



# ATLANTIS

Beratungsgesellschaft für  
Informationsverarbeitung mbH

# E/NAT

Interface between  
CA-Endevor and NATURAL/PREDICT  
Version 2.1

or

**“CA-Endevor for MVS NATURAL Interface”**



# E/NAT<sup>®</sup> Demo

Please click to select:



**Development Goals and Features**



**Object types supported**



**The connection between CA-Endevor and E/NAT**



**The user interface**



**Action processing**



**E/NAT parameter definition, Member Conversion**



**Summary**



**Additional information**



# E/NAT Development Goals and Additional Features



# E/NAT Development Goals

- **Completely integrated solution for CA-Endevor**
  - consideration of all Panel-Options
  - same Menu branches
  - E/NAT messages are shown directly on the CA-Endevor Panels



# E/NAT Development Goals

- **Completely CA-Endevor compliant behaviour**
  - Processing element by element
  - Foreground- and Batch-Processing
  - Supports Package Processing
  - Full Backout-Support for NATURAL objects
  - Supports Generate-/Delete-Processor



# E/NAT Development Goals

## ■ High security

- no NATURAL-Utilities
- secure Condition Code control
- no interpretation of the NATURAL source code

## ■ Optimum Performance

- only 1 single active NATURAL Copy

NATURAL has to be ended only when the ADABAS SVC for the NATURAL/PREDICT system file changes



# E/NAT Development Goals

- **automatic compliance with NATURAL-conventions and requirements**
  - **GENERATE Map leaves map source (for CAT of program!)**
  - **GENERATE Copycode applies only to source**
  - **Package-Backout will delete all affected programs from NATURAL bufferpool**
  - **...**



# E/NAT Development Goals

- **readable source code**
- **source changes comprehensible line by line**
- **flexible Generate Action:**
  - CAT (generate object, default)
  - STOW (generate object and source)
  - CAT&COPY (generate object and copy source with original timestamp)
  - SAVE (save source only)



# E/NAT Development Goals

## ■ Usage of the PREDICT

### Active References

#### ■ manually

through specific selection or

#### ■ automatically

through inclusion of all dependent NATURAL and PREDICT objects during selection of each NATURAL or PREDICT element



# E/NAT Development Goals

- **Support for all NATURAL- and PREDICT- objects required for application development**
- **Support for long (32 character) PREDICT object ids**
  - Predefined MCT entries or
  - Automatic prompting during action processing
- **Simple administration**
- **Simple processors**



# E/NAT Additional Features

- **User exits available for customer specific processing**
  - Session Start
  - Before / After Action
  - Change to another NATURAL-Library
  - Conversion of member name into element name and vice versa



# E/NAT Additional Features

- **User entry available to supply records for the Member Conversion Table (MCT)**
- **Batch Utilities available to LOAD and UNLOAD MCT records**
  - **Mass Updates**
  - **Initial Load**



# E/NAT Additional Features

- **E/NAT-Exits can also be used for CA-Endevor elements that are not supported by E/NAT (3GL programs, ...)**
- **Change between NATURAL environments**
  - with different FUSER or FDIC settings across DB boundaries
  - with different ADABAS-SVCs



# Object Types supported by E/NAT



# Object Types supported

## ■ NATURAL

### ■ Routines

- Program
- Subprogram
- Subroutine
- Helproutine

### ■ Maps

- Map
- Form
- Helptext

### ■ Data Areas

- Global
- Local
- Parameter

### ■ SYSERR-Messages

- Short and Long
- all languages

### ■ Others

- Copycode
- Text, Recording etc.



# Object Types supported

## ■ PREDICT

### ■ Files with Fields

- Definition (File with Elementary Field),
- Generated Code
  - DDM,
  - ADACMP,
  - Copycode etc.

### ■ Verifications

- Definition
- Rule Code



# Object Types supported

## ■ PREDICT

(continued)

■ Databases

■ Keywords

■ Modules

■ Programs

■ Relationships

■ Reports

■ Systems

■ Users



The connection  
between  
E/NAT  
and  
CA-Endevor

# The physical connection

Starting  
CA-Endevor  
...

Executing a  
Foreground-  
Action ...

Executing a  
Processor or a  
Batch-Action ...

Ending  
CA-Endevor  
...

**CA-Endevor**

Start

Panel

Processor

Exit

End

**E/NAT**

**Interface  
Manager**  
(Assembler)

Start

Message Handler &  
Application Logic

**NATURAL  
PREDICT**

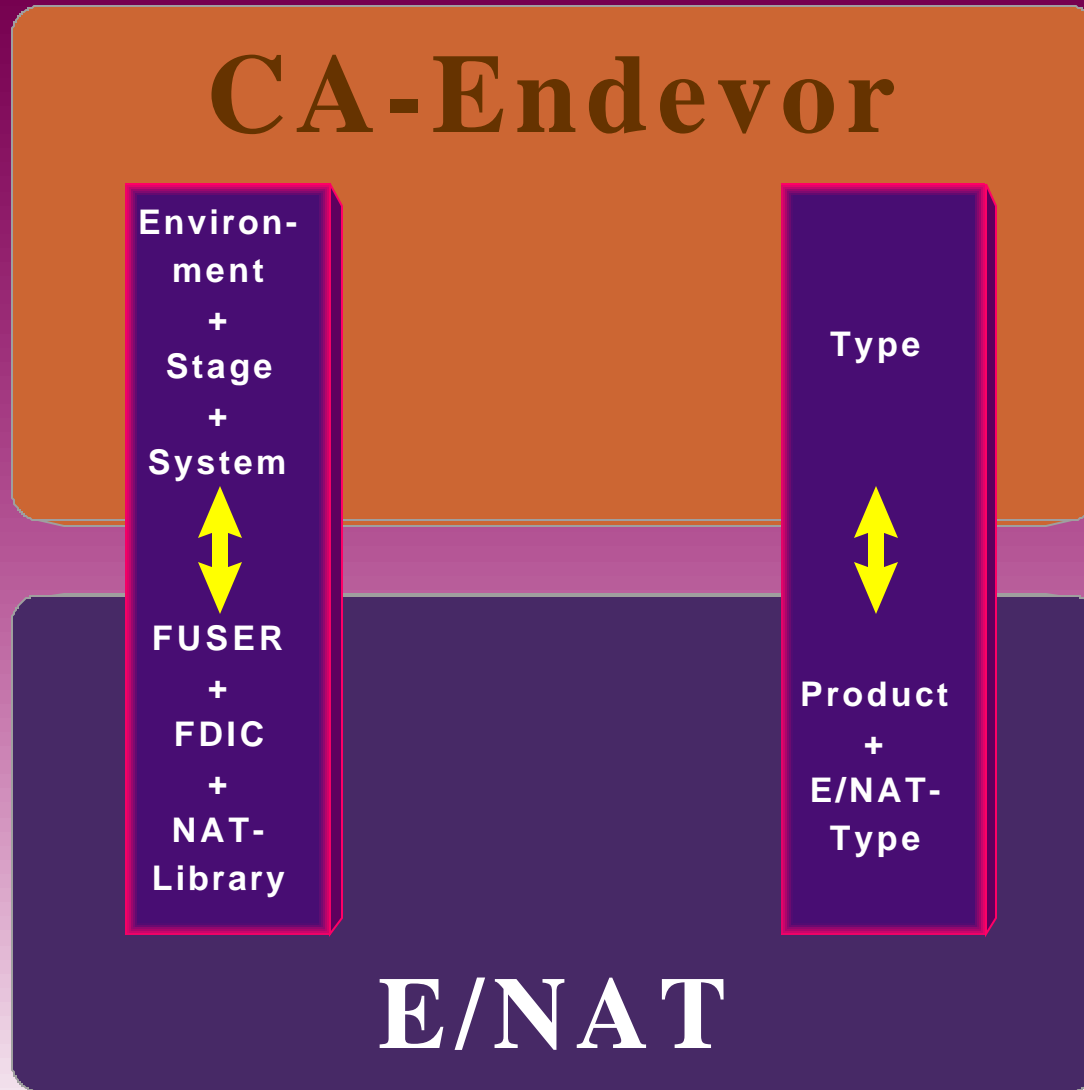
# The logical connection

## Example:

Environment = DEV  
Stage = 1  
System = FINANCE



FUSER = (18,9)  
FDIC = (18,11)  
Library = FIN-DEV



## Example:

Type = NATMAP



Product = NATURAL  
E/NAT-Type = MAP



# The user interface

## Principles

# The user interface

```
----- ADD/UPDATE ELEMENTS -----
OPTION  ===> L

blank - Member list      A, U - Add, Update an element      L - Set Library type

TO ENDEVOR:
ENVIRONMENT  ===> EW
SYSTEM       ===> TEST
SUBSYSTEM    ===> GGR
ELEMENT      ===>
TYPE         ===> NATPGM
STAGE:       1

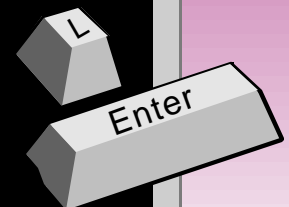
ACTION OPTIONS:
CCID                ===>
GENERATE ELEMENT    ===> N (Y/N)
DELETE INPUT SOURCE ===> N (Y/N)
NEW VERSION         ===>
OVERRIDE SIGNOUT    ===> N (Y/N)
PROCESSOR GROUP     ===>
UPDATE IF PRESENT   ===> N (Y/N)
INCLUDE PREDICT XREF ===> N (F/N)

COMMENT  ===>
FROM ISPF LIBRARY:
PROJECT  ===>
LIBRARY  ===> YX00037
TYPE     ===>
MEMBER   ===>

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

THRU MEMBER  ===>

FROM OTHER PARTITIONED OR SEQUENTIAL DATA SET:
DATA SET NAME ===> 'DVO. KM IOTBS. HFAHFHF. TST. V01'
```



# The user interface

```
----- ADD/UPDATE ELEMENTS -----
OPTION  ===> A

blank - Member list      A, U - Add, Update an element      L - Set Library type

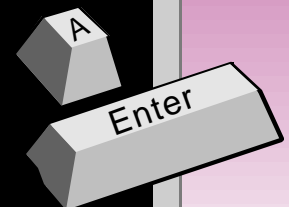
TO ENDEVOR:
ENVIRONMENT  ===> EW
SYSTEM       ===> TEST
SUBSYSTEM    ===> GGR
ELEMENT      ==> PROG01
TYPE         ===> NATPGM
STAGE:       1
COMMENT      ===>

ACTION OPTIONS:
CCID         ===>
GENERATE ELEMENT  ===> N (Y/N)
DELETE INPUT SOURCE  ===> N (Y/N)
NEW VERSION         ===>
OVERRIDE SIGNOUT   ===> N (Y/N)
PROCESSOR GROUP    ===>
UPDATE IF PRESENT  ===> N (Y/N)
INCLUDE PREDICT XREF  ===> N (F/N)

FROM NATURAL LIBRARY:
LIBRARY  ===> YX00037
MEMBER   ===>
PATH     ===> NV22

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

THRU MEMBER  ===>
```



# The user interface

```
----- ADD/UPDATE ELEMENTS -----  
OPTION ===>  
I0916: REQUEST(S) SUCCESSFULLY EXECUTED: 0000001  
blank - Member list      A, U - Add, Update an element      L - Set Library type  
                                  
TO ENDEVOR:                ACTION OPTIONS:  
ENVIRONMENT ===> EW          CCID                      ===>  
SYSTEM      ===> TEST        GENERATE ELEMENT      ===> N (Y/N)  
SUBSYSTEM   ===> GGR         DELETE INPUT SOURCE   ===> N (Y/N)  
ELEMENT     ===> PROG01      NEW VERSION           ===>  
TYPE        ===> NATPGM      OVERRIDE SIGNOUT     ===> N (Y/N)  
STAGE:      1                PROCESSOR GROUP       ===>  
                                UPDATE IF PRESENT      ===> N (Y/N)  
COMMENT     ===>                INCLUDE PREDICT XREF  ===> N (F/N)  
  
FROM NATURAL LIBRARY:      LIST OPTIONS:  
                                DISPLAY LIST          ===> Y (Y/N)  
LIBRARY ===> YX00037  
  
MEMBER ===>                THRU MEMBER ===>  
PATH    ===> NV22
```



# The user interface

```
----- ADD/UPDATE ELEMENTS -----  
OPTION ==>  
I0916: REQUEST(S) SUCCESSFULLY EXECUTED: 0000001  
blank - Member list      A, U - Add, Update an element      L - Set  
  
TO ENDEVOR:                ACTION OPTIONS:  
ENVIRONMENT ==> EW          CCID  
SYSTEM       ==> TEST       GENE  
SUBSYSTEM   ==> GGR  
ELEMENT     ==> PROG01  
TYPE        ==> NATPGM  
STAGE:      1  
  
COMMENT     ==> N (Y/N)  
          SELF ==> N (F/N)  
  
          ==> Y (Y/N)  
          DISPLAY LIST  
  
THRU MEMBER ==>
```





# Action processing

## ADD

**Screen shots showing details of  
user interface and integration**

# ADD / Member selection

```
----- ADD/UPDATE ELEMENTS -----
OPTION  ===>

      blank - Member list      A, U - Add, Update an element      L - Set Library type

TO ENDEVOR:
ENVIRONMENT  ===> EW
SYSTEM       ===> TEST
SUBSYSTEM    ===> GGR
ELEMENT      ===>
TYPE         ===> NAT*
STAGE:       1
COMMENT      ===>

FROM NATURAL LIBRARY:
LIBRARY     ===> YX00037

MEMBER      ===>
PATH        ===> NV22

ACTION OPTIONS:
CCID        ===>
GENERATE ELEMENT  ===> N (Y/N)
DELETE INPUT SOURCE  ===> N (Y/N)
NEW VERSION  ===>
OVERRIDE SIGNOUT  ===> N (Y/N)
PROCESSOR GROUP  ===>
UPDATE IF PRESENT  ===> N (Y/N)
INCLUDE PREDICT XREF  ===> N (F/N)

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

      ≡
```

Enter

# ADD / Member selection

```
----- E/NAT-Interface          Versi on 2. 1 -----
COMMAND ==> SELMEM

FROM Path:      NV22      Library: YX00037  Member: *      Fmt:
TO  Environment: EW      Stage: 1      System: TEST    Subsys: GGR

NATURAL Types to be listed   8 / 19  PREDICT Types to be listed   8 / 11

Routines          ==> X      Databases         ==>
Copycodes         ==> X      Files             ==>
Texts, Recordings ==> X      Keywords          ==>
Maps              ==> X      Modules          ==>
Data Areas        ==> X      Programs         ==>
SYSERR- Messages ==> X      Relationships     ==>
                                   Reports            ==>
                                   Systems            ==>
                                   Users              ==>
                                   Verifications     ==>

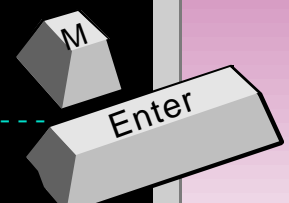
ENDEVOR Options
  INCLUDE PREDICT XREF ==> N
  DISPLAY LIST         ==> Y

Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10---PF11---PF12---
Check Help      End   Menu                                <<  >>
```



# ADD / Member selection

```
----- E/NAT-Interface          Versi on 2. 1 -----  
COMMAND ==> SELMEM          NATURAL  NOT MSG      8 / 19  
  
FROM Path:          NV22          Library: YX00037  Member: *          Fmt:  
TO  Environment:  EW          Stage:  1          System: TEST      Subsys: GGR  
  
M MEMBER          ELEMENT          TYPE          COMMENT  
A  
AZNL2            NATPGM  
AZNP2            NATPGM  
CMKEY            NATPGM  
CMMASH          NATPGM  
CMMSG           NATPGM  
CMFCP           NATPGM  
CMUB            NATPGM  
CMUB2           NATPGM  
CMULT           NATPGM  
CMX             NATPGM  
CMXG            NATDAT  
CMZUL           NATPGM  
M ENTEST        NATPGM  
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10---PF11---PF12---  
Check Help          End    Menu          -      +          <<    >>
```



# ADD / Member selection

```
--
CO      ELEMENT      : ENTEST
        TYPE         : NATPGM  ROUT
FR      ENV          FROM          TO: EW
TO      STG          FROM          TO: 1 EW
        SYSTEM FROM          TO: TEST
M
        --- Source ---  --- Object ---
        Date          : 26. 10. 1993   n/a
        Time          : 12: 24: 05
        Version/SM    : 2. 2 / 0004    /
        User id       : YX00130
        Terminal - Id: T945
        OP- System    : MVS/ESA
        TP- System    : CICS
        Transaktion:  NAXE
        DAT- Size     :
        E- Size       :          5115
        BP- Size      :

        M
        Enter- PF1 --- PF2 --- PF3 --- PF4 --- PF5 --- PF6 --- PF7 --- PF8 --- PF9 --- PF10 --- PF11 --- PF12 ---
        Check Help      End      Menu      -      +      <<      >>
```

Version 2.0 -----

/ 19

ber: \* Fmt: SRC

tem: TEST Subsys: GGR

PE COMMENT



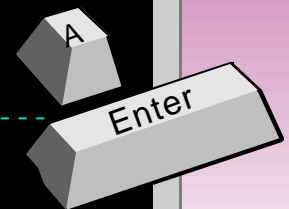
# ADD / Member selection

----- E/NAT-Interface      Version 2.1 -----  
COMMAND ==> SELMEM      NATURAL    NOT MSG      8 / 19

FROM Path:            NV22            Library: YX00037    Member: \*            Fmt:  
TO    Environment: EW            Stage: 1            System: TEST            Subsys: GGR

M	MEMBER	ELEMENT	TYPE	COMMENT
	A		NATPGM	
	AZNL2		NATDAT	
	AZNP2		NATPGM	
	CMKEY		NATPGM	
	CMMASH		NATPGM	
	CMMSG		NATPGM	
	CMFCP		NATPGM	
	CMUB		NATPGM	
	CMUB2		NATPGM	
	CMULT		NATPGM	
	CMX		NATPGM	
	CMXG		NATDAT	
	CMZUL		NATPGM	
A	ENTEST		NATPGM	

Enter-PF1--PF2--PF3--PF4--PF5--PF6--PF7--PF8--PF9--PF10--PF11--PF12--  
Check Help    End    Menu    -    +    <<    >>



# ADD / Member selection

----- E/NAT-Interface      Version 2.1 -----  
COMMAND ==> SELMEM      NATURAL    NOT MSG      8 / 19

FROM Path:            NV22            Library: YX00037    Member: \*            Fmt:  
TO    Environment: EW            Stage: 1            System: TEST            Subsys: GGR

M	MEMBER	ELEMENT	TYPE	COMMENT
	A		NATPGM	
	AZNL2		NATDAT	
	AZNP2		NATPGM	
	CMKEY		NATPGM	
	CMMASH		NATPGM	
	CMMSG		NATPGM	
	CMFCP		NATPGM	
	CMUB		NATPGM	
	CMUB2		NATPGM	
	CMULT		NATPGM	
	CMX		NATPGM	
	CMXG		NATDAT	
	CMZUL		NATPGM	
	ENTEST	*WRITTEN	NATPGM	

Enter- PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10---PF11---PF12---  
Check Help      End    Menu      -      +      ≡      <<      >>



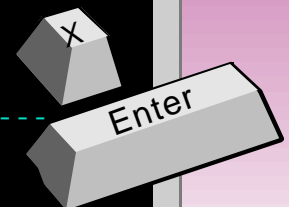
# ADD / Member selection

----- E/NAT-Interface      Version 2.1 -----  
COMMAND ==> SELMEM      NATURAL    NOT MSG      8 / 19

FROM Path:            NV22            Library: YX00037    Member: \*            Fmt:  
TO    Environment: EW            Stage: 1            System: TEST        Subsys: GGR

M	MEMBER	ELEMENT	TYPE	COMMENT
	GGRNOCAT		NATPGM	
	ID0001G		NATDAT	
	ID0001I		NATDAT	
	ID0002C		NATPGM	
	KMPRDDIS		NATPGM	
	KMW001D		NATMAP	
X	KMW001L		NATPGM	
	KMW002D		NATMAP	
	KMW003D		NATMAP	
	KMW004D		NATMAP	
	KMW004I		NATDAT	
	KMW005D		NATMAP	
	NATPGH		NATPGM	
	NLTMORE		NATPGM	

Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10---PF11---PF12---  
Check Help            End    Menu            -            +            <<            >>



# ADD / Member selection

```
----- E/NAT-Interface          Version 2.1 -----  
COMMAND ==> XREF   Level   1          8 / 19  
  
FROM Path:      NV22      Library: YX00037  Member: KMV001L   Fmt: SRC  
TO  Environment: EW       Stage:   1        System: TEST      Subsys: GGR  
  
M  MEMBER      ELEMENT    TYPE      COMMENT          USE/REF VIA  
  KMV004I      NATDAT    NATDAT    Use LDA  
  KMV04#U      PRDFI     PRDFI     Use View
```



```
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10---PF11---PF12---  
Check Help      End  Mer.  -      +      <<      >>
```



# ADD / Member selection

----- E/NAT-Interface      Version 2.1 -----  
COMMAND ==> SELMEM      NATURAL    NOT MSG      8 / 19

FROM Path:            NV22            Library: YX00037    Member: \*            Fmt:  
TO    Environment: EW            Stage: 1            System: TEST            Subsys: GGR

M	MEMBER	ELEMENT	TYPE	COMMENT
	GGRNOCAT		NATPGM	
	ID0001G		NATDAT	
	ID0001I		NATDAT	
	ID0002C		NATPGM	
	KMPRDDIS		NATPGM	
	KMW001D		NATMAP	
	KMW001L		NATPGM	
	KMW002D		NATMAP	
	KMW003D		NATMAP	
	KMW004D		NATMAP	
	KMW004I		NATDAT	
	KMW005D		NATMAP	
	NATPGH		NATPGM	
	NLTMORE		NATPGM	

Enter- PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10---PF11---PF12---  
Check Help            End    Menu            -            +            <<            >>



# ADD / Member selection

----- E/NAT-Interface                      Version 2.1 -----  
COMMAND ==> SELMEM                      NATURAL                      MSG                      8 / 19

FROM Path:                      NV22                      Library: YX00037                      Member: \*                      Fmt:  
TO    Environment: EW                      Stage: 1                      System: TEST                      Subsys: GGR

M	MEMBER	ELEMENT	TYPE	COMMENT
4711			NATMSG	



Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10- PF11--PF12---  
Check Help                      End    Menu                      -                      +                      <<                      >>



# ADD / Member selection

```
----- ADD/UPDATE ELEMENTS -----
OPTION   ===>
I0916: REQUEST(S) SUCCESSFULLY EXECUTED: 0000001
  blank - Member list      A, U - Add, Update an element      L - Set Library type
                                     
TO ENDEVOR:
  ENVIRONMENT   ===> EW
  SYSTEM        ===> TEST
  SUBSYSTEM     ===> GGR
  ELEMENT       ===>
  TYPE          ===> NAT*
  STAGE:        1
  COMMENT       ===>

  ACTION OPTIONS:
  CCID          ===>
  GENERATE ELEMENT   ===> N (Y/N)
  DELETE INPUT SOURCE ===> N (Y/N)
  NEW VERSION       ===>
  OVERRIDE SIGNOUT  ===> N (Y/N)
  PROCESSOR GROUP   ===>
  UPDATE IF PRESENT ===> N (Y/N)
  INCLUDE PREDICT XREF ===> N (F/N)

FROM NATURAL LIBRARY:
  LIBRARY ===> YX00037

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

  MEMBER   ===>
  THRU MEMBER ===>
  PATH     ===> NV22
```



# Action processing DISPLAY / BROWSE

Screen shots showing how  
NATURAL Sources are stored

# Browse NATURAL source

BROWSE -- YX00037. C1#1TMPL. LIST ----- LINE 00000000 COL 001 080

COMMAND ==>

SCROLL ==> CSR

\*\*\*\*\* TOP OF DATA \*\*\*\*\*

\*\*\*\*\*

\*\*\*\*\*

\*\*

\*\* ELEMENT BROWSE 29JAN96 10:32 \*\*

\*\*

\*\* ENVIRONMENT: EW SYSTEM TEST SUBSYSTEM GGR \*\*

\*\* ELEMENT: EN9401X TYPE: NATPGM STAGE: EW \*\*

\*\*

\*\*\*\*\*

\*\*\*\*\*

----- SOURCE LEVEL INFORMATION -----

VV	LL	SYNC	USER	DATE	TIME	STMTS	CCID	COMMENT
----	----	------	------	------	------	-------	------	---------

01	00		YX00037	13DEC95	13:25	92		
----	----	--	---------	---------	-------	----	--	--

THIS ELEMENT HAS NOT BEEN PROCESSED.

RETRIEVED YX00037 13DEC95 13:33

+00

\*

+00

\*

(c) Copyright 1994 by

PF8

# Browse NATURAL source

```
BROWSE -- YX00037. C1#1TMPL. LIST ----- LINE 0000022 COL 001 080
COMMAND ==>                                SCROLL ==> CSR
+00 *      ATLANTIS Beratungsgesellschaft fuer Informationsverarbeitung mbH
+00 *      -----
+00 *      System .: ENDEVOR/NATURAL-Interface Version 1.0
+00 *      Objekt. .: Subprogramm EN9401X
+00 *      Funktion: Rahmen für den USEREXIT "Before ENDEVOR Action", der
+00 *      vor Ausführung einer ENDEVOR-Aktion auf durch das Inter
+00 *      face behandelte Elemente/Member aufgerufen wird.
+00 *      Der Userexit wird in jedem Falle aufgerufen, d.h. er
+00 *      muß mindestens so wie ausgeliefert existieren.
+00 *
+00 *      Autor. . . : YX00037 / Gaugler, Alexander   ATLANTIS   D-70378 Stuttg
+00 *      -----
+00 *      *****
+00 *      * Rahmen für User-Exits 01 *
+00 *      * Auslieferung als Source! *
+00 *      *****
+00 *
+00 *      -----
+00 DEFINE DATA
+00     PARAMETER      USING EN9400P          /* Standard-PDA Exits
+00 END-DEFINE
+00 *      -----
```

# Browse NATURAL source

```
BROWSE -- YX00037. C1#1TMPL. LIST ----- LINE 00000044 COL 001 080
COMMAND ===>                                SCROLL ===> CSR
+00      *                                     /* Protokollierung
+00      EXIT- RC           := 0001             /* Aktion erfolgr., Anzeige INFO
+00      EXIT- MSG         := 'Default-Code for Userexit 01 was executed, no action.
+00      EXIT- AKTION      := 'INFO'
+00      EXIT- USERAREA   := 'EN9401X'        /* User-Area, frei verwendbar.
+00      **WRITE '=' EN9400P. NAT- LIBRARY MEMBER
+00      *
+00      * =====
+00      * Inline Subroutinen
+00      * =====
+00      * -----
+00      DEFINE SUBROUTINE DUMMY
+00      * -----
+00      WRITE 'Dummy' EJECT
+00      *
+00      END- SUBROUTINE                               /* DUMMY
+00      * =====
+00      END
+00      =====
+00      ===== End of Source =====
+00      I ..
```

Start of  
internal  
source  
format

PF8

# Browse NATURAL source

```
BROWSE -- YX00037. C1#1TMPL. LIST ----- LINE 00000066 COL 001 080
COMMAND ==>                                SCROLL ==> CSR
+00 T..NAT2. üN. 2. 2 0006....ENENTW EN9401X YX00130 YX00130 2X52 ...M -S..
+00 T.....Á. -... ;OŠŠİ...ñMVS/ESA CICS ..... 1014201. 19950418NAXC
+00 T.....U.....à. -.....<...m.....:..
+00 T. * -----
+00 T. * (c) Copyright 1995 by
+00 T. * ATLANTIS Beratungsgesellschaft fuer Informationsverarbeitung mb
+00 T. * -----
+00 T.&* System.: ENDEVOR/NATURAL-Interface Version 1.0
+00 T.-* Objekt.: Subprogramm EN9401X
+00 T.ø* Funktion: Rahmen für den USEREXIT "Before ENDEVOR Action", der
+00 T.ø* vor Ausführung einer ENDEVOR-Aktion auf durch das Int
+00 T.°* face behandelte Elemente/Member aufgerufen wird.
+00 T.* Der Userexit wird in jedem Falle aufgerufen, d.h. er
+00 T.* muß mindestens so wie ausgeliefert existieren.
+00 T.*
+00 T.* Autor...: YX00037 / Gaugler, Alexander ATLANTIS D-70378 Stut
+00 T.* -----
+00 T.&* *****
+00 T.-* * Rahmen für User-Exits 01 *
+00 T.ø* * Auslieferung als Source! *
+00 T.ø* *****
+00 T.°*
```





# Browse NATURAL source

```
BROWSE -- YX00037. C1#1TMPL. LIST ----- LINE 00000088 COL 001 080
COMMAND ===>                                SCROLL ===> CSR
+00  T. . * -----
+00  T. . DEFINE DATA
+00  T. .  PARAMETER    USING EN9400P          /* Standard-PDA Exits
+00  T. . END- DEFINE
+00  T. . * -----
+00  T. &*                               /* Protokollierung
+00  T. - EXIT- RC      := 0001                /* Aktion erfolgr., Anzeige IN
+00  T. ØEXIT- MSG     := 'Default-Code for Userexit 01 was executed, no actio
+00  T. ØEXIT- AKTION  := ' INFO'
+00  T. °EXIT- USERAREA := ' EN9401X'         /* User-Area, frei verwendbar.
+00  T. . **WRITE '=' EN9400P. NAT- LIBRARY MEMBER
+00  T. . *
+00  T. . * =====
+00  T. . * Inline Subroutinen
+00  T. . * =====
+00  T. &* -----
+00  T. - DEFINE SUBROUTINE DUMMY
+00  T. Ø* -----
+00  T. ØWRITE ' Dummy' EJECT
+00  T. °*
+00  T. . END- SUBROUTINE                    /* DUMMY
+00  T. . * =====
```



PF8



# Browse NATURAL source

```
BROWSE -- YX00037. C1#1TMPL. LIST ----- LINE 00000110 COL 001 080
```

```
COMMAND ==>
```

```
SCROLL ==> CSR
```

```
+00 I ..
```

```
+00 T. .END
```

```
***** BOTTOM OF DATA *****
```



# Action processing

## RETRIEVE

**Screen shots showing how  
error and success messages  
are presented**

# Retrieve NATURAL source

## How are errors returned?

```
----- RETRIEVE ELEMENTS -----
OPTION   ==> R

                ELEMENT DISPLAY OPTIONS:
blank - Element list      S - Summary  B - Browse  H - History
R - Retrieve element      L - Set Library  M - Master  C - Changes

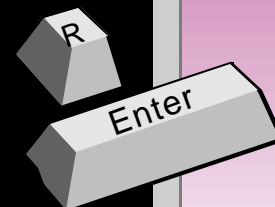
FROM ENDEVOR:
ENVIRONMENT ==> EW
SYSTEM      ==> TEST
SUBSYSTEM   ==> GGR
ELEMENT     ==> *
TYPE        ==> NAT*
STAGE       ==> 1      1 - EW
COMMENT     ==>

                ACTION OPTIONS:
CCID                ==>
EXPAND INCLUDES    ==> N (Y/N)
SIGNOUT ELEMENT    ==> Y (Y/N)
OVERRIDE SIGNOUT   ==> N (Y/N)
REPLACE MEMBER     ==> N (Y/N)
                2 - BE

TO NATURAL LIBRARY:
LIBRARY ==> YX00037

MEMBER ==>
PATH   ==> NV22

                LIST OPTIONS:
DISPLAY LIST        ==> Y (Y/N)
WHERE CCID EQ       ==>
WHERE PROC GRP EQ   ==>
BUILD USING MAP     ==> N (Y/N)
FIRST FOUND         ==> N (Y/N)
```



# Retrieve NATURAL source

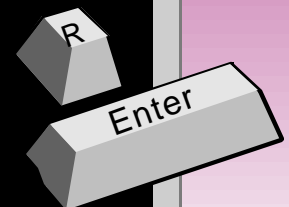
## How are errors returned?

RETRIEVE ----- ELEMENT SELECTION LIST ---- ROW 1 TO 8 OF 8  
COMMAND ===> SCROLL ===> PAGE

TO NATURAL Lib: YX00037

ELEMENT	NEWNAME	TYPE	ENVIRON	S	SYSTEM	SUBSYSTEM	VV. LL	RC
ENOFFEN		NATTXT	EW	1	TEST	GGR	01.00	0000
<b>R</b> ENTEST		NATPGM	EW	1	TEST	GGR	01.00	0000
EN0001C		NATCPY	EW	1	TEST	GGR	01.00	0000
EN0001G		NATDAT	EW	1	TEST	GGR	01.00	0000
EN0001I		NATDAT	EW	1	TEST	GGR	01.00	0000
EN0052D		NATMAP	EW	1	TEST	GGR	01.00	0000
EN9401X		NATPGM	EW	1	TEST	GGR	01.00	0000
TST000P		NATPGM	EW	1	TEST	GGR	01.02	0000

\*\*\*\*\* BOTTOM OF DATA \*\*\*\*\*



# Retrieve NATURAL source

## How are errors returned?

RETRIEVE ----- ELEMENT SELECTION LIST ---- ROW 1 TO 8 OF 8  
COMMAND ==> SCROLL ==> PAGE

I0028: MEMBER already exists, REPLACE-Option is: <N>  
TO NATURAL Lib: YX00037

ELEMENT	NEWNAME	TYPE	ENVIRON	S	SYSTEM	SUBSYSTEM	VV.LL	RC
ENOFFEN		NATTXT	EW	1	TEST	GGR	01.00	0000
ENTEST	* C1U0990E	NATPGM	EW	1	TEST	GGR	01.00	0000
EN0001C		NATCPY	EW	1	TEST	GGR	01.00	0000
EN0001G		NATDAT	EW	1	TEST	GGR	01.00	0000
EN0001I		NATDAT	EW	1	TEST	GGR	01.00	0000
EN0052D		NATMAP	EW	1	TEST	GGR	01.00	0000
EN9401X		NATPGM	EW	1	TEST	GGR	01.00	0000
TST000P		NATPGM	EW	1	TEST	GGR	01.02	0000

\*\*\*\*\* BOTTOM OF DATA \*\*\*\*\*

# Retrieve NATURAL source

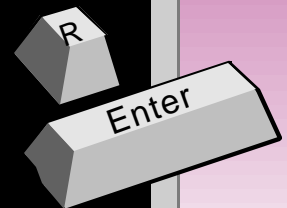
## How are errors returned?

```
----- RETRIEVE ELEMENTS -----
OPTION   ===>  R

                                ELEMENT DISPLAY OPTIONS:
blank - Element list           S - Summary  B - Browse  H - History
R - Retrieve element  L - Set Library  M - Master  C - Changes

FROM ENDEVOR:                  ACTION OPTIONS:
ENVIRONMENT   ===>  EW          CCID          ===>
SYSTEM        ===>  TEST       EXPAND INCLUDES  ===> N (Y/N)
SUBSYSTEM     ===>  GGR        SIGNOUT ELEMENT  ===> Y (Y/N)
ELEMENT       ===>  *          OVERRIDE SIGNOUT  ===> N (Y/N)
TYPE          ===>  NAT*       REPLACE MEMBER   ===> Y (Y/N)
STAGE        ===>  1           1 - EW          2 - BE
COMMENT      ===>

TO NATURAL LIBRARY:           LIST OPTIONS:
LIBRARY      ===>  YX00037     DISPLAY LIST     ===> Y (Y/N)
WHERE CCID EQ  ===>
WHERE PROC GRP EQ  ===>
MEMBER        ===>
BUILD USING MAP  ===> N (Y/N)
PATH         ===>  NV22       FIRST FOUND     ===> N (Y/N)
```



# Retrieve NATURAL source

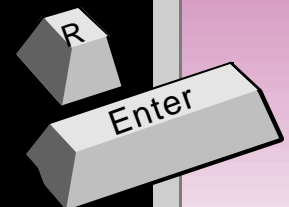
## How is success displayed?

RETRIEVE ----- ELEMENT SELECTION LIST ---- ROW 1 TO 8 OF 8  
COMMAND ===> SCROLL ===> PAGE

TO NATURAL Lib: YX00037

ELEMENT	NEWNAME	TYPE	ENVIRON	S	SYSTEM	SUBSYSTEM	VV. LL	RC
ENOFFEN		NATTXT	EW	1	TEST	GGR	01.00	0000
<b>R</b> ENTEST		NATPGM	EW	1	TEST	GGR	01.00	0000
EN0001C		NATCPY	EW	1	TEST	GGR	01.00	0000
EN0001G		NATDAT	EW	1	TEST	GGR	01.00	0000
EN0001I		NATDAT	EW	1	TEST	GGR	01.00	0000
EN0052D		NATMAP	EW	1	TEST	GGR	01.00	0000
EN9401X		NATPGM	EW	1	TEST	GGR	01.00	0000
TST000P		NATPGM	EW	1	TEST	GGR	01.02	0000

\*\*\*\*\* BOTTOM OF DATA \*\*\*\*\*







# Generating SCL for batch actions or package processing

**What will be generated by  
E/NAT?**



# Generating SCL for batch or package processing

```
EDIT ---- DVT. NDVLEO. CNTL(GGRTEST) - 01.00 ----- COLUMNS 001 072
COMMAND ==> SCROLL ==> PAGE
***** TOP OF DATA *****
000001 *****
000002 ***** E/NAT-Interface      Version 2.1 for MVS/ESA and TS0
000003 ***** Generating SCL
000004 ***** Start on 26.01.96 at 08:46:08
000005 ***** User-Id TS0 = YX00037
000006 ***** User-Id Interface = YX00037 Gaugler, Alexander      ATLANTIS
000007 ***** ENDEVOR-Job identifi c. = TSU08646
000008 ***** Unique identification = YX00037$
000009 ***** ENDEVOR-Mode      = FOREGROUND
000010 ***** ENDEVOR parameters used:
000011 ***** SITE- ID          :
000012 ***** PATH              : NV22
000013 ***** FROM ENVIRONMENT   :
000014 ***** TO ENVIRONMENT     : EW
000015 ***** SYSTEM              : TEST
000016 ***** SUBSYSTEM          : GGR
000017 ***** TYPE                : NAT*
000018 ***** FROM STAGE NAME     :
000019 ***** TO STAGE NAME       : EW
000020 ***** FROM STAGE ID       :
000021 ***** TO STAGE ID       : 1
```





# Generating SCL for batch or package processing

```
EDIT ---- DVT. NDVLEO. CNTL(GGRTEST) - 01.00 ----- COLUMNS 001 072
COMMAND ===> SCROLL ===> PAGE
000022 ***** FROM SYSTEM :
000023 ***** TO SYSTEM : TEST
000024 ***** CCID :
000025 ***** BYPASS GEN PROCESSOR : N
000026 ***** DELETE INPUT SOURCE : N
000027 ***** NEW VERSION :
000028 ***** COPYBACK :
000029 ***** OVERRIDE SIGNOUT : N
000030 ***** PROCESSOR GROUP :
000031 ***** UPDATE IF PRESENT : N
000032 ***** ONLY COMPONENT :
000033 ***** EXPAND INCLUDES :
000034 ***** REPLACE :
000035 ***** COMMENT :
000036 ***** SIGNOUT USER :
000037 ***** NO SIGNOUT :
000038 ***** SEARCH MAP :
000039 ***** ISPF MEMBER :
000040 ***** ISPF THRU MEMBER :
000041 ***** DISPLAY LIST : Y
000042 ***** ISPF DATA SET NAME :
000043 *****
```





# Generating SCL for batch or package processing

```
EDIT ---- DVT. NDVLEO. CNTL(GGRTEST) - 01.00 ----- COLUMNS 001 072
COMMAND ==> SCROLL ==> PAGE
000044 ***** Initialisation Start
000045 *****
000046 SET OPTIONS
000047 .
000048 *****
000049 ***** Initialisation End
000050 *****
000051 ***** Elements Start
000052 *****
000053 UPDATE ELEMENT ENTEST
000054 FROM DSNAME '
000055 TO ENVIRONMENT EW
000056 STAGE 1
000057 SYSTEM TEST
000058 SUBSYSTEM GGR
000059 TYPE NATPGM
000060 OPTIONS COMMENT ' NV22 YX00037 ENTEST'
000061 .
000062 CLEAR TO ALL .
000063 CLEAR FROM ALL .
000064 CLEAR OPTIONS ALL .
000065 *****
```





# Generating SCL for batch or package processing

```
EDIT ---- DVT. NDVLEO. CNTL(GGRTEST) - 01.00 ----- COLUMNS 001 072
COMMAND ==>                                     SCROLL ==> PAGE
000066 ***** Generating SCL
000067 ***** Ended on 26.01.96 at 08:46:17
000068 ***** SCL for 1 Element generated.
000069 *****
*****
***** BOTTOM OF DATA *****
```



# Defining E/NAT parameters

Via Endeavor panels you select

1. **4** (Environment) and
2. **N** (NATURAL)







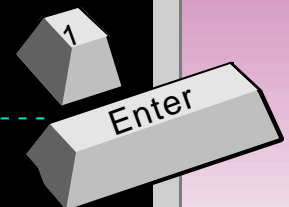
# Defining E/NAT parameters

## Types

----- E/NAT-Interface            Version 2.1 -----  
OPTION    ==>> 1            E/NAT Systemfile: DEV (NATTS0/1)

- 0 Parameters    - Definition of installation specific parameters
- 1 TYPES        - Conversion table ENDEVOR-Type into NATURAL/PREDICT-Type
- 2 NATURAL     - ADABAS/NATURAL-Parameter for physical environment
- 3 SYSTEMFILE  - NATURAL Systemfile Definitions
- 4 PATH        - Sources/targets for ENDEVOR ADD/UPDATE and RETRIEVE
- 5 ENVIRONMENT - ENVIRONMENT/STAGE/SYSTEM definitions
- 6 CONVERSION  - Conversion table member into element

Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10---PF11---PF12---  
Check Help            End    Menu                            <<    >>



# Defining E/NAT parameters

## Types

----- E/NAT-Interface      Versi on 2. 1 -----

COMMAND ==>> 1

Conversion table ENDEVOR-Type into NATURAL/PREDICT-Type

ENDEVOR ==>	Product	Type	ENDEVOR ==>	Product	Type
NATPGM	NATURAL	ROUT	DOC*	NATURAL	NONE
NATMAP	NATURAL	MAP	PRDDA	PREDICT	DA
NATCPY	NATURAL	COPY	PRDDS	PREDICT	DS
NATDAT	NATURAL	DA	PRDKY	PREDICT	KY
NATTXT	NATURAL	TEXT	PRDMO	PREDICT	MO
NATMSG	NATURAL	MSG	PRDPA	PREDICT	PA
PRDFI	NATURAL	FI EL	PRDPR	PREDICT	PR
PRDVE	PREDICT	VE	PRDRL	PREDICT	RL
PRDSY	PREDICT	SY	PRDRP	PREDICT	RP
PRDUS	PREDICT	US	COB*	NATURAL	NONE

Enter- PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10---PF11---PF12---  
 Check Help                      End    Menu                      <<    >>    OK



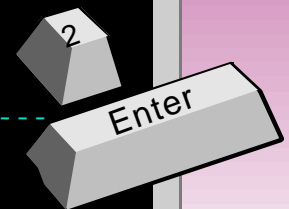


# Defining E/NAT parameters ADABAS/NATURAL environment

----- E/NAT-Interface            Version 2.1 -----  
OPTION    ==> 2            E/NAT Systemfile: DEV (NATTS0/1)

- 0 Parameters    - Definition of installation specific parameters
- 1 TYPES        - Conversion table ENDEVOR-Type into NATURAL/PREDICT-Type
- 2 NATURAL      - ADABAS/NATURAL-Parameter for physical environment
- 3 SYSTEMFILE   - NATURAL Systemfile Definitions
- 4 PATH         - Sources/targets for ENDEVOR ADD/UPDATE and RETRIEVE
- 5 ENVIRONMENT - ENVIRONMENT/STAGE/SYSTEM definitions
- 6 CONVERSION   - Conversion table member into element

Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10---PF11---PF12---  
Check Help            End    Menu                            <<    >>



# Defining E/NAT parameters


## ADABAS/NATURAL environment

----- E/NAT-Interface      Version 2.1 -----

COMMAND ==> 2

Page 1 of 2

ADABAS/NATURAL-Parameter for physical environment

PO file		
ADABAS	NATURAL	NATURAL
Nr paramet.	module	Dynamic parameter
1	ADSV232	Onl. NAT#TO Bat. NAT#BA
2		Onl. Bat.
3		Onl. Bat.
4		Onl. Bat.
5		Onl.  Bat.

line 1 defines the  
initial environment

Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10---PF11---PF12---  
Check Help      End      Menu      -      +      <<      >>      OK

PF3

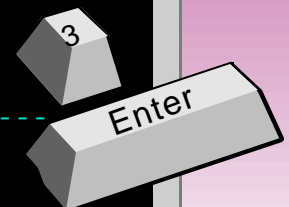


# Defining E/NAT parameters Systemfiles

----- E/NAT-Interface            Version 2.1 -----  
OPTION    ==> **3**            E/NAT Systemfile: **DEV (NATTS0/1)**

- 0 Parameters    - Definition of installation specific parameters
- 1 TYPES        - Conversion table ENDEVOR-Type into NATURAL/PREDICT-Type
- 2 NATURAL      - ADABAS/NATURAL-Parameter for physical environment
- 3 SYSTEMFILE   - NATURAL Systemfile Definitions
- 4 PATH         - Sources/targets for ENDEVOR ADD/UPDATE and RETRIEVE
- 5 ENVIRONMENT - ENVIRONMENT/STAGE/SYSTEM definitions
- 6 CONVERSION   - Conversion table member into element

Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10---PF11---PF12---  
Check Help            End    Menu                            <<    >>



# Defining E/NAT parameters Systemfiles

----- E/NAT-Interface                      Version 2.1 -----

COMMAND ==>> **3**

Page 1 of 2

## NATURAL Systemfile Definitions

Nr.	E/NAT ID	NATURAL		PREDICT		NATURAL table reference	Nr.	E/NAT ID	NATURAL		PREDICT		NATURAL table reference
		DBID	FNR	DBID	FNR				DBID	FNR	DBID	FNR	
1	PROD	8	19	8	11	1	11						
2	DEV	2	9	2	11	2	12						
3	TEST	3	9	3	11	2	13						
4	QA	4	9	4	11	2	14						
5	NLT	8	19	8	11	3	15						
6	GGR	8	19	8	11	3	16						
7							17						
8							18						
9							19						
10							20						

Enter **1** --- PF2 --- PF3 --- PF4 --- PF5 --- PF6 --- PF7 --- PF8 --- PF9 --- PF10 --- PF11 --- PF12 ---  
 Check Help                      End      Menu                      -                      +                      <<                      >>                      OK





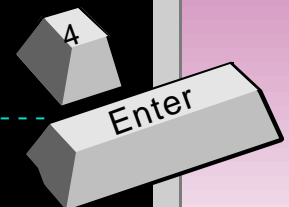
# Defining E/NAT parameters

## PATH definitions

----- E/NAT-Interface            Version 2.1 -----  
OPTION    ==>> 4            E/NAT Systemfile: DEV (NATTS0/1)

- 0 Parameters    - Definition of installation specific parameters
- 1 TYPES        - Conversion table ENDEVOR-Type into NATURAL/PREDICT-Type
- 2 NATURAL      - ADABAS/NATURAL-Parameter for physical environment
- 3 SYSTEMFILE   - NATURAL Systemfile Definitions
- 4 PATH         - Sources/targets for ENDEVOR ADD/UPDATE and RETRIEVE
- 5 ENVIRONMENT - ENVIRONMENT/STAGE/SYSTEM definitions
- 6 CONVERSION   - Conversion table member into element

Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10---PF11---PF12---  
Check Help            End    Menu                            <<    >>







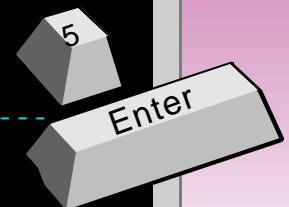
# Defining E/NAT parameters

## Environment/Stage/System definition

----- E/NAT-Interface            Version 2.1 -----  
OPTION    ==> 5            E/NAT Systemfile: DEV (NATTS0/1)

- 0 Parameters    - Definition of installation specific parameters
- 1 TYPES        - Conversion table ENDEVOR-Type into NATURAL/PREDICT-Type
- 2 NATURAL      - ADABAS/NATURAL-Parameter for physical environment
- 3 SYSTEMFILE   - NATURAL Systemfile Definitions
- 4 PATH         - Sources/targets for ENDEVOR ADD/UPDATE and RETRIEVE
- 5 ENVIRONMENT - ENVIRONMENT/STAGE/SYSTEM definitions
- 6 CONVERSION   - Conversion table member into element

Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10---PF11---PF12---  
Check Help            End    Menu                            <<    >>





# Defining E/NAT parameters

## Environment/Stage/System definition

----- E/NAT-Interface                    Version 2.1 -----

OPTION    ===> \_

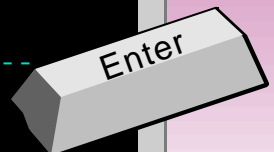
bl ank        - Di splay Envi ronment/Stage/System defi nitions  
C    Create - Define Envi ronment/Stage/System defi nitions  
K    Clone - Copy    all Envi ronment/Stage entries  
#    Delete - Delete all Envi ronment/Stage entries

ENVI RONMENT    ===>

STAGE NUMBER    ===>



Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10---PF11---PF12---  
Check Help                    End    Menu                    <<    >>





# Defining E/NAT parameters

## Environment/Stage/System definition

----- E/NAT-Interface                      Versi on 2. 1 -----

COMMAND ===>

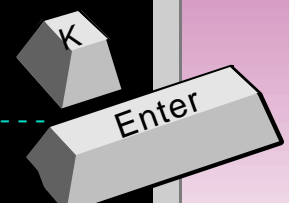
Page 1 of 1

ENVIRONMENT/STAGE/SYSTEM Defi ni ti on

		_____ Endeavor _____			_ NATURAL _		_ E/NAT _	
Nr.	Cmd	Envi ronment	StageNbr	System	Li brary	Fi le-Id		
1	K	PROD	1	FIN	EFIN	PROD		
2	_	PROD	2	FIN	PFIN	PROD		
3								
4								
5								
6								
7								
8								
9								
10								
11								
12								



Enter- PF1--- PF2--- PF3--- PF4--- PF5--- PF6--- PF7--- PF8--- PF9--- PF10--- PF11--- PF12---  
Check Help                      End    Menu                      -                      +                      <<                      >>                      OK





# Defining E/NAT parameters

## Environment/Stage/System definition

----- E/NAT-Interface                      Versi on 2. 1 -----

OPTION    ==> **K**

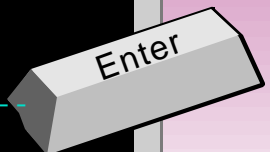
```
KLONE from ENVIRONMENT/STAGE  PROD    / 1
to     ENDEVOR Environment    EDUC
              Stage            1
         NATURAL Library                (opti onal)
         E/NAT  File Id                 (opti onal)
```

ENVIRONMENT    ==> **PROD**

STAGE NUMBER    ==> **1**



Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10---PF11---PF12---  
Check Help                      End    Menu                      <<    >>







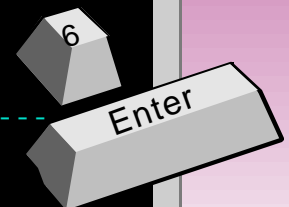
# Defining E/NAT parameters

## Member Conversion Table

----- E/NAT-Interface            Version 2.1 -----  
OPTION    ==> **6**            E/NAT Systemfile: **DEV (NATTS0/1)**

- 0 Parameters    - Definition of installation specific parameters
- 1 TYPES        - Conversion table ENDEVOR-Type into NATURAL/PREDICT-Type
- 2 NATURAL      - ADABAS/NATURAL-Parameter for physical environment
- 3 SYSTEMFILE   - NATURAL Systemfile Definitions
- 4 PATH         - Sources/targets for ENDEVOR ADD/UPDATE and RETRIEVE
- 5 ENVIRONMENT - ENVIRONMENT/STAGE/SYSTEM definitions
- 6 CONVERSION   - Conversion table member into element

Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10---PF11---PF12---  
Check Help            End    Menu                            <<    >>





# Defining E/NAT parameters

## Member Conversion Table - Select

----- E/NAT-Interface      Version 2.1 -----

OPTION    ===> **S**

- A Add             - Add a new conversion rule
- U Update         - Update an existing conversion rule
- D Display       - Display an existing conversion rule
- S Select         - Select conversion rule from a list
- L Unlock        - Unlock an unloaded rule which was locked during UNLOAD
- # Delete        - Delete an existing conversion rule


TYPE            ===> \_\_\_\_\_

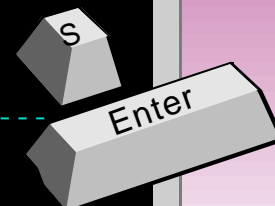
MEMBER         ===> \_\_\_\_\_

ELEMENT        ===> \_\_\_\_\_

ENDEVOR Options

DISPLAY LIST            ===> **Y**

Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---9---PF10---PF11---PF12---  
Check Help            End    Menu                            <<    >>







# Defining E/NAT parameters

## Member Conversion Table - Unlock

```

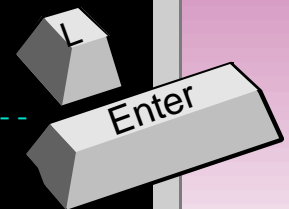
----- E/NAT Interface                               Version 2.1 -----
OPTION  ==> S                                         Page 1
S  TYPE      MEMBER                                ELEMENT      L LAST UPDATE
-  NATPGM    EXAMPL- 1                            EXAMPLE01    N YX00037    1997- 03- 04
-  PRDDA     PRODUCTION                            PROD         N YX00037    1997- 02- 23
-  PRDDA     DEVELOPMENT                          DEV          N YX00240    1996- 12- 14
-  PRDFI     EMPLOYEES                            EMPL         N YX00037    1997- 01- 18
-  PRDKY     VERSION210Beta                       V210BETA    N YX00037    1997- 03- 04
-  PRDPR     FINANCE_MAINMENU                      FINMAINMEN  N YX00037    1997- 03- 04
-  PRDSY     FINANCE                              FIN          N YX00037    1997- 03- 04
-  PRDSY     MARKETING                            MKT          N YX00037    1997- 03- 04
-  PRDSY     REVISION                             REV          N YX00037    1997- 03- 04
-  PRDSY     SECURITY                             SEC          N YX00037    1997- 03- 04
-  PRDUS     DOUGLAS_STEVE                        P#00024965  Y YX00050    1997- 02- 07
L  PRDUS     PETERSON_RON                        P#00017934  Y YX00050    1997- 02- 07
-  PRDUS     REYNOLDS_BURT                       P#00048321  Y YX00050    1997- 02- 07
-  PRDUS     STEVENSON_EDGAR                     P#00056109  Y YX00050    1997- 02- 07
-  PRDVE     DATE_IN_FUTURE                          DT#FUTURE   N YX00240    1997- 03- 03
----- - DISPLAY LIST ==> Y
S:  *          *          *

```

```

Enter- PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10--PF11--PF12---
Check Help          End   Menu          <<   >>

```







# Member Conversion Table

## Adding Entries

**There are four ways to add entries to the Member Conversion Table:**

- prepared by administrator
  - he adds entries with online functions or
  - he edits a PDS offline in TSO which can be loaded with the LOAD MCT utility or
  - by executing a NATURAL program which adds entries using the appropriate E/NAT entry subprogram
- by user
  - when prompted during the very first ADD processing for a member with a name longer than 10 characters but without an existing MCT entry ...

# Member Conversion Table

## Adding Entries - User prompt

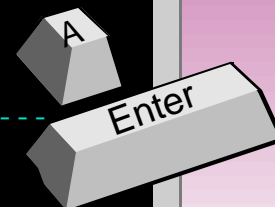
----- E/NAT-Interface Version 2.1 -----  
COMMAND ==> SELMEM PREDICT USER 8 / 11

FROM Path: NV22 Library: YX00037 Member: S\* Fmt:  
TO Environment: DEV Stage: 1 System: MKT Subsys: PERS

M	MEMBER	ELEMENT	TYPE	COMMENT
	SALAMA_TIMOTHY	P#00000213	PRDUS	
A	SMITH_MARTIN		PRDUS	
	SWANSON_HARRY	P#00036986	PRDUS	



Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10---PF11---PF12---  
Check Help End Menu - + << >>



# Member Conversion Table

## Adding Entries - User prompt

```
-----  
                          Add a new MCT Entry for member  
-----  
TYPE      : PRDUS  
ELEMENT   : P#00016939  
MEMBER    : SMITH_MARTIN  
MCT COMMENT: _____  
Note: Leaving the requested information blank will  
cancel this active action request!  
Specification of a MCT comment is optional.  
NT  
Fmt:  
Subsys: PERS  
A  
SWANSON_HARRY                P#00036986 PRDUS
```

```
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10---PF11---PF12---  
Check Help      End      Menu      -      +      <<      >>
```

Enter



# Summary

## The main advantages



# Main advantages

- **Completely integrated solution for 3GL and NATURAL/PREDICT**
- **High security**
- **Optimum performance**
- **Flexibility due to user exits**
- **Backout functionality**
- **Automatic compliance with NATURAL conventions and requirements**



# Main advantages

- **Prepared for Year 2000**
- **Easy to install**
- **no need for additional training**
  - same menu branches as CA-Endevor
  - same selection codes as CA-Endevor
  - same features as CA-Endevor
  - same look and feel



# How to get Further Information



# Further Information

- **Presentation in your office**
  - answers on additional questions
- **Product Information Sheet**
- **Questions & Answers document**
- **Test installation**
- **Send your questions and you'll get our answers ...**



# Further Information

## ATLANTIS

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# Further Information

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**Please contact our head office.**

**Computer Associates:**

**Please contact your local CA office.**



# The End

 Restart