the job and copy it to a JES PROCLIB.

From the operator console, issue the following to start the SELCOPY/i VTAM controller:

```
START CBLIVTAM
```

The following message should appear on the operator log:

```
CBLI001I  CBLi VTAM session manager started yyyy/mm/dd HH:MM:SS.
          CBLi build level is xxxxxxxxxxxx.xxxxx
          CBLDLL build level is xxxxxxxxxxxx.xxxxx
VTM002I  Applid CBLIVTAM is accepting logons
```

From a VTAM USS screen, log on to SELCOPY/i using a command applicable to your environment. e.g.

```
LOGON APPLID(CBLIVTAM)
```

The SELCOPY/i main window is displayed with a pop-up window requesting a RACF userid logon and password.

```
+-----+
| -CBL RACF Logon                               +-x |
| Enter LOGON parameters below:                 |
| (or hit F3 to Quit)                          |
|                                               |
|           Userid>                             |
|           Password>                           |
|                                               |
|           New Password>                       |
|           Confirm New Pass>                   |
+-----+
```

Stopping the SELCOPY/i VTAM Application

Before stopping the SELCOPY/i VTAM controller, establish that all users have logged off using the following operator command:

```
MODIFY CBLIVTAM,QUERY USERS
```

This will return a report of active sessions in the following format:

```
VTM021I  Applid CBLIVTAM has 2 active sessions
User      Terminal Session
NBJ       SC0TCP18 0A00000B
JGE       SC0TCP19 0200000D
```

Messages may be sent to all, or specified users, using the following operator commands:

```
MODIFY CBLIVTAM,MSG NBJ USER NBJ, PLEASE LOG OFF NOW.
MODIFY CBLIVTAM,MSG * ALL USERS MUST LOG OFF.
```

Stop the SELCOPY/i VTAM controller using either of the following operator commands:

```
MODIFY CBLIVTAM,STOP
STOP CBLIVTAM
```

Step 18: Link Edit the CBLVCAT Interactive (VCI) SVC

This step is applicable to install of **CBLVCAT**.

CBLVCAT opens the MVS catalog as a VSAM file to extract the attributes of catalog entries. In order to do this CBLVCAT must be APF authorised (this is an MVS restriction).

In order for CBLVCAT Interactive (VCI) to be able to use CBLVCAT's catalog listing capabilities, an SVC is called that temporarily grants the user authority to open the catalog Read Only. Authority is automatically rescinded immediately following the open.

User (non-IBM) SVCs numbers are in the range 200-255 or, alternatively, you may choose to use an ESR (Extended SVC Routing) code for SVC 109. CBL recommends that, if not already in use, you should use SVC=109 and ESR=222.

Verify Your SVC/ESR number

Edit the System CBLiNI data set (&PREFIX..CBLI.INI) and insert or modify the following options to reference your chosen values:

```
(CBLVCAT)
SVC=109
ESR=222
```

Having saved the changes, you can verify whether the chosen SVC/ESR is already in use by inserting JOBCARD in job CBLINSV9 and submitting it.

Check the output in &PREFIX..LST(VCISVCI).

If message "VCII018I SVC module IGnnnnnn found in the static/dynamic LPA." then the SVC is already in use and so you must choose a different SVC/ESR code, modify the System CBLiNI file and rerun CBLINSV9.

If message "VCII019E SVC module IGnnnnnn not found in either static or dynamic LPA." then your chosen SVC/ESR is unused and you can proceed.

Create the SVC/ESR Load Module

Modify the name of the SVC load module in job CBLINS09 and submit it to link edit the CBLVCAT Interactive (VCI) SVC into a library in your LPA concatenation. (See JCL symbol LPALIB in SETOPTS.)

The name of the generated SVC load module is governed by your chosen SVC or ESR number as follows:

IGC00zzz	For an SVC where zzz is the zoned decimal version of the SVC number. e.g. SVC=223 would be IGC0022C.
IGX00nnn	For an SVC=109 ESR, where nnn is the character form of the ESR number. e.g. SVC=109, ESR=222 would be IGX00222.

Step 19: Add the VCI SVC to the Link Pack Area

This step is applicable to install of **CBLVCAT**.

The VCI SVC routine must be added to the Link Pack Area (LPA).

If the VCI SVC routine has been added to a library in your LPALSTxx concatenation, then it will be added to your static LPA following an IPL with CLPA. Alternatively, update IEALPAXx with the SVC routine name and perform an IPL with MLPA or CLPA.

Note: Do **not** add the SVC routine to a library in the LPALSTxx concatenation **and** update IEALPAXx. If so, duplicate entries will exist for the SVC routine and so its automatic addition to the SVC table fails.

To avoid having to schedule an IPL, routines can be dynamically added to the LPA using either of the following methods.

1. Execute the following MVS system command:

```
SETPROG LPA,ADD,MODNAME=(IGnnnnnn),DSNAME=your.lpalib
```

2. Configure your PROGxx member in the system PARMLIB so that it contains the following:

```
LPA ADD MODNAME(IGnnnnnn) DSNAME(your.lpalib)
```

Then execute the following MVS system command:

```
SET PROG=xx
```

Substitute "IGnnnnnn" and "your.lpalib" with the VCI SVC load module name and DSN of the LPA concatenated library in which it exists. (See [Step 18](#).) The PROGxx LPA statement is documented in "MVS Initialisation and Tuning Reference" under "PROGxx". SET and SETPROG are documented in "MVS System Commands".

The status of a module in the LPA can be verified using the following MVS command:

```
DISPLAY PROG,LPA,MODNAME=IGnnnnnn
```

Step 20: Add the VCI SVC to the SVC Table

This step is applicable to install of **CBLVCAT**.

To complete the installation of the VCI SVC, it must be defined in the operating system's active SVC table.

In order that the VCI SVC is automatically included in the SVC table following an IPL, the following action must be taken:

1. If you have used SVC 109 and the ESR module (IGX00nnn) is in the LPA library concatenation, then an IPL with parameter **CLPA** will automatically included the VCI SVC in the SVC table.
2. If you have used SVC in the range 200-255 then update the system PARMLIB member IEASVCxx with the following:

```
SVCPARM zzz,REPLACE,TYPE(3),APF(NO)          /* CBL VCI SVC */
```

Substitute zzz with the VCI SVC number.

The IEASVCxx SVCPARM statement is documented in "MVS Initialisation and Tuning Reference" under "IEASVCxx".

To avoid having to schedule an IPL, the VCI SVC may be dynamically added to the SVC table using the CBLAVCII facility in load library &PREFIX..EXE.

Modify member CBLINS10 as described in the comment data in the job and submit it to execute CBLAVCII and dynamically add the VCI SVC to the SVC table based on the [CBLVCAT] SVC and ESR values set in the System CBLiINI file.

Check output &PREFIX..LST(VCISVCI) for successful execution.

Step 21: Verify SELCOPY/i Configuration

This step is applicable to install of both **SELCOPY** and **CBLVCAT**.

Note: Following configuration of the SELCOPY/i System CBLiINI file (see [Step 16.](#)), the first time a user starts SELCOPY/i the CBL*e* FIRSTUSE macro will be executed to configure user specific files and libraries. These are:

1. The user's HOME command centre (CMX) file.
2. The SELCOPY/i User CBLiINI file.
3. The user's private CBL*e* text edit REXX macro library.

If FIRSTUSE does not execute, then the EDIT.MacroPath is not configured in the System CBLiINI file. (See Configuration Check List below)

On completing FIRSTUSE and allocating the new data sets when prompted, the user should hit PF3 to exit SELCOPY/i and re-start SELCOPY/i before continuing.

Configuration Check List

1. Start SELCOPY/i in ISPF. If pop-up window opens with "ISPF error - ISPF is not available in the current environment", then the SELCOPY/i ISPF Panels have not been implemented properly. (See [Step 15.](#) Panel Definitions.)
2. Start SELCOPY/i in ISPF and execute: ISPF PFSHOW ON. If PFKey settings are assigned to anything other than the PFKey name (i.e. F1=PF1, F2=PF2, F3=PF3, F4=PF4, F5=PF5, F6=PF6, etc.), then the SELCOPY/i ISPF Table has not been implemented properly. (See [Step 15.](#) Table Definition.) Ensure that ISPF SHOW OFF is executed afterwards to redisplay the CBL*e* text edit status bar.
3. Verify that the two sample SDE libraries have been generated and are accessible, at least read-only, by all users. (See [Step 6.](#)) These libraries are:

```
&PREFIX..CBLI.SDE.SAMP.F80
&PREFIX..CBLI.SDE.SAMP.VAR
```

4. Verify that the distributed SELCOPY/i Help, CBL*e* macro and CMX libraries exist and are accessible read-only by all users. Check RC=0 in SYSPRINT output from jobs CBLINS06, CBLINS07 and CBLINS08 in [Step 11.](#), [Step 12.](#) and [Step 13.](#) respectively. These libraries are:

```
&PREFIX..CBLI.HELP.HTML
&PREFIX..CBLI.DIST.CBLE
&PREFIX..CBLI.DIST.CMX
```

5. If any of the following occur, then either or both of the SELCOPY/i System and/or User CBLiINI files have not been configured correctly:

- ◆ When SELCOPY/i starts, the user's HOME command centre (CMX) file is not automatically displayed in a CBL*e* text edit view.
- ◆ CBL*e* edit error message "EDT051E Macro PROFILE not found" is displayed.
- ◆ "HELP" command or menu item returns "Could not find the file..."

- ◆ Applicable if SDSF is used on the system, is accessible via an option (e.g. M.5) from the ISPF primary menu and the user has sufficient authority to use SDSF facilities...
 - ◇ Execution of the macro **OP** from a SELCOPY/i CBLi text edit command prompt does not open the SDSF console LOG.
 - ◇ Execution of the macro **OQ** from a SELCOPY/i CBLi text edit command prompt does not open the SDSF ST Output Queue job status panel.

To correct these conditions, rename the existing System and User CBLiINI files and re-generate them using the FIRSTUSE macro. See [Step 16](#). for System CBLiINI. Pay close attention to specification of the following:

- ◆ The distributed CMX library name and SKEL member. (...CBLI.DIST.CMX(SKEL))
- ◆ The distributed HELP library high level qualifiers only. Note that ".HTML" must be omitted. (...CBLI.HELP)
- ◆ ISPF option for quick access to SDSF. (Default is M.5)
- ◆ The DSN mask for User CBLiINI data sets. This should include %USER% which gets substituted with a user's login ID or else be a DDNAME which will be allocated differently for each user. A user must have read/write authority to this data set.

On subsequent user login, FIRSTUSE will be executed again to re-generate the User CBLiINI file. Users should pay close attention to specification of the personal command centre (CMX) DSN.

Step 22: Verify SELCOPY Install

This step is applicable to install of **SELCOPY**.

Modify member CBLINS11 as described in the comment data in the job and submit it to verify successful installation of SELCOPY in load library &PREFIX..EXE.

Check output &PREFIX..LST(SELCIVP) for successful execution.

The job should complete with RC=0 and print the following string in the output listing:

```
"SELCOPY Release 2.02 has been installed correctly."
```

If the job completes with RC=52 and ERROR 124, then the licence details (SITE, RANGE and PASS) have not been correctly initialised in SELCNAM or the CBLNAME option SNameDSN is incorrect. (See [Step 9](#). and [Step 10](#).)

Step 23: Bind SELCOPY DB2 Plan and Verify SELCOPY/DB2 Interface

This step is applicable to install of **SELCOPY** at sites where DB2 is installed.

In order to execute SELCOPY dynamic SQL statements for DB2 databases, the SELCOPY application plan must be bound to each DB2 subsystem against which SELCOPY will be executed.

Job CBLINS12, step SDB2BIND binds the SELCOPY plan to your default DB2 subsystem using your chosen plan name (default CBLPLAN0.)

Note:

1. The default DB2 subsystem name must be specified either on an "OPT SSN=" statement in SELCNAM or on the DB2SubSys option in CBLNAME.
2. The default SELCOPY DB2 application plan name must be specified on the DB2Plan option in CBLNAME. (See [Step 10](#).)

If you want to bind the SELCOPY plan to more than one DB2 subsystem, then duplicate the SDB2BIND job step and modify the DSN SUBSYSTEM statement for each subsystem.

The SDB2IVP job step executes SELCOPY from &PREFIX..EXE to read and print the first four rows of the SYSIBM.SYSTABLES table.

Modify member CBLINS12 as described in the comment data in the job and submit it.

Check output in &PREFIX..LST(SDB2BIND), &PREFIX..LST(SDB2IVP) and &PREFIX..LST(CBLSQLOG).

The job should complete with RC=0 and the table rows printed in &PREFIX..LST(SDB2IVP).

Step 24: Link Edit the SELCOPY ADABAS Interface Module

This step is applicable to install of **SELCOPY** at sites where ADABAS is installed.

In order to execute SELCOPY to process ADABAS databases, the SELCOPY ADABAS interface load module SELCOPAD must be generated.

Modify member CBLINS13 as described in the comment data in the job and submit it to link edit the ADAUSER object module as SELCOPAD.

Note:

1. The CBLINS13 link edit job only needs to be executed the first time SELCOPY is installed. For subsequent installs, the SELCOPAD load module may simply be copied from your current production SELCOPY load library to &PREFIX..EXE.

Step 25: Verify SELCOPY Interactive Install

This step is applicable to install of **SELCOPY**.

To verify successful implementation of SELCOPY Interactive, do the following:

1. Start SELCOPY/i in any of the supported environments (TSO, ISPF or VTAM.)
The CBL text editor is opened automatically.
2. From the CBL text editor command prompt, enter the following command to edit the SELCOPY IVP job in the &PREFIX..JCL library:

```
Edit    prefix.JCL(CBLINS11)
```

3. From the CBL text editor command prompt, enter the following to execute the REXX macro **JCLCMX**:

```
JCLCMX
```

Macro JCLCMX generates a new CMDTEXT file containing SELCOPY/i commands for SELCOPY Interactive execution. First, the macro will prompt you to allocate a new, temporary data set to contain the in-line SYSIN SELCOPY control statements.

Update the SYSIN DSN as required and hit <Enter>. Then accept the default values in the "Allocate NonVSAM" dialog by positioning the cursor on the "Allocate" button and hitting <Enter>. Hit <Enter> again in the confirmation window to continue.

4. Hit PF9 to place focus on "SELCIVP" CMX member then place the cursor on the record that begins "**<alloc reuse f(xsteplib) ...**" and hit PF4 to allocate the steplib library.
Next, place the cursor on the record beginning "**<Selcopy -ctl ...**" and hit PF4 to start SELCOPY Interactive.
5. If you are using a 3270 terminal with a low number of columns by rows, an informational popup window is opened on entry to SELCOPY Interactive. Hit <Enter> to continue.
If no errors are encountered, then SELCOPY Interactive is installed and configured correctly.
6. On startup, the SYSIN window has the focus. PF9 may be used to cycle the focus to the Work Area display, SYSPRINT window, TRACE window and back again to SYSIN. Hit PF1 to step through the statements to end of job.
7. Hit PF3 to exit SELCOPY Interactive.
When focus is back on the "SELCIVP" CMX member, place the cursor on the record that begins "<erase ..." and hit PF4 to erase the temporary SELCOPY SYSIN data set.
8. Hit PF3 to exit all windows, one at a time, and eventually exit SELCOPY/i. (Do not save data sets when prompted.)

Step 26: Verify CBLVCAT Install

This step is applicable to install of **CBLVCAT**.

Modify member CBLINS14 as described in the comment data in the job and submit it to verify successful installation of CBLVCAT in load library &PREFIX..EXE.

Check output &PREFIX..LST(CBLVIVP) for successful execution.

The job should complete with RC=0 and print the following:

1. A report of cataloged VSAM data sets that begin with DSN prefix you specified on KEY=hlq.

2. A VTOC report for the volume you specified on VOL=volser.

If the job completes with RC=0 but no report output is generated other than the following message, then the licence details (Site, VDateRange and VPassword) have not been correctly initialised in CBLNAME. (See [Step 10.](#))

```
** Expiry: yyyy-mm-dd **
```

Step 27: Verify CBLVCAT Interactive (VCI SVC) Install

This step is applicable to install of **CBLVCAT**.

If the VCI SVC has been installed correctly, then CBLVCAT Interactive will operate successfully for ICF catalog reporting.

To verify this, start SELCOPY/i in any of the supported environments (TSO, ISPF or VTAM) and, from any command prompt, enter the following:

```
VCAT
```

This will open the "Execute CBLVCAT" window and insert the default CBLVCAT command stream which is defined by the [CBLVCAT] DefaultCommand option in the System or User CBLiNI file. If DefaultCommand is not set, the default command inserted by the SELCOPY/i program is as follows:

```
REPORT VCAT DSN TYPE VOL2      !LISTCAT TYPE=U REF=your.master.catalog
```

This will generate a report listing user catalogs.

Hit <Enter> to execute CBLVCAT. If the SVC is installed correctly, a report will be successfully generated.

If the SVC has not been installed correctly, a popup window is opened that reports the status of the SVC. For example, if the routine is not in the LPA:

```

+-----+
| CBLVCAT SVC install error                                     x |
|                                                             |
|  STOP  VCII017I Checking the status of the CBLVCAT         |
|         Interactive SVC svc=109 esr=222 module=IGX00222.   |
|                                                             |
|         VCII019E SVC module IGX00222 not found in either  |
|         static or dynamic LPA.                            |
|                                                             |
|         VCII024E The CBLVCAT Interactive SVC is not      |
|         installed. You will not be able to use the       |
|         LISTVCAT command.                                |
|                                                             |
|                   OK                                     Cancel |
+-----+

```

Review the VCI SVC install steps 21, 22 and 23 to correct the error. Exit then restart SELCOPY/i before re-running this verification step.

Step 28: Migrate to Production

If all steps have been executed successfully, then CBL products have been successfully installed in the target libraries.

Modify member CBLINS15 as described in the comment data in the job and submit it to copy the contents of the target install load library &PREFIX..EXE to the distribution library &PREFIX..EXE.LLD.

Check output &PREFIX..LST(LOADDIST).

Your installation specific procedures should be used to promote the load library, &PREFIX..EXE, and the SELCNAM and System CBLiNI configuration files into your production environment.

Note:

- Following successful install of the CBL software, if, when migrating to production, you intend to rename the newly installed SELCNAM and/or the System CBLiNI configuration data sets, then CBLNAME will have to be re-assembled and link edited with SNameDSN and INameDSN referencing the new DSNs. (See [Step 10.](#))

CBL software is now installed - Thank you for using it.

Section 05: Updating Licence Information

SELCOPY SELCNAM Data Set

SELCOPY licence information is maintained in the SELCNAM data set.

SELCNAM is designed to be **release independent**. This means that, once you have installed a release of SELCOPY which utilises the SELCNAM data set and is still validly licensed, you do not need to update SELCNAM to change **SITE=**, **PASS=** and **RANGE=** parameters when installing a new release.

Your existing licence information, if valid for your current release, will be valid for the new release.

Except when creating your SELCNAM file for the first time, updating licence information in SELCNAM and installing a new release of SELCOPY are independent activities.

The licence information in SELCNAM must be updated when product expiry is imminent. CBL will ensure that licensed date ranges will always overlap sufficiently for you to plan the SELCNAM upgrade.

Whenever SELCOPY licence information is updated, CBL recommends that the following steps are executed:

1. Copy the existing SELCNAM data set to a new DSN which we will name &PREFIX..NEWSELC.NAM (use a name appropriate to your operating system naming standards).

Because any error you make in coding the licence information in SELCNAM will immediately stop SELCOPY working, you **must not** make changes directly to the production SELCNAM file.

2. Edit the &PREFIX..NEWSELC.NAM and modify with the new SITE, RANGE and PASS values. Note that these details must be entered exactly as supplied by CBL.

3. Include a SELCNAM DD statement for DSN &PREFIX..NEWSELC.NAM in a test SELCOPY job, e.g &PREFIX..JCL(CBLINS11), and submit it to verify that the licence information has been updated correctly. The new expiry date appears in the footer of the SELCOPY SYSPRINT output.

If this test job runs successfully (without producing **ERROR 124 - Check expiry**) then the licence information was entered successfully. If not, re-enter your changes to &PREFIX..NEWSELC.NAM and repeat the test until it is successful.

4. **Backup** your current production SELCNAM file (to enable fallback in case of a problem).
5. Schedule a time when you can migrate the new SELCNAM to production without impacting production SELCOPY work. &PREFIX..NEWSELC.NAM should be copied over your production version of the SELCNAM file.
6. Rerun your test SELCOPY job **without** the specific allocation for SELCNAM. The new production SELCNAM will be read by default.
 - ◆ If the test job still runs successfully then your upgrade to SELCNAM is complete.
 - ◆ If the test job fails, re-instate the backup copy of your production SELCNAM and repeat this procedure until successful.

CBLVCAT CBLNAME Load Module

CBLVCAT licence information is maintained in the CBLNAME Load Module.

The licence information in CBLNAME must be updated when product expiry is imminent. CBL will ensure that licensed date ranges will always overlap sufficiently for you to plan the CBLNAME upgrade.

Whenever CBLVCAT licence information is updated, CBL recommends that the following steps are executed:

1. Copy the existing CBLNAME load module from the install target library, &PREFIX..EXE(CBLNAME), to library &PREFIX..EXE.LLD (to enable fallback in case of a problem).
2. Create a temporary Load Library which we will name &PREFIX..EXE.TMP. (Use a name appropriate to your operating system naming standards).

Following assemble and link edit of CBLNAME, any error made in coding the licence information will immediately stop CBLVCAT from working. Therefore, you **must not** link edit CBLNAME directly to the production Load Library.

3. Edit &PREFIX..SRC(CBLNAME) assembler source and modify Site, VDateRange and VPassWord with the new SITE, RANGE and PASS values exactly as supplied by CBL.
4. Make a copy of the member &PREFIX..JCL(CBLINS05) then edit it and modify SYSLMOD &EXELIB library to be &PREFIX..EXE.TMP. Submit the job to assemble and link edit the CBLNAME source.
5. Include a STEPLIB DD statement for DSN &PREFIX..EXE.TMP in a test CBLVCAT job, e.g &PREFIX..JCL(CBLINS14), and submit it to verify that the licence information has been updated correctly.

If the job completes with RC=0 but no report output is generated other than the following message, then the licence details (Site, VDateRange and VPassword) have not been correctly initialised in CBLNAME.

```
** Expiry: yyyy-mm-dd **
```

Re-enter your changes to &PREFIX..SRC(CBLNAME) re-assemble and link edit and repeat the test until it is successful.

If successful, the new date range is displayed in the report output page footings.

6. Schedule a time when you can migrate the new CBLNAME load module into production without impacting production CBLVCAT work. &PREFIX..EXE.TMP(CBLNAME) should be copied to your production library replacing the existing version.
7. Rerun your test CBLVCAT job **without** the STEPLIB DD statement. The new production CBLNAME will be processed by default.
 - ◆ If the test job still runs successfully then your upgrade of CBLNAME is complete and the temporary load library may be deleted.
 - ◆ If the test job fails, re-instate the backup copy of your production CBLNAME from &PREFIX..EXE.LLD and repeat this procedure until successful.

Section 06: Applying Maintenance

Maintenance to CBL software products take the form of Program Temporary Fixes (PTF), more commonly referenced as ZAPs in CBL documentation. Zaps correct code defects and, in some cases, introduce new features.

In MVS systems, zaps are applied using the MVS SPZAP utility invoked via JCL job streams that execute the program AMASPZAP. For each program product (SELCOPY, CBLVCAT and SELCOPY/i) there exists a single job stream that applies **all published** zaps to the program.

The job streams are published as .zip files that may be downloaded from product specific technical support pages on the CBL web site. These pages also contain brief descriptions of the issues addressed by each zap.

Note:

1. Zaps may be specific to an individual operating system (e.g. VSE or CMS). Applying zaps that are not applicable to your operating system will not affect operation of the software on your system. CBL recommends that all zaps are applied regardless of the operating system to which they apply.

To apply maintenance, perform the following steps:

1. Download the .zip file specific to the operating system and CBL product for which maintenance is to be applied and extract the .txt file.
2. Use your local file transfer methods to import the SPZAP JCL job stream to your MVS system. CBL recommends that you transfer the SPZAP job streams to the &PREFIX..JCL library with a member name that reflects the product and zap numbers being applied. e.g. S001#033 for SELCOPY zap numbers 1 to 33, V021#021 for CBLVCAT zap number 21, I010#012 for SELCOPY/i zap numbers 10 to 12.

Note:

1. If you have already applied maintenance for the product, then edit the job stream and remove the job steps that apply those zaps which are already implemented.
2. If an attempt is made to apply a zap more than once, the data verification fails, a non-zero return code is set and the CSECT being zapped is dumped to SYSPRINT.

Beware that, when using FTP client to transfer library members, then members of the same name that already exist in the library will be replaced without warning.

In the following example FTP session, 'SYS5.OEM.CBL200.JCL' is the MVS job library, 'c:\tmp\cbl\selc200_zaps_mvs.txt' is the extracted PC file containing the SELCOPY product maintenance job stream with zaps numbers 35 to 93. (Zaps 1 to 34 have already been applied and so have been removed from this job stream.)

```
ftp> cd 'SYS5.OEM.CBL200.JCL'
      250 The working directory "SYS5.OEM.CBL200.JCL" is a partitioned data set
ftp> lcd c:\tmp\cbl
      Local directory now C:\tmp\cbl.
ftp> ascii
      200 Representation type is Ascii NonPrint
ftp> put selc200_zaps_mvs.txt s035#093
      200 Port request OK.
      125 Storing data set SYS5.OEM.CBL200.JCL(S035#093)
      250 Transfer completed (data was truncated)
      ftp: 78482 bytes sent in 0.11Seconds 720.02Kbytes/sec.
```

3. Backup load modules in your live version of the load library, &PREFIX..EXE, to the distribution library, &PREFIX..EXE.LLD. See job &PREFIX..JCL(CBLINS15).

Note:

1. You must never apply maintenance without first backing up the live versions to the distribution library.
4. Create a temporary, authorised Load Library, which we will name &PREFIX..EXE.ZAP, which will ultimately contain the zapped versions of the load modules. (Use a name appropriate to your operating system naming standards).
5. Copy all load modules from &PREFIX..EXE to &PREFIX..EXE.ZAP
6. Modify the SYSLIB DD statement in the transferred job so that modules in the target load library &PREFIX..EXE.ZAP will be zapped. Submit the job and verify successful completion and RC=0 in the SYSPRINT output.

Note:

1. If &PREFIX..EXE.ZAP is a PDS (not a PDSE) library, then PARM=IGNIDRFULL is required on EXEC PGM=AMASPZAP to avoid RC=4 if all the IDRZ records are filled.

7. Execute test jobs with STEPLIB DD statements pointing to &PREFIX..EXE.ZAP in order to verify successful application of zaps.

Differences in execution may occur as a result of a zap being applied that corrects a code defect that is being exploited, or gone unnoticed, at your installation. If these differences are unexpected or unacceptable, please contact CBL.

8. Schedule a time when you can migrate the zapped load modules into production without impacting production work. Load modules in &PREFIX..EXE.ZAP should be copied to your production library &PREFIX..EXE replacing existing versions.

If an unexpected difference is encountered in a production job, then restore the previous live version of the load modules from &PREFIX..EXE.LLD distribution load library. You should contact CBL to identify the zap(s) that caused the difference and to determine how to proceed.

9. When the zapped load modules have been in production for a period of time and you are satisfied with their execution, the load modules should be copied to your distribution (backup) version of the load library, &PREFIX..EXE.LLD.

Note:

1. Once &PREFIX..EXE.LLD has been updated, returning to versions of the module prior to it being zapped may only be achieved by re-installing the product.
-