

AllFusion™ Endeavor® Change Manager

Interface for CA-Roscoe®
Administration Guide
4.0



Computer Associates®

SP1
ENROS400

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Chapter 1. Installing the Interface

1.1 Overview

This chapter discusses how to install the AllFusion™ Endeavor® Change Manager Interface for CA-Roscoe® (referred to from hereon as the Roscoe Interface).

The Roscoe Interface allows you to perform AllFusion™ Endeavor® Change Manager functions in an Advantage™ CA-Roscoe® Interactive Environment. (Hereafter these later two products are referred to as Endeavor and Roscoe.) You can display and retrieve elements, display the footprints in source, object or load libraries, and build batch requests using Endeavor's Software Control Language (SCL). You can also edit batch requests, build JCL and submit jobs.

The Roscoe Interface is initialized with other user applications during Roscoe startup, and remains ready for use until the Roscoe application is terminated by an operator command from the console.

All applications that are to be executed under ETSO must be defined in a load library known to ETSO and the Eligible Program List (EPL).

Prior to installing the interface, be sure that:

- You are using **release 6.0 or later** of Advantage CA-Roscoe Interactive Environment.
- You are using the application programming interface ETSO.
- You have properly installed AllFusion Endeavor Change Manager release 4.0.
- You have access to SMP/E modules

1.2 Step 1: Allocate and Initialize, SMP/E and Endeavor for Roscoe Install Datasets

Note: If this is a maint install, please refer to Appendix C for Step 1 and Step 2 of the install procedure.

Please run the following JCL (BC1JRALC), found in iprfx.igual.JCLLIB of the Endeavor for OS/390 install datasets, to allocate and initialize both the SMP/E environment, and the datasets needed to run E

```

/**(JOB CARD)
/**-----*
/**
/** (C) 2002 COMPUTER ASSOCIATES INTERNATIONAL, INC.
/**
/** NAME: BC1JRALC
/**
/** PURPOSE: THIS JOB WILL UPDATE ENDEVOR BASE SMPE CSI WITH THE
/** ENDEVOR FOR ROSCOE TARGET AND DISTRIBUTION INFORMATION.
/** IT WILL ALSO ALLOCATE THE REQAUIRED DATASETS NEEDED TO COMPLETE
/** THE ENDEVOR FOR ROSCOE INSTALL.
/**
/**-----*
//ALLOC EXEC PGM=IEFBRI4
//CAP40RAT DD DSN=IPRFX.IQUAL.ROSCOE.AUTHLIB,
//          DISP=(NEW,CATLG,DELETE),
//          UNIT=PDISK,VOL=SER=DVOLSER,
//          SPACE=(TRK,(2,1,30)),
//          DCB=(LRECL=0,RECFM=U,BLKSIZE=32760)
//CAP40RMT DD DSN=IPRFX.IQUAL.ROSCOE.MACLIB,
//          DISP=(NEW,CATLG,DELETE),
//          UNIT=PDISK,VOL=SER=DVOLSER,
//          SPACE=(TRK,(25,2,45)),
//          DCB=(LRECL=80,RECFM=FB,BLKSIZE=0)
//CAP40R0T DD DSN=IPRFX.IQUAL.ROSCOE.OBJLIB,
//          DISP=(NEW,CATLG,DELETE),
//          UNIT=PDISK,VOL=SER=DVOLSER,
//          SPACE=(CYL,(1,1,15)),
//          DCB=(LRECL=80,RECFM=FB,BLKSIZE=0)
//CAP40RST DD DSN=IPRFX.IQUAL.ROSCOE.ROSLIB,
//          DISP=(NEW,CATLG,DELETE),
//          UNIT=PDISK,VOL=SER=DVOLSER,
//          SPACE=(CYL,(2,2,15)),
//          DCB=(LRECL=80,RECFM=FB,BLKSIZE=0)
//CAP40RPT DD DSN=IPRFX.IQUAL.ROSCOE.PNLLIB,
//          DISP=(NEW,CATLG,DELETE),
//          UNIT=PDISK,VOL=SER=DVOLSER,
//          SPACE=(CYL,(1,2,30),RLSE),
//          DCB=(LRECL=80,RECFM=FB,BLKSIZE=0)
//CAP40RAD DD DSN=IPRFX.IQUAL.ROSCOE.CAP40RAD,
//          DISP=(NEW,CATLG,DELETE),
//          UNIT=PDISK,VOL=SER=DVOLSER,
//          SPACE=(TRK,(2,1,30)),
//          DCB=(LRECL=0,RECFM=U,BLKSIZE=32760)

```

```
//CAP40RMD DD DSN=IPRFX.IQUAL.ROSCOE.CAP40RMD,
//          DISP=(NEW,CATLG,DELETE),
//          UNIT=PDISK,VOL=SER=DVOLSER,
//          SPACE=(TRK,(25,2,45)),
//          DCB=(LRECL=80,RECFM=FB,BLKSIZE=0)
//CAP40R0D DD DSN=IPRFX.IQUAL.ROSCOE.CAP40R0D,
//          DISP=(NEW,CATLG,DELETE),
//          UNIT=PDISK,VOL=SER=DVOLSER,
//          SPACE=(CYL,(1,1,15)),
//          DCB=(LRECL=80,RECFM=FB,BLKSIZE=0)
//CAP40RST DD DSN=IPRFX.IQUAL.ROSCOE.CAP40RST,
//          DISP=(NEW,CATLG,DELETE),
//          UNIT=PDISK,VOL=SER=DVOLSER,
//          SPACE=(CYL,(2,2,15)),
//          DCB=(LRECL=80,RECFM=FB,BLKSIZE=0)
//CAP40RPD DD DSN=IPRFX.IQUAL.ROSCOE.CAP40RPD,
//          DISP=(NEW,CATLG,DELETE),
//          UNIT=PDISK,VOL=SER=DVOLSER,
//          SPACE=(CYL,(1,2,30),RLSE),
//          DCB=(LRECL=80,RECFM=FB,BLKSIZE=0)
/*
/*
/** ADD ROSCOE TO CSI GLOBAL, TARGET & DISTRIBUTION ZONES
//SMPZONE EXEC PGM=GIMSMP,REGION=4096K,PARM='DATE=U'
/** EXPECTED RETURN CODE: 00
//SMPCSI DD DISP=SHR,DSN=IPRFX.IQUAL.CSI
//SMPPTS DD DISP=SHR,DSN=IPRFX.IQUAL.SMPPTS
//SMPLOG DD DUMMY
//SMPLOGA DD DUMMY
//SMPOUT DD SYSOUT=*
//SMPPUNCH DD SYSOUT=*
//SMPRPT DD SYSOUT=*
//SMPLIST DD SYSOUT=*
//SMPSNAP DD SYSOUT=*
//SYSPRINT DD SYSOUT=*
//SYSUDUMP DD SYSOUT=*
//SMPWRK1 DD UNIT=TDISK,SPACE=(TRK,(5,15,15)),DCB=BLKSIZE=3120
//SMPWRK2 DD UNIT=TDISK,SPACE=(TRK,(5,15,15)),DCB=BLKSIZE=3120
//SMPWRK3 DD UNIT=TDISK,SPACE=(TRK,(5,15,15)),DCB=BLKSIZE=3120
//SMPWRK4 DD UNIT=TDISK,SPACE=(TRK,(5,15,15)),DCB=BLKSIZE=3120
//SMPWRK6 DD UNIT=TDISK,SPACE=(TRK,(5,15,15)),DCB=BLKSIZE=3120
//SYSUT1 DD UNIT=TDISK,SPACE=(TRK,(5,1))
//SYSUT2 DD UNIT=TDISK,SPACE=(TRK,(5,1))
//SYSUT3 DD UNIT=TDISK,SPACE=(TRK,(5,1))
//SYSUT4 DD UNIT=TDISK,SPACE=(TRK,(5,1))
//SMPCNTL DD *
```

```
SET BDY(GLOBAL).
UCLIN.
  ADD GLOBALZONE ZONEINDEX(
    (ROSCTGT,IPRFX.IQUAL.CSI,TARGET)
    (ROSCDLB,IPRFX.IQUAL.CSI,DLIB)
  ).
ENDUCL.
SET BDY(ROSCTGT).
UCLIN.
  ADD TARGETZONE(ROSCTGT)
  SREL (Z038)
  RELATED(ROSCDLB)
  OPTIONS(NDVROPT).
  ADD DDDEF (SMPPTS)
  DATASET (IPRFX.IQUAL.SMPPTS)
  SHR.
  ADD DDDEF (SMPMTS)
  DATASET (IPRFX.IQUAL.SMPMTS)
  SHR.
  ADD DDDEF (SMPSTS)
  DATASET (IPRFX.IQUAL.SMPSTS)
  SHR.
  ADD DDDEF (SMPSCDS)
  DATASET (IPRFX.IQUAL.SMPSCDS)
  SHR.
  ADD DDDEF (CAP40RAT)
  DATASET (IPRFX.IQUAL.ROSCOE.AUTHLIB)
  SHR.
  ADD DDDEF (CAP40RAD)
  DATASET (IPRFX.IQUAL.ROSCOE.CAP40RAD)
  SHR.
  ADD DDDEF (CAP40RMT)
  DATASET (IPRFX.IQUAL.ROSCOE.MACLIB)
  SHR.
  ADD DDDEF (CAP40RMD)
  DATASET (IPRFX.IQUAL.ROSCOE.CAP40RMD)
  SHR.
  ADD DDDEF (CAP40ROT)
  DATASET (IPRFX.IQUAL.ROSCOE.OBJLIB)
  SHR.
  ADD DDDEF (CAP40ROD)
  DATASET (IPRFX.IQUAL.ROSCOE.CAP40ROD)
  SHR.
  ADD DDDEF (CAP40RST)
  DATASET (IPRFX.IQUAL.ROSCOE.ROSLIB)
  SHR.
```

```
ADD DDDEF (CAP40RSD)
DATASET (IPRFX.IQUAL.ROSCOE.CAP40RSD)
SHR.
ADD DDDEF (CAP40RPT)
DATASET (IPRFX.IQUAL.ROSCOE.PNLLIB)
SHR.
ADD DDDEF (CAP40RPD)
DATASET (IPRFX.IQUAL.ROSCOE.CAP40RPD)
SHR.
ADD DDDEF (SYSLIB)
DATASET (SYS1.MACLIB)
SHR.
ENDUCL.
SET BDY(ROSCDLB).
UCLIN.
  ADD DLIBZONE(ROSCDLB)
  SREL (Z038)
  RELATED(ROSCGT)
  OPTIONS(NDVROPT).
  ADD DDDEF (SMPPTS)
  DATASET (IPRFX.IQUAL.SMPPTS)
  SHR.
  ADD DDDEF (SMPMTS)
  DATASET (IPRFX.IQUAL.SMPMTS)
  SHR.
  ADD DDDEF (SMPSTS)
  DATASET (IPRFX.IQUAL.SMPSTS)
  SHR.
  ADD DDDEF (SMPSCDS)
  DATASET (IPRFX.IQUAL.SMPSCDS)
  SHR.
  ADD DDDEF (CAP40RAT)
  DATASET (IPRFX.IQUAL.ROSCOE.AUTHLIB)
  SHR.
  ADD DDDEF (CAP40RAD)
  DATASET (IPRFX.IQUAL.ROSCOE.CAP40RAD)
  SHR.
  ADD DDDEF (CAP40RMT)
  DATASET (IPRFX.IQUAL.ROSCOE.MACLIB)
  SHR.
  ADD DDDEF (CAP40RMD)
  DATASET (IPRFX.IQUAL.ROSCOE.CAP40RMD)
  SHR.
  ADD DDDEF (CAP40ROT)
  DATASET (IPRFX.IQUAL.ROSCOE.OBJLIB)
  SHR.
```

```
ADD DDDEF (CAP40ROD)
DATASET (IPRFX.IQUAL.ROSCOE.CAP40ROD)
SHR.
ADD DDDEF (CAP40RST)
DATASET (IPRFX.IQUAL.ROSCOE.ROSLIB)
SHR.
ADD DDDEF (CAP40RSD)
DATASET (IPRFX.IQUAL.ROSCOE.CAP40RSD)
SHR.
ADD DDDEF (CAP40RPT)
DATASET (IPRFX.IQUAL.ROSCOE.PNLLIB)
SHR.
ADD DDDEF (CAP40RPD)
DATASET (IPRFX.IQUAL.ROSCOE.CAP40RPD)
SHR.
ADD DDDEF (SYSLIB)
DATASET (SYS1.MACLIB)
SHR.
ENDUCL.
/*
```

1.3 Step 2: Populate SMP/E and Endeavor for Roscoe Install Datasets

Please run the following JCL (BC1JRUNL), found in iprfx.igual.JCLLIB of the Endeavor for OS/390 install datasets, to populate both the SMP/E environment, and the datasets needed to run Endeavor Roscoe a

```

/*(JOB CARD)
/*-----*
/*
/* (C) 2002 COMPUTER ASSOCIATES INTERNATIONAL, INC.
/*
/* NAME: BC1JRUNL
/*
/* PURPOSE: THIS JOB WILL RECEIVE APPLY AND ACCEPT ALL ENDEAVOR
/* FOR ROSCOE ELEMENTS.
/*
/*-----*
/******
//RECEIVE EXEC PGM=GIMSMP,REGION=4096K,PARM='DATE=U'
//SMPCSI DD DISP=SHR,DSN=IPRFX.IGUAL.CSI
//SMPPTFIN DD DSN=BST.NDVRC1.SMPMCS,
//          UNIT=CART,
//          VOL=SER=TVOLSER,
//          LABEL=(32,SL),
//          DISP=OLD
//SMPHOLD DD DUMMY
//SMPLOG DD DUMMY
//SMPLOGA DD DUMMY
//SMPOUT DD SYSOUT=*
//SMPPUNCH DD SYSOUT=*
//SMRPT DD SYSOUT=*
//SMPLIST DD SYSOUT=*
//SMPSNAP DD SYSOUT=*
//SYSPRINT DD SYSOUT=*
/*SYSUDUMP DD SYSOUT=*
//SMPWRK1 DD UNIT=TDISK,SPACE=(CYL,(5,5,15)),DCB=BLKSIZE=3120
//SMPWRK2 DD UNIT=TDISK,SPACE=(CYL,(5,5,15)),DCB=BLKSIZE=3120
//SMPWRK3 DD UNIT=TDISK,SPACE=(CYL,(5,5,15)),DCB=BLKSIZE=3120
//SMPWRK4 DD UNIT=TDISK,SPACE=(CYL,(5,5,15)),DCB=BLKSIZE=3120
//SMPWRK6 DD UNIT=TDISK,SPACE=(CYL,(5,5,15)),DCB=BLKSIZE=3120
//SYSUT1 DD UNIT=TDISK,SPACE=(CYL,(5,1))
//SYSUT2 DD UNIT=TDISK,SPACE=(CYL,(5,1))
//SYSUT3 DD UNIT=TDISK,SPACE=(CYL,(5,1))
//SYSUT4 DD UNIT=TDISK,SPACE=(CYL,(5,1))
//SMPTLIB DD UNIT=TDISK,VOL=SER=DVOLSER,DISP=SHR
//SMPCNTL DD *
SET BOUNDARY(GLOBAL).
RECEIVE SELECT(CHN4000).

```

```

//*****
//*
//* NAME: RECEIVE ROSCOE PTFS NEEDED FOR INSTALL
//*
//*****
//SMPZAP EXEC PGM=GIMSMP,REGION=4096K,PARM='DATE=U'
//SMPCSI DD DISP=SHR,DSN=IPRFX.IQUAL.CSI
//SYSUT1 DD UNIT=TDISK,SPACE=(CYL,(5,1))
//SYSUT2 DD UNIT=TDISK,SPACE=(CYL,(5,1))
//SYSUT3 DD UNIT=TDISK,SPACE=(CYL,(5,1))
//SYSUT4 DD UNIT=TDISK,SPACE=(CYL,(5,1))
//SMPCNTL DD DDNAME=SYSIN
//SMPHOLD DD DUMMY
//SMPLOG DD DUMMY
//SMPLOGA DD DUMMY
//SMPOUT DD SYSOUT=*
//SMPRPT DD SYSOUT=*
//SMPLIST DD SYSOUT=*
//SYSPRINT DD SYSOUT=*
//SYSIN DD *
SET BOUNDARY(GLOBAL) .
RECEIVE FORFMID(CHN4000) .
//*
//SMPPTFIN DD DSN=IPRFX.IQUAL.SOURCE(ROSPTFS),DISP=SHR
//*
//*****
//APPLY EXEC PGM=GIMSMP,REGION=4096K,PARM='DATE=U'
//SMPCSI DD DISP=SHR,DSN=IPRFX.IQUAL.CSI
//SMPLOG DD DUMMY
//SMPLOGA DD DUMMY
//SMPOUT DD SYSOUT=*
//SMPPUNCH DD SYSOUT=*
//SMPRPT DD SYSOUT=*
//SMPLIST DD SYSOUT=*
//SMPSNAP DD SYSOUT=*
//SYSPRINT DD SYSOUT=*
//*SYSUDUMP DD SYSOUT=*
//SMPWRK1 DD UNIT=TDISK,SPACE=(CYL,(5,5,15)),DCB=BLKSIZE=3120
//SMPWRK2 DD UNIT=TDISK,SPACE=(CYL,(5,5,15)),DCB=BLKSIZE=3120
//SMPWRK3 DD UNIT=TDISK,SPACE=(CYL,(5,5,15)),DCB=BLKSIZE=3120
//SMPWRK4 DD UNIT=TDISK,SPACE=(CYL,(5,5,15)),DCB=BLKSIZE=3120
//SMPWRK6 DD UNIT=TDISK,SPACE=(CYL,(5,5,15)),DCB=BLKSIZE=3120
//SYSUT1 DD UNIT=TDISK,SPACE=(CYL,(5,1))
//SYSUT2 DD UNIT=TDISK,SPACE=(CYL,(5,1))
//SYSUT3 DD UNIT=TDISK,SPACE=(CYL,(5,1))
//SYSUT4 DD UNIT=TDISK,SPACE=(CYL,(5,1))
//SMPTLIB DD UNIT=TDISK,VOL=SER=DVOLSER,DISP=SHR
//SMPCNTL DD *
SET BOUNDARY(ROSCTGT) .
APPLY SELECT(CHN4000) .

```

1.3 Step 2: Populate SMP/E and Endeavor for Roscoe Install Datasets

```

//*****
//ACCEPT EXEC PGM=GIMSMP,REGION=4096K,PARM='DATE=U'
//SMPCSI DD DISP=SHR,DSN=IPRFX.IQUAL.CSI
//SMPLOG DD DUMMY
//SMPLOGA DD DUMMY
//SMPOUT DD SYSOUT=*
//SMPPUNCH DD SYSOUT=*
//SMRPT DD SYSOUT=*
//SMPLIST DD SYSOUT=*
//SMPSNAP DD SYSOUT=*
//SYSPRINT DD SYSOUT=*
//*SYSUDUMP DD SYSOUT=*
//SMPWRK1 DD UNIT=TDISK,SPACE=(CYL,(5,5,15)),DCB=BLKSIZE=3120
//SMPWRK2 DD UNIT=TDISK,SPACE=(CYL,(5,5,15)),DCB=BLKSIZE=3120
//SMPWRK3 DD UNIT=TDISK,SPACE=(CYL,(5,5,15)),DCB=BLKSIZE=3120
//SMPWRK4 DD UNIT=TDISK,SPACE=(CYL,(5,5,15)),DCB=BLKSIZE=3120
//SMPWRK6 DD UNIT=TDISK,SPACE=(CYL,(5,5,15)),DCB=BLKSIZE=3120
//SYSUT1 DD UNIT=TDISK,SPACE=(CYL,(5,1))
//SYSUT2 DD UNIT=TDISK,SPACE=(CYL,(5,1))
//SYSUT3 DD UNIT=TDISK,SPACE=(CYL,(5,1))
//SYSUT4 DD UNIT=TDISK,SPACE=(CYL,(5,1))
//SMPTLIB DD UNIT=TDISK,VOL=SER=DVOLSER,DISP=SHR
//SMPCNTL DD *
SET BOUNDARY(ROSCDLB).
ACCEPT SELECT(CHN4000).
/*
//*****
//APPLY EXEC PGM=GIMSMP,REGION=4096K,PARM='DATE=U'
//SMPCSI DD DISP=SHR,DSN=IPRFX.IQUAL.CSI
//SMPLOG DD DUMMY
//SMPLOGA DD DUMMY
//SMPOUT DD SYSOUT=*
//SMPPUNCH DD SYSOUT=*
//SMRPT DD SYSOUT=*
//SMPLIST DD SYSOUT=*
//SMPSNAP DD SYSOUT=*
//SYSPRINT DD SYSOUT=*
//*SYSUDUMP DD SYSOUT=*
//SMPWRK1 DD UNIT=TDISK,SPACE=(CYL,(5,5,15)),DCB=BLKSIZE=3120
//SMPWRK2 DD UNIT=TDISK,SPACE=(CYL,(5,5,15)),DCB=BLKSIZE=3120
//SMPWRK3 DD UNIT=TDISK,SPACE=(CYL,(5,5,15)),DCB=BLKSIZE=3120
//SMPWRK4 DD UNIT=TDISK,SPACE=(CYL,(5,5,15)),DCB=BLKSIZE=3120
//SMPWRK6 DD UNIT=TDISK,SPACE=(CYL,(5,5,15)),DCB=BLKSIZE=3120
//SYSUT1 DD UNIT=TDISK,SPACE=(CYL,(5,1))
//SYSUT2 DD UNIT=TDISK,SPACE=(CYL,(5,1))
//SYSUT3 DD UNIT=TDISK,SPACE=(CYL,(5,1))
//SYSUT4 DD UNIT=TDISK,SPACE=(CYL,(5,1))
//SMPTLIB DD UNIT=TDISK,VOL=SER=DVOLSER,DISP=SHR
//SMPCNTL DD *

```

```
SET BOUNDARY(ROSCTGT).
APPLY      SELECT(PR40001).
APPLY      SELECT(PR40002).
APPLY      SELECT(PR40003).
APPLY      SELECT(PR40004).
APPLY      SELECT(PR40005).
APPLY      SELECT(PR40006).
//*****
//ACCEPT   EXEC PGM=GIMSMP,REGION=4096K,PARM='DATE=U'
//SMPCSI   DD DISP=SHR,DSN=IPRFX.IQUAL.CSI
//SMPLOG   DD DUMMY
//SMPLOGA  DD DUMMY
//SMPOUT   DD SYSOUT=*
//SMPPUNCH DD SYSOUT=*
//SMRPT    DD SYSOUT=*
//SMPLIST  DD SYSOUT=*
//SMPSNAP  DD SYSOUT=*
//SYSPRINT DD SYSOUT=*
//*SYSUDUMP DD SYSOUT=*
//SMPWRK1  DD UNIT=TDISK,SPACE=(CYL,(5,5,15)),DCB=BLKSIZE=3120
//SMPWRK2  DD UNIT=TDISK,SPACE=(CYL,(5,5,15)),DCB=BLKSIZE=3120
//SMPWRK3  DD UNIT=TDISK,SPACE=(CYL,(5,5,15)),DCB=BLKSIZE=3120
//SMPWRK4  DD UNIT=TDISK,SPACE=(CYL,(5,5,15)),DCB=BLKSIZE=3120
//SMPWRK6  DD UNIT=TDISK,SPACE=(CYL,(5,5,15)),DCB=BLKSIZE=3120
//SYSUT1   DD UNIT=TDISK,SPACE=(CYL,(5,1))
//SYSUT2   DD UNIT=TDISK,SPACE=(CYL,(5,1))
//SYSUT3   DD UNIT=TDISK,SPACE=(CYL,(5,1))
//SYSUT4   DD UNIT=TDISK,SPACE=(CYL,(5,1))
//SMPTLIB  DD UNIT=TDISK,VOL=SER=DVOLSER,DISP=SHR
//SMPCNTL  DD *
SET BOUNDARY(ROSCDLB).
ACCEPT     SELECT(PR40001).
ACCEPT     SELECT(PR40002).
ACCEPT     SELECT(PR40003).
ACCEPT     SELECT(PR40004).
ACCEPT     SELECT(PR40005).
ACCEPT     SELECT(PR40006).
/*
.
```

1.4 Step 3: Install the Configuration Module

You must modify the configuration parameters for the Roscoe Interface. These parameters are contained in dataset `iprfx.igual.JCLLIB(C1RPCNFG)`. Change the following parameters for your site and execute the JCL.

- **SERVERS**= Must be set to 1. If another number is used, at initialization time, the server number is reset back down to 1.
- **PPFX**= Indicates the prefix of the Roscoe panel library. The default is 'C1'. You should change this to the prefix used for the Roscoe execution library that exists at your site.
- **SPFX**= Indicates the scratchpad work area prefix. The SPFX parameter is optional. If it is not specified, or specified as blank, the scratchpad work area will be allocated in the user's directory. If specified, it must be two or three characters long and must identify a prefix whose work area can be updated by **any** Roscoe user.

The JCL in `iprfx.igual.JCLLIB(C1RPCNFG)` is shown below:

```

/*(JOB CARD)
/*-----*
/*
/* (C) 1987,2000 COMPUTER ASSOCIATES INTERNATIONAL, INC.
/*
/* NAME: C1RPCNFG
/*
/* FUNCTION: THIS JOB IS USED TO ASSEMBLE AND LINK EDIT THE
/* ENDEVOR/ROSCOE CONFIGURATION MODULE, C1RPCNFG.
/*-----*
//ASM      EXEC PGM=ASMA90,
//          PARM='NODECK,OBJECT,NOTERM,XREF(SHORT),NOUSING'
//SYSLIB   DD  DISP=SHR,DSN=iprfx.igual.SOURCE
//SYSLIN   DD  DSN=&&TEMPCNFG,
//          UNIT=tdisk,
//          DISP=(NEW,PASS,DELETE),
//          SPACE=(TRK,(5,1)),
//          DCB=(RECFM=FB,LRECL=80,BLKSIZE=3120)
//SYSPRINT DD  SYSOUT=*
//SYSUT1   DD  DSN=&&SYSUT1,UNIT=tdisk,SPACE=(1700,(600,100))
//SYSUT2   DD  DSN=&&SYSUT2,UNIT=tdisk,SPACE=(1700,(300,50))
//SYSUT3   DD  DSN=&&SYSUT3,UNIT=tdisk,SPACE=(1700,(300,50))
//SYSPUNCH DD  DUMMY
//SYSIN    DD  *
```

```
C1RPCNFG TITLE 'CONFIGURATION PARAMETERS FOR ENDEVOR/ROSCOE'
          C1RMCNFG SERVERS=1,PPFX=C1
//LINK    EXEC PGM=IEWL,
//          PARM='AMODE=31,RMODE=24,LIST,XREF,RENT,REUS'
//SYSLIN   DD DSN=&&TEMPCNFG,DISP=(OLD,DELETE)
//SYSLMOD  DD DSN=uprfx.uqual.RSCOLOAD(C1RPCNFG),
//          DISP=(NEW,CATLG,DELETE),
//          UNIT=pdisk,vol=ser=dvolser,
//          SPACE=(TRK,(90,0,24)),
//          DCB=(LRECL=0,RECFM=U,BLKSIZE=6160)
//SYSUT1   DD DSN=&&SYSUT1,UNIT=tdisk,SPACE=(1024,(50,20))
//SYSPRINT DD SYSOUT=*
```

Note: This job creates the uprfx.uqual.RSCOLOAD library needed in Step 5.

1.5 Step 4: Update the Initialization Exit

During Roscoe Interface initialization, the user interface program, C1RPUSER, calls a user supplied exit routine in order to determine the user ID of the current Roscoe user. The user ID returned by the user exit is used by the foreground Retrieve routine to perform signin-signout processing for the element to be retrieved.

The initialization user exit is called C1RPUX00 and it is link edited into load module C1RPUSER. The exit is responsible for providing the Roscoe Interface user interface program with an eight character, blank padded user ID that is associated with the current Roscoe user. Computer Associates provides the following three sample user exits in the iprfx.igual.ROSLIB.

- C1RPUX00. This exit can be used if your installation is running Roscoe with the EXTSEC=RACF or EXTSEC=TOPSECRET enabled. The routine returns the security ID that is located in the ACEE associated with the current Roscoe user. No changes have to be made to the exit if your installation meets these criteria.
- C1RPUX01. This is a dummy exit that must be coded if C1RPUX00 cannot be used in your installation. The exit contains only the entrance and exit linkage code. You must add the necessary logic to extract the appropriate user ID, then save the user ID in the area provided for the exit. If you code your own exit, rename C1RPUX01 to C1RPUX00 and make the appropriate changes.
- C1RPUX02. This exit can be used if your installation is running Roscoe with ACF2 enabled. The routine returns the logon ID found in the SCBACFB field. This field is initialized by ACF\$ EXIT (ACF2 EXIT). If this exit meets your installation needs, re-name C1RPUX02 to C1RPUX00.

The installation user exit passes the address of a one word parameter list in register 1. The parameter list points to an eight byte field into which the exit places the user ID associated with the current Roscoe user. The user ID must be padded to the right with spaces if it is less than eight characters long.

The exit passes one of the following return codes in register 15:

- R15 = 0, if the exit has placed the user ID in the output field provided.
- R15 = 4, if the exit was unable to place the user ID in the output field provided.

If the exit routine passes a non-zero return code or if the user ID provided by the exit is blanks, the Roscoe Interface will disable the foreground Retrieve action. If a user attempts to perform a foreground Retrieve when the action has been disabled, you receive the following message: *'RETRIEVE disabled by the user exit'*.

The user exit CSECT must be called C1RPUX00. The routine must be reentrant and reusable and able to execute in AMODE(31).

Because the exit is statically link edited into load module C1RPUSER, you must code and assemble the exit before you perform step 5 of the installation procedure. To assemble the user exit, use the following JCL located in dataset iprfx.iqual.JCLLIB(BC1JRXIT).

Note: If you are on ACF2 release 6.1 or greater, C1RPUX02 is not required, use C1RPUX00.

```

/**(COPY JOBCARD)
/**-----*
/**
/** MEMBER: BC1JRXIT
/**
/** THIS JOB CAN BE USED TO ASSEMBLE THE ENDEVOR/ROSCOE INITIALIZATION*
/** EXIT. THE INITIALIZATION USER EXIT MUST BE ASSEMBLED BEFORE
/** THE REMAINING COMPONENTS OF THE ENDEVOR/ROSCOE SYSTEM ARE ASS-
/** EMBLED AND LINK EDITTED. REFER TO THE ENDEVOR/ROSCOE INTERFACE
/** MANUAL FOR MORE INFORMATION ON INSTALLING THE ENDEVOR/ROSCOE
/** SYSTEM.
/**
/**-----*
//ASM      PROC MEMBER=
//ASM      EXEC PGM=ASMA90,
//          PARM='NODECK,OBJECT,NOTERM,XREF(SHORT),NOUSING'
//SYSLIB   DD  DISP=SHR,DSN=SYS1.MACLIB
//          DD  DISP=SHR,DSN=SYS1.AMODGEN
//          DD  DISP=SHR,DSN=iprfx.iqual.ROSCOE.MACLIB
//          DD  DISP=SHR,DSN=ROSCOE.MACLIB          <== ROSCOE MACLIB
//SYSLIN   DD  DSN=iprfx.iqual.ROSCOE.OBJLIB(&MEMBER),DISP=SHR
//SYSPUNCH DD  DUMMY
//SYSPRINT DD  SYSOUT=*
//SYSUT1   DD  DSN=&&SYSUT1,UNIT=tdisk,SPACE=(1700,(600,100))
//SYSUT2   DD  DSN=&&SYSUT2,UNIT=tdisk,SPACE=(1700,(300,50))
//SYSUT3   DD  DSN=&&SYSUT3,UNIT=tdisk,SPACE=(1700,(300,50))
//SYSIN    DD  DSN=iprfx.iqual.ROSCOE.ROSLIB(&MEMBER),DISP=SHR
//          PEND
//C1RPUX00 EXEC ASM,MEMBER=C1RPUX00

```

1.6 Step 5: Compile and Link Modules

This installation step executes a PROC to compile and link the six Roscoe Interface installation modules. Prior to submitting this job for execution, edit member BC1JRSCO in your iprfx.igual.JCLLIB to:

- Supply a jobcard.
- Change all required variables.
- Supply the proper site-specific Roscoe MACLIB in the assembly step (ROSCOE.MACLIB). Make sure that you have concatenated all Roscoe maclibs at your site.

```

/* (COPY JOBCARD)
/*-----*
/*
/* MEMBER: BC1JRSCO
/*
/* FUNCTION: THIS JOB IS USED TO ASSEMBLE AND LINK-EDIT THE ENDEVOR/
/* ROSCOE INTERFACE.
/*
/*-----*
/*-----*
/* ASSEMBLE AN ENDEVOR.ROSCOE PROGRAM.
/*-----*
/*-----*
//ASMROSCO PROC MEMBER=,LNKOPT=
//ASMA90 EXEC PGM=ASMA90,
//          PARM='NODECK,OBJECT,NOTERM,XREF(SHORT),NOUSING',
//          REGION=4096K
//SYSLIB DD DISP=SHR,DSN=SYS1.MACLIB
//          DD DISP=SHR,DSN=iprfx.igual.ROSCOE.MACLIB
//          DD DISP=SHR,DSN=ROSCOE.MACLIB <==ROSCOE MACLIB
//SYSLIN DD DSN=iprfx.igual.ROSCOE.OBJLIB(&MEMBER),DISP=SHR
//SYSIN DD DSN=iprfx.igual.ROSCOE.ROSLIB(&MEMBER),DISP=SHR
//SYSPRINT DD SYSOUT=*
//SYSUT1 DD DSN=&&SYSUT1,UNIT=tdisk,SPACE=(1700,(600,100))
//SYSUT2 DD DSN=&&SYSUT2,UNIT=tdisk,SPACE=(1700,(300,50))
//SYSUT3 DD DSN=&&SYSUT3,UNIT=tdisk,SPACE=(1700,(300,50))
//SYSPUNCH DD DUMMY
/*-----*
/* LINK EDIT AN ENDEVOR/ROSCOE LOAD MODULE.
/*-----*
//IEWL EXEC PGM=IEWL,
//          PARM='AMODE=31,RMODE=24,LIST,XREF,&LNKOPT',

```

```
//          REGION=4096K,
//          COND=(4,LT)
//*-----*
//* FOR ROSCOE RELEASES PRIOR TO 6.0, TAILOR THE ROSCOE.OBJLIB      *
//* DATA SET NAME TO YOUR SITE'S ROSCOE OBJECT LIBRARY DSNNAME AND *
//* REMOVE THE DD STMT WHICH CONTAINS ROSCOE.ROXXLIB.              *
//*                                                                  *
//* FOR ROSCOE RELEASES 6.0 AND HIGHER, REMOVE THE DD STMT WHICH  *
//* CONTAINS ROSCOE.OBJLIB AND TAILOR THE ROSCOE.ROXXLIB DSNNAME TO *
//* YOUR SITE' S ROSCOE LOAD LIBRARY DSNNAME.                      *
//*-----*
//SYSLIB  DD  DISP=SHR,DSN=ROSCOE.OBJLIB   <== ROSCOE R5.X OBJLIB
//SYSLIB  DD  DISP=SHR,DSN=ROSCOE.ROXXLIB  <== ROSCOE R6.X LOADLIB
//          DD  DISP=SHR,DSN=iprfx.igual.ROSCOE.OBJLIB
//SYSLMOD DD  DISP=SHR,DSN=uprfx.uqual.ROSCOE.RSCOLoad
//SYSUT1  DD  DSN=&&SYSUT1,UNIT=tdisk,SPACE=(1024,(50,20))
//SYSPRINT DD  SYSOUT=*
//          PEND
//C1RDGCT EXEC ASMROSCO,MEMBER=C1RDGCT,LNKOPT='REUS'
//IEWL.SYSLIN DD *
//          INCLUDE SYSLIB(C1RDGCT)
//          ENTRY C1RDGCT
//          NAME C1RDGCT(R)
//*
//C1RPLINK EXEC ASMROSCO,MEMBER=C1RPLINK,LNKOPT='RENT,REUS'
//IEWL.SYSLIN DD *
//          INCLUDE SYSLIB(C1RPLINK)
//          ENTRY C1RPLINK
//          NAME C1RPLINK(R)
//*
```

```
//C1RPSRV2 EXEC ASMROSCO, MEMBER=C1RPSRV2, LNKOPT='RENT, REUS'  
//IEWL.SYSLIN DD *  
INCLUDE SYSLIB(C1RPSRV2)  
ENTRY C1RPSRV2  
NAME C1RPSRV2(R)  
//*  
//C1RPSRVR EXEC ASMROSCO, MEMBER=C1RPSRVR, LNKOPT='RENT, REUS, AC(1)'  
//IEWL.SYSLIN DD *  
INCLUDE SYSLIB(C1RPSRVR)  
ENTRY C1RPSRVR  
NAME C1RPSRVR(R)  
//*  
//C1RPWAIT EXEC ASMROSCO, MEMBER=C1RPWAIT, LNKOPT='RENT, REUS'  
//IEWL.SYSLIN DD *  
INCLUDE SYSLIB(C1RPWAIT)  
ENTRY C1RPWAIT  
NAME C1RPWAIT(R)  
//*  
//C1RPCTRL EXEC ASMROSCO, MEMBER=C1RPCTRL, LNKOPT='RENT, REUS'  
//IEWL.SYSLIN DD *  
INCLUDE SYSLIB(C1RPCTRL)  
ENTRY C1RPCTRL  
NAME C1RPCTRL(R)  
//C1RPCTR2 EXEC ASMROSCO, MEMBER=C1RPCTR2, LNKOPT='RENT, REUS'  
//IEWL.SYSLIN DD *  
INCLUDE SYSLIB(C1RPCTR2)  
ENTRY C1RPCTR2  
NAME C1RPCTR2(R)  
//*  
//C1RPUSER EXEC ASMROSCO, MEMBER=C1RPUSER, LNKOPT='RENT, REUS'  
//IEWL.SYSLIN DD *  
INCLUDE SYSLIB(C1RPUSER)  
ENTRY C1RPUSER  
NAME C1RPUSER(R)  
//*
```

Note: The load module C1RPSRVR must reside in an authorized library. If your site's uprfx.uqual.RSCOLOAD library is not authorized, move the module to an authorized library and make it available through your site's Roscoe application. See “Step 7: Update the Roscoe Application JCL.”

1.7 Step 6: Modify the Roscoe ETSO Eligible Program List (EPL)

Follow this step to modify your site EPL to include the Endeavor module C1RPUSER. The EPL identifies the attributes of each application that can be called by terminal users. When a terminal user calls an application, ETSO assumes the EPL is defined in the member RO.ETSOPGMS. If your site has defined the EPL in a different member or with a different prefix, the Roscoe initialization parameter ETSOPGMS= designates the new member/prefix.

Add the following entries to the EPL for your site. Remember that each EPL entry must be in alphabetical order.

EPL Definition for Roscoe 6.0. and higher

| Column | Contents | Comments |
|--------|----------------------|--|
| 1-8 | name | Program entry point. The name must start with an alphabetic character. |
| 9 | blank | |
| 10-12 | 999 | Maximum number of concurrent executions of the applications. |
| 13 | blank | |
| 14-17 | 9999 5000 0020 | CPU slice time (microseconds) prevents the application from terminating. Default value Small time slice (site specific). |
| 18 | blank | |
| 19-24 | 1024 | Total memory (in K) for this application below the 16 MB line. |
| 25 | blank | |
| 26-31 | 1024 | Total memory (in K) for each variable length request below the 16 MB line. |
| 32 | blank | |

1.7 Step 6: Modify the Roscoe ETSO Eligible Program List (EPL)

| Column | Contents | Comments |
|--------|----------|---|
| 33-38 | 1024 | Total memory (in K) for this application above the 16 MB line. |
| 39 | blank | |
| 40-45 | 1024 | Total memory (in K) for each variable length request above the 16 MB line. |
| 46 | blank | |
| 47 | Y or DN | Produce dump if application abends. Suppress dump. |
| 48 | blank | |
| 49 | Y | Application may go into supervisor state and is authorized for MODESET SVC. |
| 50 | blank | |
| 51-52 | N | Not a TSO command processor. |
| 53-255 | blank | ignored. |

Note: Memory allocations can be reduced if your system is storage constrained. If a value specified is too small, the Roscoe Interface user may experience an out of memory condition when building large Endeavor selection lists.

Also keep in mind that Endeavor acquires most of its storage from above the 16 MB line.

1.8 Step 7: Update the Roscoe Application JCL

This step describes how to update the Roscoe application JCL to function properly with Endeavor.

By default, ETSO expects all of the applications called by the terminal user to be located in the load library assigned to the DDNAME ETSOLIB. However, if the Roscoe JCL contains ETSSRCH=ALL, the application load modules may be located in ETSOLIB (or a data set concatenated to it), JOBLIB or STEPLIB (or a data set concatenated to it), the Link Pack Area or a data set defined in the linklist concatenation. (See the *Roscoe System Reference Manual SR-40-10-AO* for more information.)

1. If not running from a LINKLIST, update the JCL for the Roscoe application at your site by adding the following CONLIB or STEPLIB statements before the ETSOLIB declaration:

```
//STEPLIB DD DSN=iprfx.igual.ROSCOE.AUTHLIB,DISP=SHR
//        DD DSN=uprfx.uqual.RSCOLOAD,DISP=SHR
//        DD DSN=iprfx.igual.YOUR.ENDEVOR.MVS.CONLIB,DISP=SHR
.
.
//CONLIB DD DSN=iprfx.igual.ROSCOE.AUTHLIB,DISP=SHR
//        DD DSN=uprfx.uqual.RSCOLOAD,DISP=SHR
//        DD DSN=YOUR.ENDEVORMVSCONLIB,DISP=SHR
```

Specify the name of the CONLIB you created in Step 2, and the name of the Endeavor CONLIB for your site. For rules about Endeavor system authorization, refer to the *Endeavor Installation Guide*.

2. Define the Roscoe Interface load modules to Roscoe by adding the following loadlib statements within the ETSOLIB declaration:

```
//        DD DSN=iprfx.igual.ROSCOE.AUTHLIB
//        DD DSN=uprfx.uqual.RSCOLOAD
//        DD DSN=ENDEVORMVS.CONLIB
```

Note: Dataset iprfx.igual.ROSCOE.AUTHLIB needs to be APF authorized.

1.9 Step 8: Modify ROSXINIT

In this step you modify the ROSXINIT macro. You must indicate that the Roscoe Interface control module C1RPCTRL must be executed upon startup of the Roscoe application. To do this, include the following entry in the ROSXINIT macro. Then reassemble this macro into the Roscoe loadlib for your site.

```
[tag] ROSX C1RPCTRL
```

Note: The MON option is omitted, causing ROSXINIT to **always** attempt to execute C1RPCTRL. No corresponding entry in ROSXTERM is required. Due to storage considerations, it is recommended that C1RPCTRL be placed near the top of the initialization list in ROSXINIT.

1.10 Step 9: Copy the Roscoe Interface RPFs to the Public RPF Library

1.10.1 Overview

There are four RPFs (NDVR, NDVRROSC, NDVRRPF and NDVRRETV) in the partitioned data set `iprfx.igual.ROSLIB` that you must move to the execution/public RPF library at your site. Before you move the RPFs, you need to edit them to conform to your site requirements. You need to edit only the NDVR, NDVRROSC, and NDVRRPF RPFs; you do not need to modify NDVRRETV.

1.10.2 Edit NDVR

Before moving the RPFs, you must edit the NDVR members to indicate your site-specific Roscoe index and system libraries in the included ROSDATA step. The number of these libraries is site-specific and may be more than the five files shown in bold below.

Use the NDVR member to keep RPFs in a common library.

```
'//ROSDATA      EXEC          PGM=ROSDATA,PARM=''' |S.KEY |''',COND=(4,LT) '
'//STEPLIB      DD          DISP=SHR,DSN=uprfx.ROSLIB '
'//ROSLIB00     DD          DISP=SHR,DSN=uprfx.ROSLIB00 '
'//ROSLIB01     DD          DISP=SHR,DSN=uprfx.ROSLIB01 '
'//ROSLIB02     DD          DISP=SHR,DSN=uprfx.ROSLIB02 '
'//ROSLIB03     DD          DISP=SHR,DSN=uprfx.ROSLIB03 '
'//SYSPRINT      DD          SYSOUT=*
```

1.10.3 Edit NDVRRPF and NDVRROSC

You must also edit RPF NDVRRPF and NDVRROSC to indicate the name of the panel library (`iprfx.igual.PNLLIB`) you created in Step 2.

For NDVRRPF, edit the line shown in bold below:

```
LET ATTACH NOPAUSE
LET L16 = 'iprfx.igual.PNLLIB'
+IMP DSN=+L16+(*)
FILL 10 255 / /
DELX 1 3 /C1R/
R 1 1
```

For NDVRROSC, edit the lines shown in bold below to conform to your site's requirements:

```
'//ROSCOPY      EXEC      PGM=ROSCOPY,PARM=''' | S.KEY | '''      |
'//STEPLIB      DD          DISP=SHR,DSN=uprfx.ROSLIB      |
'//ROSLIB00     DD          DISP=SHR,DSN=uprfx.ROSLIB00    |
'//ROSLIB01     DD          DISP=SHR,DSN=uprfx.ROSLIB01    |
'//ROSLIB02     DD          DISP=SHR,DSN=uprfx.ROSLIB02    |
'//ROSLIB03     DD          DISP=SHR,DSN=uprfx.ROSLIB03    |
'//SYSPRINT     DD          SYSOUT=*                          |
'//*SYSLIST     DD          SYSOUT=*                          |
'//SYSOUT       DD          DSN=&&NDVRRADD(' |L6| ')          |
'//              DD          DISP=(OLD,PASS)                  |
```

After editing is complete, move the RPFs to the execution/public RPF library. The share options of these RPFs should be **execute-only**.

1.11 Step 10: Create the Roscoe Interface Panel Library Userid

The Roscoe Interface panels are stored in the directory of a user from which all Roscoe Interface users must have read and execute authority. The prefix of the Roscoe user must be the same as the prefix specified on the PPFX parameter on the C1RMCNFG macro assembled in Step 3.

Sign on to the execution/public library and execute the RPF NDVRRPF. This RPF will import all Roscoe Interface panels from the partitioned data set ipfx.igual.PNLLIB to the ROSCOE execution/public library.

1.12 Step 11: Recycle the Roscoe System

Submit the Roscoe application JCL. When the interface has completed initialization, the following message appears on the console:

```
'C1R101I Roscoe Interface initialized with 1 server"
```

Note: If the message above is not seen in the OS/390 Console log, then the interface server is not available. Return to Step 8 and check the output for error messages.

1.13 Step 12: Install the Endeavor Batch JCL

The Roscoe Interface should now be operational. This step enables you to test the installation in conjunction with identifying the name of the batch JCL to the interface.

This procedure requires Roscoe administrator authority. You must use the Roscoe control account (R0) to logon to Roscoe. The Roscoe logon screen appears.

```
> YOU ARE SIGNED ONTO ROSCOE
>
>...+...1...+...2...+...3...+...4...+...5...+...6...+...7...+...8
```

1.13.1 Step 1

Type **NDVR** and press ENTER. The Primary Options Menu appears.

```
----- AllFusion Endeavor Primary Options Panel -----
OPTION ==>

  1 DISPLAY ELEMENT - Display element/component list information
  2 DISPLAY FOOTPRINT - Display footprinted members and compressed listings
  3 BATCH - Perform Batch action processing
  4 RETRIEVE - Perform foreground Retrieve processing
  5 SYSTEM PROFILE - Update system profile information.

(C) 1987, 2003 Computer Associates International, Inc.
Enter END command to terminate
```

1.13.2 Step 2

Type **5** (SYSTEM PROFILE) and press ENTER. (Only authorized administrators receive the full panel with the **5** option.) The Roscoe Interface System Profile Maintenance menu appears.

```
----- Roscoe Interface System Profile Maintenance-----  
Specify the location of the Batch Skeleton:  
DATA SET NAME:
```

1.13.3 Step 3

Type the following data set name and then press ENTER. *Be sure to include the member name C1SB300R.*

```
iprfx.igual.JCLLIB(C1SB300R)
```

1.13.4 Step 4

Review the batch JCL to make sure that it conforms to your site specifications, updating the variables as noted in Step 1.

1.14 Making the Roscoe Interface Unavailable to Users

As an administrator, there may be times when you want to make the Roscoe interface unavailable to users. There are two different ways to do so:

- You can make Roscoe quiescent to keep users who are not logged on from starting the interface. All users who are logged on are allowed to finish the session.
- You can perform a shutdown to terminate the interface entirely. *Caution! To bring up the interface after a shutdown, you must recycle the Roscoe application.*

Each of these procedures is described below.

1.14.1 Quiescing the Roscoe Interface

Follow these procedures to make Roscoe unavailable to users.

1. Use the Roscoe control account (RO) to logon to Roscoe. The Roscoe logon screen appears.

```
> YOU ARE SIGNED ONTO ROSCOE
>
>...+...1...+...2...+...3...+...4...+...5...+...6...+...7...+...8
```

2. Type **NDVR QUIE** and press ENTER. You receive the following message:
ENDEVOR FOR OS/390 ROSCOE INTERFACE MARKED UNAVAILABLE.
3. To restart ROSCOE, type **NDVR REST** and press ENTER. You receive the following message:
ENDEVOR FOR OS/390 ROSCOE INTERFACE POSTED TO RESTART.

1.14.2 Terminating the Roscoe Interface

Follow these procedures to terminate Roscoe.

1. Use the Roscoe control account (RO) to logon to Roscoe. The Roscoe logon screen appears.

```
> YOU ARE SIGNED ONTO ROSCOE
>
>...+...1...+...2...+...3...+...4...+...5...+...6...+...7...+...8
```

2. Type **NDVR QUIE** and press ENTER. You receive the following message:
ENDEVOR for OS/390 ROSCOE INTERFACE MARKED UNAVAILABLE.

3. Type **NDVR SHUT** and press ENTER. This command terminates the interface. You receive the following message:

```
ENDEVOR for OS/390 ROSCOE INTERFACE POSTED TO SHUTDOWN.
```

You also receive a console message when the shutdown is complete.

4. Once you issue the 'SHUT' command, session statistics are written to the operator console. To view the statistics, access the system log. The log will contain statistics similar to the following:

```
ENDEVOR FOR OS/390 ROSCOE INTERFACE SESSION STATISTICS:  
USERS CONNECTED=          SERVER DISPATCHES=  
MAX SERVERS USED=         SERVER ABENDS=  
WAITS FOR SERVER=         WAITS FOR DISPATCH QUEUE  
ENDEVOR FOR OS/390 ROSCOE INTERFACE SHUTDOWN COMPLETE
```

5. To bring up the interface after a shutdown, recycle the Roscoe application according to the procedures used at your site.

Chapter 2. Getting Started

2.1 Logging on to Roscoe

To logon to Roscoe, complete the following procedures:

1. Logon to Roscoe according to the procedures used in your office. The Roscoe logon screen appears.

```
> YOU ARE SIGNED ONTO ROSCOE
>
>.....1.....+.....2.....+.....3.....+.....4.....+.....5.....+.....6.....+.....7.....
```

2. Type **NDVR** and press ENTER to access the Primary Options Menu.

```
----- AllFusion Endeavor Primary Options Panel -----
OPTION ==>

1 DISPLAY ELEMENT - Display element/component list information
2 DISPLAY FOOTPRINT - Display footprinted members and compressed listings
3 BATCH - Perform Batch action processing
4 RETRIEVE - Perform foreground Retrieve processing

(C) 1987, 2003 Computer Associates International, Inc.
Enter END command to terminate
```

3. Select the processing you want to use by typing one of the option numbers in the **OPTION** field and pressing ENTER.

2.2 Key Functions

Use the following keys to move between Roscoe Interface panels.

| Key | Function |
|--------------|---|
| PF3 or CLEAR | Ends a panel and returns you to the previous panel. |
| PF4 | Returns you to the Main Menu. |
| PF7 | Scrolls forward through a list or display. |
| PF8 | Scrolls backward through a list or display. |

2.3 TSO and Roscoe

If you work with both Endeavor (under TSO) and Roscoe, you will notice a few differences between the two systems. Note that some of these differences are cosmetic in nature, affecting only the format of the panels and not the actual processing of your requests.

- There is no ISPF Library with project, library, and type on each panel. FROM (and TO) PARTITIONED OR SEQUENTIAL DATA SET options are provided on the panel, however.
- Each screen, where applicable, supports the THRU option for an element. A THRU field is listed on the panel for each action that provides the option.
- The Append and Include JCL settings are saved from session to session, rather than reset to N (the default) upon entry to Endeavor.
- When you leave a field blank and the request is generated, an asterisk (*) is returned in that field, reflecting that an asterisk was entered in this field in the SCL for the request.
- The Roscoe Interface is set up to recognize a data set name of ROSCOE and write it out as DDNAME ROSCOE.

2.4 Name Masks

Many of the field descriptions contain references to a *name mask*. A name mask is represented by an asterisk, and allows you to specify all names, or all names beginning with a particular series of letters, to be considered when performing an action.

To use a name mask, simply code an asterisk (*) as the last or only character in any of the eligible fields (eligibility is noted in each field description). Code only one asterisk; if you enter more than one asterisk, you receive an error message. Note the following examples:

- If you enter the element name ABC* for the Add action, the system adds all elements beginning with the letters "ABC" (and meeting the rest of the criteria entered).
- Similarly, if you enter just an asterisk as the element name for the Add action, the system adds all elements (provided the remaining criteria is met).

This concept applies to all fields in which you can use a name mask.

2.5 Display List Processing

If you do not enter all required information on an action panel, one or more supplementary panels appear, allowing you to select the information you need. These panels include the following:

- Environment Selection List
- System Selection List
- Subsystem Selection List
- Action Prompt Panel
- Type Selection List
- Processor Group Selection List

A detailed explanation of each of these panels follows.

If you select an element display option, you can review detail information about the element(s) for which you are specifying the request. These panels include the Summary of Levels panel, the Element Master panel, the Element Changes panel, the Element Browse panel, and the Element History panel.

An Element Selection List is also available if you leave the ELEMENT field blank or use a name mask. Because this list is unique to each action, it is illustrated and explained with each action.

Similarly, a Type Selection List and a Processor Group Selection List appear during some actions. Again, since the lists are unique to an action, they are illustrated and explained with their respective actions.

2.5.1 Environment Selection List

An Environment Selection List appears if you leave the environment name blank or supply a name mask in the ENVIRONMENT field on the action panel.

```

----- Environment Selection List -----
COMMAND ==>                                SCROLL ==> FULL
ENVIRONMENT  ENVIRONMENT TITLE              STAGE 1   STAGE 2
D40          Development Rel 4.0             1 D40STG1 2 D40STG2
I40          Integration Env.                1 I40STG1 2 I40STG2
Q40          QA Turnover Environment         1 Q40STG1 2 Q40STG2
P40          PRODUCTION RELEASE 4.0         1 P40STG1 2 P40STG2

```

Panel fields are described next:

| Field | Description |
|-------------------|---|
| Environment | Name of the environment. |
| Environment Title | Descriptive title for the environment. |
| Stage 1 | Alphanumeric ID and name for the stage. |
| Stage 2 | Alphanumeric ID and name for the stage. |

2.5.2 System Selection List

A System Selection List appears if you leave the system name blank or supply a name mask in the `SYSTEM` field on the action panel.

The System Selection List presents the systems defined to the environment specified, and is limited to those names that match the characters specified in the `SYSTEM` name mask.

```

----- System Selection List -----
COMMAND ==>                                SCROLL ==> FULL

Environment: P40

SYSTEM      SYSTEM TITLE
LGNTLCL     ENDEVOR/MVS PROCESSORS FOR INTERNAL USE
S NDVRB40   PRODUCTION REL 4.0

```

Panel fields are described next. All but the `SELECTION` field are display-only.

| Field | Description |
|----------------------|---|
| Selection (untitled) | Select the system you want to use by typing an S in this column, next to the appropriate system. |
| Environment | Name of the environment you are using. |
| System | System name. |
| System Title | Descriptive title for the system. |

2.5.3 Subsystem Selection List

A Subsystem Selection List appears if you leave the subsystem name blank or supply a name mask in the SUBSYSTEM field on the action panel. The Subsystem Selection List presents the subsystems defined to the environment and system specified, and is limited to those names that match the characters specified in the SUBSYSTEM name mask.

```

----- Subsystem Selection List -----
COMMAND ==>                                SCROLL ==> FULL

Environment: P40          System: NDVRB40

SUBSYSTEM SUBSYSTEM TITLE
S BASE    BASE COMPONENTS OF ENDEVOR/MVS
CSP       CSP COMPONENTS
ELINK     ENDEVOR/LINK COMPONENTS
EXAMINE   CA-EXAMINE
INFO      ENDEVOR/INFOMAN COMPONENTS
LABD002   Dom's test system
LSERV     L-SERV MACROS
PAC       COMMON SUBCOMPONENTS USED ACCROSS PRODUCTS
PDM       PDM COMPONENTS
ROSCOE    ROSCOE INTERFACE COMPONENTS
SAMPLE    SAMPLE APPLICATION COMPONENTS
XP        COMMON SUBCOMPONENTS USED ACCROSS PRODUCTS

```

Panel fields are described next. All but the SELECTION field are display-only.

| Field | Description |
|----------------------|---|
| Selection (untitled) | Select the subsystem you want by typing an S in the column to the left of the appropriate subsystem. |
| Environment | Name of the environment you are using. |
| System | Name of the system being processed. |
| Subsystem | Subsystem name. |
| Subsystem Title | Descriptive title for the subsystem. |

2.5.4 Action Prompt Panel

If you do not specify a CCID and/or comment when one and/or the other is required for a batch action you are requesting, the Roscoe Interface displays the Action Prompt panel.

```

----- Action Prompt -----
COMMAND ==>

Specification Required:
  CCID:  Y (Y/N)
  COMMENT: Y (Y/N)

Action:  RETRIEVE          Element:  $CPRLKDS
Environment:  I40          System:  NDVRMVS          Subsystem:  BASE
Type:        ASMMAC       Stage:    2

CCID      ==>
COMMENT   ==>

```

To complete your action request, type a valid CCID and/or comment and press ENTER. A description of the fields follows.

| Field | Description |
|---------|---|
| CCID | Enter a valid CCID for this action. The CCID you enter here remains as the required CCID until you change it or until the end of this particular work session. |
| Comment | Enter a comment for this action. The comment you enter here remains as the required comment until you change it or until the end of this particular work session. |

Chapter 3. Roscoe Interface Foreground Processing

3.1 Displaying Element Information

Select option **1**, Display Element, from the Primary Options Menu to display information related to an element. You can use this option to display element changes or a summary of the change history for an element, the contents of an element, or Master Control File information for an element. When you select this option, the Roscoe Interface returns the Display Elements/Component Lists panel which enables you to identify both the element and type of information you want to see.

```

----- Display Elements/Component Lists -----
OPTION  ==>

      blank - Display selection list      B - Browse element current level
      S - Display summary of levels      C - Display changes current level
      M - Display element master info    H - Display history current level

      Enter SX, BX, CX or HX to display component list information

FROM ENDEVOR:
ENVIRONMENT ==> I40
SYSTEM      ==> NDVRB40
SUBSYSTEM  ==> BASE
ELEMENT     ==>
TYPE       ==> ASMPGM
STAGE      ==> 2

LIST OPTIONS:
DISPLAY LIST      ==> Y (Y/N)
WHERE CCID EQ    ==>
WHERE PROC GRP EQ ==>
BYPASS SYS/SBS SEL LIST ==> N

1 - P40STG1      2 - P40STG2

```

Once you identify the element and the information you want to display, press ENTER. The panel that appears next depends on the values in the BYPASS SYS/SBS SEL LIST field.

| If | Then |
|--------------------------------|--|
| BYPASS SYS/SBS SEL LIST = Y | An Element Selection List appears showing all elements for the system, subsystem, type, and stage that you have specified on the Display Elements panel. The next section of this chapter describes list panels in detail. |
| BYPASS SYS/SBS SEL LIST = N | One or more of the following selection lists appear, depending on your use of name masks when you typed information on the Display Elements panel: <ul style="list-style-type: none"> ■ System Selection List ■ Subsystem Selection List ■ Element Selection List |

Once you have selected the element(s) for which you want to display information, press ENTER. The Roscoe Interface returns the appropriate display panel either:

- the Element Selection List panel,
- the Summary of Levels panel,
- the Element Master Info panel,
- the Element Browse panel,
- the Element Changes panel,
- the Element History panel.
- the Component Browse panel,
- the Component Change panel, or
- the Component History panel,

Each of these displays, as well as the Display Elements panel, are discussed in detail in subsequent sections of this chapter.

If you select elements using selection lists, press PF3 when you are finished reviewing the information displayed. Alternatively:

- From the Element Selection List, you can request any of the element-display options available from the Display Elements panel, for one or more elements.
- From the Summary of Levels panel, you can request the Element Browse, Element Changes, or Element History panel for a specific level of the element.

Use either of these panels to identify the element and processing option desired. Press ENTER to continue.

To identify the element you want, specify the environment, system, subsystem, element name, type, and stage, as requested by the panel. If you identify the element(s) fully on this panel, a panel with the information you have requested appears when you press ENTER. If you do not fully identify the element(s), processing depends on the value in the BYPASS SYS/SBS SEL list field. The following section describes Display Element panel fields.

3.1.1.1 Option Field

Blank: In Roscoe Interface Release 3.6 or later, you can only enter a blank in the option field. Once you do so, a display list appears. From a display list, you can then use any of the options listed next. To view component list information with Endeavor ACM, append an "X" to options S, B, C, or H.

- **S**— Retrieves a Summary of Levels panel, showing a summary of change history for the element requested. From this panel you can select a specific level of the element for display, using option B, C, or H
- **M**— Retrieves an Element Master panel, showing Master Control File (MCF) information related to the element requested.

- **B**— Retrieves an Element Browse panel, showing all statements in the current level of the element, and the level at which each statement was inserted.
- **C**— Retrieves an Element Changes panel, showing all inserts and deletions made to the element as of the current level.
- **H**— Retrieves an Element History panel, showing all statements in all levels of the element, from the base level through the current level. The display shows the level at which each insert/deletion occurred.

From Endeavor Fields: These fields contain information to describe the Endeavor location of the element.

- **Environment**— Name of the environment under which the element is defined. Displays initially as the current environment. Fill in a new name if the element is in another environment.
- **System**— Name of the system under which the element is defined.
- **Subsystem**— Name of the subsystem under which the element is defined. ElementName of the element for which you want to display information.
- **Type**— Element type for the element you want.
- **Stage**— ID of the stage in which the element resides. This must be one of the values shown to the right of the field (unless you are changing environments).

List Options Fields: Use these options to specify further the information you want to display.

- **Display List**— In Roscoe Interface Release 3.6 or later, this option is always set to Y.
- **Where CCID Eq**— A CCID can be specified in this field to limit the selection list to only those elements whose last CCID is equal to the specified CCID. If omitted, the WHERE CCID EQ field is not used to limit the selection list.
- **Where Proc Grp Eq**— A processor group can be specified in this field to limit the selection list to only those elements to which the processor group has been assigned. If omitted, the WHERE PROC GRP EQ field is not used to limit the selection list.
- **Bypass SYS/SBS Sel List**— Indicates whether you want to go directly to the Element Selection List from the Display Elements panel:
 - Use **Y** to bypass system and subsystem selection lists.
 - Use **N** to provide individual selection lists as required by your entries on this panel.

3.1.2 List Panels

This section describes the list panels returned from the Display Elements panel when you do not fully qualify the name of the element you want on that panel. One or more of the following panels may appear.

| This Panel | Lists |
|----------------------------|---|
| Environment Selection List | Environment, environment title, stages and stage names. |
| System Selection List | Systems for the environment specified. |
| Subsystem Selection List | Subsystems for the environment, optionally restricted according to the system name specified. |
| Element Selection List | Elements defined to Endeavor, restricted according to the stage, system, subsystem, element type, and/or element name mask. This list appears directly from the Display Elements panel, when the value in the BYPASS SYS/SBS SEL LIST field is Y . |

3.1.3 Environment Selection List

This panel returns from the Display Elements panel when you do not specify a full environment name. It lists the environment, environment title, stages and stage names. Use this list to select the environment you want, by placing an S to the left of the environment name.

```

----- Environment Selection List -----
COMMAND ==>                                SCROLL ==> FULL

ENVIRONMENT  ENVIRONMENT TITLE                STAGE 1  STAGE 2
D40          Development Rel 4.0              1 D40STG1  2 D40STG2
I40          Integration Env.                    1 I40STG1  2 I40STG2
Q40          QA Turnover Environment        1 Q40STG1  2 Q40STG2
P40          PRODUCTION RELEASE 4.0          1 P40STG1  2 P40STG2

```

The following table describes the panel fields.

| Field | Description |
|----------------------|---|
| Selection (no title) | Field used to select the system you want. Place an S in this column, to the left of the appropriate environment name. |
| Environment | Name of the environment. |
| Environment Title | Descriptive title for the environment. |
| Stage 1 | Alphanumeric ID and name for the stage. |
| Stage 2 | Alphanumeric ID and name for the stage. |

3.1.4 System Selection List

This panel is returned from the Display Elements panel when you do not specify a full system name. It lists the systems defined to the environment requested, limited according to any partial system name (that is, mask) specified. Use this list to select the system you want, by placing an S to the left of the system name.

```

----- System Selection List -----
COMMAND ==>                                SCROLL ==> FULL

Environment: P40

SYSTEM   SYSTEM TITLE
LGNTLCL  ENDEVOR/MVS PROCESSORS FOR INTERNAL USE
s NDVRB40 PRODUCTION REL 4.0

```

The following section describes the panel fields. All fields but SELECTION are display-only.

| Field | Description |
|----------------------|---|
| Selection (no title) | Field used to select the system you want. Place an S in this column, to the left of the appropriate system name. |
| Environment | Name of the environment. |
| System | Name of the system. |
| System Title | Descriptive title for the system. |

3.1.5 Subsystem Selection List

This panel is returned from the Display Elements panel or the System Selection List, when you have not specified the full name of the subsystem you want. It lists the subsystems defined to the system requested, limited according to any partial subsystem name (that is, mask) specified. Use this list to select the subsystem you want, by placing an **S** to the left of the subsystem name.

```

----- Subsystem Selection List -----
COMMAND ==>                                SCROLL ==> FULL

      Environment: P40           System: NDVRB40

SUBSYSTEM  SUBSYSTEM TITLE
s BASE     BASE COMPONENTS OF ENDEVOR/MVS
CSP        CSP COMPONENTS
ELINK      ENDEVOR/LINK COMPONENTS
EXAMINE    CA-EXAMINE
INFO       ENDEVOR/INFOMAN COMPONENTS
LABD002    Dom's test system
LSERV      L-SERV MACROS
PAC        COMMON SUBCOMPONENTS USED ACCROSS PRODUCTS
PDM        PDM COMPONENTS
ROSCOE     ROSCOE INTERFACE COMPONENTS
SAMPLE     SAMPLE APPLICATION COMPONENTS
XP         COMMON SUBCOMPONENTS USED ACCROSS PRODUCTS

```

The following table describes the panel fields. All fields but SELECTION are display-only.

| Field | Description |
|----------------------|--|
| Environment | Name of the current environment. |
| System | Name of the system for the subsystems displayed. |
| Selection (no title) | Place an S in this column to the left of the subsystem name you want to select. |
| Subsystem | Name of the subsystem. |
| Subsystem Title | Descriptive title for the subsystem. |

3.1.6 Element Selection List

The Element Selection List you see depends on the values indicated in the panel fields, as well as on the panel sequence. The Element Selection List shown next appears directly from the Display Elements/Component Lists panel when you specify everything but the element name and type.

```

----- Element Selection List -----
COMMAND ==>                                SCROLL ==> FULL

Environment: P40      System: NDVRB40  Subsystem: BASE      Stage: 2
----- DATES -----
ELEMENT  TYPE  VV.LL  BASE  CURRENT  GENERATE  PROC  NDVR  LAST
ACMQAPIA ASMPGM  01.00  12OCT01 12OCT01  07NOV02  0000  0000  GENERATE
ACMQAPIB ASMPGM  01.00  12OCT01 12OCT01  07NOV02  0000  0000  GENERATE
ACMQAPIJ ASMPGM  01.01  12OCT01 27MAR02  07NOV02  0000  0000  RETRIEVE
ACMQAPI0 ASMPGM  01.00  07SEP01 07SEP01  07NOV02  0000  0000  GENERATE
ACMQAPI1 ASMPGM  01.05  07SEP01 26OCT01  07NOV02  0000  0000  GENERATE
ACMQAPI2 ASMPGM  01.04  07SEP01 26OCT01  07NOV02  0000  0000  GENERATE
ACMQAPI3 ASMPGM  01.05  07SEP01 07NOV01  07NOV02  0000  0000  GENERATE
ACMQAPI4 ASMPGM  01.03  27SEP01 07NOV01  07NOV02  0000  0000  GENERATE
ACMQAPI9 ASMPGM  01.03  07SEP01 07NOV01  07NOV02  0000  0000  GENERATE
ACMRADDX ASMPGM  01.10  30JUL97 04NOV02  07NOV02  0004  0000  GENERATE
ACMRDELX ASMPGM  01.08  30JUL97 04NOV02  07NOV02  0000  0000  GENERATE
BAPEXIT7 ASMPGM  01.00  09OCT96 09OCT96  07NOV02  0000  0000  GENERATE
BASICDEL ASMPGM  01.02  09JAN90 06FEB02  07NOV02  0000  0000  GENERATE
BASICGEN ASMPGM  01.04  09JAN90 27AUG02  07NOV02  0000  0000  GENERATE
BC1P$SMR ASMPGM  01.64  17DEC90 30OCT02  07NOV02  0000  0000  GENERATE
BC1PACAR ASMPGM  01.05  28JAN00 04NOV02  07NOV02  0000  0000  GENERATE
BC1PACAX ASMPGM  01.04  28JAN00 27AUG02  07NOV02  0000  0000  GENERATE
BC1PACM  ASMPGM  01.01  28AUG01 04SEP02  07NOV02  0000  0000  GENERATE

```

The Element Selection List shown next appears directly from the Display Elements/Component Lists when you specify everything but the element name, type and the stage id.

```

----- Element Selection List -----
COMMAND ==>                                SCROLL ==> FULL

Environment: I40      System: NDVRMVS  Subsystem: BASE
----- DATES -----
ELEMENT  TYPE  STG  VV.LL  BASE  CURRENT  GENERATE  PROC  NDVR  LAST
BC1PACSV ASMPGM  2  01.18  04NOV02 21NOV02 21NOV02  0000  0000  MOVE
BC1PAL10 ASMPGM  2  02.20  14OCT02 18NOV02 18NOV02  0000  0000  MOVE
BC1PAPI3 ASMPGM  2  01.13  10DEC01 11DEC02 11DEC02  0000  0000  MOVE
BC1PC1PR ASMPGM  2  01.49  28DEC01 26NOV02 26NOV02  0004  0000  MOVE
BC1PPFVL ASMPGM  2  01.40  19SEP02 15NOV02 15NOV02  0000  0000  MOVE
BC1PIMGR ASMPGM  2  01.85  27SEP02 13DEC02 13DEC02  0000  0008  MOVE
BC1PINIT ASMPGM  1  01.88  05JUN02 12NOV02 12NOV02  0001  0008  UPDATE
BC1PNVEY ASMPGM  2  01.46  12APR02 13DEC02 13DEC02  0000  0000  MOVE
BC1PPKSC ASMPGM  1  01.21  06NOV01 24OCT02 24OCT02  0000  0000  EDIT
BC1PPKVC ASMPGM  2  01.44  21AUG02 13NOV02 13NOV02  0000  0000  MOVE
BC1PRLSC ASMPGM  2  01.06  18APR01 08DEC02 08DEC02  0000  0008  MOVE
BC1PTMP0 ASMPGM  1  01.23  19OCT01 05NOV02 05NOV02  0000  0000  EDIT
BRBPPKMR ASMPGM  1  01.01  08NOV02 08NOV02 08NOV02  0000  0000  GENERATE
BSTCOPY  ASMPGM  2  01.47  12AUG02 20NOV02 20NOV02  0000  0000  MOVE
CONMSGSQ ASMPGM  2  01.12  04NOV02 03DEC02 03DEC02  0000  0000  MOVE
CONMSGS1 ASMPGM  2  01.61  21OCT02 14NOV02 14NOV02  0000  0000  MOVE
C1BIOVSM ASMPGM  2  01.26  27AUG02 05DEC02 05DEC02  0000  0000  MOVE
C1BMX040 ASMPGM  2  01.62  12APR02 11NOV02 11NOV02  0000  0000  MOVE

```

Note: If you do not specify a stage on the Display Elements panel, the Element Selection List will include the elements in both stages for the environment specified. The stage identifier appears between the TYPE and the VV.LL fields on the panel.

The Element Selection List shown next appears directly from the Display Elements panel when the value in the BYPASS SYS/SBS SEL LIST field is **Y**.

```

----- Element Selection List -----
COMMAND ==>                                SCROLL ==> FULL

          ----- DATES -----
SYSTEM  SUBSYSTEM  ELEMENT  TYPE  S  VV.LL  BASE  CURRENT  GENERATE
NDVRMVS BASE      $APITOK  ASMMAC  1  01.01  22JUL02 06MAR03 06MAR03
NDVRMVS BASE      $ARBCSV  ASMMAC  1  01.04  22JUL02 20MAR03 20MAR03
NDVRMVS BASE      $CPRLKDS ASMMAC  2  01.00  26NOV02 26NOV02 26NOV02
NDVRMVS BASE      $C1PRPDS ASMMAC  2  01.06  14FEB01 26NOV02 26NOV02
NDVRMVS BASE      $FLDCHK  ASMMAC  1  01.06  26JUN01 28FEB03 28FEB03
NDVRMVS BASE      $JABCRD  COBCOPY  1  01.00  08NOV02 08NOV02 08NOV02
NDVRMVS BASE      A        COBCOPY  1  01.00  07AUG02 07AUG02 08NOV02
NDVRMVS BASE      ACMCVT   ASMMAC  2  01.07  04NOV02 11FEB03 11FEB03
NDVRMVS BASE      APIRFMT  ASMMAC  1  01.01  22JUL02 06MAR03 06MAR03
NDVRMVS BASE      BC1JAC39 JCLE    2  01.01  28JAN03 03FEB03 03FEB03
NDVRMVS BASE      BC1JBEIX JCLE    2  01.02  24SEP02 06FEB03 06FEB03
NDVRMVS BASE      BC1JDEFT JCLE    2  01.05  15OCT02 06FEB03 06FEB03
NDVRMVS BASE      BC1JRMCF JCLE    2  01.11  15OCT02 06FEB03 06FEB03
NDVRMVS BASE      BC1JXCAT JCLE    2  01.04  07NOV01 06FEB03 06FEB03
NDVRMVS BASE      BC1JXCNM JCLE    2  01.01  22AUG02 06FEB03 06FEB03
NDVRMVS BASE      BC1JXCNV JCLE    2  01.02  18JUL02 06FEB03 06FEB03
NDVRMVS BASE      BC1JXMCF JCLE    2  01.02  08NOV02 06FEB03 06FEB03
NDVRMVS BASE      BC1JXPCF JCLE    2  01.03  08NOV02 06FEB03 06FEB03
    
```

The Element Selection List shown next appears after the System and/or Subsystem Selection Lists when the value in the BYPASS SYS/SBS SEL LIST field is **N**.

```

----- Element Selection List -----
COMMAND ==>                                SCROLL ==> FULL

Environment: I40      System: NDVRMVS      Subsystem: BASE
          ----- DATES -----
ELEMENT  TYPE  STG  VV.LL  BASE  CURRENT  GENERATE  -- RC --  LAST
$APITOK  ASMMAC  1    01.01  22JUL02 06MAR03 06MAR03  0000  EDIT
$ARBCSV  ASMMAC  1    01.04  22JUL02 20MAR03 20MAR03  0000  UPDATE
$CPRLKDS ASMMAC  2    01.00  26NOV02 26NOV02 26NOV02  0000  MOVE
$C1PRPDS ASMMAC  2    01.06  14FEB01 26NOV02 26NOV02  0000  MOVE
$FLDCHK  ASMMAC  1    01.06  26JUN01 28FEB03 28FEB03  0000  EDIT
$JABCRD  COBCOPY  1    01.00  08NOV02 08NOV02 08NOV02  0000  ADD
A        COBCOPY  1    01.00  07AUG02 07AUG02 08NOV02  0012 0012  RETRIEVE
ACMCVT   ASMMAC  2    01.07  04NOV02 11FEB03 11FEB03  0000  MOVE
APIRFMT  ASMMAC  1    01.01  22JUL02 06MAR03 06MAR03  0000  EDIT
BC1JAC39 JCLE    2    01.01  28JAN03 03FEB03 03FEB03  0000  MOVE
BC1JBEIX JCLE    2    01.02  24SEP02 06FEB03 06FEB03  0000  MOVE
BC1JDEFT JCLE    2    01.05  15OCT02 06FEB03 06FEB03  0000  MOVE
BC1JRMCF JCLE    2    01.11  15OCT02 06FEB03 06FEB03  0000  MOVE
BC1JXCAT JCLE    2    01.04  07NOV01 06FEB03 06FEB03  0000  MOVE
BC1JXCNM JCLE    2    01.01  22AUG02 06FEB03 06FEB03  0008  MOVE
BC1JXCNV JCLE    2    01.02  18JUL02 06FEB03 06FEB03  0000  MOVE
BC1JXMCF JCLE    2    01.02  08NOV02 06FEB03 06FEB03  0000  MOVE
BC1JXPCF JCLE    2    01.03  08NOV02 06FEB03 06FEB03  0000  MOVE
    
```

Use the Element Selection List panel to select the element(s) for which you want more information. Fill in an option value to the left of each element you want, to indicate the information you want (**M**, **S**, **B**, **C**, or **H**, as described for the Display Elements panel); then press ENTER. To view component list information with Endeavor ACM, append an "X" to options S, B, C, or H.

If you do not want to request more information, press PF3 when you are finished reviewing the information shown. The following section describes the panel fields. All fields except the SELECTION field are display-only.

| Field | Description |
|----------------------|--|
| Environment | Name of the current environment. |
| System | Name of the system under which the element is defined. |
| Subsystem | Name of the subsystem under which the element is defined. |
| Stg | ID of the stage for the element. |
| Selection (no title) | Used to select an element for further display. Type the appropriate option in this column to the left of the element for which you want to display information. |
| Element Name | Name of the element. |
| Type | Name of the element type. |
| VV.LL | Current version/level for the element, within this stage. |
| Base Date | Date of the first level of the element at this location. Format <i>ddMMMyy</i> . |
| Current Date | Level date for the current level. Format <i>ddMMMyy</i> . |
| Generate Date | Generate processor date. This field is blank if the element has not yet been processed. See the proc rc field on the Element Master Info panel for information about maxrc and Restore/Transfer as they relate to this date. Format <i>ddMMMyy</i> . |
| RC PROC | Processor return code. Stored for the element on the Master Control File. |
| NDVR RC | Endeavor return code. Stored for the element on the Master Control File. |
| Last Action | Last action recorded for the element. |

3.1.7 Summary of Levels Panel

The Summary of Levels panel appears from the Display Elements panel when you request option **S** on the Display Elements panel and uniquely qualify the element you want.

Note: This panel can also be requested during footprint display processing (see “Displaying Footprint Information” later in this chapter) and functions identically as described here.

```

----- Summary Of Levels -----
COMMAND ==>                                SCROLL ==> FULL

      Environment: P40      System: NDVRB40      Subsystem: BASE
      Element:   ACMQAPI3   Type:   ASMPGM        Stage:   2

----- Source Level Information -----
VV.LL  USER  DATE  TIME  STMTS  INSERTS  DELETES  SYNC
01.00  VANJA01 07SEP01 09:19    108      0         0
01.01  GAUPH01 12OCT01 04:48     91     39        56
01.02  GAUPH01 17OCT01 05:31     91      1         1
01.03  GAUPH01 18OCT01 07:20     93      3         1
01.04  GAUPH01 26OCT01 10:09    133     45         5
01.05  GAUPH01 07NOV01 04:02    133      1         1

```

The top part of this panel displays identification information about the element. The bottom part provides a summary of the element-level (source-level) history, listing each level of the element in the stage requested and information appropriate to that level.

Use this panel to view the summary information and, optionally, to request additional information for one or more of the levels listed at the bottom of the panel. To request further information, type **B**, **C** or **H** (as described above for the Display Elements panel) to the left of the levels about which you want information. Then press ENTER.

If you do not want to request additional information, press PF3 when you are finished with this panel.

The following tables describe the panel fields.

Identification Fields: These fields specify the Endeavor location of the element. All fields are display-only.

| Field | Description |
|-------------|---|
| Environment | Current environment. |
| System | Name of the system under which the element is defined. |
| Subsystem | Name of the subsystem under which the element is defined. |
| Element | Name of the element for which summary information is displayed. |
| Type | Name of the type for the element. |
| Stage | ID of the stage for which element information is shown. |

Source Level Information Fields: These fields display summary information about all levels of this element. All fields except the SELECTION field are display-only.

| Field | Description |
|----------------------|--|
| Selection (no title) | Used to select an element level for additional information. Type one of the following codes in this column to the left of each element level for which you want to display additional information: Element Browse (B), Element Changes (C), or Element History (H). These options are described for the Display Elements panel earlier in this section. |
| VV.LL | Version/level for which information is shown to the right (in <i>vv.ll</i> format). |
| User | Level user ID. |
| Date | Level date (in <i>ddMMMyy</i> format). |
| Time | Level time (in <i>hh:mm</i> format). |
| Stmts | Number of statements in this level. |
| Inserts | Number of statements inserted for the level. |
| Deletes | Number of statements deleted for the level. |
| Sync | Indicates whether this level is a sync level. |

3.1.8 Element Master Panels

Master Control File information for elements appears on two Element Master panels. The first of these two Element Master panels appears from the:

- Display Elements panel when you request option **M** and uniquely qualify the element you want.
- Library Selection List panel (described in the section “Displaying Footprint Information” later in this chapter).

Use the Element Master panels to review the information shown, then press PF3 when you are finished.

Element Master Panel 1

```

----- Element Master -----
COMMAND ==>                                     (PANEL 1 OF 2)

ELEMENT: ACMQAPI3   ENV: P40       SYS: NDVRB40  SUB: BASE   TYPE: ASMPGM
PROC GRP: ASMERNUL STG: 2         VV.LL: 01.05  LAST ACTION: GENERATE
DESCRIPTION: acmq api sample programs          SIGNOUT ID:
PKG ID (SOURCE):                PKG ID (OUTPUT) :
LOCKED FOR PKG:

----- LAST ELEMENT ACTION -----
USERID: JOHSU06   DATE/TIME: 07NOV02  14:10   CCID: RI40GA
COMMENT: generate for GA build 11/07/02      ACTION: GENERATE
NDVR RC: 0000    PROCESSOR: GASM          (GEN)   PROC RC: 0000

----- CURRENT SOURCE -----
USERID: GAUPH01   DATE/TIME: 07NOV01  04:02   CCID: ACMQ API
COMMENT: element not found error            DELTA FMT: R
ADD/UPDATE FROM DSN: GAUPH01.QERCY01.RECOVERY

----- GENERATE -----
USERID: JOHSU06   DATE/TIME: 07NOV02  14:10   CCID: RI40GA
COMMENT: generate for GA build 11/07/02      DELTA FMT: R
COMPONENT LIST VV.LL: 01.15

(Press ENTER for next panel)

```

Panel fields are described next.

Identification Fields: These fields identify the element for which the Master Control File information appears.

| Field | Description |
|-------------------|--|
| Element | Name of the element. |
| Environment (Env) | Environment in which the element is defined. |
| System (Sys) | System in which the element is defined. |
| Subsystem (Sub) | Subsystem in which the element is defined. |
| Type | Type to which the element has been assigned. |

| Field | Description | | | | | | | | | | | | | | | |
|----------------------------|--|------------------------|------------------------|------------------------|--------------|------|------|--------------|------|------|---------------|------|------|--------------|------|------|
| Processor Group (Proc Grp) | Name of the processor group for this element. | | | | | | | | | | | | | | | |
| Stage (Stg) | Stage in which this element resides. | | | | | | | | | | | | | | | |
| Version/level (VV.LL) | Version and level of this element. | | | | | | | | | | | | | | | |
| Last Action | Last action performed against this element. | | | | | | | | | | | | | | | |
| Description | Description of the last action. This information comes from the comment associated with the last action. | | | | | | | | | | | | | | | |
| Signout ID | User ID of the person to whom the element is signed out. | | | | | | | | | | | | | | | |
| Package ID (Source) | ID of the package that last affected the source form of this element. (Applies only to package processing.) | | | | | | | | | | | | | | | |
| Package ID (Output) | <p>ID of the package that created the current generated (or output) form of this element. (Applies only to package processing.)</p> <p>Note: Backing out and backing in packages can affect the value that appears in this field. For example, assume this element is part of two packages, PKG1 and PKG2. The following table shows the effect of four activities involving these packages on the PKG ID (SOURCE) and the PKG ID (OUTPUT) fields.</p> <table border="1"> <thead> <tr> <th>ACTION</th> <th>PKG ID (SOURCE)</th> <th>PKG ID (OUTPUT)</th> </tr> </thead> <tbody> <tr> <td>Execute PKG1</td> <td>PKG1</td> <td>PKG1</td> </tr> <tr> <td>Execute PKG2</td> <td>PKG2</td> <td>PKG2</td> </tr> <tr> <td>Back out PKG2</td> <td>PKG2</td> <td>PKG1</td> </tr> <tr> <td>Back in PKG2</td> <td>PKG2</td> <td>PKG2</td> </tr> </tbody> </table> <p>Backing out PKG2 caused the output form of this element to revert to its state in PKG1. Subsequently backing in PKG2 then caused the output form of this element to revert to its state in PKG2.</p> <p>Keep in mind, however, that package actions (package backing in/out) are not available in the Roscoe Interface. These fields may indicate the above conditions created through Endeavor.</p> | ACTION | PKG ID (SOURCE) | PKG ID (OUTPUT) | Execute PKG1 | PKG1 | PKG1 | Execute PKG2 | PKG2 | PKG2 | Back out PKG2 | PKG2 | PKG1 | Back in PKG2 | PKG2 | PKG2 |
| ACTION | PKG ID (SOURCE) | PKG ID (OUTPUT) | | | | | | | | | | | | | | |
| Execute PKG1 | PKG1 | PKG1 | | | | | | | | | | | | | | |
| Execute PKG2 | PKG2 | PKG2 | | | | | | | | | | | | | | |
| Back out PKG2 | PKG2 | PKG1 | | | | | | | | | | | | | | |
| Back in PKG2 | PKG2 | PKG2 | | | | | | | | | | | | | | |
| Locked for Pkg | When the element locking feature has been enabled in the Endeavor Options Table (ENCOPTBL), this field displays the package which has secured (locked) the element. | | | | | | | | | | | | | | | |

Last Element Modification Fields: These fields provide information concerning the last action that changed the source and/or output form of this element in some way.

| Field | Description |
|--------------------------------|---|
| Userid | User ID of person who requested the action. |
| Date/Time | Date and time of the action. |
| CCID | CCID specified for the action. |
| Comment | Comment specified for the action. |
| Action | Name of the Endeavor action that was performed. |
| Endeavor Return Code (NDVR RC) | Return code when the action was performed. |
| Field | Description |
| Processor | Name of the processor invoked by the action. |

| Field | Description |
|---------------------------------|---|
| Processor Return Code (Proc RC) | <p data-bbox="938 306 1360 338">Return code from processor execution.</p> <p data-bbox="938 359 1438 520">The message “*FAILED*” appears here if the code exceeded the MAXRC for any step of the processor. (The MAXRC specification is described for processors in the <i>Endevor for OS/390 Administrator Guide</i>.)</p> <p data-bbox="938 541 1438 1035">The message “*PROC'D?*” appears here if the element has been restored (or transferred to Endevor from an archive data set), but has not yet been processed. This indicates that the status of the processor information taken from the archive data set during the Restore (or Transfer) may be out of sync with the current processor output, if any. For example, if you deleted the element at the time it was last archived, the processor output would have been deleted as well; however, the processor information in the archive data set for the element remained and was restored and/or transferred along with the other information for the element.</p> <p data-bbox="938 1056 1438 1320">If a Stage 1 element has the “*FAILED*” or “*PROC'D?*” message here, it cannot be moved to Stage 2, and can only be transferred upon explicit request, by specifying the IGNORE GENERATE FAILED option. You can specify this option only using the Edit panel (option 2 of the Batch Options Menu).</p> |

Current Source Fields: These fields provide information about the current source for the element. The USERID, DATE/TIME, CCID, and comment fields are documented in the preceding section “Last Element Modification Fields.” The ADD/UPDATE FROM DSN field identifies the data set from which the element was added.

The DELTA FMT field indicates whether the element changes are stored in forward (F) or reverse (R) delta format.

Generate Fields: These fields provide information about the last action run against this element that caused output to be generated. The USERID, DATE/TIME, CCID, and COMMENT fields are documented in the preceding section “Last Element Modification Fields.” The COMPONENT LIST VV.LL field identifies the latest version and level of the component list for this element.

Element Master Panel 2: Press ENTER to view the second Element Master panel. Press PF3 when you are finished.

```

----- Element Master -----
COMMAND ==>                                     (PANEL 2 OF 2)

ELEMENT: ACMQAPI3  ENV: P40      SYS: NDVRB40  SUB: BASE   TYPE: ASMPGM
PROC GRP: ASMERNU  STG: 2       VV.LL: 01.05      LAST ACTION: GENERATE
                                           SIGNOUT ID:

----- RETRIEVE -----
USERID:           DATE/TIME:           CCID:
COMMENT:
RETRIEVE TO DSN:

----- BASE -----
USERID: VANJA01   DATE/TIME: 07SEP01 09:19
COMMENT: acmq api sample programs

----- FROM ENDEVOR LOCATION -----
USERID: JOHSU06   DATE/TIME: 04NOV02 09:05  ACTION: MOVE
ELEMENT: ACMQAPI3 ENV: Q40      SYS: NDVRMVS  SUB: BASE   TYPE: ASMPGM
          STG: 2       VV.LL: 01.05

                                           (Press ENTER for previous panel)

```

Panel fields are described next.

Identification Fields: See the “Identification Fields” section in the Element Master Panel 1 discussion for a description of these fields.

Retrieve Fields: These fields provide information only when the last action performed against this element was Retrieve. Otherwise the fields will be empty. See the “Last Element Modification Fields” section in the Element Master Panel 1 discussion for a description of USERID, DATE/TIME, CCID, and COMMENT.

The RETRIEVE TO DSN field identifies the target data set for the Retrieve action.

Base Fields: These fields provide information about the base level of this element. They show the user ID of the person who created the base level, the date and time that the base level was created, and the comment that was entered for the Add action that created the base level.

From Endeavor Location Fields: Information displays in these fields when this element has been moved or transferred from another Endeavor location. They show the user ID of the person who requested the Move or Transfer action, the date and time that the action was performed, and the name of the action (Move or Transfer).

See the “Identification Fields” section in the Element Master Panel 1 discussion for a description of these fields.

3.1.9 Element Browse Panel

The Element Browse panel appears from the:

- Display Elements panel when you request option **B** and uniquely qualify the element you want.
- Summary of Levels panel when you type **B** next to an element level.
- Library Selection List panel (described in the section “Displaying Footprint Information” later in this chapter).

```

> BROWSE Requested entity. Press PF3/PF15 to resume
> LIB(JUD.$BRLMJUD) SCRL CSR COLS 00001 00080 PGM(JUD.NDVR) LINE 000001
<...+...1...+...2...+...3...+...4...+...5...+...6...+...7...+...>
===== T O P =====
*****
*****
** ELEMENT BROWSE 05DEC02 11:03 **
** **
** ENVIRONMENT: P40 SYSTEM: NDVRB40 SUBSYSTEM: BASE **
** ELEMENT: ACMQAPI3 TYPE: ASMPGM STAGE ID: 2 **
** **
*****
*****
----- SOURCE LEVEL INFORMATION -----
VV.LL SYNC USER DATE TIME STMTS CCID COMMENT
-----
01.00 VANJA01 07SEP01 09:19 108 ACMQ API acmq api sample program
01.01 GAUPH01 12OCT01 04:48 91 ACMQ API acmq api sample program
01.02 GAUPH01 17OCT01 05:31 91 ACMQ API create ACMQ API interfa
01.03 GAUPH01 18OCT01 07:20 93 ACMQ API create ACMQ API interfa
01.04 GAUPH01 26OCT01 10:09 133 ACMQ API create ACMQ API interfa
01.05 GAUPH01 07NOV01 04:02 133 ACMQ API element not found error
GENERATED JOHSU06 07NOV02 14:10 RI40GA generate for GA build 1

+00 *****
+00 * SAMPLE ACMQ API PROGRAM.
+00 *
+00 * THIS PROGRAM DOES A GLOBAL ACMQ API FUNCTION CALL REQUESTING
+01 * FUNCTION COUNT
+00 *****
+00 *
+01 *
+01 PRINT NOGEN
+01 @ACMQDS
+01 @ACMQARQ
+00 SPACE 3
+00 @ACMQRCD
+00 CIMDPARM
+00 C1BMSCT

```

The Element Browse panel displays all the statements in the level of the element requested, and identifies the level at which each statement was first inserted. If the panel is returned from the Display Elements panel or the Library Selection List, the level *requested* is assumed to be the current level. To browse a previous level of the element, first request the Summary of Levels panel, then specify the level you want (and option **B**) using that panel.

Review the information shown, then press PF3 when you are finished.

Panel fields are described next.

Panel Title and Element Identification Fields: This area displays the panel title, “Element Browse,” with the current date and time shown to the right. The fields in the following table identify the element whose source information is displayed. All fields are display-only.

| Field | Description |
|-------------|---|
| Environment | Name of the environment in which the element is defined. |
| System | Name of the system under which the element is defined. |
| Subsystem | Name of the subsystem under which the element is defined. |
| Element | Name of the element. |
| Type | Element type. |
| Stage | ID of the stage in which the element resides. |

Source Level Information: This area summarizes each element level, up to the level requested. If you are browsing the current level of the element, this area provides information about the last time the element was processed by the generate or move processor, and/or retrieved. All fields are display-only.

| Field | Description |
|-------|--|
| VV.LL | Number that identifies the level of the element described on this line (in <i>vv.ll</i> format). |
| User | Level user ID. |
| Date | Level date (in <i>ddMMMyy</i> format). |
| Time | Level time (in <i>hh:mm</i> format). |
| Stmts | Number of statements in this level. |

| Field | Description |
|--------------|---|
| CCID | Level change control ID. |
| Comment | Level comment. |
| GENERATED | <p>Information about the last run of the generate processor for any level of the element. This data includes the ID of the user who requested the associated action, the date and time of the Generate action, the number of statements processed, and CCID and comments associated with the action, if any.</p> <p>If the generate processor has not been run for the element, this line reads: THIS ELEMENT HAS NOT BEEN PROCESSED.</p> <p>If the element has been restored (or transferred to Endeavor from an archive data set), but has not yet been generated, this line reads: PROCESS?? (instead of GENERATED). This indicates that the status of the generate processor information taken from the archive data set during the Restore (or Transfer) may be out of sync with the current processor output, if any. For example, if you deleted the element at the time it was last archived, the processor output was deleted as well. The processor information in the archive data set for the element remained, however, and was restored/transferred along with the other information for the element.</p> |
| RETRIEVED | <p>Information to describe the last time any level of the element was retrieved. This data includes the ID of the user responsible, date and time of the Retrieve action, and any comments associated with the processing.</p> <p>If an element has been moved, signed in (using the Signin action), restored, or transferred to Endeavor from an archive data set since the last Retrieve, any information related to the last Retrieve is blanked out and is not reflected here.</p> |

Element Statements: This area lists each statement in the element as of the level requested. For each statement, it identifies the level at which the statement was inserted (and deleted, as appropriate). A percent (%) sign marks those statements that were inserted as of the level displayed.

| Field | Description |
|------------------------------|--|
| Level (no title) columns 1-7 | Display-only. Level at which the statement shown to the right was inserted into the element (+//). For statements inserted as of this level, a percent sign (%) precedes the level number. |
| Text (no title) columns 9-n | Display-only. Text of the statement. |

3.1.10 Element Changes Panel

The Element Changes panel appears from the:

- Display Elements panel when you request option C and uniquely qualify the element you want.
- Summary of Levels panel when you type C next to an element level.
- Library Selection List panel (described in “Displaying Footprint Information” later in this chapter).

```

> APPLID(A44I60J0)  USER(JUD,OLEJU01)                                E PENDING
> LIB(JUD.$BRLMJUD) SCRL CSR COLS 00001 00080 PGM(JUD.NDVR)  LINE 000001
<...+...1...+...2...+...3...+...4...+...5...+...6...+...7...+...>
===== T O P =====
*****
**
** ELEMENT CHANGES                                           05DEC02 10:53 **
**
** ENVIRONMENT:  P40          SYSTEM: NDVRB40      SUBSYSTEM: BASE  **
** ELEMENT:     ACMQAPI3     TYPE:  ASMPGM        STAGE ID: 2   **
**
*****
----- SOURCE LEVEL INFORMATION -----
VV.LL SYNC USER   DATE   TIME   STMTS CCID      COMMENT
-----
01.00   VANJA01  07SEP01 09:19   108 ACMQ API   acmq api sample program
01.01   GAUPH01  12OCT01 04:48    91 ACMQ API   acmq api sample program
01.02   GAUPH01  17OCT01 05:31    91 ACMQ API   create ACMQ API interfa
01.03   GAUPH01  18OCT01 07:20    93 ACMQ API   create ACMQ API interfa
01.04   GAUPH01  26OCT01 10:09   133 ACMQ API   create ACMQ API interfa
01.05   GAUPH01  07NOV01 04:02   133 ACMQ API   element not found error
GENERATED JOHSU06 07NOV02 14:10    RI40GA       generate for GA build 1

+05          CLI  CI01FUN,C' '          END OF TASK ?
+04-05      CLI  CI01FLAG,CI01EOF      END OF TASK ?
===== B O T T O M =====

```

The Element Changes panel displays all inserts and deletions made to the element for the level requested (that is, between the level immediately preceding and this level). If the panel is returned from the Display Elements panel or the Library Selection List, the level *requested* is assumed to be the current level. To view the changes to a previous level of the element, first request the Summary of Levels panel, then specify the level you want (and option **C**) using that panel.

Review the information shown, then press PF3 when you are finished.

Panel Title and Element Identification: This area displays the panel title, “Element Changes,” with the current date and time shown to the right (*ddMMMyy hh:mm*). The fields in the table that follows identify the element whose change history is displayed. All fields are display-only.

| Field | Description |
|-------------|---|
| Environment | Name of the environment in which the element is defined. |
| System | Name of the system under which the element is defined. |
| Subsystem | Name of the subsystem under which the element is defined. |
| Element | Name of the element. |
| Type | Element type. |
| Stage | ID of the stage in which the element resides. |

Source Level Information: This area summarizes each element level, up to the level requested. If you are browsing the current level of the element, this area provides information about the last time the element was processed by the generate or move processor, and/or retrieved. All fields are display-only.

| Field | Description |
|---------|---|
| VV.LL | Number that identifies the element level described on this line (in <i>vv.ll</i> format). |
| User | Level user ID. |
| Date | Level date (in <i>ddMMMyy</i> format). |
| Time | Level time (in <i>hh:mm</i> format). |
| Stmts | Number of statements in this level. |
| CCID | Level change control ID. |
| Comment | Level comment. |

| Field | Description |
|-----------|---|
| GENERATED | <p>Information to describe the last time the generate processor was run for any level of the element. This data includes the ID of the user who requested the associated action, the date and time of the Generate action, the number of statements processed, and CCID and comments associated with the action, if any.</p> <p>If the generate processor has not been run for the element, this line reads: THIS ELEMENT HAS NOT BEEN PROCESSED.</p> <p>If the element has been restored (or transferred to Endeavor from an archive data set), but has not yet been generated, this prompt reads: PROCESS?? (instead of GENERATED). This indicates that the status of the generate processor information taken from the archive data set during the Restore (or Transfer) may be out of sync with the current processor output, if any. For example, if you deleted the element at the time it was last archived, the processor output would have been deleted as well. The processor information in the archive data set for the element remained, however, and was restored/transferred along with the other information for the element.</p> |
| RETRIEVED | <p>Information to describe the last time any level of the element was retrieved. This data includes the ID of the user responsible, date and time of the Retrieve action, and any comments associated with the processing. If an element has been moved, signed in (using the Signin action), restored, or transferred to Endeavor from an archive data set since the last Retrieve, any information related to the last Retrieve is blanked out and is not reflected here.</p> |

Element Statements: This area lists each statement in the element that changed as of the requested level. For statements that were deleted, this area indicates the level at which the previous form of the statement was inserted. These fields are display-only.

| Field | Description |
|------------------------------|--|
| Level (no title) columns 1-7 | Level at which the statement to the right was inserted into the element (+ <i>ll</i>). If the statement was deleted as of the level being displayed, a second number displays (+ <i>ll</i> - <i>ll</i>). Either the add (+ <i>ll</i>) or the delete (- <i>ll</i>) number references the level displayed. |
| Text (no title) columns 9-n | Text of the statement. |

3.1.11 Element History Panel

The Element History panel appears from the:

- Display Elements panel when you request option **H** and uniquely qualify the element you want.
- Summary of Levels panel when you type **H** next to an element level.
- Library Selection List panel (described in “Displaying Footprint Information” later in this chapter).

```

> BROWSE Requested entity. Press PF3/PF15 to resume
> LIB(JUD.$BRLMJUD) SCRL CSR COLS 00001 00080 PGM(JUD.NDVR) LINE 000001
<...+...1...+...2...+...3...+...4...+...5...+...6...+...7...+...>
===== T O P =====
*****
**
** ELEMENT HISTORY                                05DEC02 11:09 **
**
** ENVIRONMENT: P40          SYSTEM: NDVRB40    SUBSYSTEM: BASE    **
** ELEMENT:    ACMQAPI3     TYPE:  ASMPGM      STAGE ID: 2      **
**
*****
----- SOURCE LEVEL INFORMATION -----
VV.LL SYNC USER      DATE    TIME    STMTS CCID      COMMENT
-----
01.00      VANJA01 07SEP01 09:19    108 ACMQ API    acmq api sample program
01.01      GAUPH01 12OCT01 04:48     91 ACMQ API    acmq api sample program
01.02      GAUPH01 17OCT01 05:31     91 ACMQ API    create ACMQ API interfa
01.03      GAUPH01 18OCT01 07:20     93 ACMQ API    create ACMQ API interfa
   01.04      GAUPH01 26OCT01 10:09    133 ACMQ API    create ACMQ API interfa
01.05      GAUPH01 07NOV01 04:02    133 ACMQ API    element not found error
GENERATED  JOHSU06 07NOV02 14:10     RI40GA    generate for GA build 1

+00 *****
+00 * SAMPLE ACMQ API PROGRAM.
+00 *
+00 * THIS PROGRAM DOES A GLOBAL ACMQ API FUNCTION CALL REQUESTING
%+01 * FUNCTION COUNT
%+00-01 * ACMQ DETAIL INFORMATION (NO SCL)
+00 *****
+00 *
%+01 *
%+01 PRINT NOGEN
%+01 @ACMQDS
%+01 @ACMQARQ
%+00-01 ACMQDS
%+00-01 ACMQARQ
+00 SPACE 3

```

The Element History panel displays all statements that ever existed in the element, from the base level through the level requested. For each statement, the display identifies the level at which the statement was first inserted and the level at which it was deleted (using an Update action), if appropriate.

If the panel is returned from the Display Elements panel or the Library Selection List, the level requested is assumed to be the current level. To view the history of the element as of a previous level, first request the Summary of Levels panel, then specify the level you want (and option H) using that panel.

Review the information shown, then press PF3 when you are finished.

Panel fields are described next.

Panel Title and Element Identification: This area displays the panel title, “Element History,” with the current date and time shown to the right. The fields that follow identify the element for which history information is displayed. All fields are display-only.

| Field | Description |
|--------------|---|
| Environment | Name of the environment in which the element is defined. |
| System | Name of the system under which the element is defined. |
| Subsystem | Name of the subsystem under which the element is defined. |
| Element | Name of the element. |
| Type | Element type. |
| Stage | ID of the stage in which the element resides. |

Source Level Information: This area summarizes each element level, up to the level requested. If you are browsing the current level of the element, this area provides information about the last time the element was processed by the generate or move processor, and/or retrieved. Fields are display-only.

| Field | Description |
|-----------------------|---|
| VV.LL | Number that identifies the element level described on this line (in <i>vv.ll</i> format). |
| User | Level user ID. |
| Date | Level date (in <i>ddMMMyy</i> format). |
| Time | Level time (in <i>hh:mm</i> format). |
| Stmts | Number of statements in this level. |
| CCID | Level change control ID. |
| Comment | Level comment. |
| GENERATED | <p>Information about the last run of the generate processor for any level of the element. This data includes the ID of the user who requested the associated action, the date and time of the Generate action, the number of statements processed, and CCID and comments associated with the action, if any.</p> <p>If the generate processor has not been run for the element, this line reads: THIS ELEMENT HAS NOT BEEN PROCESSED.</p> |
| GENERATED (continued) | <p>If the element has been restored (or transferred to Endeavor from an archive data set), but has not yet been generated, this line reads: PROCESS?? (instead of GENERATED). This indicates that the status of the generate processor information taken from the archive data set during the Restore (or Transfer) may be out of sync with the current processor output, if any. For example, if you deleted the element at the time it was last archived, the processor output would have been deleted as well. The processor information in the archive data set for the element remained, however, and was restored/transferred along with the other information for the element.</p> |

| Field | Description |
|--------------|--|
| RETRIEVED | <p>Information to describe the last time any level of the element was retrieved. This data includes the ID of the user responsible, date and time of the Retrieve action, and any comments associated with the processing.</p> <p>If an element has been moved, signed in (using the Signin action), restored, or transferred to Endeavor from an archive data set since the last Retrieve, any information related to the last Retrieve is blanked out and is not reflected here.</p> |

Element Statements: This area lists each statement that was ever a part of the element (up through the level being displayed), with an indication of the level at which the statement was inserted and/or deleted. A percent sign (%) marks each statement that was inserted or deleted after the base level.

| Field | Description |
|------------------------------|--|
| Level (no title) columns 1-7 | Level at which the statement shown to the right was inserted (+ <i>ll</i>). If the statement was deleted subsequently (at or before the level for which the history is displayed), a second number displays (+ <i>ll</i> - <i>ll</i>). For statements inserted or deleted after the base version, the “%” precedes the level number at which the statement was inserted/deleted. |
| Text (no title) columns 9-n | Text of the statement. |

3.2 Displaying Footprint Information

3.2.1 Overview

Footprints are trace (identification) information placed in source, object, and load modules by Endeavor, to associate those modules with a particular element. Footprinting is the technique used by Endeavor to keep the data sets associated with each element synchronized. Once established, a footprint is used wherever applicable by Endeavor, to validate each data set associated with an element.

A footprint includes the following information related to the associated element, in encrypted format: site ID, environment name, stage number, system name, subsystem name, element name, element type, element version/level, and the date and time the footprint was assigned.

Footprints are recorded automatically in the Endeavor libraries during action processing. Depending on the type of data set used for the library, footprints are stored as follows: for a PDS, in the user data area of the directory; for Librarian, as a history record; for Panvalet, as a COMMENT field. Through processors, footprints can also be added to output source, object, and load-module data sets for an element, to associate those data sets with the element. In this case, footprints are stored as described above, with the exception of load-module data sets. In load-module data sets, the footprint is stored separately for each CSECT, in the user IDR record for the load module.

Footprints are described more fully in the *Endeavor for OS/390 Footprints* manual. See that manual for further definition and examples of footprinting.

3.2.2 The Footprint Display Panel

Select option **2** from the Roscoe Interface Primary Options Menu to display the Footprint Display panel. Use this panel to identify the library for which you want to display footprint information, as well as the type of information you want to see. Press ENTER when you have supplied the information requested.

```

----- Footprint Display -----
OPTION ==>

Blank - Selection list (Shows footprints for non-load modules)
  I - Load module CSECTS and ENDEVOR footprints
  L - ENDEVOR footprinted member contained in output or listing library

PARTITIONED OR SEQUENTIAL DATA SET:
DATA SET NAME ==>
THRU MEMBER   ==>

```

Option **2** on the Roscoe Interface Primary Options Menu allows you to access Endeavor footprints stored in PDS, Librarian, or Panvalet libraries. Specifically, you can:

- Display a list of members in a library, including the footprint information for each nonload member (for those members that have been footprinted).
- Display a list of CSECTS for a specific load member, including the footprint information for each CSECT.
- Request a browse panel for a nonload member in an output or listing library, including the source output library, generate processor output library, or move processor output library. In order to request the browse, the member in the output or listing library must be footprinted.
- Request any of the element displays described in the previous section, “Displaying Element Information,” for a particular member or CSECT. These are the Summary of Levels panel, Element Browse panel, Element History panel, Element Changes panel, and/or Element Master Info panel. This option is only available for members/CSECTS that are footprinted.

Note: You cannot display a footprint in a member that resides in a Roscoe library or in the Roscoe workspace (AWS).

3.2.3 Panel Fields

The Roscoe Interface returns the Footprint Display panel when you select option **2** from the Roscoe Interface Primary Options Menu.

Panel fields are described next.

Option Field: Use the OPTION field to specify the information you want to see.

- **Blank** — Displays a Library Selection List of members in the specified library, including the footprint information for each nonload member, if available. This panel does not include footprint information for load library members, because there is a separate footprint for each CSECT

The MEMBER and THRU MEMBER fields can be inserted, optionally, to define the range of members you want listed. The Roscoe Interface returns the Library Selection List panel, showing all members in the library (within the range requested, if applicable).

- **I** — Displays footprint information for a specific load module. Before selecting this option, make sure you identify the library and member in which the load module is stored. The Roscoe Interface returns the Endeavor Load Module IDR Display panel for the member selected, showing the footprint for each (footprinted) CSECT. Any CSECTs that are not footprinted appear in the list, with the footprint area blank.
- **L** — Displays the contents of a specific nonload library member. In order to use this option, the member must be footprinted. Before selecting option **L**, make sure you identify the library and member you want to display.

The Roscoe Interface returns a browse panel showing the member requested. Press PF3 when you are finished with the browse panel.

Partitioned or Sequential Data Set Field: Use this field to identify the library in which the member(s) you want resides, and optionally the member name itself. The format is *library (member name)*. If you enter an explicit member name and press ENTER, a Library Selection List appears. To limit the list, you would also enter a thru member name to indicate that a range of members in the data set should be listed.

- **Data Set Name**— Enter the appropriate data set name and, optionally, a member name.
- **Thru Member**— Applicable when the OPTION field is blank. Name that defines the last member in the range to be listed. You can use a name mask to specify the MEMBER name or the THRU MEMBER name.

3.2.4 Library Selection List

This panel is returned when you leave the Option field blank on the Footprint Display panel. It lists all the members in the library identified on that panel, limited by the range of member names requested, if any. For each nonload member that is footprinted, the footprint information is included in the display.

The example shows that the data set name of BST.P40B40S2.CONLIB was entered without specifying a member name and the Option field was left blank on the Footprint Display panel.

```

----- Library Selection List -----
COMMAND ==>                                SCROLL ==> FULL

                Library: BST.P40B40S2.CONLIB

I - Display Endeavor footprints contained within a load module

After a footprint has been displayed:
L - Display library mbr   B - Browse element   C - Changes only
S - Change summary       H - Change history   M - Master record

MEMBER |----- FOOTPRINT -----|
        SYSTEM  SUBSYSTEM ELEMENT  TYPE  S  VV.LL DATE  TIME LD
ACMQAPI1
ACMQAPI2
ACMQAPI3
ACMQAPI4
ACMQAPI9
ACMRADDX
ACMRDELX
BAPEXIT7
BASICDEL
BASICGEN

```

The example shows that the data set name of BST.P40B40S2.LISTINGS was entered using a name mask to specify the member name and the Option field was left blank on the Footprint Display panel.

```

----- Library Selection List -----
COMMAND ==>                                SCROLL ==> FULL

      Library: BST.P40B40S2.LISTINGS

      I - Display Endeavor footprints contained within a load module

After a footprint has been displayed:
L - Display library mbr      B - Browse element      C - Changes only
S - Change summary          H - Change history        M - Master record

MEMBER  |----- F O O T P R I N T -----|
SYSTEM  SUBSYSTEM ELEMENT  TYPE  S  VV.LL DATE  TIME LD
ACMCVTD  NDVRB40  BASE    ACMCVTD  ASMPGM  2  01.01 23OCT01 00:08
ACMQAPIA NDVRB40  BASE    ACMQAPIA ASMPGM  2  01.00 07NOV02 14:08
ACMQAPIB NDVRB40  BASE    ACMQAPIB ASMPGM  2  01.00 07NOV02 14:08
ACMQAPI0 NDVRB40  BASE    ACMQAPI0 ASMPGM  2  01.00 07NOV02 14:09
ACMQAPI1 NDVRB40  BASE    ACMQAPI1 ASMPGM  2  01.05 07NOV02 14:09
ACMQAPI2 NDVRB40  BASE    ACMQAPI2 ASMPGM  2  01.04 07NOV02 14:10
ACMQAPI3 NDVRB40  BASE    ACMQAPI3 ASMPGM  2  01.05 07NOV02 14:10
ACMQAPI4 NDVRB40  BASE    ACMQAPI4 ASMPGM  2  01.03 07NOV02 14:11
ACMQAPI9 NDVRB40  BASE    ACMQAPI9 ASMPGM  2  01.03 07NOV02 14:11
ACMRADDX NDVRB40  BASE    ACMRADDX ASMPGM  2  01.10 07NOV02 14:12
    
```

The library displayed is identified under the panel title:

LIBRARY: library-name

You can select one or more members for additional information from this list. Place the appropriate character to the left of each member you want and press ENTER. You can request the following displays: the Load Module IDR Display (**I**), a browse display (**L**), or any of the standard element displays (**S**, **B**, **H**, **C**, or **M**) described in the previous section, "Displaying Element Information."

Panel fields are described next.

Selection Field (untitled): Use this field to select a member for additional information. Select any number of members for additional information by placing the appropriate character in this column. Except for option **I**, the footprint information must be displayed for a member in order to request one of these displays.

- **I**— Endeavor Load Module IDR Display, showing the footprint for each (footprinted) CSECT.
- **L**— Browse panel showing the contents of the library member.
- **S, B, H, C, M**— One of the reports described earlier in this chapter in “Displaying Element Information.” These are the Summary of Levels (S) panel, the Element Browse (B) panel, the Element History (H) panel, the Element Changes (C) panel, or the Element Master Info (M) panel.

Member Field: The member field displays the name of the library member for which footprint information is provided.

Footprint Fields: Display-only. These fields show information stored in the footprint for source, object, and processor output members.

- **System**— Name of the system under which the element is defined.
- **Subsystem**— Name of the subsystem under which the element is defined.
- **Element** — Name of the element that corresponds to the member.
- **Type** — Name of the element type
- **S** — Stage in which the element was processed to create this member.
- **VV.LL**— Version/level of the element processed to create this member (*vv.ll*).
- **Date**— Date the member was footprinted (*ddMMMyy*).
- **Time** — Time the member was footprinted (*hh:mm*).
- **LD**— An “LD” appears in this field to show that this footprint was created by the Endeavor load utility. Load utility footprints cannot be used to verify element integrity. They indicate only the location to which the element was loaded, and the date and time the load took place.

3.2.5 Endeavor Load Module IDR Display Panel

This panel returns when you request option **I** on the Footprint Display panel (specifying a footprinted load module) or request option **I** on the Library Selection List. The panel lists each CSECT in the load module. For those CSECTs that are footprinted, it includes the footprint data.

```

----- Endeavor Load Module IDR Display -----
COMMAND ==>                                     SCROLL ==> FULL

                Library: BST.P40B40S2.CONLIB
                Member: ACMQAPI3

CSECT          |----- F O O T P R I N T -----|
SYSTEM  SUBSYSTEM ELEMENT  TYPE  S  VV.LL DATE  TIME LD
ACMQAPI3 NDVRB40  BASE      ACMQAPI3  ASMPGM 2  01.05 07NOV02 14:10

```

The library and member for which the information is displayed are identified under the panel title:

```
LIBRARY: library-name
MEMBER: member-name
```

From this panel, either press **PF3** to return to the previous display or fill in a character to the left of a specific *footprinted* CSECT to request an element display. The following list describes the panel fields.

Selection Field (untitled): Use this field to select a CSECT for additional information. Select any number of CSECTs by placing the appropriate character in this column. You can enter:

- **S, B, H, C, M**— One of the reports described earlier in this chapter in “Displaying Element Information.” These are the Summary of Levels (S) panel, the Element Browse (B) panel, the Element History (H) panel, the Element Changes (C) panel, or the Element Master Info (M) panel.

CSECT Field: The CSECT field displays the name of the CSECT for which footprint information is shown to the right. If no information is displayed to the right, the CSECT has not been footprinted.

Footprint Fields: Display-only. These fields show information stored in the CSECT's footprints.

- **System**— Name of the system under which the corresponding element is defined.
- **Subsystem**— Name of the subsystem under which the element is defined.
- **Element**— Name of the Endeavor element that corresponds to the CSECT.
- **Type**— Name of the element type.
- **S** — ID of the stage in which the element was processed to create this CSECT.
- **VV.LL**— Version/level of the element processed to create this CSECT (*vv.ll*).
- **Date**— Date the CSECT was footprinted (*ddMMMyy*).
- **Time**— Time the CSECT was footprinted (*hh:mm*).
- **LD**— An “LD” appears in this field to show that this footprint was created by the Endeavor load utility. Load utility footprints cannot be used to verify element integrity. They indicate only the location to which the element was loaded, and the date and time the load took place.

3.2.6 Endeavor Browse Panel for a Footprinted Member

This panel is returned when you request option **L** on either the Footprint Display panel (with a footprinted *nonload* member specified) or on the Library Selection List. This browse panel is used to display the source for the member requested. Press PF3 when you are finished browsing the member, to return to the previous panel.

```

> BROWSE Requested entity. Press PF3/PF15 to resume
> LIB(JUD.$BRLMJUD) SCRL CSR COLS 00001 00080 PGM(JUD.NDVR) LINE 000001
<...+...1...+...2...+...3...+...4...+...5...+...6...+...7...+...>
===== T O P =====
*****
**
** AAAAAAAAAA CCCCCCCCC MM MM QQQQQQQQQ AAAAAAAAAA PPPPP
** AAAAAAAAAA CCCCCCCCC MMM MMM QQQQQQQQQQ AAAAAAAAAA PPPPP
** AA AA CC CC MMMM MMM QQ QQ AA AA PP
** AA AA CC MM MM MM MM QQ QQ AA AA PP
** AA AA CC MM MMMM MM QQ QQ AA AA PP
** AAAAAAAAAA CC MM MM MM QQ QQ AAAAAAAAAA PPPPP
** AAAAAAAAAA CC MM MM QQ QQ AAAAAAAAAA PPPPP
** AA AA CC MM MM QQ QQ AA AA PP
** AA AA CC MM MM QQ QQ AA AA PP
** AA AA CC MM MM QQ QQ AA AA PP
** AA AA CCCCCCCCC MM MM QQQQQQQQQ AA AA PP
** AA AA CCCCCCCCC MM MM QQQQQQQ QQ AA AA PP
**
*****
*****
** ***** GENERATE *****
**
** USER ID..... JOHSU06
** DATE..... 07NOV02 14:10
** ENDEVOR RC..... 0000
**
** ENVIRONMENT.... P40
** STAGE..... P40STG2
** SYSTEM..... NDVRB40
** SUBSYSTEM..... BASE
** ELEMENT..... ACMQAPI3
** VV.LL..... 01.05
** TYPE..... ASMPGM
** PROC GROUP.... ASMERNUL
** PROCESSOR..... GASM
** INITLIST..... RC=0000
** ASSEM..... RC=0000
** OBJCOPY..... RC=0000
** LINK..... RC=0000
**
*****
*****

```

3.3 Retrieving Elements Using the Foreground Retrieve Action

The Roscoe Interface Foreground Retrieve Action allows you to retrieve, in foreground, a Endeavor element into your Roscoe directory. Foreground Retrieve writes only to a Roscoe file.

You access the Roscoe Interface Foreground Retrieve Panel by selecting the RETRIEVE option (4) from the Roscoe Interface Primary Options Menu pictured next.

```
----- AllFusion Endeavor Primary Options Panel -----  
OPTION ==>  
  
 1 DISPLAY ELEMENT - Display element/component list information  
 2 DISPLAY FOOTPRINT - Display footprinted members and compressed listings  
 3 BATCH - Perform Batch action processing  
 4 RETRIEVE - Perform foreground Retrieve processing
```

(C) 1987, 2003 Computer Associates International, Inc.

Enter END command to terminate

3.3.1 Roscoe Interface Foreground Retrieve Panel

The Roscoe Interface Foreground Retrieve Panel is pictured next:

```

----- Retrieve Elements -----
OPTION ==>

      blank - Element list
      R - Retrieve element

      Element Display Options:
      S - Summary  B - Browse  H - History
      M - Master   C - Changes

FROM ENDEVOR:
ENVIRONMENT ==> I40
SYSTEM      ==> NDVRMVS
SUBSYSTEM   ==> BASE
ELEMENT     ==>
TYPE       ==> ASMPGM
STAGE      ==> 1
COMMENT    ==>

      ACTION OPTIONS:
      CCID ==>
      EXPAND INCLUDES ==> N (Y/N)
      NO SIGNOUT ==> N (Y/N)
      OVERRIDE SIGNOUT ==> N (Y/N)
      REPLACE MEMBER ==> N (Y/N)
      1 - I40STG1 2 - I40STG2

TO ROSCOE LIBRARY:
MEMBER ==>

LIST OPTIONS:
DISPLAY LIST ==> Y (Y/N)
WHERE CCID EQ ==>
WHERE PROC GRP EQ ==>
    
```

Panel fields are described next.

Note: Be careful when retrieving more than one element at a time. If you perform multiple retrieves, you could exceed your AWS line limit.

Option: Use this field to specify the processing you wish to perform.

| Field | Description |
|------------|---|
| Blank | Display a selection list, optionally restricted according to any specifications provided (environment, system name, etc.). |
| R | Retrieve the specified element to a user library. |
| S | Display the Summary of Levels panel. You can use this panel to retrieve a prior level. |
| M, B, C, H | Display one of the following element information panels: Element Master Info (M), Element Browse (B), Element Changes (C), or Element History (H). Refer to the “Displaying Element Information” section for details. |

From Endeavor: Enter information defining the element being retrieved.

| Field | Description |
|--------------|---|
| Environment | Name of the current environment. Enter a different name to retrieve an element from another environment. |
| System | Name of the system under which the element is defined. You can use a name mask to indicate that all systems, or only those matching the characters specified, be considered in this request. |
| Subsystem | Name of the subsystem under which the element is defined. You can use a name mask to indicate that all subsystems, or only those matching the characters specified, be considered in this request. |
| Element | <p>The name of the element (up to 10 characters) to be retrieved. If the TO DATA SET is a library, you can leave this field blank; the member name in that library automatically becomes the element name. You also can use a name mask to indicate that all elements, or only those matching the characters specified, be considered in this request.</p> <p>Element names can include only the following characters: A-Z, 0-9, @, #, and \$</p> |
| Type | The element type, such as COBOL, COPYLIB, etc. You can use a name mask to indicate that all types, or only those matching the characters specified, be considered in this request. |
| Stage | Enter the ID of the stage from which you want to retrieve the element. Use one of the IDs listed to the right of this field. You also can use a name mask with this field. |
| Comment | Enter any comments describing this request. Depending upon the system specified for the request, comments may be required. |

To Roscoe Library: Specify a member name in this field if you want the Retrieve action to create a member with that name.

- **Member**—Enter the desired Roscoe Library member name. If an element list is generated, the Roscoe member name field is ignored and the element name or the RENAME value is used.

Action Options: These options provide additional information for the Retrieve request.

| Field | Description |
|------------------|--|
| CCID | Specify a CCID to be associated with the element when it is retrieved. |
| Expand Includes | <p>This option allows you to expand ++INCLUDE statements when the element is retrieved.</p> <p>Enter Y to expand INCLUDE statements.</p> <p>Enter N to indicate that INCLUDE statements should not be expanded. This is the default value.</p> |
| No Signout | <p>This option applies only if signin/signout is in effect for the system. NO SIGNOUT allows you to retrieve the element without signing it out to your user ID. This option enables another user to retrieve the element at the same time you are working with it. Similarly, you can retrieve a copy of an element currently in use by another user if that user has specified the NO SIGNOUT option.</p> <p>Enter Y to retrieve the element but not sign it out to your user ID.</p> <p>Enter N to retrieve the element and sign it out to your user ID. This is the default value.</p> |
| Override Signout | <p>This option applies only if the element to be retrieved is currently signed out.</p> <p>Enter Y to indicate that the element can be processed, even if it is not signed out to you. Endeavor signs the element out to you if you specify this option.</p> <p>Enter N to indicate that processing is not allowed unless the element is signed out. This is the default value.</p> |

| Field | Description |
|----------------|--|
| Replace Member | <p>This option applies only if the to data set is a library. If you retrieve an element to a library, the system checks whether that element (member) currently resides in the library. If it does, the request normally is rejected. The REPLACE MEMBER option, however, allows you to replace a member currently in the library with the retrieved element.</p> <p>Enter Y to replace the member in the library.</p> <p>Enter N to reject the request if the member currently resides in the library. This is the default value.</p> |

List Options

| Field | Description |
|-------------------|--|
| Display List | This option is always set to Yes. |
| Where CCID EQ | List only elements that match the specified CCID |
| Where PROC GRP EQ | List only elements that use the specified processor group. |

3.3.2 Element Selection List for Retrieve Action

Roscoe Interface returns an Element Selection List for the Retrieve action when you do not uniquely identify the element you want.

| ----- Element Selection List ----- | | | | |
|------------------------------------|------------------|-----------------|-----------------|---------------|
| COMMAND ==> | | | SCROLL ==> FULL | |
| FROM | Environment: I40 | System: NDVRMVS | Subsystem: JUDY | |
| TO | Data set: | | | |
| ELEMENT | NEWNAME | STG | TYPE | VV.LL COMMENT |
| EIYYIP | | 1 | JCLI | 01.00 |
| JOADDR1 | | 1 | JCLI | 01.00 |
| JODUCK1 | | 1 | JCLI | 01.00 |
| JODUCK2 | | 1 | JCLI | 01.00 |
| JODUCK4 | | 1 | JCLI | 01.00 |
| JUDYGE1 | | 1 | JCLI | 01.00 |
| JUDYGE2 | | 1 | JCLI | 01.00 |
| JUDYGE3 | | 1 | JCLI | 01.00 |
| JUDYGE4 | | 1 | JCLI | 01.00 |
| JUDYGE5 | | 1 | JCLI | 01.00 |
| JUDYGE7 | | 1 | JCLI | 01.00 |
| JUDYG11 | | 1 | JCLI | 01.00 |
| LUCKXX1 | | 1 | JCLI | 01.00 |
| LUCKYY1 | | 1 | JCLI | 01.00 |
| LUCKYY2 | | 1 | JCLI | 01.00 |
| LUCK02 | | 1 | JCLI | 01.00 |
| LUCK03 | | 1 | JCLI | 01.00 |

From this list, you can:

- Select one or more elements to be retrieved, by placing an **R** to the left of each element you want, and/or
- Request a detailed element display for one or more elements, by placing **S**, **M**, **B**, **C**, or **H** to the left of each element name.

When you press ENTER, the Roscoe Interface processes the requested elements and returns the panel with appropriate messages.

Panel fields are described next.

| Field | Description |
|----------------------|---|
| From | Indicates the environment, system, and subsystem for the listed elements. |
| Selection (no title) | Use this field to select an element for processing. |
| Element | Display-only. Name of the element. |
| Message (no title) | This field displays a message, such as “*RETRIEVED.” |
| Stg | ID of the stage in which the element resides. |

| Field | Description |
|--------------|--|
| Type | Name of the type associated with the element. |
| VV.LL | The current version/level for the element, at the stage shown. |
| Comment | Comment describing the Retrieve request. |

A newname column appears on this panel. The user may enter a new member name here. If not, the element name will be the default.

Also, the panel's message area is at the same location as the newname. After the element is retrieved, *RETRIEVED will be displayed.

Chapter 4. Roscoe Interface Batch Processing

4.1 Accessing the Batch Options Menu

To access the Batch Options Menu, select option **3** from the Roscoe Interface Primary Options Menu.

```

----- Batch Options Menu -----
OPTION  ==>

  1 BUILD SCL - Build batch SCL actions
  2 EDIT      - Edit request data set
  3 SUBMIT    - Submit job for batch processing
  4 VALIDATE  - Not available on ROSCOE
  5 BUILD JCL - Enter additional JCL to be included with the job

REQUEST DATA SET:
  DSNAME ==>
  MEMBER ==>

APPEND      ==> N (Y/N)
INCLUDE JCL ==> N (Y/N)

JOB STATEMENT INFORMATION:
==>
==>
==>
==>

```

Use the Batch Option Menu to select the type of processing you want to use. Additional information may be required, depending on the processing you choose. The sections that follow describe the requirements for each option.

To make a selection from the Batch Options Menu, enter the option number in the OPTION field of the display and press ENTER.

| Option | Used to: |
|-------------|--|
| 1 BUILD SCL | Create action requests and place them in a request data set. When you select this option, you must enter additional information on the panel; this information is described later in this section. |
| 2 EDIT | Edit a request data set, either to change existing requests or add new requests. |
| 3 SUBMIT | Submit a job that executes the action requests in batch. Before submitting the job, you can use option 5 to provide any additional JCL that should be included with this job. |

| Option | Used to: |
|---------------|---|
| 4 VALIDATE | This option is not available with Roscoe Interface 3.6 or later. |
| 5 BUILD JCL | Define JCL (generally DD statements) to include with the JCL submitted with option 3 . |

4.2 Option 1: Build SCL

Use option **1**, BUILD SCL, to generate action requests and place them in a request data set.

```

----- Batch Options Menu -----
OPTION  ===>

  1  BUILD SCL - Build batch SCL actions
  2  EDIT      - Edit request data set
  3  SUBMIT    - Submit job for batch processing
  4  VALIDATE  - Not available on ROSCOE
  5  BUILD JCL - Enter additional JCL to be included with the job

REQUEST DATA SET:
  DSNAME ===> MY.DATASET
  MEMBER ===>MEMBER

APPEND      ===> N (Y/N)
INCLUDE JCL ===> N (Y/N)

JOB STATEMENT INFORMATION:
===>
===>
===>
===>

```

Enter information in the following fields.

| Field | Description |
|------------------|---|
| Request Data Set | Specify the request data set. This file must be a partitioned data set or a sequential file, and must be previously allocated. |
| DSNAME | Enter the appropriate data set name. Note: If you prefer to create SCL requests within your Roscoe workspace (AWS), you can enter the keyword <i>ROSCOE</i> , and a member name. You can place the member name in brackets immediately following the keyword, or in the MEMBER field. |
| Member | Enter the name of the member in which you want to place your action requests. |
| Append | Indicate whether you want to add the new requests to the end of an existing data set (enter Y) or write over any existing information in the data set (enter N). This field is required with the BUILD SCL option. |

| Field | Description |
|---------------------------|--|
| Include JCL | You do not need to fill in this field when using the BUILD SCL option. |
| Job Statement Information | You do not need to fill in this field when using the BUILD SCL option. |

Press ENTER after you fill in all necessary information. The SCL Generation panel returns.

4.2.1 SCL Generation Panel

Use the SCL Generation panel to request the type of action you want to generate. Note that the request data set and append information defined on the Batch Options Menu appear at the bottom of the screen.

```

----- SCL Generation -----
OPTION ==>>

 1 DISPLAY      - Display an element
 2 ADD/UPDATE   - Add or update an element into stage 1
 3 RETRIEVE    - Retrieve or copy an element
 4 GENERATE     - Execute the Gen Processor for this element
 5 MOVE        - Move an element from stage 1 to stage 2
 6 DELETE      - Delete an element
 7 PRINT ELEMENT - Print elements, changes and detail change history
 8 SIGNIN     - Explicitly sign-in an element
 9 TRANSFER    - Transfer elements between two ENDEVOR locations
10 PRINT MEMBER - Print a compressed listing or member
11 LIST ELEMENT - Create List actions for ENDEVOR elements
12 LIST MEMBER - Create List actions for external members
13 ARCHIVE    - Archive elements

REQUEST DATA SET: ROSCOE(SCLACTN)
APPEND:           N

```

Use the SCL Generation panel to request the type of action you want to generate. Note that the request data set and append information defined on the Batch Options Menu appear at the bottom of the screen.

To request the action you want, fill in the option number that corresponds to the action type and press ENTER.

| Use This Option | To: |
|-----------------|---|
| 1 Display | Display element information before writing action requests for the element. |
| 2 ADD/UPDATE | Add or update elements. |
| 3 RETRIEVE | Copy elements to a user data set. |

| Use This Option | To: |
|------------------------|---|
| 4 GENERATE | Generate elements. |
| 5 MOVE | Move elements from one map location to another. |
| 6 DELETE | Remove elements and/or element component lists from either stage. |
| 7 PRINT Element | Print any of several detailed element reports showing element source, the history of the element, changes made to the element, summary of levels for the element, or Master Control File information about the element. |
| 8 SIGNIN | Remove signout IDs from elements. |
| 9 TRANSFER | Move elements from a map location to a location not on the map. |
| 10 PRINT Member | Print or browse footprinted members from a library. |
| 11 LIST Element | List elements from the Master Control File, where the list takes the form of action requests. |
| 12 LIST Member | List or browse footprinted members from a library. Again, the list takes the form of action requests. |
| 13 ARCHIVE | Write the current version of elements to a sequential file (known as an <i>archive data set</i>), generally deleting it following the ARCHIVE. |

After pressing ENTER, the action panel for the selected option is returned.

4.3 Displaying Element Information

You may perform display element functions by accessing the Batch Options Menu and selecting option **1**, BUILD SCL. The SCL Generation Panel appears. Then select option **1**, DISPLAY, to perform display functions. See “Roscoe Interface Foreground Processing” for complete information about display element processing.

4.4 Add/Update Elements

Use the Add/Update action to:

- Add an element to Stage 1 for the first time.
- Add an element to Stage 1, for the first time, that currently resides in Stage 2.
- Add an element to Stage 1 after it has been removed from that stage by a Move, Delete, Transfer, or Archive action.
- Update an element in Stage 1, creating a new level of the element.

```

----- Add/Update Elements -----
OPTION ==>

    blank - Member list      A - Add an element      U - Update an element

TO ENDEVOR:
ENVIRONMENT ==> i40          ACTION OPTIONS:
SYSTEM      ==> NDVRmvs     CCID              ==>
SUBSYSTEM   ==> judy        BYPASS GEN PROCESSOR ==> N (Y/N)
ELEMENT     ==>             DELETE INPUT SOURCE ==> N (Y/N)
TYPE        ==> jcli        NEW VERSION       ==>
STAGE:      ==> 1           OVERRIDE SIGNOUT  ==> N (Y/N)
COMMENT     ==> add re-name jcl utility
                                PROCESSOR GROUP         ==>
                                UPDATE IF PRESENT        ==> N (Y/N)

FROM PARTITIONED OR SEQUENTIAL DATA SET:
DATA SET NAME ==> bst.oleju01.jcllib
MEMBER       ==>                               THRU MEMBER ==>

LIST OPTIONS:
DISPLAY LIST ==> Y (Y/N)

```

Enter information in the following fields.

Option: Indicate the processing you wish to perform.

- **Blank**— Display a list of members in the source library. You can select one or more members to add or update.
- **A**— Add an element, either for the first time or after the prior version was deleted by a Delete, Move, Archive or Transfer action. Note that you can add an element only to Stage 1.
- **U**— Update an element in Stage 1 to create a new level of the element.

To Endeavor: Enter information defining the element being added or updated.

| Field | Description |
|--------------|---|
| Environment | Name of the current environment. Enter a different name to add or update an element in another environment. |
| System | Name of the system under which the element is (to be) defined. |
| Subsystem | Name of the subsystem under which the element is (to be) defined. |
| Element | <p>The name of the element (up to 10 characters) to be added or updated. If the from data set is a library, you can leave this field blank; the member name in that library automatically becomes the element name. You also can use a name mask to indicate that all elements, or only those matching the characters specified, should be considered in this request.</p> <p>Element names can include only the following characters:</p> <p>A-Z, 0-9, @, #, and \$</p> |
| Type | The element type, such as COBOL, COPYLIB, etc. This is a required field for an Add or Update action. |
| Stage | This field is for display only, and contains the ID of the stage being processed. For an Add or Update request, the ID will always reflect Stage 1. |

Action Options: These options provide additional information for the request.

| Field | Description |
|--------------|---|
| Comment | Enter any comments describing this request. Depending upon the system specified for this request, comments may be required. |
| CCID | You can enter a CCID (up to 12 characters) to further define the element. Depending upon the system specified for this request, a CCID may be required. |

| Field | Description |
|----------------------|---|
| Bypass Gen Processor | Specify Y (yes) if you want Endeavor to bypass the generate processor for the element. If you select Y , the element or member will be added or updated, but the generate processor will not be executed for that element or member. In addition, Endeavor will not set the generate or component delta CCID comments for the element. |
| Delete Input Source | <p>Allows you to delete the member from the PDS, Panvalet or Librarian data set in which it originated, after the element is added successfully.</p> <p>Enter Y to delete the member after processing.</p> <p>Enter N to retain the member after processing.</p> <p>Note: You cannot use this option to delete a member from the Roscoe library.</p> |
| New Version | <p>This option applies to an Add action only. By default, the element is assigned a version number of 1 if it is a new element, or the Stage 2 version number if the element currently exists in Stage 2. You can assign a different version number, however, by entering a number from 1 to 99 in this field.</p> <p>Leave this field blank to apply the appropriate default value.</p> |
| Override Signout | <p>This option applies when adding an element currently in Stage 2 or when updating an element with signin/signout in effect.</p> <p>Enter Y to indicate that the element can be added or updated, even if it is not signed out to you. Endeavor signs the element out to you if you specify this option.</p> <p>Enter N to indicate that processing is not allowed unless the element is signed out to you. This is the default value.</p> |

| Field | Description |
|-------------------|--|
| Processor Group | This is the name of the processor group to be used. If you leave this field blank and are adding a new element, the system uses the default processor group for the element type. If you leave this field blank and are adding an existing element or updating an element, the system defaults to the processor group last used for this element. You can also type a processor group name in this field or a name mask to access a list of processor groups from which to select. |
| Update if Present | <p>This option applies to an Add action only. It allows you to add the element, even if it currently exists in Stage 1, by treating the Add action as an Update action.</p> <p>Enter Y to indicate that the element should be added even if it already exists in Stage 1.</p> <p>Enter N to indicate that the element should not be added to Stage 1 if it currently exists there. This is the default.</p> |

From Partitioned or Sequential Data Set: Enter information defining the library or data set in which the element currently resides.

| Field | Description |
|---------------|---|
| Data Set Name | Enter the appropriate data set name. |
| Member | Enter the appropriate member name; you can enter either the full name or use a name mask. If you leave this field blank, the member name defaults to the element name. |
| Thru Member | Use this field to specify a range of members in the data set. The member name entered here indicates the last member in the range, with the name specified in the MEMBER field considered as the first name in the range. You can enter either a full member name or use a name mask. |

As an alternative, you can add a member from a Roscoe data set. The Roscoe Interface:

- Builds the SCL for the request as: **From DDNAME ROSCOE.**
- Appends an IEBUPDTE step to the beginning of the skeleton JCL to transfer the Roscoe member to a temporary data set. This temporary data set is then passed to a Endeavor step under DDNAME ROSCOE.

List Options:

- Display List—In Roscoe Interface Release 3.6, this option is always set to Y.

4.4.1 Member Selection List for Add/Update Action

The Roscoe Interface returns a Member Selection List when the source data set is a library, and:

- You leave the OPTION field blank, and/or
- You leave both the ELEMENT and MEMBER fields blank or you use a name mask in either field.

```

----- Member Selection List -----
COMMAND ==>                                SCROLL ==> FULL
FROM Data set:  BST.OLEJU01.JCLLIB
TO   Environment: I40      System: NDVRMVS  Subsystem: JUDY      Stage: 1
                                     NEW
MEMBER  ELEMENT  TYPE  COMMENT  VERSION
BC1JDEFT
BC1JJB07
BC1JSCLX
BC1JSCL1
BC1JXCAT
BC1JXCCS
BC1JXCNM
BC1JXCNV
BC1JXCSC
BC1JXEIX
BC1JXITS
BC1JXMCS
BC1JX010
BC1JX020
BC1PELM1
BC1PELM2
BC1PELM3
  
```

The Member Selection List displays all the members in the source library (which includes the Roscoe library), optionally restricted according to any name mask and/or THRU MEMBER specified on the Add/Update Elements panel.

The FROM and TO information for the request are displayed at the top of the panel, above the member listing. The rest of the panel presents the members in the FROM data set.

From this list, you can:

- Select one or more members to be added, by placing an **A** to the left of each member you want, and/or
- Select one or more members to be updated, by placing a **U** to the left of each member you want.

The TYPE, COMMENT, and NEW VERSION fields are initially filled in for each member, according to the information provided on the Add/Update Elements panel. You can override the information in these fields before you select a member(s) for processing. You can also provide the element name, if it is different than the member name.

When you press ENTER, the Roscoe Interface builds SCL for the Add/Update action, then returns the panel with an appropriate message next to each member selected.

Member Selection List panel fields are described next.

| Field | Description |
|----------------------|---|
| From | Display-only. Indicates the FROM data set for the Add/Update request, as specified on the Add/Update Elements panel. |
| To | Display-only. Indicates the environment, system, subsystem, and stage under which the element is being added or updated. |
| Selection (no title) | Use this field to select a member for processing. Place an A in this column next to those members you want to add; place a U in this column next to those members to be updated. |
| Member | Display only. This is the name of the member(s) in the from data set. |
| Element | Name of the element (1-10 characters) being added or updated from the corresponding member. If you leave this field blank, the element name defaults to the member name. If you are entering a new element, the name can include only the following characters: A-Z, 0-9, @, #, and \$. This field is also used to display the message “*WRITTEN.” |

| Field | Description |
|--------------|--|
| Type | Type associated with the element to be added. This field is required; you can either use the existing data or enter a new type. You can add members to multiple types using one panel. |
| Comment | Comments describing the action requested. Depending on the system specified, comments may be required. You can either use the existing comment or enter a different one. |
| New Version | Applicable for an Add action only. This is the version number (vv) under which the element is being added. If you leave this field blank, the version number defaults to 01, if this is a new element, or to the Stage 2 version number, if the element currently exists in Stage 2. You can use a different version number if you want, from 01-99. |

4.4.2 Type Selection List

When you leave the type field blank or supply a name mask, Endeavor returns a Type Selection List, which shows the element types defined to the system selected. The list is limited according to any type name mask specified.

```

----- Type Selection List -----
COMMAND ==>                                SCROLL ==> FULL

ENVIRONMENT: INT          SYSTEM: NDVRMVS      STAGE: 1

TYPE      TYPE DESCRIPTION
ISPM      ISPF MESSAGES PROCESSOR
ISPP      ISPF PANELS PROCESSOR
SAS       SAS PROCEDURE PROCESSOR
JCLE      EXTERNAL JCL PROCESSOR
JCLI      INTERNAL JCL PROCESSOR
ISPSI     INTERNAL ISPF SKELETONS PROCESSOR
ISPSE     EXTERNAL ISPF SKELETONS PROCESSOR
SCLLANG   SCL Language Definition (NODE/KEYWORD/FIELD)
ASMCHDR   PUNCH "C" HDR AND ASM COPY MBR OF A DATA STRUCTURE
ASMMAC    MACROS AND DSECT PROCESSOR
ASMPGM    ASSEMBLER PROGRAM PROCESSOR
CHDR      C HEADER FILES
DCL       DB2 DCLGEN ELEMENTS
CPGM      C PROGRAMS
LNK       LINKEDIT PROCESSOR
OBJECT    OBJECT DECKS FOR LINK-EDITS
RULES     RULES
RPF       ROSCOE PROGRAMMING FACILITY (RPF) ROUTINES

```

Select the type you want by entering an **S** to the left of the type name. Then press ENTER.

Type Selection List panel fields are described next. All fields but the SELECTION field are display-only.

| Field | Description |
|----------------------|---|
| Environment | Name of the environment you are using. |
| System | Name of the system under which the type is defined. |
| Stage | ID of the stage under which the type is defined. |
| Selection (no title) | Used to select a type. Place an S in this column to the left of the type you want. |
| Type | Name of the type. |
| Type Description | Description of the type. |

4.4.3 Processor Group Selection List

The Roscoe Interface displays the Processor Group Selection List when you specify a name mask or a partial group name on the Processor Group Display panel. It lists the processor groups currently defined for the specified system, stage, and type. From this list, you can:

- Select a group by placing an **S** to the left of the type name.
- Press PF3 to return to the Processor Group Display panel.

```

----- Processor Group Selection List -----
COMMAND ==>                                SCROLL ==> FULL

ENVIRONMENT: INT          SYSTEM: NDVRMVS     STAGE: 1     TYPE: ASMPGM

PROCESSOR
GROUP  PROCESSOR GROUP DESCRIPTION
*NOPROC* INTERNAL - RENT, WITH SAS/C MACLIB
ASMENR ASSEMBLE NOT RE-ENTRANT EXTERNAL
ASMENRUL ASSEMBLE/LINK NOT REENTRANT NOT REUSABLE EXTERNAL
ASMERN ASSEMBLE RE-ENTRANT EXTERNAL
ASMERNAL ASSEMBLE/LINK RE-ENTRANT AUTHORIZED EXTERNAL
ASMERNUL ASSEMBLE/LINK RE-ENTRANT UNAUTHORIZED EXTERNAL
ASMERUAL EXTERNAL - ASSEM REUSABLE AUTHORIZED
ASMERUUL Assemble & Link - External, reus, non-rent
ASMINR ASSEMBLE NOT RE-ENTRANT
ASMINRUL ASSEMBLE/LINK NOT REENTRANT NOT REUSABLE
ASMINR ASSEMBLE RE-ENTRANT
ASMINRUL ASSEMBLE/LINK RE-ENTRANT AUTHORIZED
ASMINR E/Link (CCI maclib) ASSEMBLE RE-ENTRANT
ASMINRNN ASSEMBLE RE-ENTRANT WITH NETMAN MACLIB
ASMINRNS ASSEMBLE RE-ENTRANT

```

Panel fields are described next. All fields but SELECTION are display-only.

| Field | Description |
|-----------------------------|---|
| Environment | Name of the environment you are using. |
| System | Name of the system for which the processor groups are listed. |
| Stage | Name of the stage for which the processor groups are listed. |
| Type | Name of the type to which the processor group(s) applies. |
| Selection (no title) | Field used to select a processor group. Type an S in this column to the left of the processor group you want to select. |
| Processor Group | Name of the processor group. |
| Processor Group Description | Description of the processor group. |

4.5 Retrieve Elements

The Retrieve action copies an element from Endeavor to a user data set. Use the Retrieve Elements panel to identify the element being retrieved. Enter information in the following fields.

Note: Be careful when retrieving more than one element at a time. If you perform multiple retrieves, you could exceed your AWS line limit.

```

----- Retrieve Elements -----
OPTION ==>

      blank - Element list
      R - Retrieve element

      Element Display Options:
      S - Summary   B - Browse   H - History
      M - Master    C - Changes

FROM ENDEVOR:
ENVIRONMENT ==> I40
SYSTEM      ==> NDVRMVS
SUBSYSTEM   ==> BASE
ELEMENT     ==>
TYPE        ==>
STAGE       ==> 1
COMMENT     ==>

      ACTION OPTIONS:
      CCID ==>
      EXPAND INCLUDES ==> N (Y/N)
      NO SIGNOUT ==> N (Y/N)
      OVERRIDE SIGNOUT ==> N (Y/N)
      REPLACE MEMBER ==> N (Y/N)
      1 - I40STG1    2 - I40STG2

TO PARTITIONED OR SEQUENTIAL DATA SET:
DATA SET NAME ==> BST.OLEJU01.JCLLIB
MEMBER ==>

LIST OPTIONS:
DISPLAY LIST ==> Y (Y/N)
WHERE CCID EQ ==>
WHERE PROC GRP EQ ==>

```

Option: Use this field to specify the processing you wish to perform.

- **Blank**— Display a selection list, optionally restricted according to any specifications provided (environment, system name, etc.).
- **R**— Retrieve the specified element to a user library.
- **S**— Display the Summary of Levels panel. You can use this panel to retrieve a prior level.
- **M, B, C, H**— Display one of the following element information panels: Element Master Info (M), Element Browse (B), Element Changes (C), or Element History (H). Refer to the “Displaying Element Information” section for details.

From Endeavor: Enter information defining the element being retrieved.

| Field | Description |
|-------------|--|
| Environment | Name of the current environment. Enter a different name to retrieve an element from another environment. |
| System | Name of the system under which the element is defined. You can use a name mask to indicate that all systems, or only those matching the characters specified, be considered in this request. |
| Subsystem | Name of the subsystem under which the element is defined. You can use a name mask to indicate that all subsystems, or only those matching the characters specified, be considered in this request. |
| Element | <p>The name of the element (up to 10 characters) to be retrieved. If the TO DATA SET is a library, you can leave this field blank; the member name in that library automatically becomes the element name. You also can use a name mask to indicate that all elements, or only those matching the characters specified, be considered in this request.</p> <p>Element names can include only the following characters:</p> <p>A-Z, 0-9, @, #, and \$</p> |
| Type | The element type, such as COBOL, COPYLIB, etc. You can use a name mask to indicate that all types, or only those matching the characters specified, be considered in this request. |
| Stage | Enter the ID of the stage from which you want to retrieve the element. Use one of the IDs listed to the right of this field. You also can use a name mask with this field. |
| Comment | Enter any comments describing this request. Depending upon the system specified for the request, comments may be required. |

Action Options: These options provide additional information for the Retrieve request.

| Field | Description |
|------------------|---|
| CCID | <p>This is the name of the CCID associated with the request. The Roscoe Interface will set the retrieve CCID field to this value when it executes this request. A CCID may be required depending on the system being used.</p> |
| Expand Includes | <p>This option allows you to expand INCLUDE statements when the element is retrieved.</p> <p>Enter Y to expand INCLUDE statements.</p> <p>Enter N to indicate that INCLUDE statements should not be expanded. This is the default value.</p> |
| No Signout | <p>This option applies only if signin/signout is in effect for the system.</p> <p>NO SIGNOUT allows you to retrieve the element without signing it out to your user ID. This option enables another user to retrieve the element at the same time you are working with it. Similarly, you can retrieve a copy of an element currently in use by another user if that user has specified the NO SIGNOUT option.</p> <p>Enter Y to retrieve the element but not sign it out to your user ID.</p> <p>Enter N to retrieve the element and sign it out to your user ID. This is the default value.</p> |
| Override Signout | <p>This option applies only if the element to be retrieved is currently signed out.</p> <p>Enter Y to indicate that the element can be processed, even if it is not signed out to you. Endeavor signs the element out to you if you specify this option.</p> <p>Enter N to indicate that processing is not allowed unless the element is signed out. This is the default value.</p> |

| Field | Description |
|----------------|---|
| Replace Member | <p>This option applies only if the TO DATA SET is a library.</p> <p>If you retrieve an element to a library, the system checks whether that element (member) currently resides in the library. If it does, the request normally is rejected. The REPLACE MEMBER option, however, allows you to replace a member currently in the library with the retrieved element.</p> <p>Enter Y to replace the member in the library.</p> <p>Enter N to reject the request if the member currently resides in the library. This is the default value.</p> |

To Partitioned or Sequential Data Set: Enter information defining the library or data set to which the element is being retrieved.

- **Data Set Name**— Enter the appropriate data set name.
- **Member**— Enter the appropriate member name; you can enter either the full name or use a name mask. If you leave this field blank, the member name defaults to the element name.

As an alternative, you can retrieve an element to a Roscoe data set. The following describes this retrieval action:

- To retrieve to your Roscoe data set, enter '**ROSCOE**' in the data set name field.

The following ROSDATA JCL will be generated to import the member to your Roscoe data set.

```
//ROSCOE DD DSN=&&TEMP,UNIT=SYSDA,SPACE=(TRK,(5,5,15))
//      DCB=(LRECL=80,BLKSIZE=3120,RECFM=FB),DISP=(,PASS)
//      EXEC ROSDATA,PARM='ROSCOE.CONTROL'
//STEPLIB DD DSN=ROSCOE.ROSLIB,DISP=SHR
//SYSPRINT DD SYSOUT=A
//ROSLIB00 DD DSN=ROSCOE.ROSLIB00,DISP=SHR
//ROSLIB01 DD DSN=ROSCOE.ROSLIB01,DISP=SHR
//ROSLIB02 DD DSN=ROSCOE.ROSLIB02,DISP=SHR
//FROMDD1 DD DSN=&&TEMP,DISP=(OLD,DELETE)
//SYSIN DD DD*
$ADD MEMBER=membername, KEY=keyname
$FROM FROMDD1 (membername)
```

List Options:

- **Display List**— In Roscoe Interface Release 3.6 or later, this option is always set to Yes.
- **Where CCID EQ**— A CCID can be specified in this field to limit the selection list to only those elements whose last CCID is equal to the specified CCID. If omitted, the WHERE CCID EQ field is not used to limit the selection list.
- **Where PROC GRP EQ**— A processor group can be specified in this field to limit the selection list to only those elements to which the processor group has been assigned. If omitted, the WHERE PROC GRP EQ field is not used to limit the selection list.

4.5.1 Element Selection List for Retrieve Action

Endevor returns an Element Selection List for the Retrieve action when you:

- Leave the ELEMENT field and MEMBER field blank, or use a name mask for either of these fields, or
- Leave the element type blank or use a name mask, or
- Identify an element that resides in both stages, and/or
- Leave the OPTION field blank.

The Element Selection List shows all elements that match the criteria specified on the Retrieve Elements panel. The FROM and TO information is displayed at the top of the panel, above the element listing.

From this list, you can:

- Select one or more elements to be retrieved, by placing an **R** to the left of each element you want, and/or
- Request a detailed element display for one or more elements, by placing the appropriate character (**S**, **M**, **B**, **C**, or **H**) to the left of each element name.

```

----- Element Selection List -----
COMMAND ==>
                                SCROLL ==> FULL

FROM      Environment: I40          System: NDVRMVS          Subsystem: BASE
TO        Data set:  BST.0LEJU01.JCLLIB

ELEMENT   NEWNAME  STG TYPE   VV.LL COMMENT
$APITOK           1 ASMMAC  01.01
$ARBCSV           1 ASMMAC  01.04
$FLDCHK           1 ASMMAC  01.06
$JABCRD           1 COBCOPY  01.00
A              1 COBCOPY  01.00
APIRFMT           1 ASMMAC  01.01
BC1PCSV0          1 ASMPGM  01.00
BC1PCSV1          1 ASMPGM  01.08
BC1PCSV2          1 ASMPGM  01.17
BC1PCSV3          1 ASMPGM  01.27
BC1PCSV4          1 ASMPGM  01.05
BC1PCSV5          1 ASMPGM  01.06
BC1PIMGR          1 ASMPGM  01.91
BC1PIMGR          1 LNK      01.00
BC1PPKSC          1 ASMPGM  01.21
BC1PSCRN          1 ASMPGM  01.93
BC1PTMP0          1 ASMPGM  01.28
    
```

The COMMENT field is initially filled in for each element, according to the information provided on the Retrieve Elements panel. You can override this entry before you select an element(s) for processing. If the output data set is a library, you can enter a NEWNAME, which then becomes the to MEMBER name.

When you press ENTER, the Roscoe Interface performs the processing requested and returns the panel with the message “*WRITTEN” next to each element retrieved.

Panel fields are described next.

| Field | Description |
|-------|---|
| From | Display-only. Indicates the environment, system, and subsystem for the element being retrieved. |
| To | Display-only. Indicates the to data set for the Retrieve action, as specified on the Retrieve Elements panel. |

| Field | Description |
|----------------------|---|
| Selection (no title) | Use this field to select an element for processing. Place an R in this column next to each element to be retrieved. Place an S , M , B , C , or H in this column next to each element for which you want additional information. |
| Element | Display-only. Name of the element. |
| Newname | Applicable for a Retrieve action if the output data set is a library. This is the name to be used as the output member name. If you leave this field blank, the output member name defaults to the element name. This field is also used to display the message “*WRITTEN.” |
| Stg | Display-only. ID of the stage in which the element resides. |
| Type | Display-only. Name of the type associated with the element. |
| VV.LL | <p>Display-only. This is the current level for the element, within the stage shown. By default, this is the level that is retrieved.</p> <p>To retrieve a different level, access the Summary of Levels panel by placing an S to the left of the appropriate element (in the selection field). When that panel is returned, select the level you want to use. See the following section, “Retrieving Prior Versions” for more information.</p> |
| Comment | Comments describing the Retrieve request. Depending on the system specified, comments may be required. You can either use the existing comment or enter a different one. |

4.5.2 Retrieving Prior Versions

In retrieve processing, the Summary of Levels panel provides specific functionality; that is, by specifying an **R** in the SELECTION field (to the left of the version number—vv), you can retrieve prior versions of an element.

The Summary of Levels panel appears when you enter the option next to a particular element on the Retrieve Element Selection List.

In the following example, the **S** option was used:

```
----- Summary Of Levels -----
COMMAND ==>                                SCROLL ==> FULL

FROM Environment: I40          System: NDVRMVS      Subsystem: JUDY
      Element:   JODUCK2       Type:  JCLI        Stage:    1
TO   Dataset:    BST.OLEJU01.JCLLIB

----- Source Level Information -----
VV.LL  NEWNAME  DATE    TIME    STMTS
01.00          16JUL02 14:24    119
```

4.6 Generate Elements

The Generate action executes the generate processor for the current level of a Endeavor element. Use the Generate Elements panel to identify the element being generated.

```

----- Generate Elements -----
OPTION ==>

      blank - Element list
      G - Generate element

      Element Display Options:
      S - Summary  B - Browse  H - History
      M - Master   C - Changes

FROM ENDEVOR:
ENVIRONMENT ==> P40
SYSTEM ==> NDVRB40
SUBSYSTEM ==> BASE
ELEMENT ==>
TYPE ==> ASMPGM
STAGE ==> 2      1 - P40STG1      2 - P40STG2

ACTION OPTIONS:
CCID ==> rel4.0
COPYBACK ==> N (Y/N)
OVERRIDE SIGNOUT ==> N (Y/N)
PROCESSOR GROUP ==>

COMMENT ==> re-generate element

LIST OPTIONS:
DISPLAY LIST ==> Y (Y/N)
WHERE CCID EQ ==>
WHERE PROC GRP EQ ==>

```

Option: Use this field to specify the processing you wish to perform.

| Field | Description |
|---------------|---|
| Blank | Display a selection list, optionally restricted according to any specifications provided (environment, system name, etc.). |
| G | Execute the generate processor for the element. |
| S, M, B, C, H | <p>Display one of the following element information panels:</p> <ul style="list-style-type: none"> ■ Summary of Levels (S) ■ Element Master Info (M) ■ Element Browse (B) ■ Element Changes (C) ■ Element History (H). <p>Refer to the “Displaying Element Information” section for details.</p> |

From Endeavor: Enter information defining the element being generated.

| Field | Description |
|-------------|--|
| Environment | Name of the current environment. Enter a different name to generate an element from another environment. |
| System | Name of the system under which the element is defined. You can use a name mask to indicate that all systems, or only those matching the characters specified, be considered in this request. |
| Subsystem | Name of the subsystem under which the element is defined. You can use a name mask to indicate that all subsystems, or only those matching the characters specified, be considered in this request. |
| Element | <p>The name of the element (up to 10 characters) to be generated. You can use a name mask to indicate that all elements, or only those matching the characters specified, be considered in this request.</p> <p>Element names can include only the following characters:</p> <p>A-Z, 0-9, @, #, and \$</p> |
| Type | The element type, such as COBOL, COPYLIB, etc. You can use a name mask to indicate that all types, or only those matching the characters specified, be considered in this request. |
| Stage | Enter the ID of the stage from which you want to generate the element. Use one of the IDs listed to the right of this field. You also can use a name mask with this field. |
| Comment | Enter any comments describing this request. Depending upon the system specified for the request, comments may be required. |

Action Options: These options provide additional information for the Generate request.

| Field | Description |
|----------|---|
| CCID | <p>You can enter a CCID (up to 12 characters) to further define the element(s) being generated. Depending on the system specified for this request, a CCID may be required.</p> |
| Copyback | <p>COPYBACK copies the current level of the Stage 2 element back into Stage 1, then generates the element in Stage 1. If Stage 1 has been specified in the request (that is, if the element currently resides in Stage 1), however, the COPYBACK option cannot be used.</p> <ul style="list-style-type: none"> ■ When COPYBACK = Y, if you attempt to generate an element in Stage 1 that does not exist in that stage, the element is copied from Stage 2 and then generated in Stage 1. In this situation, the element remains unchanged in Stage 2, and the version/level assigned in Stage 1 is the same as the version/level in Stage 2. ■ When COPYBACK = N, the element is generated in the stage you specify, providing the element exists in that stage. |
| Copyback | <ul style="list-style-type: none"> ■ You cannot specify COPYBACK = Y when you use a name mask in the stage field or when Stage 2 is used. <p>The Element Selection List is affected by how you set COPYBACK:</p> <ul style="list-style-type: none"> ■ If COPYBACK = Y, stage must be 1—but the Element Selection List displays applicable elements from both stages. ■ If COPYBACK = N, the Element Selection List displays elements from the stage specified on the Generate Elements panel. <p>Note: Although the stage references above are 1 and 2, STAGE is actually an alphanumeric field on the Generate Elements panel.</p> |

| Field | Description |
|------------------|--|
| Override Signout | <p>This option applies only when signin/signout is in effect for the specified system.</p> <ul style="list-style-type: none"> ■ Enter Y to process the element even if it is not signed out to you. Endeavor signs the element out to you if you specify this option. ■ Enter N to indicate that processing is not allowed unless the element is signed out to you. This is the default value. |
| Processor Group | <p>This is the name of the processor group to be used. If you leave this field blank, the system defaults to the processor group last used for this element.</p> <p>You can also type a processor group name in this field or use a name mask for a list of processor groups from which you can select.</p> |

List Options

| Field | Description |
|-------------------|--|
| Display List | In Roscoe Interface Release 3.6 or later, this option is always set to Yes. |
| Where CCID EQ | A CCID can be specified in this field to limit the selection list to only those elements whose last CCID is equal to the specified CCID. If omitted, the WHERE CCID EQ field is not used to limit the selection list. |
| Where PROC GRP EQ | A processor group can be specified in this field to limit the selection list to only those elements to which the processor group has been assigned. If omitted, the WHERE PROC GRP EQ field is not used to limit the selection list. |

4.6.1 Element Selection List for Generate Action

The Roscoe Interface returns an Element Selection List for the Generate action when you do not uniquely identify the element you want. The Element Selection List shows all elements that match the criteria specified on the Generate Elements panel.

```

----- Element Selection List -----
COMMAND ==>>                                SCROLL ==>> FULL

FROM      Environment: P40          System: NDVRB40      Subsystem: BASE

ELEMENT          STG TYPE      VV.LL COMMENT
ACMQAPIA         2  ASMPGM    01.00 RE-GENERATE ELEMENT
ACMQAPIB         2  ASMPGM    01.00 RE-GENERATE ELEMENT
ACMQAPIJ         2  ASMPGM    01.01 RE-GENERATE ELEMENT
ACMQAPI0         2  ASMPGM    01.00 RE-GENERATE ELEMENT
ACMQAPI1         2  ASMPGM    01.05 RE-GENERATE ELEMENT
ACMQAPI2         2  ASMPGM    01.04 RE-GENERATE ELEMENT
ACMQAPI3         2  ASMPGM    01.05 RE-GENERATE ELEMENT
ACMQAPI4         2  ASMPGM    01.03 RE-GENERATE ELEMENT
ACMQAPI9         2  ASMPGM    01.03 RE-GENERATE ELEMENT
ACMRADDX         2  ASMPGM    01.10 RE-GENERATE ELEMENT
ACMRDELX         2  ASMPGM    01.08 RE-GENERATE ELEMENT
BAPEXIT7         2  ASMPGM    01.00 RE-GENERATE ELEMENT
BASICDEL         2  ASMPGM    01.02 RE-GENERATE ELEMENT
BASICGEN         2  ASMPGM    01.04 RE-GENERATE ELEMENT
BC1P$SMR         2  ASMPGM    01.64 RE-GENERATE ELEMENT
BC1PACAR         2  ASMPGM    01.05 RE-GENERATE ELEMENT
BC1PACAX         2  ASMPGM    01.04 RE-GENERATE ELEMENT
BC1PACM          2  ASMPGM    01.01 RE-GENERATE ELEMENT

```

From this list, you can:

- Select one or more elements to be generated, by placing a **G** to the left of each element you want, and/or
- Request a detailed element display for one or more elements, by placing an appropriate character (**S**, **M**, **B**, **C**, or **H**) to the left of each element name.

When you press ENTER, the Roscoe Interface generates the SCL required for processing and returns the panel with an appropriate message next to any generated element(s).

Panel fields are described next.

| Field | Description |
|----------------------|---|
| From | Display-only. Indicates the environment, system, and subsystem for the element being generated. |
| Selection (no title) | Use this field to select an element for processing. |
| Element | Display-only. Name of the element. |

| Field | Description |
|--------------------|---|
| Message (no title) | This field displays a message, such as “*GENERATED.” |
| Stg | Display-only. ID of the stage in which the element resides. |
| Type | Display-only. Name of the type associated with the element. |
| VV.LL | Display-only. The current version/level for the element, within the stage shown. |
| Comment | Comments describing the Generate request. You can either use this comment or enter a different one. |

4.7 Move Elements

The Move action moves an element from one inventory location (the FROM Endeavor location) to the next location on a map route, and deletes the element from Stage 1. You can move elements either with history or without history.

```

----- Move Elements -----
OPTION ==>

      blank - Element list
      O - Move element

      FROM ENDEAVOR:
      ENVIRONMENT ==> P40
      SYSTEM ==> NDVRB40
      SUBSYSTEM ==> BASE
      ELEMENT ==>
      TYPE ==> ASMPGM
      STAGE: ==> 1

      COMMENT ==> Move to production

      LIST OPTIONS:
      DISPLAY LIST ==> Y (Y/N)
      WHERE CCID EQ ==>
      WHERE PROC GRP EQ ==>

      Element Display Options:
      S - Summary   B - Browse   H - History
      M - Master    C - Changes

      ACTION OPTIONS:
      CCID ==> REL4.0
      SYNC ==> N (Y/N)
      WITH HISTORY ==> N (Y/N)
      RETAIN SIGNOUT ==> N (Y/N)
      SIGNOUT TO ==>
      ACKNOWLEDGE ELM JUMP ==> N (Y/N)
      BYPASS ELEMENT DELETE ==> N (Y/N)
  
```

Option: Use this field to specify the processing you wish to perform.

| Option | Description |
|---------------|--|
| Blank | Display a selection list, optionally restricted according to any specifications provided (environment, system name, etc.). |
| O | Move the element from Stage 1 to Stage 2. |
| S, M, B, C, H | Display one of the following element information panels: <ul style="list-style-type: none"> ■ Summary of Levels (S) ■ Element Master Info (M) ■ Element Browse (B) ■ Element Changes (C) ■ Element History (H) Refer to the “Displaying Element Information” section for details. |

From Endeavor: Enter information defining the element being moved.

| Field | Description |
|--------------|--|
| Environment | Name of the current environment. Enter a different name to move an element in another environment. |
| System | Name of the system under which the element is defined. You can use a name mask to indicate that all systems, or only those matching the characters specified, be considered in this request. |
| Subsystem | Name of the subsystem under which the element is defined. You can use a name mask to indicate that all subsystems, or only those matching the characters specified, be considered in this request. |
| Element | <p>The name of the element (up to 10 characters) to be moved. You can use a name mask to indicate that all elements, or only those matching the characters specified, be considered in this request.</p> <p>Element names can include only the following characters:</p> <p>A-Z, 0-9, @, #, and \$</p> |
| Type | The element type, such as COBOL, COPYLIB, etc. You can use a name mask to indicate that all types, or only those matching the characters specified, be considered in this request. |
| Stage: | This field is for display only, and contains the ID of the stage where the element resides. For a Move request, the ID always reflects Stage 1. |
| Comment | Comments describing the Move request. You can either use the existing comment or enter a different one. |

Action Options: These options provide additional information about the Move request.

| Option | Description |
|------------------|--|
| CCID | You can enter a CCID (up to 12 characters) to further define the element(s) being generated. Depending upon the system specified for this request, a CCID may be required. |
| SYNC | Normally, if the element(s) exists in both stages but the Stage 1 base level differs from the Stage 2 current level, the Move request is rejected. This happens because during the Add action Endeavor verifies that the Stage 1 base and Stage 2 current level are the same. The SYNC option enables you to perform the request, however, by allowing a new level to be created in Stage 2 even though the Stage 1 base level is not equal to the Stage 2 current level. <i>It is advisable to research this condition before using the SYNC option.</i> |
| SYNC (continued) | <ul style="list-style-type: none"> <li data-bbox="950 909 1448 1035">■ Enter Y to use the SYNC option. <i>Exercise caution when using this option, as you could regress changes when the Move action is performed.</i> <li data-bbox="950 1056 1448 1182">■ Enter N to indicate that the Move should not be performed if the Stage 1 base level is different than the Stage 2 current level. This is the default value. |
| With History | <p data-bbox="933 1203 1448 1476">The WITH HISTORY option preserves Stage 1 change history. If you request a MOVE WITH HISTORY, the system first ensures that the Stage 2 current level is the same as the Stage 1 base level. All levels of the element are then moved from Stage 1 to Stage 2, and the Stage 1 change history is appended to the Stage 2 change history.</p> <p data-bbox="933 1497 1448 1654">If you do not specify this option and differences exist between the Stage 1 current level and the Stage 2 current level, these differences are combined and recorded as a new level in Stage 2.</p> <ul style="list-style-type: none"> <li data-bbox="950 1675 1448 1738">■ Enter Y to append Stage 1 change history to Stage 2 change history. <li data-bbox="950 1759 1448 1854">■ Enter N to combine all Stage 1 change levels into one level to be moved into Stage 2. This is the default value. |

| Option | Description |
|-----------------------|---|
| Retain Signout | <p>This option tells Endeavor to retain the source location signouts for all elements at the target location. This option applies only if the element was signed out at the target before the MOVE.</p> <p>If the element was signed out at the target before the MOVE, it will be signed out to that same ID—at the target—after the MOVE.</p> <p>If the element was not signed out at the target before the MOVE, it will not be signed out at the target after the MOVE.</p> <p>If you do not use this option, the element at the target location is not signed out, regardless of whether it was signed out at the target before the MOVE took place.</p> |
| Signout To | <p>This option tells Endeavor to sign all elements out to the specified user ID at the target stage.</p> |
| Acknowledge Elm Jump | <p>The JUMP option tells Endeavor to move elements across environments even if the element exists at an intermediate stage that is not on the map. If the element exists at an intermediate stage, the move fails if REQ ELM JUMP ACKNOWLEDGE=Y at the system level and the JUMP option is not coded.</p> <p>In either case, Endeavor issues a message informing you that the element exists in a non-map stage between the source and target stages of the move.</p> |
| Bypass Element Delete | <p>This option tells Endeavor to retain the element in the source stage after successfully completing the move.</p> |

List Options

| Option | Description |
|-------------------|--|
| Display List | In Roscoe Interface Release 3.6 or later, this option is always set to Yes. |
| Where CCID EQ | A CCID can be specified in this field to limit the selection list to only those elements whose last CCID is equal to the specified CCID. If omitted, the WHERE CCID EQ field is not used to limit the selection list. |
| Where PROC GRP EQ | A processor group can be specified in this field to limit the selection list to only those elements to which the processor group has been assigned. If omitted, the WHERE PROC GRP EQ field is not used to limit the selection list. |

4.7.1 Element Selection List for Move Action

Endevor returns an Element Selection List for the Move action when you do not uniquely identify the element you want. The Element Selection List shows all elements that match the criteria specified on the Move Elements panel.

From this list, you can:

- Select one or more elements to be moved, by placing an **O** to the left of each element you want, and/or
- Request a detailed element display for one or more elements, by placing the appropriate character (**S**, **M**, **B**, **C**, or **H**) to the left of each element name.

When you press ENTER, the Roscoe Interface generates the SCL required for processing and returns the panel with an appropriate message next to each moved element.

```

----- Element Selection List -----
COMMAND ==>                                SCROLL ==> FULL
FROM Environment: P40      System: NDVRB40 Subsystem: BASE   Stage: 1

      ELEMNT          TYPE  VV.LL BASE  DATES  CURRENT GENERATE ACTION  LAST  NDVR
      ENNSYEL         ASMPGM 01.01 18JUN02 18JUN02 18JUN02 EDIT   ACTION  RC
                                         0000
    
```

The following table describes the panel fields. All but the SELECTION and MESSAGE fields are display-only.

| Field | Description |
|----------------------|--|
| From | Indicates the environment, system, subsystem, and stage for the element being moved. |
| Selection (no title) | Use this field to select an element for processing. Place an O in this column next to each element to be moved. Place an S , M , B , C , or H in this column next to each element for which you want additional information. |
| Element | Name of the element. |
| Message (no title) | This field displays the message "WRITTEN." |
| Type | Name of the type associated with the element. |
| VV.LL | The current version/level for the element, within the stage shown. This is the level that is moved. |

| Field | Description |
|--------------|--|
| Dates | <p>These dates describe the processing related to the element (<i>ddMMMyy</i> format):</p> <ul style="list-style-type: none">▪ Base— The base date.▪ Current— The date for the current level.▪ Generate— The generate processor date. This field is blank if the generate processor has not yet been run for the element. |
| Last Action | The last action recorded for the element. |
| NDVR RC | The Endeavor return code stored in the Master Control File for the element. |

4.8 Delete Elements

The Delete action deletes all levels of an element. Use the Delete Elements panel to identify the element being deleted.

```

----- Delete Elements -----
OPTION ==>

      blank - Element list
      # - Delete element

      Element Display Options:
      S - Summary  B - Browse  H - History
      M - Master   C - Changes

FROM ENDEVOR:
ENVIRONMENT ==> I40
SYSTEM      ==> NDVRMVS
SUBSYSTEM   ==> BASE
ELEMENT     ==>
TYPE        ==> ASMPGM
STAGE       ==> 1      1 - I40STG1      2 - I40STG2

ACTION OPTIONS:
CCID        ==> REL4.0
OVERRIDE SIGNOUT ==> N (Y/N)
ONLY COMPONENT ==> N (Y/N)

COMMENT     ==> Delete elements

LIST OPTIONS:
DISPLAY LIST ==> Y (Y/N)
WHERE CCID EQ ==>
WHERE PROC GRP EQ ==>

```

Option: Use this field to specify the processing you wish to perform.

| Option | Description |
|---------------|--|
| Blank | Display a selection list, optionally restricted according to any specifications provided (environment, system name, etc.). |
| # | Delete the element. |
| S, M, B, C, H | <p>Display one of the following element information panels:</p> <ul style="list-style-type: none"> ■ Summary of Levels (S) ■ Element Master Info (M) ■ Element Browse (B) ■ Element Changes (C) ■ Element History (H) <p>Refer to the “Displaying Element Information” section for details.</p> |

From Endeavor: Enter information defining the element being deleted.

| Field | Description |
|--------------|--|
| Environment | Name of the current environment. Enter a different name to delete an element in another environment. |
| System | Name of the system under which the element is defined. You can use a name mask to indicate that all systems, or only those matching the characters specified, be considered in this request. |
| Subsystem | Name of the subsystem under which the element is defined. You can use a name mask to indicate that all subsystems, or only those matching the characters specified, be considered in this request. |
| Element | <p>The name of the element (up to 10 characters) to be deleted. You can use a name mask to indicate that all elements, or only those matching the characters specified, be considered in this request.</p> <p>Element names can include only the following characters:</p> <p>A-Z, 0-9, @, #, and \$</p> |
| Type | The element type, such as COBOL, COPYLIB, etc. You can use a name mask to indicate that all types, or only those matching the characters specified, be considered in this request. |
| Stage | Enter the ID of the stage from which you want to delete the element. Use one of the IDs listed to the right of this field. You also can use a name mask with this field. |
| Comment | Enter any comments describing this request. Depending upon the system specified for the request, comments may be required. |

Action Options: These options provide additional information about the Delete action.

| Option | Description |
|------------------|--|
| CCID | You can enter a CCID (up to 12 characters) to further define the element(s) being generated. Depending upon the system specified for this request, a CCID may be required. |
| Override Signout | This option applies only when signin/signout is in effect for the specified system. <ul style="list-style-type: none"> ■ Enter Y to delete the element even if it is not signed out to you. Endeavor signs the element out to you if you specify this option. ■ Enter N to indicate that processing is not allowed unless the element is signed out to you. This is the default value. |
| Only Component | Applicable for Endeavor ACM users only. Indicates whether you want to delete both the element component list and the element, or the element component list only. <p>Enter Y to delete just the element component list;</p> <p>Enter N to delete the element as well as the element component list. This is the default value.</p> |

List Options

| Option | Description |
|---------------|---|
| Display List | In Roscoe Interface Release 3.6 or later, this option is always set to Yes. |
| Where CCID EQ | A CCID can be specified in this field to limit the selection list to only those elements whose last CCID is equal to the specified CCID. If omitted, the WHERE CCID EQ field is not used to limit the selection list. |

| Option | Description |
|-------------------|--|
| Where PROC GRP EQ | A processor group can be specified in this field to limit the selection list to only those elements to which the processor group has been assigned. If omitted, the WHERE PROC GRP EQ field is not used to limit the selection list. |

4.8.1 Element Selection List for Delete Action

The Roscoe Interface returns an Element Selection List for the Delete action when you do not uniquely identify the element you want. The Element Selection List shows all elements that match the criteria specified on the Delete Elements panel.

```

----- Element Selection List -----
COMMAND ==>>>                                SCROLL ==>> FULL
FROM      Environment: I40          System: NDVRMVS          Subsystem: BASE

ELEMENT          STG TYPE          VV.LL BASE   CURRENT GENERATE   LAST
BC1PINIT        1  ASMPGM      01.88 05JUN02 12NOV02 12NOV02  UPDATE
BC1PPKSC        1  ASMPGM      01.21 06NOV01 24OCT02 24OCT02  EDIT
BC1PTMP0        1  ASMPGM      01.23 19OCT01 05NOV02 05NOV02  EDIT
BRBPPKMR        1  ASMPGM      01.01 08NOV02 08NOV02 08NOV02  GENERATE
C1DEFLTS        1  ASMPGM      01.45 02AUG02 02AUG02 22NOV02  GENERATE
C1SD1000        1  ASMPGM      01.28 18DEC01 18DEC01 26NOV02  GENERATE
ENCGBNDR        1  ASMPGM      01.22 07NOV01 27FEB02 27FEB02  EDIT
ENDIE500        1  ASMPGM      01.27 08MAY02 30OCT02 30OCT02  EDIT
ENNSYEL         1  ASMPGM      01.00 19DEC01 19DEC01 19DEC01  EDIT
EPRITN          1  ASMPGM      01.00 20OCT01 20OCT01 20OCT01  SIGNIN
NEWNAME         1  ASMPGM      01.00 11NOV02 11NOV02 11NOV02  RETRIEVE
PETER           1  ASMPGM      01.00 13NOV02 13NOV02 13NOV02  GENERATE

```

From this list, you can:

- Select one or more elements to be deleted, by placing a # to the left of each element you want, and/or
- Request a detailed element display for one or more elements, by placing the appropriate character (**S**, **M**, **B**, **C**, or **H**) to the left of each element.

When you press ENTER, the Roscoe Interface generates the SCL required for processing and returns the panel with an appropriate message next to each deleted element.

The following table describes the panel fields. All but the SELECTION and MESSAGE fields are display-only.

| Field | Description |
|----------------------|--|
| From | Indicates the environment, system, and subsystem from which the element is being deleted. |
| Selection (no title) | Use this field to select an element for processing. |
| Element | Name of the element. |
| Message (no title) | This field displays the message "WRITTEN." |
| Stg | ID of the stage for the element. |
| Type | Name of the type associated with the element. |
| VV.LL | This is the current version/level for the element, within the stage shown. |
| Dates | These dates describe the processing related to the element (<i>ddMMMyy</i> format): <ul style="list-style-type: none">■ Base— The base date.■ Current— The date for the current level.■ Generate— The generate processor date. This field is blank if the generate processor has not yet been run for the element. |
| Last Action | This is the last action recorded for the element. |

4.9 Print Elements

The Print Elements action prints selected information about an element(s), in report format. Use this panel to identify the element for which you want information, as well as to select the type of report you want to print.

```

----- Print Elements -----
OPTION ==>

      blank - Element list
      P - Print element
      PC - Print changes only
      PS - Print element summary
      PM - Print master information
      PH - Print change history

      Element Display Options:
      S - Summary   B - Browse   H - History
      M - Master    C - Changes

FROM ENDEVOR:
ENVIRONMENT ==> P40
SYSTEM      ==> NDVRB40
SUBSYSTEM   ==> BASE
ELEMENT     ==>
TYPE        ==> ASMPGM
STAGE       ==> 2          1 - P40STG1      2 - P40STG2

LIST OPTIONS:
DISPLAY LIST ==> Y (Y/N)
WHERE CCID EQ ==>
WHERE PROC GRP EQ ==>

```

Option: Enter the appropriate code to receive the information/report you want.

| Option | Description |
|--------------------------|--|
| Blank | Display a selection list, optionally restricted according to any specifications provided (environment, system name, etc.). |
| P—Print element | Prints a <i>browse</i> report, which shows all statements in the current level of the element, as well as the level at which each statement was inserted. This is the default entry. |
| PC—Print changes only | Prints a <i>changes</i> report, which shows all inserts and deletes made to the element as of the current level. |
| PS—Print element summary | Prints a <i>summary</i> report, which includes one line of summary information for each level of the element. |

| Option | Description |
|-----------------------------|--|
| PM—Print master information | Prints an <i>element master</i> report, which lists Master Control File information for the element. |
| PH —Print change history | Prints a <i>history</i> report, which lists all statements in all levels of the element, from the base level through the current level. |
| S, M, B, C, H | <p>Display one of the following element information panels:</p> <ul style="list-style-type: none"> ■ Summary of Levels (S) ■ Element Master Info (M) ■ Element Browse (B) ■ Element Changes (C) ■ Element History (H) <p>Refer to the “Displaying Element Information” section for details.</p> |

From Endeavor: Enter information defining the element to be printed.

| Field | Description |
|-------------|--|
| Environment | Name of the current environment. Enter a different name to print an element from another environment. |
| System | Name of the system under which the element is defined. You can use a name mask to indicate that all systems, or only those matching the characters specified, be considered in this request. |
| Subsystem | Name of the subsystem under which the element is defined. You can use a name mask to indicate that all subsystems, or only those matching the characters specified, be considered in this request. |

| Field | Description |
|--------------|--|
| Element | The name of the element (up to 10 characters) to be printed. You can use a name mask to indicate that all elements, or only those matching the characters specified, be considered in this request. Element names can include only the following characters: A-Z, 0-9, @, #, and \$ |
| Type | The element type, such as COBOL, COPYLIB, etc. You can use a name mask to indicate that all types, or only those matching the characters specified, be considered in this request. |
| Stage | Enter the ID of the stage from which you want to print the element. Use one of the IDs listed to the right of this field. You also can use a name mask with this field. |

List Options

| Option | Description |
|-------------------|--|
| Display List | In Roscoe Interface Release 3.6 or later, this option is always set to Y. |
| Where CCID EQ | A CCID can be specified in this field to limit the selection list to only those elements whose last CCID is equal to the specified CCID. If omitted, the WHERE CCID EQ field is not used to limit the selection list. |
| Where PROC GRP EQ | A processor group can be specified in this field to limit the selection list to only those elements to which the processor group has been assigned. If omitted, the WHERE PROC GRP EQ field does not limit the selection list. |

4.9.1 Element Selection List for Print Elements Action

The Roscoe Interface returns this panel from the Print Elements panel or one of the list panels, when you do not uniquely identify a specific element. It lists all the elements that match the criteria specified on the Print Elements panel.

```

----- Element Location Selection List -----
COMMAND ==>>                                SCROLL ==>> FULL

      Environment: P40          System: NDVRB40          Subsystem: BASE

      ----- DATES -----   LAST
ELEMENT      TYPE   STG  VV.LL  BASE  CURRENT  GENERATE  ACTION
ACMQAPIA     ASMPGM  2    01.00  12OCT01  12OCT01  07NOV02  GENERATE
ACMQAPIB     ASMPGM  2    01.00  12OCT01  12OCT01  07NOV02  GENERATE
ACMQAPIJ     ASMPGM  2    01.01  12OCT01  27MAR02  07NOV02  RETRIEVE
ACMQAPI0     ASMPGM  2    01.00  07SEP01  07SEP01  07NOV02  GENERATE
ACMQAPI1     ASMPGM  2    01.05  07SEP01  26OCT01  07NOV02  GENERATE
ACMQAPI2     ASMPGM  2    01.04  07SEP01  26OCT01  07NOV02  GENERATE
ACMQAPI3     ASMPGM  2    01.05  07SEP01  07NOV01  07NOV02  GENERATE
ACMQAPI4     ASMPGM  2    01.03  27SEP01  07NOV01  07NOV02  GENERATE
ACMQAPI9     ASMPGM  2    01.03  07SEP01  07NOV01  07NOV02  GENERATE
ACMRADDX     ASMPGM  2    01.10  30JUL97  04NOV02  07NOV02  GENERATE
ACMRDELX     ASMPGM  2    01.08  30JUL97  04NOV02  07NOV02  GENERATE
BAPEXIT7     ASMPGM  2    01.00  09OCT96  09OCT96  07NOV02  GENERATE
BASICDEL     ASMPGM  2    01.02  09JAN90  06FEB02  07NOV02  GENERATE
BASICGEN     ASMPGM  2    01.04  09JAN90  27AUG02  07NOV02  GENERATE
BC1P$SMR     ASMPGM  2    01.64  17DEC90  30OCT02  07NOV02  GENERATE
BC1PACAR     ASMPGM  2    01.05  28JAN00  04NOV02  07NOV02  GENERATE
BC1PACAX     ASMPGM  2    01.04  28JAN00  27AUG02  07NOV02  GENERATE

```

From this list you can:

- Select one or more elements to be printed, by placing a **P**, **PC**, **PS**, **PM**, or **PH** (depending on the report you want) to the left of each element you want. When you press ENTER, the Roscoe Interface generates the SCL required for processing and returns the panel with an appropriate message next to each element queued for print.
- Request a detailed element display for one or more elements, by placing an appropriate character (**S**, **M**, **B**, **C**, or **H**) to the left of each element you want. Press PF3 to return to the previous panel.

The following table describes the panel fields. All but the SELECTION and MESSAGE fields are display-only.

| Field | Description |
|----------------------|---|
| From | Identification of the environment, system, and subsystem from which the element is being printed. |
| Selection (no title) | Used to select an element to be processed. |
| Element | Name of the element. |

| Field | Description |
|--------------------|---|
| Message (no title) | Used to display the message “WRITTEN.” |
| Stg | ID of the stage for the element. |
| Type | Name of the type for the element. |
| VV.LL | Current version/level for the element, within the stage shown. |
| Dates | Dates that describe the processing related to the element (in <i>ddMMMyy</i> format): <ul style="list-style-type: none">▪ Base— Base date.▪ Current— Date for the current level.▪ Generate— Generate processor date. This field is blank if the generate processor has not been run yet for the element. |
| Last Action | Last action recorded for the element. |

4.10 Signin Elements

The Signin action removes a user signout associated with a particular Endeavor element, allowing another user to access the element without overriding the signout. This action is available only for systems where signin/signout is in effect. Use the Signin Elements panel to identify the element being signed in.

```

----- Signin Elements -----
OPTION  ==>

      blank - Element list
      SI - Sign-in element

      Element Display Options:
      S - Summary  B - Browse  H - History
      M - Master   C - Changes

FROM ENDEVOR:
ENVIRONMENT ==> P40
SYSTEM      ==> NDVRB40
SUBSYSTEM   ==> BASE
ELEMENT     ==>
TYPE        ==> ASMPGM
STAGE       ==> 2      1 - P40STG1      2 - P40STG2

ACTION OPTIONS:
OVERRIDE SIGNOUT ==> N (Y/N)
SIGNOUT TO       ==>

LIST OPTIONS:
DISPLAY LIST     ==> Y (Y/N)
WHERE CCID EQ    ==>
WHERE PROC GRP EQ ==>
WHERE USER EQ    ==>

```

Option: Use this field to specify the processing you wish to perform.

| Option | Description |
|---------------|---|
| Blank | Display a selection list, optionally restricted according to any specifications provided (environment, system name, etc.). |
| SI | Sign in the element. |
| S, M, B, C, H | <p>Display one of the following element information panels:</p> <ul style="list-style-type: none"> ■ Summary of Levels (S) ■ Element Master Info (M) ■ Element Browse (B) ■ Element Changes (C) ■ Element History (H) <p>Refer to “Displaying Element Information” for details about displaying element information.</p> |

From Endeavor: Enter information defining the element to be signed in.

| Field | Description |
|--------------|--|
| Environment | Name of the current environment. Enter a different name to sign in an element in another environment. |
| System | Name of the system under which the element is defined. You can use a name mask to indicate that all systems, or only those matching the characters specified, be considered in this request. |
| Subsystem | Name of the subsystem under which the element is defined. You can use a name mask to indicate that all subsystems, or only those matching the characters specified, be considered in this request. |
| Element | <p>The name of the element (up to 10 characters) to be signed in. You can use a name mask to indicate that all elements, or only those matching the characters specified, be considered in this request.</p> <p>Element names can include only the following characters:</p> <p>A-Z, 0-9, @, #, and \$</p> |
| Type | The element type, such as COBOL, COPYLIB, etc. You can use a name mask to indicate that all types, or only those matching the characters specified, be considered in this request. |
| Stage: | This field is for display only, and contains the ID of the stage where the element resides. |

Action Elements: These options provide additional information about the Signin request.

| Option | Description |
|------------------|--|
| Override Signout | <p>This option applies only when signin/signout is in effect for the specified system.</p> <ul style="list-style-type: none"> ■ Enter Y to sign in the element even if it is not signed out to you. Endeavor signs the element out to you if you specify this option. ■ Enter N to indicate that processing is not allowed unless the element is signed out to you. This is the default value. |
| Signout To | Used to sign out the element to another user. Endeavor uses this user ID to set the SIGNOUT ID field (on the Element Master panel) for this element. |

List Options

| Option | Description |
|-------------------|--|
| Display List | In Roscoe Interface Release 3.6 or later, this option is always set to Yes. |
| Where CCID EQ | A CCID can be specified in this field to limit the selection list to only those elements whose last CCID is equal to the specified CCID. If omitted, the WHERE CCID EQ field is not used to limit the selection list. |
| Where PROC GRP EQ | A processor group can be specified in this field to limit the selection list to only those elements to which the processor group has been assigned. If omitted, the WHERE PROC GRP EQ field is not used to limit the selection list. |
| Where User EQ | A signout user ID can be specified in the WHERE USER EQ field to limit the selection list to only those elements whose user ID is equal to the specified SIGNOUT USER ID. |

4.10.1 Element Selection List for Signin Action

The Roscoe Interface returns this panel from the Signin Elements panel or one of the list panels, when you do not uniquely identify a specific element. This panel lists all the elements that match the criteria specified.

```

----- Element Selection List -----
COMMAND ==>>                                SCROLL ==>> FULL

FROM Environment: P40          System: NDVRB40 Subsystem: BASE

ELEMENT      STG  TYPE      VV.LL      SIGN-OUT
ACMQAPIA     2  ASMPGM    01.00      USER ID
ACMQAPIB     2  ASMPGM    01.00
ACMQAPIJ     2  ASMPGM    01.01      OLEJU01
ACMQAPI0     2  ASMPGM    01.00
ACMQAPI1     2  ASMPGM    01.05
ACMQAPI2     2  ASMPGM    01.04
ACMQAPI3     2  ASMPGM    01.05
ACMQAPI4     2  ASMPGM    01.03
ACMQAPI9     2  ASMPGM    01.03
ACMRADDX     2  ASMPGM    01.10
ACMRDELX     2  ASMPGM    01.08
BAPEXIT7     2  ASMPGM    01.00
BASICDEL     2  ASMPGM    01.02
BASICGEN     2  ASMPGM    01.04
BC1P$SMR     2  ASMPGM    01.64
BC1PACAR     2  ASMPGM    01.05
BC1PACAX     2  ASMPGM    01.04

```

From this list you can:

- Select one or more elements to be signed in, by placing an **SI** to the left of each element name, and/or
- Request a detailed element display for one or more elements, by placing the appropriate character (**S**, **M**, **B**, **C**, or **H**) to the left of each element you want.

When you press ENTER, the Roscoe Interface generates the SCL required for processing and returns the panel with an appropriate message next to each element that is signed in.

The following table describes the panel fields. All but the SELECTION and MESSAGE fields are display-only.

| Field | Description |
|----------------------|---|
| From | Identification of the environment, system, and subsystem for the element being signed in. |
| Selection (no title) | Used to select an element. |
| Element | Name of the element. |

| Field | Description |
|--------------------|--|
| Message (no title) | Used to display the message “*WRITTEN.” |
| Stg (Stage) | Stage where the element resides. |
| Type | Name of the element type. |
| VV.LL | Current version/level for the element, within the stage shown. |
| Signout User ID | ID of the user to whom the element is currently signed out. |

4.11 Transfer Elements

The Transfer action transfers elements from one Endeavor location to another. Use the Transfer Elements panel to identify the element being transferred.

Note: If you want to transfer an element to or from an archive data set, you must manually code the SCL for the action using the Edit screen (option 2 on the Batch Options Menu). Refer to the section “Option 2: Edit” later in this chapter and to the *Endeavor for MVS SCL Reference Manual* for details. ***Should you manually code a Transfer request to an archive data set, you cannot use “ROSCOE” as the archive (TO) data set. If you assign “ROSCOE” as the TO data set name, you receive an error message.***

```

----- Transfer Elements -----
OPTION ==>

      blank - Element list
      T - Transfer element

      Element Display Options:
      S - Summary  B - Browse  H - History
      M - Master   C - Changes

FROM ENDEVOR:
ENVIRONMENT ==> I40
SYSTEM      ==> NDVRMVS
SUBSYSTEM   ==> BASE
ELEMENT     ==>
TYPE        ==> ASMPGM
STAGE       ==> 1
           1 - I40STG1  2 - I40STG2
TO ENDEVOR:
ENVIRONMENT ==> I40
SYSTEM      ==>
SUBSYSTEM   ==>
ELEMENT     ==>
TYPE        ==>
STAGE       ==> 2
COMMENT     ==> TRANSFER ELEMENTS

LIST OPTIONS:
DISPLAY LIST ==> Y (Y/N)
WHERE CCID EQ ==>
WHERE PROC GRP EQ ==>

ACTION OPTIONS:
CCID ==> REL4.0
BYPASS ELEMENT DELETE ==> N (Y/N)
BYPASS GEN PROCESSOR ==> N (Y/N)
OVERRIDE SIGNOUT ==> N (Y/N)
PROCESSOR GROUP ==>
SYNCHRONIZE ==> N (Y/N)
WITH HISTORY ==> N (Y/N)
RETAIN SIGNOUT ==> N (Y/N)
SIGNOUT TO ==>

```

Option: Use this field to specify the processing you wish to perform.

| Option | Description |
|---------------|---|
| Blank | Display a selection list, optionally restricted according to any specifications provided (environment, system name, etc.). |
| T | Generate an action request to transfer the element from the FROM location to the TO location. |
| S, M, B, C, H | <p>Display one of the following element information panels:</p> <ul style="list-style-type: none">▪ Summary of Levels (S)▪ Element Master Info (M)▪ Element Browse (B)▪ Element Changes (C)▪ Element History (H) <p>Refer to “Displaying Element Information” for details about displaying element information.</p> |

From Endeavor: Define the location from which the element is being transferred.

| Field | Description |
|--------------|--|
| Environment | Name of the current environment. Enter a different name to transfer an element from another environment. |
| System | Name of the system under which the element is currently defined. You can use a name mask to indicate that all systems, or only those matching the characters specified, be considered in this request. |
| Subsystem | Name of the subsystem under which the element is currently defined. You can use a name mask to indicate that all subsystems, or only those matching the characters specified, be considered in this request. |
| Element | <p>The name of the element (up to 10 characters) to be transferred. You can use a name mask to indicate that all elements, or only those matching the characters specified, be considered in this request.</p> <p>Element names can include only the following characters:</p> <p>A-Z, 0-9, @, #, and \$</p> |
| Type | The element type, such as COBOL, COPYLIB, etc. You can use a name mask to indicate that all types, or only those matching the characters specified, be considered in this request. |
| Stage | Enter the ID of the stage from which you want to transfer the element. Use one of the IDs listed to the right of this field. You also can use a name mask with this field. |

To Endeavor: Define the TO location for the element being transferred.

Note: You cannot use name masks with the TO location fields.

| Field | Description |
|-------------|---|
| Environment | Name of the TO location environment. If you leave this field blank, the environment defaults to the FROM environment. |
| System | Name of the system under which the TO element is defined. If you leave this field blank, the system defaults to the FROM system entry. |
| Subsystem | Name of the subsystem under which the TO element is defined. If you leave this field blank, the system defaults to the FROM subsystem entry. |
| Element | <p>The name under which the TO element will be stored. Enter an element name if you want to change the name specified in the FROM clause. Otherwise, the element name defaults to the FROM entry.</p> <p>Note: You can enter a new element name here only if you coded a full element name as the FROM element name.</p> <p>Element names can include only the following characters:</p> <p>A-Z, 0-9, @, #, and \$</p> |
| Type | Name of the to element type (such as COBOL, COPYLIB, etc.). If you leave this field blank, the type defaults to the FROM type entry. |
| Stage | The stage ID(s) for the TO element. If you leave this field(s) blank, the stage ID(s) defaults to the FROM stage(s). |
| Comment | Enter any comments describing this request. Depending upon the system specified for the request, comments may be required. |

List Options

| Option | Description |
|-------------------|--|
| Display List | In Roscoe Interface Release 3.6 or later, this option is always set to Yes. |
| Where CCID EQ | A CCID can be specified in this field to limit the selection list to only those elements whose last CCID is equal to the specified CCID. If omitted, the WHERE CCID EQ field is not used to limit the selection list. |
| Where PROC GRP EQ | A processor group can be specified in this field to limit the selection list to only those elements to which the processor group has been assigned. If omitted, the WHERE PROC GRP EQ field is not used to limit the selection list. |

Action Options: These provide additional information about the Transfer request.

| Option | Description |
|-----------------------|---|
| CCID | You can enter a CCID (up to 12 characters) to further define the element. Depending upon the system specified for this request, a CCID may be required. |
| Bypass Element Delete | Use the BYPASS ELEMENT DELETE option to retain the element in the FROM location after it is transferred. Otherwise, the system automatically deletes that element after the Transfer action is completed. <ul style="list-style-type: none"> ■ Enter Y to retain the element after it is transferred. This is the default value. ■ Enter N to delete the element after it is transferred. |

| Option | Description |
|----------------------|--|
| Bypass Gen Processor | <p data-bbox="927 310 1417 468">Use this option if you want to bypass the generate processor for the element after it is transferred. Otherwise, the system looks for and executes the generate processor for that element.</p> <ul data-bbox="927 495 1417 737" style="list-style-type: none"><li data-bbox="927 495 1417 621">■ Enter Y to bypass (that is, not execute) the generate processor for the element after it is transferred. This is the default value.<li data-bbox="927 642 1417 737">■ Enter N to execute the generate processor for the element after the Transfer action is completed. |
| Override Signout | <p data-bbox="927 758 1417 821">This option applies only when signin/signout is in effect for the FROM system.</p> <ul data-bbox="927 842 1417 1083" style="list-style-type: none"><li data-bbox="927 842 1417 968">■ Enter Y to transfer the element even if it is not signed out to you. Endeavor signs the element out to you if you specify this option.<li data-bbox="927 989 1417 1083">■ Enter N to indicate that processing is not allowed unless the element is signed out to you. This is the default value. |
| Processor Group | <p data-bbox="927 1104 1417 1230">The name of the processor group to be used. If you leave this field blank, the system defaults to the processor group last used for this element.</p> <p data-bbox="927 1257 1417 1379">You can also type a processor group name in this field or use a name mask to access a list of processor groups from which you can select.</p> |

| Option | Description |
|-------------------------|---|
| Synchronize | <p>This option applies when the element already exists in the TO location.</p> <p>The SYNCHRONIZE option is used in conjunction with the WITH HISTORY option. When you want to transfer an element with history, and the current level of the TO location element differs from the base level of the FROM location element, you normally receive an error message and the transfer is not performed.</p> <p>If you use this option, however, the system creates an intermediate level—known as the synchronized level—which contains the differences between the base level of the FROM location element and the current level of the TO location element. All levels (change history) associated with the FROM location element are then appended to the to location element and renumbered.</p> |
| Synchronize (continued) | <ul style="list-style-type: none"><li data-bbox="951 989 1438 1115">■ Enter Y if you want the Transfer action to be performed even though the base level of the FROM element differs from the current level of the TO element.<li data-bbox="951 1136 1438 1312">■ Enter N if you do not want the Transfer action to be performed when the base level of the FROM element differs from the current level of the TO element. This is the default value. |

| Option | Description |
|----------------|--|
| With History | <p>The WITH HISTORY option preserves FROM location change history. If you request a TRANSFER WITH HISTORY, the system first ensures that the current level of the to location element is the same as the current level of the FROM location element. All levels of the element are then moved from the FROM location to the TO location, and the FROM location change history is appended to the TO location change history.</p> <p>If you do not specify this option and differences exist between the current levels of the FROM location element and the TO location element, these differences are combined and recorded as a new level in the TO location.</p> <ul style="list-style-type: none">■ Enter Y to append FROM location change history to TO location change history.■ Enter N to combine ALL FROM location change levels into one level to be moved into the TO location. This is the default value. |
| Retain Signout | <p>This option tells Endeavor to retain the source location signouts for all elements at the target location. This option applies only if the element was signed out at the source before the TRANSFER.</p> <ul style="list-style-type: none">■ If the element was signed out at the source before the TRANSFER, it will be signed out to that same ID—at the target—after the TRANSFER.■ If the element was not signed out at the source before the TRANSFER, it will not be signed out at the target after the TRANSFER.■ If you do not use this option, the element at the target location is not signed out, regardless of whether it was signed out at the target before the TRANSFER took place. |

| Option | Description |
|------------|--|
| Signout To | This option tells Endeavor to sign all elements out to the specified user ID at the target stage |

4.11.1 Element Selection List for the Transfer Action

If you do not specify the element, type, stage, or option you want, the Roscoe Interface returns an Element Selection List. You can restrict this list to a particular range of elements by specifying an element name mask, or to specific element types by using a type name mask.

```

----- Element Selection List -----
COMMAND ==>                                SCROLL ==> FULL

FROM Environment: I40      System: NDVRMVS  Subsystem: BASE
TO  Environment: I40      System:         Subsystem:         Stage: 2

----- DATES -----
ELEMENT  TO NAME  STG  TYPE  VV.LL  BASE  CURRENT  GENERATE  LAST
BC1PCSV0  1  ASMPGM  01.00  22JUL02  22JUL02  12FEB03  GENERATE
BC1PCSV1  1  ASMPGM  01.08  12AUG02  20MAR03  20MAR03  UPDATE
BC1PCSV2  1  ASMPGM  01.17  12AUG02  20MAR03  20MAR03  UPDATE
BC1PCSV3  1  ASMPGM  01.27  12AUG02  21MAR03  21MAR03  UPDATE
BC1PCSV4  1  ASMPGM  01.05  22JUL02  18MAR03  20MAR03  UPDATE
BC1PCSV5  1  ASMPGM  01.06  22JUL02  20MAR03  20MAR03  UPDATE
BC1PIMGR  1  ASMPGM  01.91  05FEB03  07MAR03  07MAR03  UPDATE
BC1PPKSC  1  ASMPGM  01.21  06NOV01  24OCT02  24OCT02  EDIT
BC1PSCRN  1  ASMPGM  01.93  07NOV02  21MAR03  21MAR03  EDIT
BC1PTMP0  1  ASMPGM  01.28  19OCT01  28FEB03  28FEB03  EDIT
BRBIE500  1  ASMPGM  01.09  02JAN03  03JAN03  03JAN03  GENERATE
BRBMX040  1  ASMPGM  01.00  18DEC02  18DEC02  18DEC02  RETRIEVE
BRBMX060  1  ASMPGM  01.00  18DEC02  18DEC02  18DEC02  RETRIEVE
BRBP$SMR  1  ASMPGM  01.00  18DEC02  18DEC02  18DEC02  GENERATE
BRBPINIT  1  ASMPGM  01.00  18DEC02  18DEC02  18DEC02  GENERATE
BRBPMISC  1  ASMPGM  01.00  18DEC02  18DEC02  18DEC02  ADD

```

Use the list to:

- Select one or more elements to be transferred, by placing a **T** to the left of each element you want, and/or
- Request a detailed element display for one or more elements, by placing an appropriate character (**S**, **M**, **B**, **C**, or **H**) to the left of each element you want.

The following table describes the panel fields. All but the SELECTION and TO NAME fields are display-only.

| Field | Description |
|----------------------|---|
| From | Identification of the FROM environment, system, and subsystem for the element being transferred. |
| To | Identification of the TO environment, system, subsystem, and stage for the element being transferred. |
| Selection (no title) | Field used to select an element for processing. Place a T in this column next to each element to be transferred. Place an S, M, B, C, or H in this column next to each element for which you want additional information, as described for the Transfer Elements panel. |
| Element | Name of the FROM element. |
| To Name | Name of the TO element. This name defaults to the from element name. |
| Stg | Stage ID for the from element. |
| Type | Name of the element type for the from element. |
| VV.LL | Current version/level for the element, within the stage shown. |
| Dates | Dates that describe the processing related to the element (in <i>ddMMMyy</i> format): <ul style="list-style-type: none"> ▪ Base— The base date. ▪ Current— The date for the current level. ▪ Generate— Generate processor date. This field is blank if the generate processor has not been run yet for the element. |
| Last Action | Last action recorded for the element. |

4.12 Print Members

The Print Members action prints information about a library member(s). Use the Print Members panel to identify the library member.

```

----- Print Members -----
OPTION ==>

Blank - Member list      B - Browse member      P - Print member

FROM PARTITIONED OR SEQUENTIAL DATA SET:
  DATA SET NAME ==> BST.P40B40S2.SRCLIB
  MEMBER ==>                               THRU MEMBER ==>

LIST OPTIONS:
  DISPLAY LIST ==> Y (Y/N)

```

Option: Use this field to specify the processing you wish to perform.

| Option | Description |
|--------|---|
| Blank | Display a member list for the library named. |
| B | Show a Browse panel with the contents of a specific library member. |
| P | Generate an action request to print the member specified. |

From Partitioned or Sequential Data Set: Define the library or data set in which the member currently resides.

| Field | Description |
|---------------|---|
| Data Set Name | Enter the appropriate data set name. |
| Member | Enter the appropriate member name; you can use a name mask. |

| Field | Description |
|-------------|--|
| Thru Member | The name entered here indicates the last in the range, with the name specified in the MEMBER field considered as the first name in the range. You can enter a full member name or use a name mask. |

List Options: In Roscoe Interface Release 3.6 or later, the Display List option is always set to Y.

4.12.1 Member Selection List for the Print Members Action

The Member Selection List appears when you do not fully specify the library members that you want to print or browse.

```

----- Member Selection List -----
COMMAND ==>                                SCROLL ==> FULL

FROM Data set:  BST.P40B40S2.SRCLIB

MEMBER          |----- F O O T P R I N T -----|
SYSTEM  SUBSYS  ELEMENT  TYPE  VV.LL DATE  TIME
ACMQAPIA      NDVRB40  BASE    ACMQAPIA  ASMPGM  01.00 12OCT01 04:49
ACMQAPIB      NDVRB40  BASE    ACMQAPIB  ASMPGM  01.00 12OCT01 04:51
ACMQAPIJ      NDVRB40  BASE    ACMQAPIJ  ASMPGM  01.01 27MAR02 10:42
ACMQAPI0      NDVRB40  BASE    ACMQAPI0  ASMPGM  01.00 07SEP01 09:03
ACMQAPI1      NDVRB40  BASE    ACMQAPI1  ASMPGM  01.05 26OCT01 09:58
ACMQAPI2      NDVRB40  BASE    ACMQAPI2  ASMPGM  01.04 26OCT01 10:05
ACMQAPI3      NDVRB40  BASE    ACMQAPI3  ASMPGM  01.05 07NOV01 04:02
ACMQAPI4      NDVRB40  BASE    ACMQAPI4  ASMPGM  01.03 07NOV01 04:02
ACMQAPI9      NDVRB40  BASE    ACMQAPI9  ASMPGM  01.03 07NOV01 04:03
ACMRADDX      NDVRB40  BASE    ACMRADDX  ASMPGM  01.10 04NOV02 04:42
ACMRDELX      NDVRB40  BASE    ACMRDELX  ASMPGM  01.08 04NOV02 04:42
BAPEXIT7      NDVRB40  BASE    BAPEXIT7  ASMPGM  01.00 09OCT96 15:16
BASICDEL      NDVRB40  BASE    BASICDEL  ASMPGM  01.02 06FEB02 21:10
BASICGEN      NDVRB40  BASE    BASICGEN  ASMPGM  01.04 27AUG02 16:37
BC1GEXIT      NDVRB40  PDM     BC1GEXIT  ASMPGM  01.01 26FEB92 13:41

```

The Member Selection List panel shows the library being processed (FROM DATA SET). It lists each member in the library down the left-hand column, and the footprint information for that member (if any) to the right. This footprint information includes the system and subsystem for the associated Endeavor element, the element name itself, the type for the element, the version and level of the element associated with this member, and the date/time the footprint was written.

Using this panel, you can:

- Select one or more members to be printed, by placing a **P** to the left of each member you want, and/or
- Select one or more members to be browsed, by placing a **B** to the left of each member you want.

Press ENTER to continue.

If you request PRINT (P), the following panel appears:

```

----- Member Selection List -----
COMMAND ==>                                SCROLL ==> FULL

FROM Data set: BST.P40B40S2.SRCLIB

MEMBER          |-----| F O O T P R I N T |-----|
                |SYSTEM  SUBSYS   ELEMENT  TYPE   VV.LL DATE  TIME
ACMQAPIA *WRITTEN NDVRB40  BASE    ACMQAPIA ASMPGM 01.00 12OCT01 04:49
ACMQAPIB         NDVRB40  BASE    ACMQAPIB ASMPGM 01.00 12OCT01 04:51
ACMQAPIJ         NDVRB40  BASE    ACMQAPIJ ASMPGM 01.01 27MAR02 10:42
ACMQAPI0         NDVRB40  BASE    ACMQAPI0 ASMPGM 01.00 07SEP01 09:03
ACMQAPI1         NDVRB40  BASE    ACMQAPI1 ASMPGM 01.05 26OCT01 09:58
ACMQAPI2         NDVRB40  BASE    ACMQAPI2 ASMPGM 01.04 26OCT01 10:05
ACMQAPI3         NDVRB40  BASE    ACMQAPI3 ASMPGM 01.05 07NOV01 04:02
ACMQAPI4         NDVRB40  BASE    ACMQAPI4 ASMPGM 01.03 07NOV01 04:02
ACMQAPI9         NDVRB40  BASE    ACMQAPI9 ASMPGM 01.03 07NOV01 04:03
ACMRADDX        NDVRB40  BASE    ACMRADDX ASMPGM 01.10 04NOV02 04:42
ACMRDELX        NDVRB40  BASE    ACMRDELX ASMPGM 01.08 04NOV02 04:42
BAPEXIT7        NDVRB40  BASE    BAPEXIT7 ASMPGM 01.00 09OCT96 15:16
BASICDEL        NDVRB40  BASE    BASICDEL ASMPGM 01.02 06FEB02 21:10
BASICGEN        NDVRB40  BASE    BASICGEN ASMPGM 01.04 27AUG02 16:37
BC1GEXIT        NDVRB40  PDM     BC1GEXIT ASMPGM 01.01 26FEB92 13:41

```

If you request BROWSE (B), the Roscoe Interface returns a Browse panel for the member, as shown below. Press PF3 when you are through browsing the member, to return to the Member Selection List.

```

> BROWSE Requested entity. Press PF3/PF15 to resume
> DSN()          SCRL CSR  COLS 00001 00073 PGM(JUD.NDVR)    LINE 000001
> BST.P40B40S2.SRCLIB(ACMQAPIA)
> <...+...1...+...2...+...3...+...4...+...5...+...6...+...7...
===== T O P =====
000001 *****
000002 * ACMQAPIA : call ACMQ API programs (ACMQAPI2) *
000003 * *
000004 * Change INVOKE to ACMQAPI1/2/3 to test other programs *
000005 *****
000006 ACMQAPIA @C1INIT INVOKE=(ACMQAPI2,DYNAM), X
000007          TYPE=ACMQ_batch, X
000008          STACK=72000, X
000009          ESTAE=NO, X
000010          SLAT=YES
000011          END
===== B O T T O M =====

```

4.13 List Element Action

The List Element action scans elements in the Master Control File and creates a list of elements that meet the criteria you enter on the List Element Action panel. This list takes the form of action requests for the elements. Use the List Element action panel to identify those elements to be listed.

Note: You also can list elements from an archive data set; however, you must manually code the SCL for this action using the Edit screen (option 2 on the Batch Options Menu). Refer to the “Option 2: Edit” section in this chapter and to the *Endevor for OS/390 SCL Reference Manual* for details.

In addition, you can create action requests which list members from a library. A separate panel—List Members—is used to perform this action; this panel is discussed in the next section of this chapter.

```

----- List Element Action -----
OPTION  ==>

      blank - Element list
      L - List element action

      Element Display Options:
      S - Summary  B - Browse  H - History
      M - Master   C - Changes

FROM ENDEVOR:
ENVIRONMENT  ==> P40
SYSTEM       ==> NDVRB40
SUBSYSTEM    ==> BASE
ELEMENT      ==>
TYPE         ==> ASMPGM
STAGE        ==> 2      1 - P40STG1      2 - P40STG2

LIST OPTIONS:
DISPLAY LIST  ==> Y (Y/N)
WHERE CCID EQ  ==>
WHERE PROC GRP EQ ==>

TEXT STRING:
==>

SCAN COLUMNS:
START ==>      END ==>
SHOW TEXT ==> N (Y/N)

ACTION TO BE GENERATED WHEN LIST IS CREATED ==>
WRITE LIST TO OUTPUT DATA SET ==> N (Y/N)
WHERE COMPONENT EQ ==>

```

Option: Use this field to specify the processing you wish to perform.

| Option | Description |
|--------|---|
| Blank | Display a selection list. |
| L | Generate an action request to list the element(s) identified on the screen. |

| Option | Description |
|---------------|---|
| S, M, B, C, H | Display one of the following element information panels: Summary of Levels (S), Element Browse (B), Element History (H), Element Changes (C), or Element Master Info (M). Refer to “Displaying Element Information” for details about displaying element information. |

From Endeavor: Enter information defining the element to be listed.

| Field | Description |
|-------------|--|
| Environment | Name of the current environment. Enter a different name to list an element from another environment. |
| System | Name of the system under which the element is defined. You can use a name mask to indicate that all systems, or only those matching the characters specified, be considered in this request. |
| Subsystem | Name of the subsystem under which the element is defined. You can use a name mask to indicate that all subsystems, or only those matching the characters specified, be considered in this request. |
| Element | The name of the element (up to 10 characters) to be listed. You can use a name mask to indicate that all elements, or only those matching the characters specified, be considered in this request. Element names can include only the following characters: A-Z, 0-9, @, #, and \$ |
| Type | The element type, such as COBOL, COPYLIB, etc. You can use a name mask to indicate that all types, or only those matching the characters specified, be considered in this request. |
| Stage | Enter the ID of the stage for the element. Use one of the IDs listed to the right of this field. You also can use a name mask with this field. |

List Options

| Option | Description |
|-------------------|--|
| Display List | In Roscoe Interface Release 3.6 or later, this option is always set to Y. |
| Where CCID EQ | A CCID can be specified in this field to limit the selection list to only those elements whose last CCID is equal to the specified CCID. If omitted, the WHERE CCID EQ field is not used to limit the selection list. |
| Where PROC GRP EQ | A processor group can be specified in this field to limit the selection list to only those elements to which the processor group has been assigned. If omitted, the WHERE PROC GRP EQ field is not used to limit the selection list. |

Text String: This option allows you to specify that only those elements containing a particular character string (as defined in this field) can be selected for the List action request.

Enter the text string for which you want to search; you can code up to **70** characters. Enclose the string in quotes if it contains blanks or special characters.

If you use the SCAN COLUMNS option (described below), you can restrict the search to specific columns only.

Scan Columns: This option applies only if you specify a text string (as described above). You can indicate that only a particular range of columns is to be searched for the text string indicated. For example, you may want to list only those elements with a specific character string contained within columns 25-45. If the text cannot be found within these columns, the element will not be selected for the list.

If you use this option, you must enter both a starting and an ending column. Enter the appropriate column numbers in the START and END fields on the panel.

Action To Be Generated When List Is Created: Enter the type of action you want the List requests to generate. Specify any of the actions listed below.

- **&&ACTION**—Use this to specify actions at run time rather than when the list is first generated.)
- ADD
- ARCHIVE
- COPY
- DELETE
- GENERATE
- LIST
- MOVE
- PRINT
- RESTORE
- RETRIEVE
- SIGNIN
- TRANSFER
- UPDATE

If you leave this field blank, the system defaults to **&&ACTION**.

Write List to Output Data Set: By default, the action cards generated from the list are written to the Batch Execution report. You can, however, have the list written to an output data set as well; simply enter the name of the data set in this field. Leave the field blank to write the list in the Execution report only. The List Output panel is presented to prompt you for the data set name. Refer to the section “The List Output Panel.”

Where Component EQ: A component can be specified in the WHERE COMPONENT EQ field to limit the selection list to only those elements containing the component(s) indicated.

4.13.1 Element Selection List for the List Element Action

The Roscoe Interface returns an Element Selection List if you do not specify the element, type, stage, or option you want. You can restrict this list to a particular range of elements by specifying an element name mask, or to specific element types by using a type name mask. Use the list to select the element(s) you want.

```

----- Element Selection List -----
COMMAND ==>                                SCROLL ==> FULL
FROM      Environment: P40                System: NDVRB40                Subsystem: BASE

      ELEMENT          STG TYPE   VV.LL   BASE   CURRENT  GENERATE  LAST
ACMQAPIA          2  ASMPGM   01.00  12OCT01 12OCT01  07NOV02  GENERATE
ACMQAPIB          2  ASMPGM   01.00  12OCT01 12OCT01  07NOV02  GENERATE
ACMQAPIJ          2  ASMPGM   01.01  12OCT01 27MAR02  07NOV02  RETRIEVE
ACMQAPI0          2  ASMPGM   01.00  07SEP01 07SEP01  07NOV02  GENERATE
ACMQAPI1          2  ASMPGM   01.05  07SEP01 26OCT01  07NOV02  GENERATE
ACMQAPI2          2  ASMPGM   01.04  07SEP01 26OCT01  07NOV02  GENERATE
ACMQAPI3          2  ASMPGM   01.05  07SEP01 07NOV01  07NOV02  GENERATE
ACMQAPI4          2  ASMPGM   01.03  27SEP01 07NOV01  07NOV02  GENERATE
ACMQAPI9          2  ASMPGM   01.03  07SEP01 07NOV01  07NOV02  GENERATE
ACMRADDX          2  ASMPGM   01.10  30JUL97 04NOV02  07NOV02  GENERATE
ACMRDELX          2  ASMPGM   01.08  30JUL97 04NOV02  07NOV02  GENERATE
BAPEXIT7          2  ASMPGM   01.00  09OCT96 09OCT96  07NOV02  GENERATE
BASICDEL          2  ASMPGM   01.02  09JAN90 06FEB02  07NOV02  GENERATE
BASICGEN          2  ASMPGM   01.04  09JAN90 27AUG02  07NOV02  GENERATE
BC1P$SMR          2  ASMPGM   01.64  17DEC90 30OCT02  07NOV02  GENERATE
BC1PACAR          2  ASMPGM   01.05  28JAN00 04NOV02  07NOV02  GENERATE
BC1PACAX          2  ASMPGM   01.04  28JAN00 27AUG02  07NOV02  GENERATE

```

Use the Element Selection List to:

- Select one or more elements to be listed, by placing an **L** to the left of each element you want, and/or
- Request a detailed element display for one or more elements, by placing an appropriate character (**S**, **M**, **B**, **C**, or **H**) to the left of each element you want.

The following table describes the panel fields. All fields but SELECTION are display-only.

| Field | Description |
|-----------|---|
| From | Identification of the environment for the element being listed. |
| System | Identification of the system under which the element is defined. |
| Subsystem | Identification of the subsystem under which the element is defined. |
| Stage | Identification of the stage for the element. |

| Field | Description |
|----------------------|---|
| Selection (no title) | Used to select an element for processing. Place an L in this column next to each element to be listed. Place an S, M, B, C, or H in this column next to each element for which you want additional information, as described for the List Element action panel. |
| Element | Name of the element. |
| Message (no title) | Used to display messages, such as “WRITTEN.” |
| Type | Name of the element type. |
| VV.LL | Current version/level for the element, within the stage shown. |
| Dates | Dates that describe the processing related to the element (in <i>ddMMMyy</i> format): <ul style="list-style-type: none"> ▪ Base— The base date. ▪ Current— The date for the current level. ▪ Generate— The generate processor date. This field is blank if the generate processor has not yet been run for the element. |
| Last Action | Last action recorded for the element. |
| NDVR | Endevor return code for the element. |

4.13.2 The List Output Panel

If you specify WRITE LIST TO OUTPUT DATA SET = N on the List Elements panel, Endeavor returns the Element Selection List.

If, however, you specify WRITE LIST TO OUTPUT DATA SET = Y on the List Elements panel, the Roscoe Interface returns the List Output panel.

```

----- List Output -----
COMMAND ==>

Specify data set where output of LIST will be placed, then press the ENTER key

DATA SET NAME ==>
MEMBER        ==>

```

The following table describes the panel fields.

| Field | Description |
|---------------|---|
| Option | Leave this field blank. |
| Data Set Name | Enter the appropriate data set name. |
| Member | Enter the appropriate member name; you can specify either the full name or use a name mask. |

4.14 List Members

The List Members action scans members in a library and lists the members that meet the remaining criteria entered in the List Members panel. This list takes the form of action requests for the members. Use the List Members panel to identify those members to be listed.

Note: You also can list members from a library external to Endeavor; however, you must manually code the SCL for the action using the Edit screen (option **2** on the Batch Options Menu). Refer to the “Option 2: Edit” section later in this chapter and to the *Endeavor for OS/390 SCL Reference Manual* for details.

You can also create action requests which list elements from the Master Control File. A separate panel—List Element action—is used to perform this action; this panel is discussed in the previous section of this chapter.

```

----- List Members -----
OPTION ==>

    blank - Member list      B - Browse member      L - LIST action

FROM PARTITIONED OR SEQUENTIAL DATA SET:
  DATA SET NAME ==> BST.P40B40S2.SRCLIB
  MEMBER ==>                               THRU MEMBER ==>

LIST OPTIONS:
  DISPLAY LIST ==> Y (Y/N)

TEXT STRING:
  ==>

SCAN COLUMNS:
  START ==>           END ==>
  SHOW TEXT ==> N (Y/N)

ACTION TO BE GENERATED WHEN LIST IS CREATED ==>
WRITE LIST TO OUTPUT DATA SET ==> N (Y/N)

```

Option: Use the OPTION field to specify the processing you want to perform.

| Option | Description |
|--------|--|
| Blank | Display a Member Selection List for the library named, optionally restricted according to any member name mask provided. |
| B | Return a Browse panel showing the contents of a specific library member. |
| L | Generate an action request to list the member specified. |

From Partitioned or Sequential Data Set: Enter information defining the library or data set in which the member currently resides.

| Field | Description |
|---------------|---|
| Data Set Name | Enter the appropriate data set name. |
| Member | Enter the appropriate member name; you can specify either the full name or use a name mask. |
| Thru Member | Use this field to print a range of members in the data set. The member name entered here indicates the last member in the range, with the name specified in the MEMBER field considered as the first name in the range. You can enter either a full member name or use a name mask. |

List Option: In Roscoe Interface Release 3.6 or later, the Display List option is always set to **Y**.

Text String: Use this option to specify that only those members containing a particular character string (as defined in this field) can be selected for the List request.

Enter the text string for which you want to search; you can code up to **70** characters. Enclose the string in quotes if it contains blanks or special characters.

If you use the SCAN COLUMNS option (described below), you can restrict the search to specific columns only.

Scan Columns: This option applies only if you specify a text string (as described above). You can indicate that only a particular range of columns is to be searched for the text string indicated. For example, you may want to list only those members with a specific character string contained within columns 25-45. If the text cannot be found within these columns, the member is not selected for the list.

If you use this option, you must enter both a starting and an ending column. Enter the appropriate column numbers in the START and END fields on the panel.

Action to Be Generated When List Is Created: Enter the type of action you want the List requests to generate. Specify any of the actions listed below.

- **&&ACTION**—Use this to specify actions at run time rather than when the list is first generated.)
- ADD
- ARCHIVE
- COPY
- DELETE
- GENERATE
- LIST
- MOVE
- PRINT
- RESTORE
- RETRIEVE
- SIGNIN
- TRANSFER
- UPDATE

If you leave this field blank, the system defaults to **&&ACTION**.

Write List to Output Data Set: By default, the action cards generated from the list are written to the Batch Execution report. You can, however, have the list written to an output data set as well; simply enter the name of the data set in this field.

Leave the field blank to write the list in the Execution report only.

4.14.1 Member Selection List for the List Member Action

When you leave the member name blank or supply a name mask, the Roscoe Interface returns a Member Selection List. The list is limited according to any member name mask specified on the List Members panel. Use the Member Selection List to select the member(s) you want to list or browse.

```

----- Member Selection List -----
COMMAND INPUT ==>                                SCROLL ==> FULL
FROM Data set:  BST.P40B40S2.SRCLIB

MEMBER          |----- F O O T P R I N T -----|
SYSTEM  SUBSYS  ELEMENT  TYPE  VV.LL DATE  TIME
ACMQAPIA      NDVRB40  BASE    ACMQAPIA  ASMPGM  01.00 12OCT01 04:49
ACMQAPIB      NDVRB40  BASE    ACMQAPIB  ASMPGM  01.00 12OCT01 04:51
ACMQAPIJ      NDVRB40  BASE    ACMQAPIJ  ASMPGM  01.01 27MAR02 10:42
ACMQAPI0      NDVRB40  BASE    ACMQAPI0  ASMPGM  01.00 07SEP01 09:03
ACMQAPI1      NDVRB40  BASE    ACMQAPI1  ASMPGM  01.05 26OCT01 09:58
ACMQAPI2      NDVRB40  BASE    ACMQAPI2  ASMPGM  01.04 26OCT01 10:05
ACMQAPI3      NDVRB40  BASE    ACMQAPI3  ASMPGM  01.05 07NOV01 04:02
ACMQAPI4      NDVRB40  BASE    ACMQAPI4  ASMPGM  01.03 07NOV01 04:02
ACMQAPI9      NDVRB40  BASE    ACMQAPI9  ASMPGM  01.03 07NOV01 04:03
ACMRADDX      NDVRB40  BASE    ACMRADDX  ASMPGM  01.10 04NOV02 04:42
ACMRDELX      NDVRB40  BASE    ACMRDELX  ASMPGM  01.08 04NOV02 04:42
BAPEXIT7      NDVRB40  BASE    BAPEXIT7  ASMPGM  01.00 09OCT96 15:16
BASICDEL      NDVRB40  BASE    BASICDEL  ASMPGM  01.02 06FEB02 21:10
BASICGEN      NDVRB40  BASE    BASICGEN  ASMPGM  01.04 27AUG02 16:37
BC1GEXIT      NDVRB40  PDM     BC1GEXIT  ASMPGM  01.01 26FEB92 13:41
BC1GEXTI      NDVRB40  PDM     BC1GEXTI  ASMPGM  01.01 26FEB92 13:43
BC1GFLOM      NDVRB40  PDM     BC1GFLOM  ASMPGM  01.01 26FEB92 13:43

```

The Member Selection List shows the library being processed (FROM DATA SET). Each member in the library is listed in the left-hand column, and the footprint information for that member (if any) is listed to the right of the member name. Footprint information includes the system and subsystem for the associated Endeavor element, the element name itself, the element type, the version and level of the element associated with this member, and the date and time the footprint was written.

Use the Member Selection List panel to:

- Select one or more members to be listed, by placing an **L** to the left of each member you want, and/or
- Select one or more members to be browsed, by placing a **B** to the left of each member you want.

Press ENTER.

4.15 Archive Elements Panel

The Archive action writes the current version (including the base level and all change levels) of a Endeavor element to a sequential file, known as an *archive data set*. Use the Archive Elements panel to identify the element(s) being archived.

```

----- Archive Elements -----
OPTION ==>

      blank - Element list
      V - Archive element

      Element Display Options:
      S - Summary   B - Browse   H - History
      M - Master    C - Changes

FROM ENDEVOR:
ENVIRONMENT ==> I40
SYSTEM      ==> NDVRMVS
SUBSYSTEM   ==> BASE
ELEMENT     ==>
TYPE       ==>
STAGE      ==> 2          1 - I40STG1    2 - I40STG2

ACTION OPTIONS:
CCID              ==> REL4.0
BYPASS ELEMENT DELETE ==> N (Y/N)
OVERRIDE SIGNOUT  ==> N (Y/N)

COMMENT ==> ARCHIVE ELEMENTS

TO FILE ==> ARCH003

LIST OPTIONS:
DISPLAY LIST      ==> Y (Y/N)
WHERE CCID EQ     ==>
WHERE PROC GRP EQ ==>
  
```

Option: Use this field to specify the processing you want to perform.

| Option | Description |
|--------|--|
| Blank | Display a selection list, optionally restricted according to any specifications provided (environment, system name, etc.). |
| V | Generate an action request to archive the element(s) identified on the screen. |

| Option | Description |
|---------------|--|
| S, M, B, C, H | <p>Display one of the following element information panels:</p> <ul style="list-style-type: none"> ▪ Summary of Levels (S) ▪ Element Master Info (M) ▪ Element Browse (B) ▪ Element Changes (C) ▪ Element History (H). <p>Refer to “Displaying Element Information” for details about displaying element information.</p> |

From Endeavor: Enter information defining the element to be archived.

| Field | Description |
|-------------|--|
| Environment | Name of the current environment. Enter a different name to archive an element from another environment. |
| System | Name of the system under which the element is defined. You can use a name mask to indicate that all systems, or only those matching the characters specified, be considered in this request. |
| Subsystem | Name of the subsystem under which the element is defined. You can use a name mask to indicate that all subsystems, or only those matching the characters specified, be considered in this request. |
| Element | <p>The name of the element (up to 10 characters) to be archived. You also can use a name mask to indicate that all elements, or only those matching the characters specified, be considered in this request.</p> <p>Element names can include only the following characters:</p> <p>A-Z, 0-9, @, #, and \$</p> |

| Field | Description |
|--------------|---|
| Type | The element type, such as COBOL, COPYLIB, etc. You can use a name mask to indicate that all types, or only those matching the characters specified, should be considered in this request. |
| Stage | Enter the ID of the stage from which you want to archive the element. Use one of the IDs listed to the right of this field. You also can use a name mask with this field. |
| Comment | Enter any comments describing this request. Depending upon the system specified for this request, comments may be required. |

Action Options: These provide additional information about the Archive request.

| Option | Description |
|-----------------------|--|
| CCID | You can enter a CCID (up to 12 characters) to further define the element. Depending upon the system specified for this request, a CCID may be required. |
| Bypass Element Delete | Use the BYPASS ELEMENT DELETE option to retain the element in the FROM location after it is archived. Otherwise, the system automatically deletes that element after the Archive action is complete. <ul style="list-style-type: none"> ■ Enter Y to retain the element after it is archived. This is the default. ■ Enter N to delete the element after it is archived. |
| Override Signout | This option applies only when signin/signout is in effect for the FROM system. <ul style="list-style-type: none"> ■ Enter Y to archive the element even if it is not signed out to you. Endeavor signs the element out to you if you specify this option. ■ Enter N to indicate that processing is not allowed unless the element is signed out to you. This is the default value. |

To File: Enter the DDNAME for the archive data set. Be sure to include the JCL for this data set when you submit the batch job for execution (specify **Y** in the INCLUDE JCL field on the Batch Options Menu).

The DCB must specify variable blocked records (RECFM=VB), a minimum LRECL of 800, DSORG=PS, and a blocksize greater than 804. When archiving to tape, the recommended blocksize is 32,000.

Note: You cannot archive an element to *ROSCOE*. If you assign *ROSCOE* as the TO data set name, you receive an error message.

List Options

| Option | Description |
|-------------------|--|
| Display List | In Roscoe Interface Release 3.6 or later, this option is always set to Y. |
| Where CCID EQ | A CCID can be specified in this field to limit the selection list to only those elements whose last CCID is equal to the specified CCID. If omitted, the WHERE CCID EQ field is not used to limit the selection list. |
| Where PROC GRP EQ | A processor group can be specified in this field to limit the selection list to only those elements to which the processor group has been assigned. If omitted, the WHERE PROC GRP EQ field is not used to limit the selection list. |

4.15.1 Element Selection List for the Archive Action

The Roscoe Interface returns an Element Selection List if you do not specify the element, type, stage, or option you want. You can restrict this list to a particular group of elements by specifying an element name mask, or to specific element types by using a type name mask. Use the list to select the element(s) you want.

```

----- Element Selection List -----
COMMAND ==>                                SCROLL ==> FULL

FROM   Environment: I40          System: NDVRMVS      Subsystem: BASE
TO     File:                    ARCH003

ELEMENT      STG TYPE      VV.LL COMMENT
$CPRLKDS    2  ASMMAC    01.00 ARCHIVE ELEMENTS
$C1PRPDS    2  ASMMAC    01.06 ARCHIVE ELEMENTS
BC1PACSV    2  ASMPGM    01.18 ARCHIVE ELEMENTS
BC1PAL10    2  ASMPGM    02.20 ARCHIVE ELEMENTS
BC1PAL10    2  LNK       01.01 ARCHIVE ELEMENTS
BC1PAPI3    2  ASMPGM    01.14 ARCHIVE ELEMENTS
BC1PAPI3    2  LNK       01.00 ARCHIVE ELEMENTS
BC1PC1PR    2  ASMPGM    01.49 ARCHIVE ELEMENTS
BC1PC1PR    2  LNK       01.02 ARCHIVE ELEMENTS
BC1PFPVL    2  ASMPGM    01.40 ARCHIVE ELEMENTS
BC1PIMGR    2  ASMPGM    01.84 ARCHIVE ELEMENTS
BC1PIMGR    2  LNK       01.00 ARCHIVE ELEMENTS
BC1PPKVC    2  ASMPGM    01.44 ARCHIVE ELEMENTS
BC1PRLSC    2  ASMPGM    01.06 ARCHIVE ELEMENTS
BSTCOPY     2  ASMPGM    01.47 ARCHIVE ELEMENTS
CONMSGSQ    2  ASMPGM    01.12 ARCHIVE ELEMENTS
CONMSGS1    2  ASMPGM    01.61 ARCHIVE ELEMENTS

```

Use the Element Selection List panel to:

- Select one or more elements to be archived, by placing a **V** to the left of each element you want, and/or
- Request a detailed element display for one or more elements, by placing an appropriate character to the left of each element for which you want to display information. The characters are **S** (display), **M** (element master), **B** (element browse), **C** (changes), or **H** (history).

The following table describes the panel fields. All fields but SELECTION are display-only.

| Field | Description |
|-------|--|
| From | Environment, system, and subsystem for the element being archived. |
| To | DDNAME for the to archive data set. |

| Field | Description |
|----------------------|--|
| Selection (no title) | Field used to select an element for processing. Place a V in this column next to each element to be archived; use S , M , B , C , or H to display element information. |
| Element | Name of the element. |
| Message (no title) | Used to display the message “*WRITTEN.” |
| Stg | ID of the stage for the element. |
| Type | Name of the type for the element. |
| VV.LL | Current version/level for the element, within the stage shown. |
| Comment | Comments associated with the Archive request. This defaults to the value specified on the Archive Elements panel. You can change this field before pressing ENTER, to change the comments associated with any element. |

4.16 Option 2: Edit

To edit your request data set, use option **2**, **EDIT**, on the Batch Options Menu; you can either change existing requests or add new requests using Endeavor's Software Control Language (SCL). The Roscoe edit facility is used to perform the editing.

```

----- Batch Options Menu -----
OPTION ==>

  1 BUILD SCL - Build batch SCL actions
  2 EDIT      - Edit request data set
  3 SUBMIT   - Submit job for batch processing
  4 VALIDATE - Not available on ROSCOE
  5 BUILD JCL - Enter additional JCL to be included with the job

REQUEST DATA SET:
  DSNAME ==> ROSCOE
  MEMBER ==>

APPEND      ==> N (Y/N)
INCLUDE JCL ==> N (Y/N)

JOB STATEMENT INFORMATION:
====>
====>
====>
====>

```

When you select this option, you must provide the following information in addition to the option number.

Request Data Set: Enter information defining the request data set being edited.

- **DSNAME**—Enter the appropriate data set name.
- **Member**—Enter the name of the member in which you want to place your action requests.

Note: If you prefer to create SCL requests within your Roscoe workspace (AWS), you may enter the keyword *ROSCOE*. You must also enter a member name. You can place the member name in this field, in brackets immediately following the keyword, or in the **MEMBER** field on the next line.

You need not fill in the remaining fields on the Batch Options Menu when using the **EDIT** option.

Press ENTER when you have filled in the necessary information. Roscoe returns a panel like the one below, showing the contents of the action request data set.

```
> EDIT Requested entity. Press PF3/PF15 to resume
> AWS()          SCRL CSR  COLS 00001 00072 PGM(JUD.NDVR)  A<ROS1>
> <...+...1...+...2...+...3...+...4...+...5...+...6...+...7..
.....
===== T O P =====
000100 ADD ELEMENT 'BC1JAPIS'
000200 FROM DSNAME 'BST.DA2J033.SRCLIB'
000300 TO ENVIRONMENT 'INT' SYSTEM 'NDVRMVS' SUBSYSTEM 'JUDY'
000400 TYPE 'ASMPGM'
000500 OPTIONS CCID 'TEST'
000600 COMMENTS 'THIS IS AN ADD BATCH TEST'
000700 .
000800 ADD ELEMENT 'APIPROG1'
000900 FROM DSNAME 'BST.DA2J033.SRCLIB'
001000 TO ENVIRONMENT 'INT' SYSTEM 'NDVRMVS' SUBSYSTEM 'JUDY'
001100 TYPE 'ASMPGM'
001200 OPTIONS CCID 'TEST'
001300 COMMENTS 'THIS IS AN ADD BATCH TEST'
001400 .
001500 ADD ELEMENT 'BC1TNM90'
001600 FROM DSNAME 'BST.DA2J033.SRCLIB'
001700 TO ENVIRONMENT 'INT' SYSTEM 'NDVRMVS' SUBSYSTEM 'JUDY'
001800 TYPE 'ASMPGM'
001900 OPTIONS CCID 'TEST'
```

Use this panel to review the action requests in the data set, or to modify the data set. Refer to the *Endevor for OS/390 SCL Reference Manual* for instructions on coding batch requests, as necessary.

4.17 Option 3: Submit

To submit a job to execute your action requests in batch, use option **3**, **SUBMIT**, on the Batch Options Menu. Before submitting the job, you optionally can specify that additional DD statements should be included with this job. Use option **5**, **BUILD JCL**, to define the JCL. (“Option 5: Build JCL” is described in the next section of this chapter.)

```

----- Batch Options Menu -----
OPTION ==>

  1 BUILD SCL - Build batch SCL actions
  2 EDIT     - Edit request data set
  3 SUBMIT   - Submit job for batch processing
  4 VALIDATE - Not available on ROSCOE
  5 BUILD JCL - Enter additional JCL to be included with the job

REQUEST DATA SET:
  DSNAME ==> ROSCOE
  MEMBER ==>

APPEND      ==> N   (Y/N)
INCLUDE JCL ==> N   (Y/N)

JOB STATEMENT INFORMATION:
==> //OLEJU01A JOB (41200000), 'ROS 4.0.0', CLASS=A,
==> //  MSGCLASS=X, USER=OLEJU01
==> // *XXXXXXXXXXXXXXXXXXXXXXXXXXXX
==> /*

```

When you select this option, you must provide the following information in addition to the option number.

Request Data Set: Enter information defining the request data set you want to submit.

- **DSNAME**—Enter the appropriate data set name.
- **Member**—Enter the name of the member in which you want to place your action requests.

Note: If you prefer to create SCL requests within your Roscoe workspace (AWS), you may enter the keyword *ROSCOE*. You must also enter a member name. You can place the member name in this field, in brackets immediately following the keyword, or in the **MEMBER** field on the next line.

Append: Indicate whether you want to add new requests to the end of an existing data set or library member (**Y**) or overwrite any data currently in the data set or library member (**N**).

Include JCL: Indicates whether you want to include supplementary JCL with this job.

Note: This field is required with the **SUBMIT** option.

- Enter **Y** to add JCL to the standard execution JCL. If you select this option, you must have previously defined the additional JCL (using option **5** on the Batch Options Menu).
- Enter **N** to indicate that no additional JCL is required for this job.

Job Statement Information: The job card to be submitted with the execution. If you have not already done so, enter the appropriate information on this panel. This is the final bit of information you need to enter on the Batch Options Menu when using the SUBMIT option.

Press ENTER when you have filled in the necessary information. Roscoe builds the JCL to submit the job dynamically, including the job card (JOB STATEMENT INFORMATION) from the Batch Options Menu, a standard job stream provided during installation, and any additional JCL (included only if you specified **Y** in the INCLUDE JCL field).

Roscoe displays a message on the Batch Options Menu to let you know the job was submitted.

```
----- Batch Options Menu -----
OPTION  ===> 3
SUB05 (JOBNUMBER) USERID SUBMITTED AT 14:35.42
  1 BUILD SCL - Build batch SCL actions
  2 EDIT      - Edit request data set
  3 SUBMIT    - Submit job for batch processing
  4 VALIDATE  - Not available on Roscoe
  5 BUILD JCL - Enter additional JCL to be included with the job

REQUEST DATA SET:
  DSNAME ===>
  MEMBER ===>

APPEND      ===> N (Y/N)
INCLUDE JCL ===> N (Y/N)

JOB STATEMENT INFORMATION:
  ===>
  ===>
  ===>
  ===>
```

4.18 Option 5: Build JCL

To define JCL (generally DD statements) that should be included with the JCL submitted to execute action requests, use option 5, BUILD JCL, on the Batch Options Menu. You would do this if, for example, an action request referenced a FROM or TO location file by DDNAME (as described in the *Endevor for OS/390 SCL Reference Manual*) or if you identified an archive data set in an action request.

```

----- Batch Options Menu -----
OPTION ==> 3
SUB05 (JOBNUMBER) USERID SUBMITTED AT 14:35.42
  1 BUILD SCL - Build batch SCL actions
  2 EDIT      - Edit request data set
  3 SUBMIT    - Submit job for batch processing
  4 VALIDATE  - Not available on Roscoe
  5 BUILD JCL - Enter additional JCL to be included with the job

REQUEST DATA SET:
  DSNAME ==>
  MEMBER ==>

APPEND      ==> N (Y/N)
INCLUDE JCL ==> N (Y/N)

JOB STATEMENT INFORMATION:
  ==>
  ==>
  ==>
  ==>

```

Type **5** in the OPTION field and press ENTER. This screen appears:

```

> EDIT Requested entity. Press PF3/PF15 to resume
> AWS()          SCRL CSR  COLS 00001 00072 PGM(JUD.NDVR)  A<ROS1>
> <...+...1...+...2...+...3...+...4...+...5...+...6...+...7..
..... ===== T O P =====
000100 /* The data set does not exist. You may edit this
000200 /*
000300 /*
000400 /*
..... ===== B O T T O M =====

```

Fill in the JCL (complete statements) you want to include with the batch job execution, then press PF3 to return to the Batch Options Menu.

Appendix A. Estimating Endeavor for OS/390 Roscoe Interface Resource Requirements

Use this appendix to help you estimate the resource requirements for an active Roscoe Interface. You can use the estimates to determine the maximum number of active Roscoe Interface users that a Roscoe region can support, to determine the REGION parameter to be associated with a Roscoe Interface Roscoe region or to determine the number of Roscoe Interface servers to define.

A.1 Roscoe Interface Processing Structure

The Roscoe Interface consists of two components: the Roscoe Interface dialog driver and the Roscoe Interface server tasks.

The Roscoe Interface dialog driver, program C1RPUSER, is a Roscoe ETSO application that interacts with the Roscoe Interface user to perform Endeavor for OS/390 functions.

The Roscoe Interface server is a set of routines that the dialog driver uses to perform Endeavor specific functions. The number of active servers is defined by the SERVERS= parameter on the Roscoe Interface configuration macro, C1RMCNFG. Refer to “Installing the Endeavor for OS/390 Roscoe Interface” for information on building the configuration module.

When the dialog driver requires a Endeavor service, it will pass the request to the first available server. The dialog driver and the server will be tied together only for the duration of the request. If a server is not available, the request will be queued until a server becomes available and the Roscoe Interface user will be placed in a “wait” condition. If a large number of users will be active concurrently, it is important that you define a sufficient number of servers to process the dialog requests in order to reduce the amount of time spent waiting.

If you issue the Roscoe Interface QUIE command, message C1R119I will indicate the number of times a Roscoe Interface user had to wait for a server. You can use this value to determine if a sufficient number of servers have been defined. A large WAIT count indicates that the number of servers should be increased.

A.2 Roscoe Interface Storage Requirements

The Roscoe Interface has a fixed storage requirement and a variable storage requirement. The fixed storage requirement consists of the base Roscoe Interface and Endeavor modules. The variable storage requirements consist of the Roscoe Interface server requirements and the Roscoe Interface dialog driver requirements.

Fixed storage requirement:

| | |
|--|----------------------------|
| Endeavor and Roscoe Interface reentrant programs | 900K (24 bit addressable): |
|--|----------------------------|

Variable storage requirements:

| | |
|---|---|
| Roscoe Interface server dynamic storage and non-reentrant programs (per defined server) | 70K (24 bit addressable) |
| Roscoe Interface dialog driver (per active user) | 20K (31 bit addressable) plus selection list storage (see note) |

Note: The amount of storage required for Endeavor selection list depends on the size of list and the type of the list. A formula, therefore, cannot be easily provided. All selection lists, though, are allocated from 31 bit addressable storage. Storage for a selection list is released after the table has been processed by the user.

As an example, assume that the C1RMCNFG macro specified that 25 users will concurrently use the Roscoe Interface. The estimated storage requirements to support this configuration are:

Example variable storage requirements:

| | |
|-----------------------------|---------------|
| server | 70K |
| 25 dialogs @ 20K per dialog | 500K (31 bit) |
| Total | 570K |

Please remember that the storage for the dialogs does *not* include the selection list requirements. Also, these are estimates only and the actual storage requirements may vary depending on the maintenance level of the Endeavor and Roscoe Interface products that you are executing.

Appendix B. Roscoe Interface Messages

This appendix contains the error messages issued by the Roscoe Interface, Release 3.6 or higher.

C1R100I Activating the CA-Roscoe 4.0 Interface

Explanation: The Roscoe Interface initialization task is beginning to activate the Roscoe Interface.

Action: None.

C1R101I CA-Roscoe Interface initialized with *count* servers

Explanation: The Roscoe Interface initialization task has completed and the number of Roscoe Interface servers specified have been created.

Action: None.

C1R102E IDENTIFY of C1RPCTR2 failed

Explanation: The Roscoe Interface initialization task, C1RPCTRL, received a non-zero return code from the MVS IDENTIFY service. The initialization task will terminate with a return code of four.

Action: Reinitialize the Roscoe Interface by restarting the Roscoe region. If the problem persists, contact Endeavor Technical Support.

C1R103E CA-Roscoe Interface server execution failed with code *return code*

Explanation: A Roscoe Interface server unexpectedly terminated while processing an Endeavor request. The *return code* identifies the return code placed in the TCB when the server terminated.

Action: If more than one server was defined in the Roscoe Interface configuration then no action is necessary. Any Endeavor requests will be processed by the remaining servers. Report the problem to Endeavor Technical Support when it is convenient.

C1R104E CA-Roscoe Interface server initialization failed with code *return code*

Explanation: A Roscoe Interface server abended during initialization. The *return code* identifies the return code that was placed in the server TCB for the server.

Action: Check the Roscoe message log for any error messages that may have been issued during the server initialization and take the corrective action specified for the message. Reinitialize the Roscoe Interface by restarting the Roscoe region. If the problem persists, contact Endeavor Technical Support.

C1R105E Identify of C1RDGCT failed

Explanation: The Roscoe Interface initialization task, C1RPCTRL, received a non-zero return code from the MVS IDENTIFY service. The initialization task will terminate with a return code of four.

Action: Reinitialize the Roscoe Interface by restarting the Roscoe region. If the problem persists, contact Endeavor Technical Support.

C1R106E Unable to load the C1DEFLT5 table

Explanation: The Roscoe Interface initialization task, C1RPCTRL, was unable to load the Endeavor C1DEFLT5 table. The interface will terminate with a return code 16.

Action: Verify that the C1DEFLT5 table is in the CONLIB DD data set specified in the Roscoe execution JCL. Also, refer to the Roscoe message log to determine if the MVS program manager issued any error messages and take the corrective action associated with the message.

C1R107E Unable to load C1RPLINK

Explanation: The Roscoe Interface initialization task, C1RPCTRL, was unable to load module C1RPLINK. The interface will terminate with a return code 16.

Action: Verify that module C1RPLINK is in the STEPLIB/JOBLIB DD data set specified in the Roscoe execution JCL. Also, refer to the Roscoe message log to determine if the MVS program manager issued any error messages and take the corrective action associated with the message.

C1R108E Unable to load C1RPCNFG

Explanation: The Roscoe Interface initialization task, C1RPCTRL, was unable to load module C1RPCNFG. The interface will terminate with a return code 16.

Action: Verify that module C1RPCNFG is in the STEPLIB/JOBLIB DD data set specified in the Roscoe execution JCL. Also, refer to the Roscoe Interface message log to determine if the MVS program manager issued any error messages and take the corrective action associated with the message. If the module is not found, verify that the Roscoe Interface installation job C1RPCNFG executed without any errors.

C1R109E A valid ETSOLIB DCB address was not provided

Explanation: The ETSOLIB declaration may not have been made when your site's JCL brought up the Roscoe application.

Action: Check your site's JCL for bringing up the Roscoe application. Insure that the ETSOLIB declaration has been made. Once the declaration has been made, reinitialize the Roscoe Interface by restarting the Roscoe region.

C1R110E Load of ENDEVOR service routine *routine* failed

Explanation: The Roscoe Interface initialization task, C1RPCTRL, was unable to load one or more Endeavor programs. The interface will terminate with a return code 16.

Action:

Refer to the Roscoe message log to determine the program that could not be executed. Verify that the Roscoe execution JCL contains the appropriate Endeavor and Roscoe Interface libraries in the JOBLIB/STEPLIB/ETSOLIB concatenation.

C1R115E Attach of the CA-Roscoe Interface server failed

Explanation: The Roscoe Interface initialization task, C1RPCTRL, was unable to attach one of the Roscoe Interface server tasks. The interface will terminate with a return code 16.

Action: Verify that program C1RPSRVR is in the STEPLIB/JOBLIB concatenation. If not, update the Roscoe execution JCL to include the appropriate Roscoe Interface load library.

C1R118E CA-Roscoe Interface has been forced unavailable

Explanation: The Roscoe Interface has been disabled because all of the defined Endeavor servers have unexpectedly terminated. Message C1R103E is issued when a server terminates abnormally.

Action: In order to reestablish the Roscoe Interface, the Roscoe Interface will have to be reinitialized by restarting the Roscoe region.

C1R119I CA-Roscoe Interface session statistics: Users connected=*count*, Server dispatches=*count* Max servers used=*count* Server ABENDs=*count* WAITs for server=*count* WAITs for dispatch queue=*count*

Explanation: The Roscoe Interface has received and processed the QUIE command. The message identifies Roscoe Interface server statistics. The statistics can be used to tune the number of Roscoe Interface servers defined by the C1RMCNFG configuration macro.

Action: None. These are informational messages only.

C1R120E No CA-Roscoe Interface servers requested. The interface is not available

Explanation: The number of servers specified on the C1RMCNFG macro SERVERS parameter was zero. Without any servers defined, the Roscoe Interface cannot perform any work.

Action: Rebuild the Roscoe Interface configuration module by reassembling the C1RMCNFG macro. Refer to installation job C1RPCNFG. Specify at least one server on the SERVER macro parameter. Reinitialize the Roscoe Interface.

C1R122I CA-Roscoe Interface shutdown complete

Explanation: The Roscoe Interface SHUT command was entered. The Roscoe Interface servers have completed shutdown processing. The Roscoe Interface is no longer available.

Action: None. To restart the Roscoe Interface, the Roscoe region must be reinitialized.

C1R201E No storage available for the Server control block

Explanation: An error occurred initializing the Endeavor environment. Program C1BMINIT passed a non-zero return code. The Roscoe Interface server initialization will terminate with an error code of 202.

Action: Refer to the Roscoe message log for any other error messages that may have been issued by Endeavor. Refer to the corrective action for those messages. Restart the Roscoe region to reinitialize the Roscoe Interface. If the problem persists, contact Endeavor technical support.

C1R202E Error in C1BMINIT initializing the server

Explanation: An error occurred in C1BMINIT while initializing the Endeavor environment. Program C1BMINIT passed a non-zero return code. The Roscoe Interface server initialization will terminate with an error code of 202.

Action:

Refer to the Roscoe message log for any other error messages that may have been issued by the Endeavor initialization program. Refer to the corrective action for those messages. If cause cannot be determined, contact Endeavor technical support.

C1R203E Error initializing access to the CA-Roscoe library

Explanation: The Roscoe Interface server received a non-zero return code from the Roscoe LIBI INITX service. The Roscoe Interface server initialization will terminate with an error code of 203.

Action: Refer to the Roscoe message log for any other error messages that may have been issued by the Roscoe library service routines. Refer to the corrective action for those messages. Restart the Roscoe region to reinitialize the Roscoe Interface. If the problem persists, contact Endeavor technical support.

C1R205E CIRPSRV2 abend-code ABEND occurred

Explanation: The Roscoe Interface server abended while processing a request. The server was able to recover from the action.

Action: Contact Endeavor technical support. Have available the abend dump and the Roscoe message log.

C1R301E Error occurred during ETSO *function-name* request. R14 (*register 14*), R12 (*register 12*), R15 (*register 15*)

Explanation: The Roscoe Interface dialog driver program CIRPUSER encountered a problem while executing a Roscoe ETSO function. The dialog driver will terminate with an error code 4.

Action: Retry the function that caused the message. If the problem persists, contact Endeavor Technical Support.

C1R302E Error occurred during C1RPLINK *service name* request of *request name*

Explanation: The internal PSILINK service returned a non-zero return code while processing the service identified. The Roscoe Interface will terminate.

Action: Retry the function that caused the message. If the problem persists, contact Endeavor Technical Support.

C1R303E Error connecting to the Endeavor server

Explanation: The Roscoe Interface dialog driver program, CIRPUSER, was unable to connect to an Roscoe Interface server. The dialog driver will terminate with an error code 12.

Action: Check the Roscoe message log to verify that the Roscoe Interface servers initialized. Message C1R101I will indicate the number of servers that initialized. If the servers failed to initialize, perform the corrective action associated with any server initialization error messages.

C1R304E The Endeavor server ABENDED during processing

Explanation: The Roscoe Interface server abended while processing a request from the dialog driver. Message C1R103E should appear in the Roscoe message log to identify the ABEND code. The dialog driver will terminate with an error code of 16.

Action: Refer to the corrective action for message C1R103E and retry the function that caused the error. If the problem persists, contact Endeavor Technical Support.

C1R305E No storage available for the UCT

Explanation: The Roscoe Interface dialog driver was unable to acquire the storage needed for an internal data structure. Each active dialog user requires approximately 12K of 31 bit addressable storage for the UCT. The dialog driver will terminate with an error code of 20.

Action: Increase the REGION size assigned to the Roscoe task and restart the region in order to reinitialize the Roscoe Interface.

C1R306E Error during Endeavor Environment processing

Explanation: An internal error occurred while processing the Endeavor Environment supplied on a dialog panel. The dialog driver will terminate with an error code of 24.

Action: Verify that the Environment name specified is valid and retry the function that generated the error message. If the problem persists, contact Endeavor Technical Support.

C1R307E Error during Endeavor System processing

Explanation: An internal error occurred while processing the Endeavor System supplied on a dialog panel. The dialog driver will terminate with an error code of 28.

Action: Verify that the System name specified is valid and retry the function that generated the error message. If the problem persists, contact Endeavor Technical Support.

C1R308E Error during Endeavor Subsystem processing

Explanation: An internal error occurred while processing the Endeavor Subsystem supplied on a dialog panel. The dialog driver will terminate with an error code of 32.

Action: Verify that the Subsystem name specified is valid and retry the function that generated the error message. If the problem persists, contact Endeavor Technical Support.

C1R309E Internal error *code* occurred. Execution has terminated

Explanation: An internal logic error occurred while processing a dialog selection panel. The *code* value identifies the type of error that occurred. The dialog driver will terminate with an error code of 36.

Action: Retry the function that generated the error message. If the problem persists, contact Endeavor Technical Support.

C1R311E The CA-Roscoe Interface server interface has not been initialized

Explanation: The Roscoe Interface dialog has determined that the Roscoe Interface servers have not been initialized in the Roscoe region. The dialog will terminate with an error code of 40.

Action: Verify that the Roscoe Interface control task, C1RPCTRL, has been properly installed. (See Chapter 1, "Installing the Endeavor for OS/390 Roscoe Interface" for instructions on how to install the interface.) If the interface has been properly installed, refer to the Roscoe message log to determine if any error messages were issued during the server initialization process and perform the corrective action associated with those messages.

C1R312E Error during Endeavor Element processing

Explanation: An internal error occurred while processing the Endeavor Element supplied on a dialog panel. The dialog driver will terminate with an error code of 44.

Action: Verify that the Element name specified is valid and retry the function that generated the error message. If the problem persists, contact Endeavor Technical Support.

C1R313E Error during Endeavor Level processing

Explanation: An internal error occurred while processing an Endeavor Summary of Levels request. The dialog driver will terminate with an error code of 48.

Action: Retry the function that generated the error message. If the problem persists, contact Endeavor Technical Support.

C1R314E Error during BROWSE processing. RC=return code

Explanation: An internal error occurred while processing the BROWSE request. The *return code* field identifies the return code passed by the Roscoe Interface server BROWSE function. The dialog driver will terminate with an error code of 32.

Action: Retry the BROWSE function. If the problem persists, contact Endeavor Technical Support.

C1R316E Error during member processing. RC=return code

Explanation: An internal error occurred while processing the member request on behalf of the dialog driver. The *return code* field identifies the return code passed by the Roscoe Interface server function. The dialog driver will terminate with an error code of 60.

Action: Refer to the Roscoe message log for any other error messages. If the problem cannot be resolved, contact Endeavor technical support.

C1R318E The CA-Roscoe Interface is not available

Explanation: All Roscoe Interface servers are not available

Action: Check the Roscoe message log for any errors that might indicate the cause. Reinitialize the Roscoe Interface by restarting the CA-Roscoe region. If the problem persists, contact Endeavor Technical Support.

C1R319E Error during Endeavor element type processing

Explanation: An internal error occurred while processing a Type List request. The dialog driver will terminate with an error code of 72.

Action: Retry the function that generated the error message. If the problem persists, contact Endeavor Technical Support.

C1R320E Error during Endeavor processor group processing

Explanation: An internal error occurred while processing a Processor Group request. The dialog driver will terminate with an error code of 76.

Action: Retry the function that generated the error message. If the problem persists, contact Endeavor Technical Support.

C1R502E The CA-Roscoe Interface was not quiesced

Explanation: The REST command was entered but a previous QUIE command had not been entered. The dialog will terminate with an error code of 72.

Action: None.

C1R503I The CA-Roscoe Interface posted to restart

Explanation: The Roscoe Interface REST command was entered. The dialog has requested each server to restart processing. The Roscoe Interface servers will begin accepting service requests.

Action: None.

C1R507I The CA-Roscoe Interface posted to shutdown

Explanation: The Roscoe Interface SHUT command was entered and has been successfully processed. The Roscoe Interface servers have been told to stop processing.

Action: None. Message C1R122I will be issued when the servers have stopped processing.

C1R504E The CA-Roscoe Interface is not active

Explanation: The Roscoe Interface QUIE, SHUT or REST command was specified but the Roscoe Interface has not been initialized in the Roscoe region. The dialog will terminate with an error code of 76.

Action: Verify that the Roscoe Interface control task, C1RPCTRL, has been properly installed. (See Chapter 1, "Installing the Endeavor for OS/390 Roscoe Interface" for instruction on how to install the interface.) If the interface has been properly installed, refer to the Roscoe message log to determine if any error messages were issued during the server initialization process and perform the corrective action associated with those messages.

C1R505I CA-Roscoe Interface has been marked unavailable

Explanation: The QUIE command was entered and has been successfully processed. The Roscoe Interface servers will not accept any more requests.

Action: None. To restart the Roscoe Interface, use the REST command.

C1R506E Invalid command specified. No action was taken

Explanation: The Roscoe Interface was started with an optional command specified on the command line. The command entered is invalid. The dialog will terminate with an error code 80.

Action: Reinvoke the dialog with a valid command. Valid commands are REST, QUIE and SHUT or by not specifying a command on the command line.

