TM

BYPASS2000
Product Storyboard

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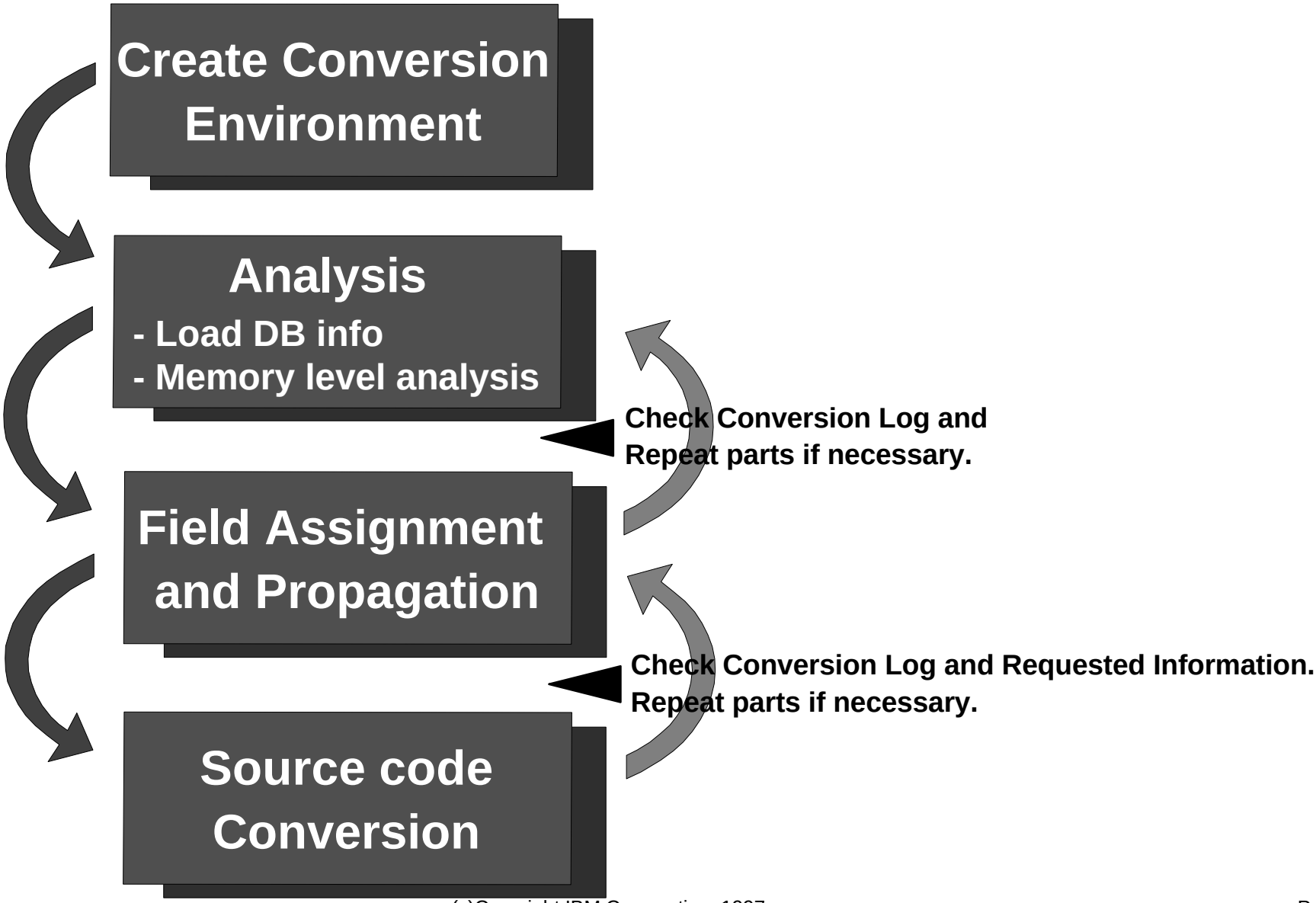
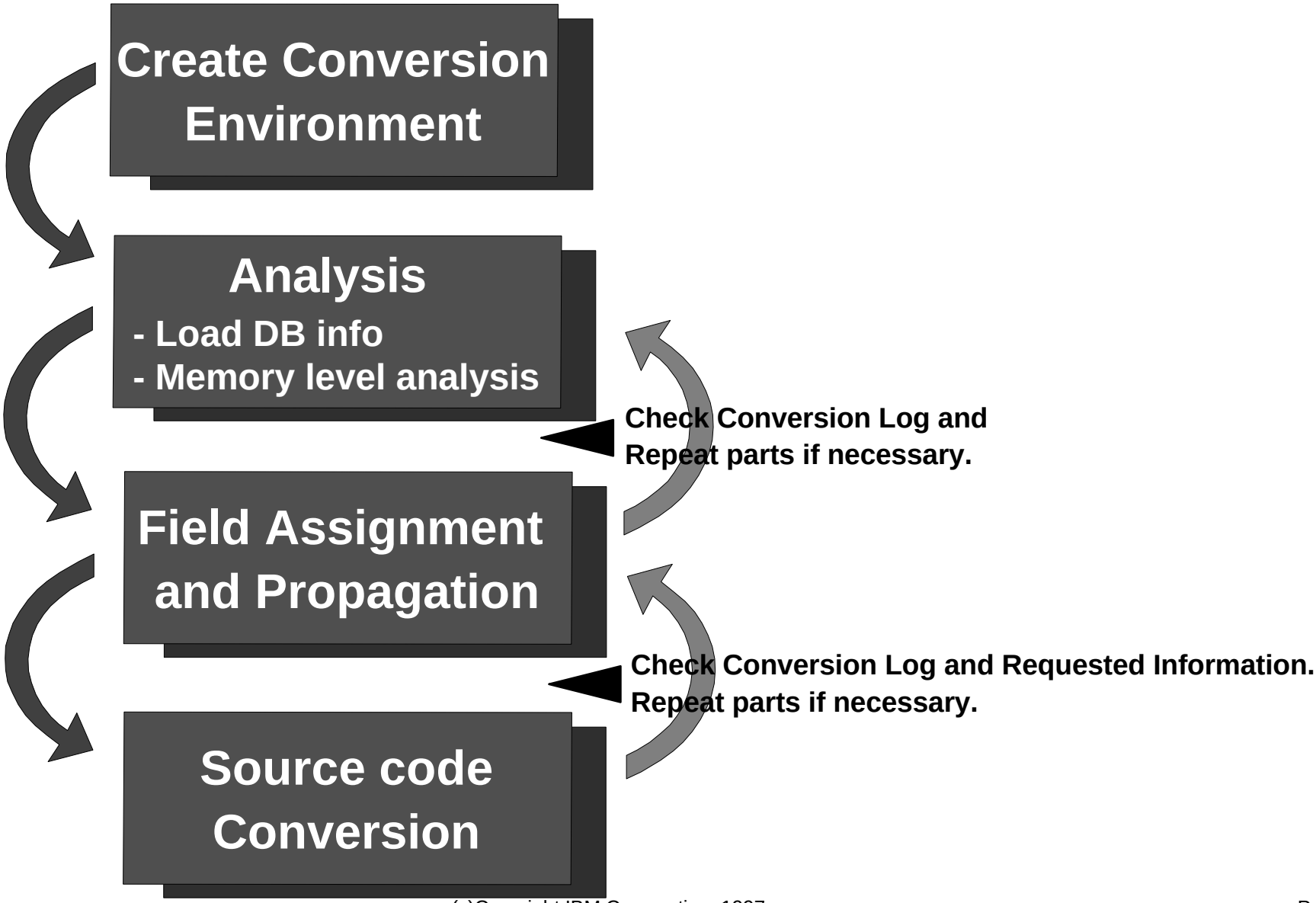
The Conversion Process



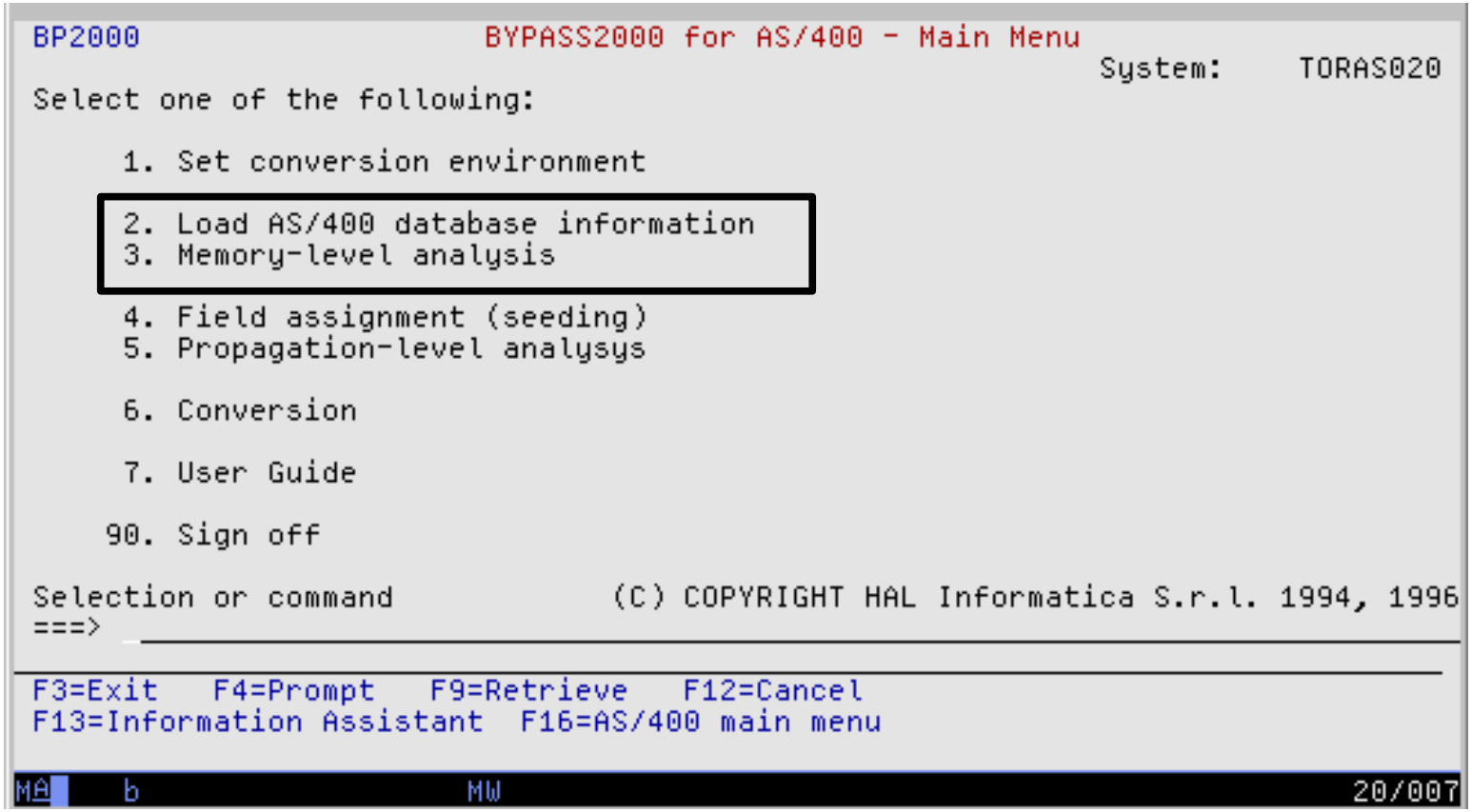
Create Conversion Environment

- Create an identifier for this environment
- Identify to BYPASS2000 what is to be converted in this environment
  - Program source files
  - File objects (PF, LF, DSPF, PRTF)
  - DDS source
- Once an environment is created, use the library name set up for this conversion environment ID when starting BP2000
  - BP2000 MYENVDB

The Conversion Process



Analysis



The step we have called "Analysis" is actually identified as 2 steps in BP2000:

- Load DB Information
- Memory Level Analysis

The Analysis Phase

Analysis creates a network model of the application

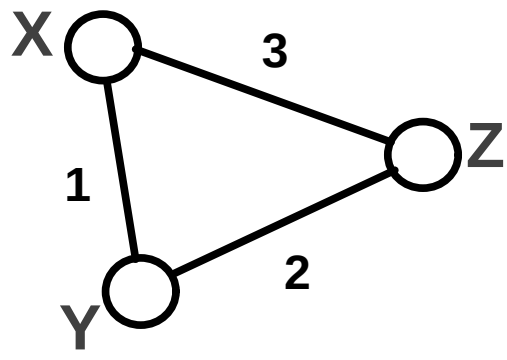
Network is made of:

- Nodes - the fields declared in the application
- Links - the relationship between nodes

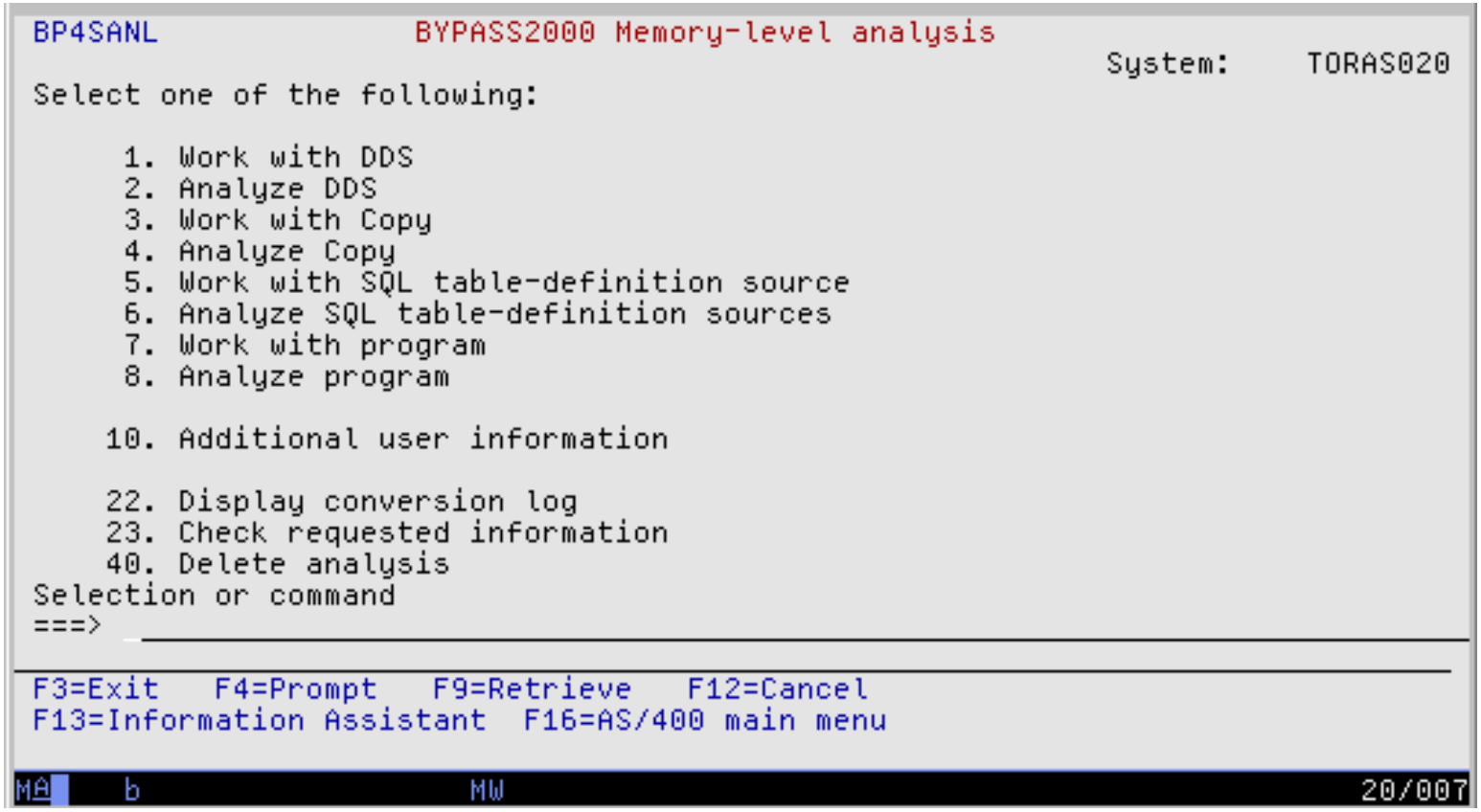
Analysis process: for ***all*** fields and instructions

- Analyze all data declarations creating nodes
- Analyze instructions to create links between nodes

```
I                                1  6   X
I                                7  9   Y
I                               10 12   Z
C           MOVE X     Y
C           MOVELY     Z
C       X   IFEQ       Z
```



Memory Analysis



Memory analysis is done in 4 parts:

- DDS
- Copy members
- SQL table definition source
- Program source

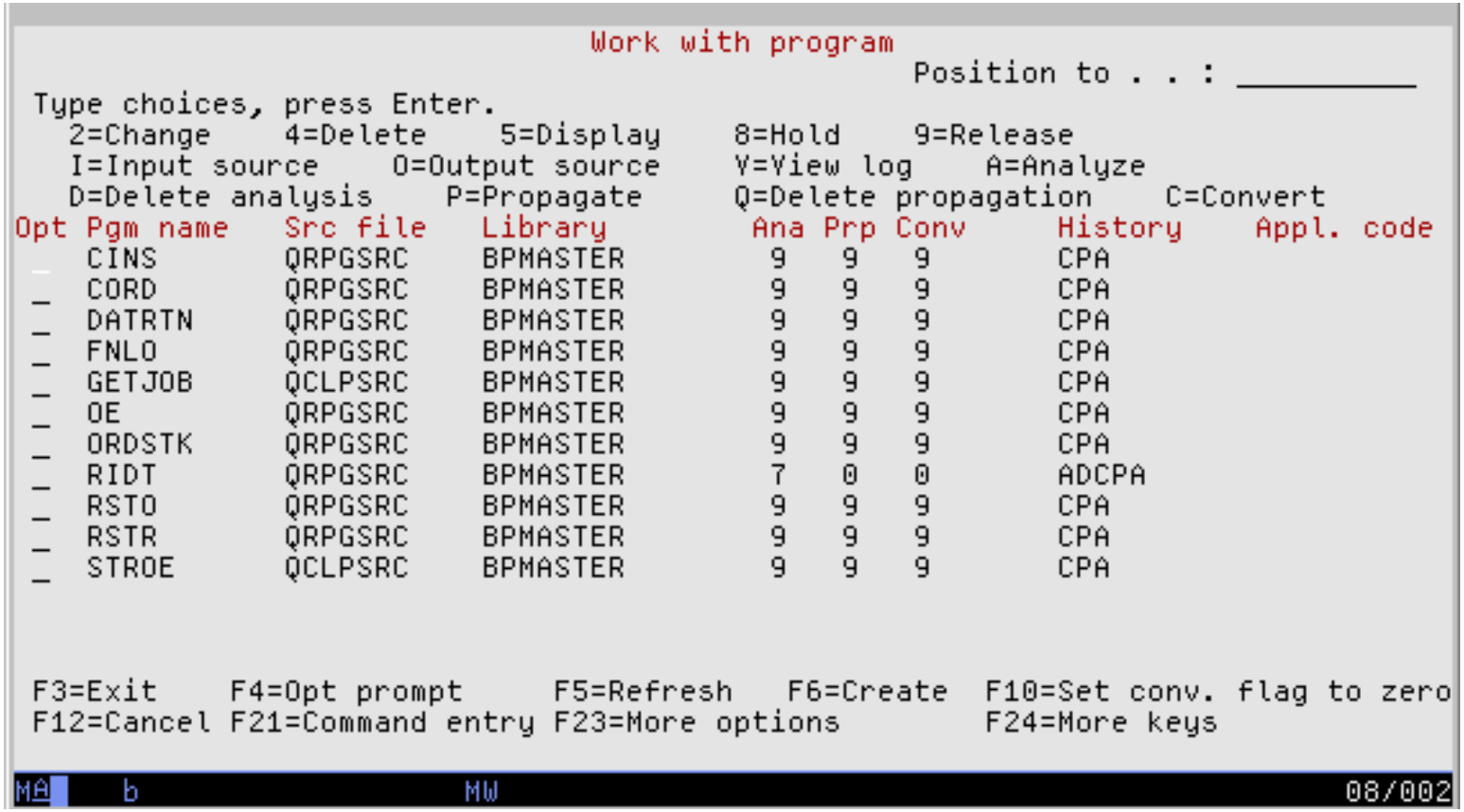
Memory Analysis: Work With

```
                                Work with DDS
                                                Position to . . : __________
 Type choices, press Enter.
   2=Change     4=Delete     5=Display     8=Hold     9=Release
   I=Input source     O=Output source     V=View log
                        A=Analyze     D=Delete analysis     C=Convert
Opt DDS   name                Library           Analy. Conv Typ  History     Appl. code
 _  CUSTOMER                  BPMASTER            9        9       CA
 _  DAT_DES                   BPMASTER            9        9       CA
 _  ORDERDTL                  BPMASTER            9        9       CA
 _  ORDERHDR                  BPMASTER            9        9       CA
 _  SALESCUS                  BPMASTER            9        9       CA
 _  STOCK                     BPMASTER            9        9       CA










 F3=Exit     F4=Opt prompt      F5=Refresh     F6=Create   F10=Set conv. flag to zero
 F12=Cancel F15=Include new member             F21=Command entry     F24=More keys

MA     b                   MW                                                 08/002
```

Use the "Work with" option to monitor the progress of the analysis

The status of the various files will be reflected on this screen

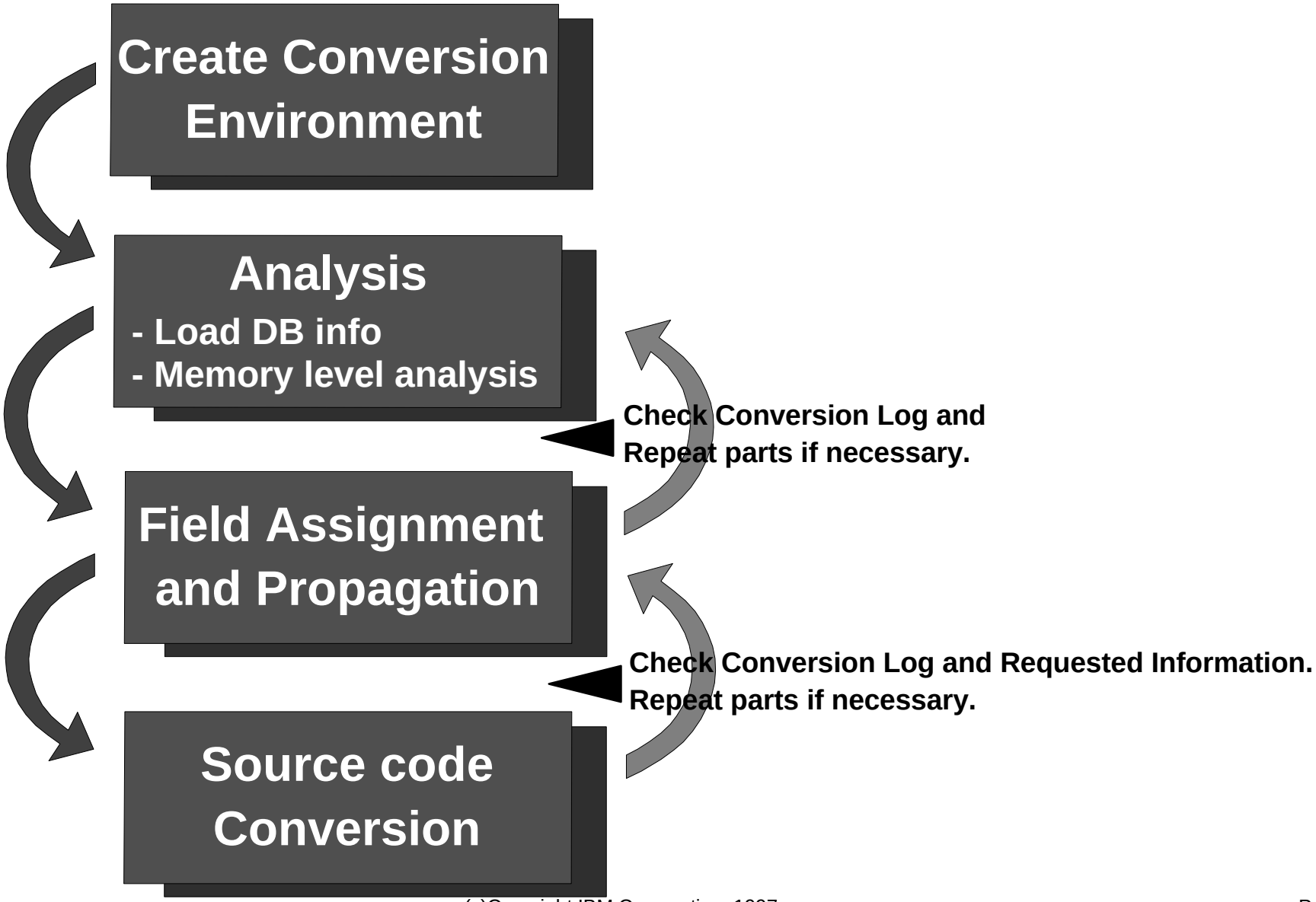
Memory Analysis: Work With



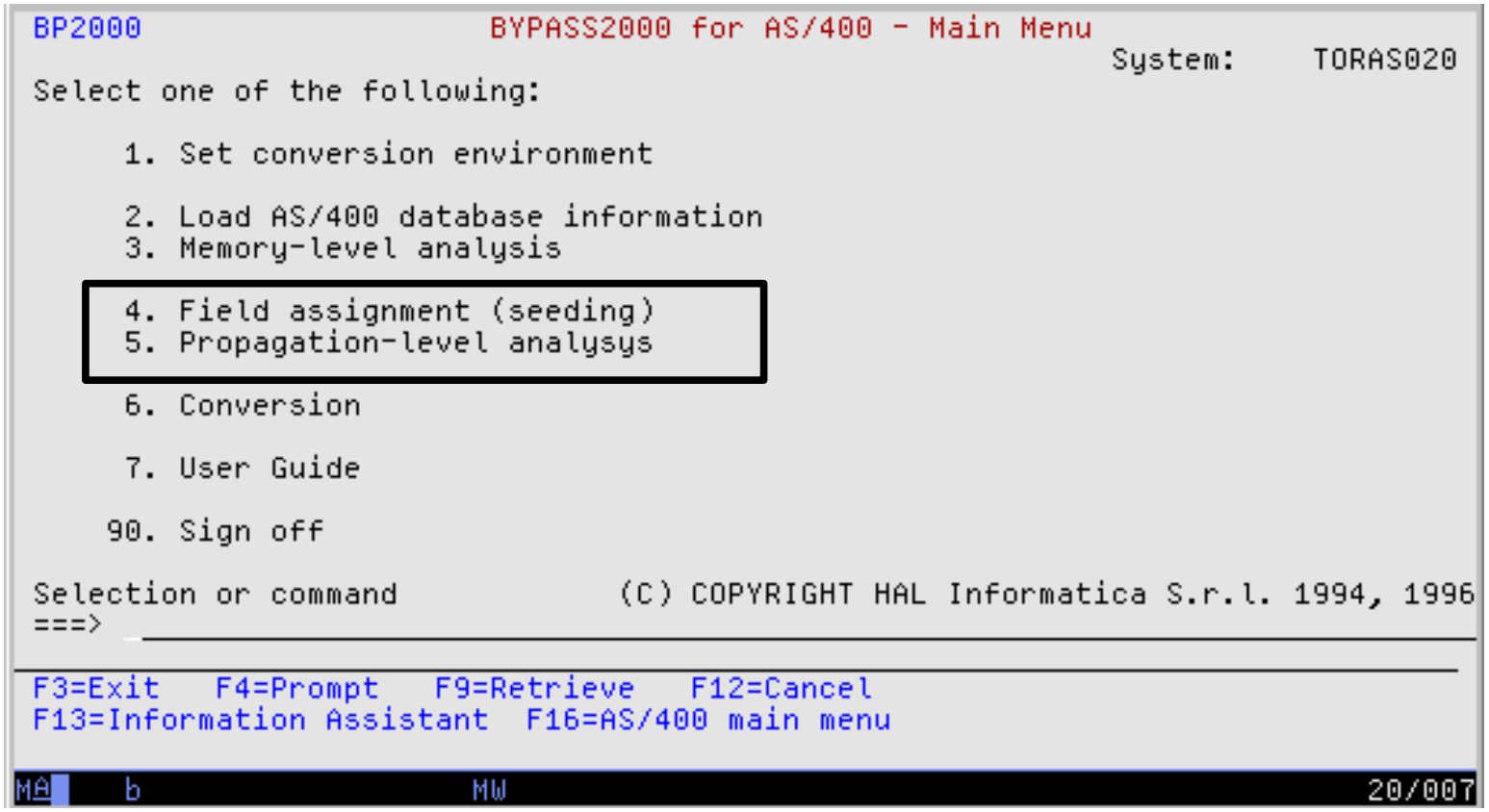
"Work with" also allows selective analysis for individual files, programs, etc..

- Useful when:
  - Components need to be re-analyzed or
  - New files or programs have been "discovered" and must be added to the environment

The Conversion Process



Date Field Assignment



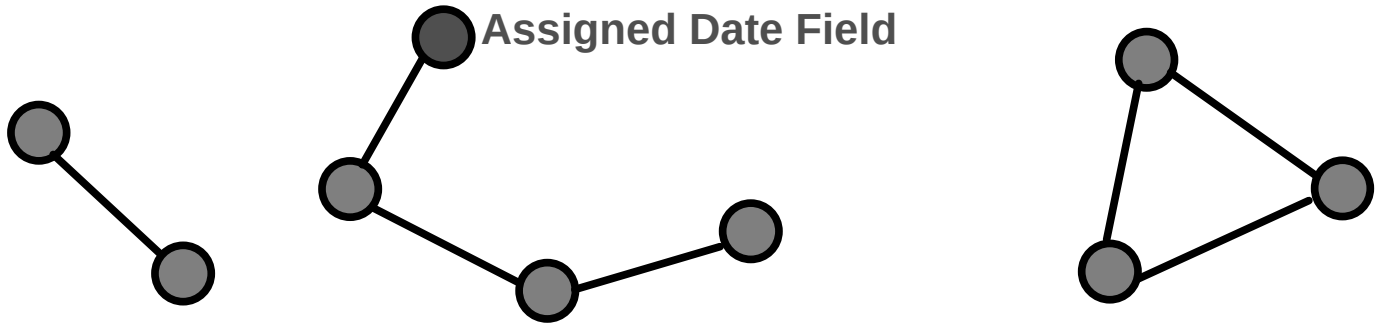
This step involves 2 options from the main menu:

- Field assignment
- Propagation level analysis

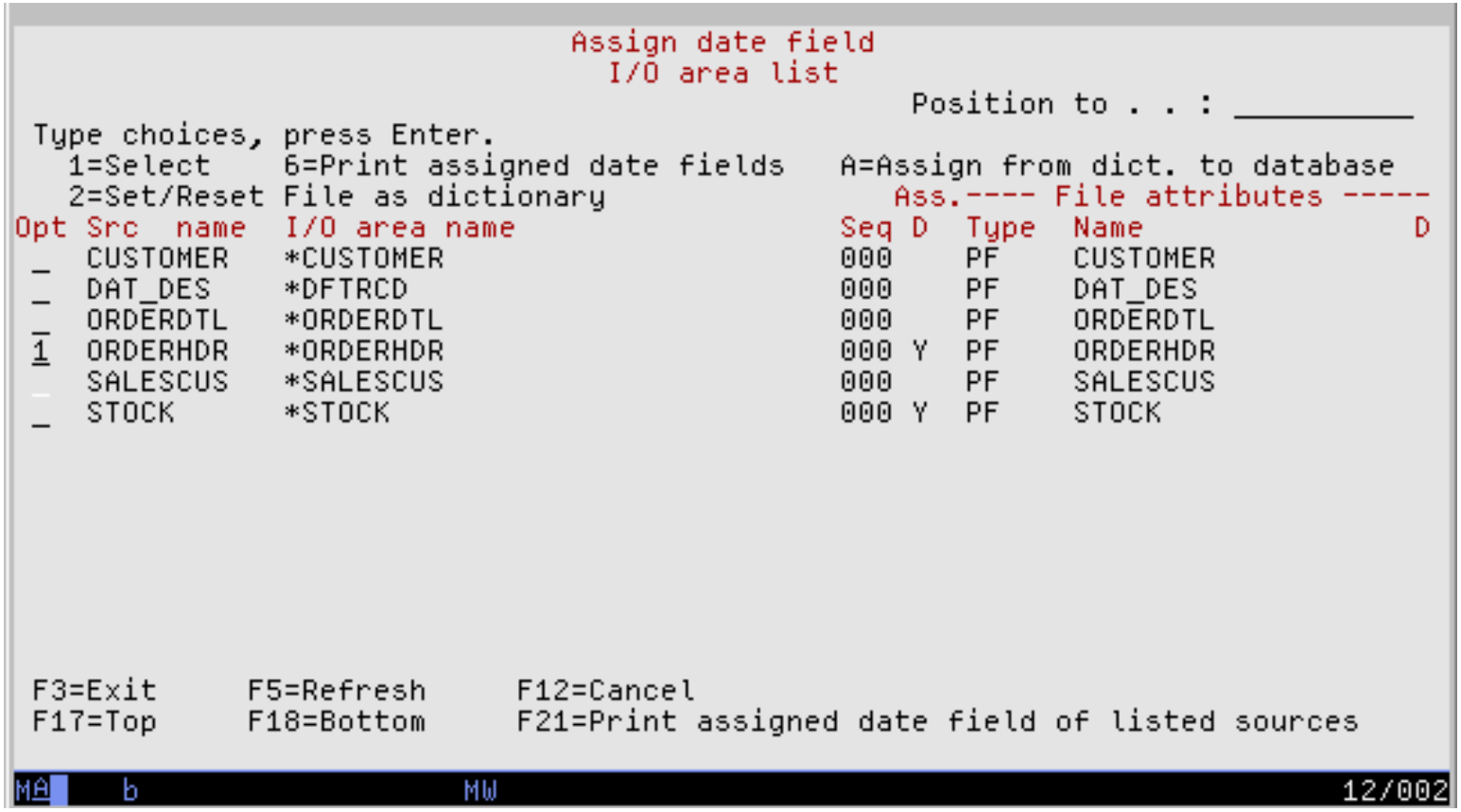
Date Field Assignment

Assigned fields are flagged nodes

- Identify fields than contain dates and their formats
- Typically, only database fields are assigned
- Other fields may be assigned, but requires much more work on the user's part

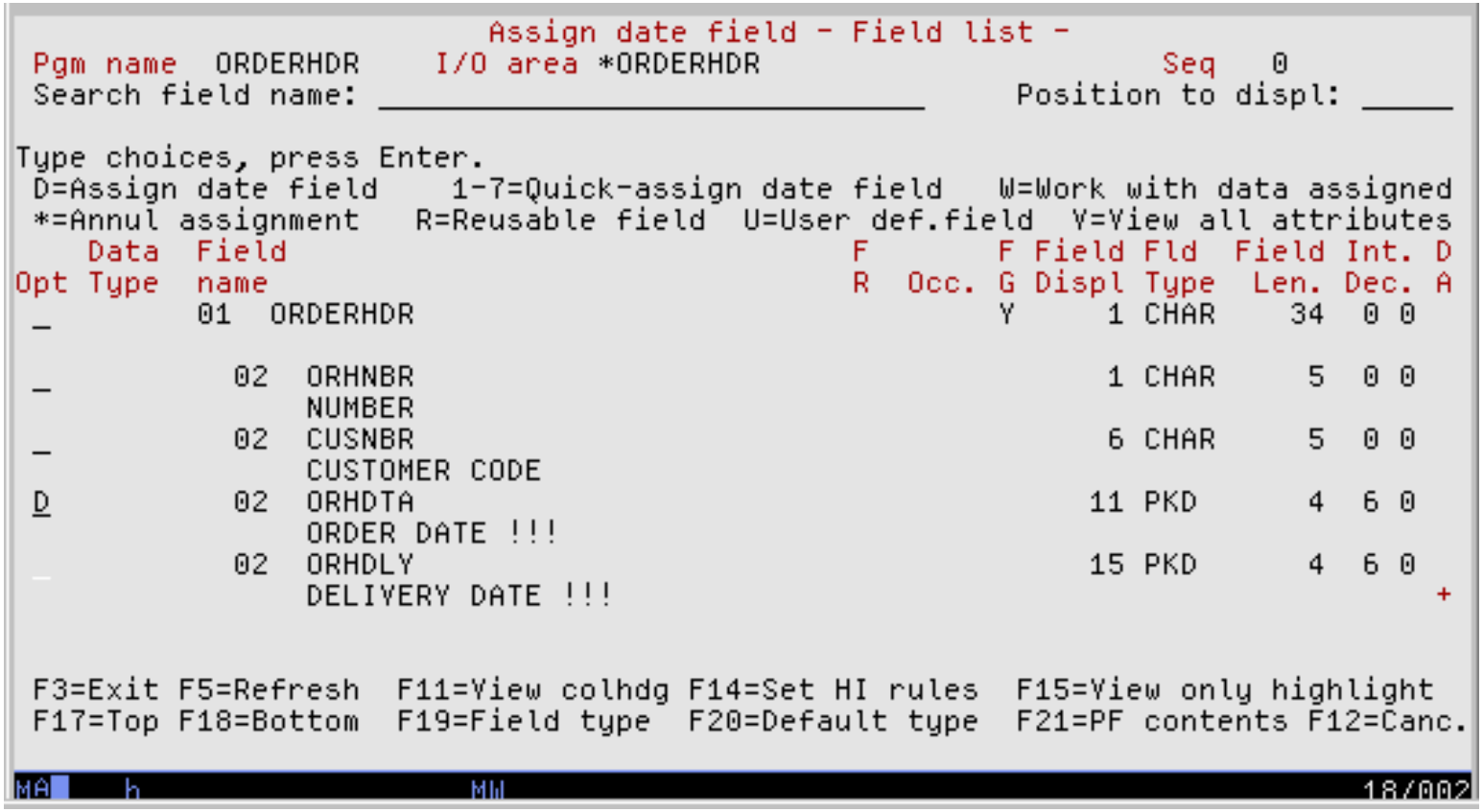


Date Field Assignment



Select the files from a list of files in your environment

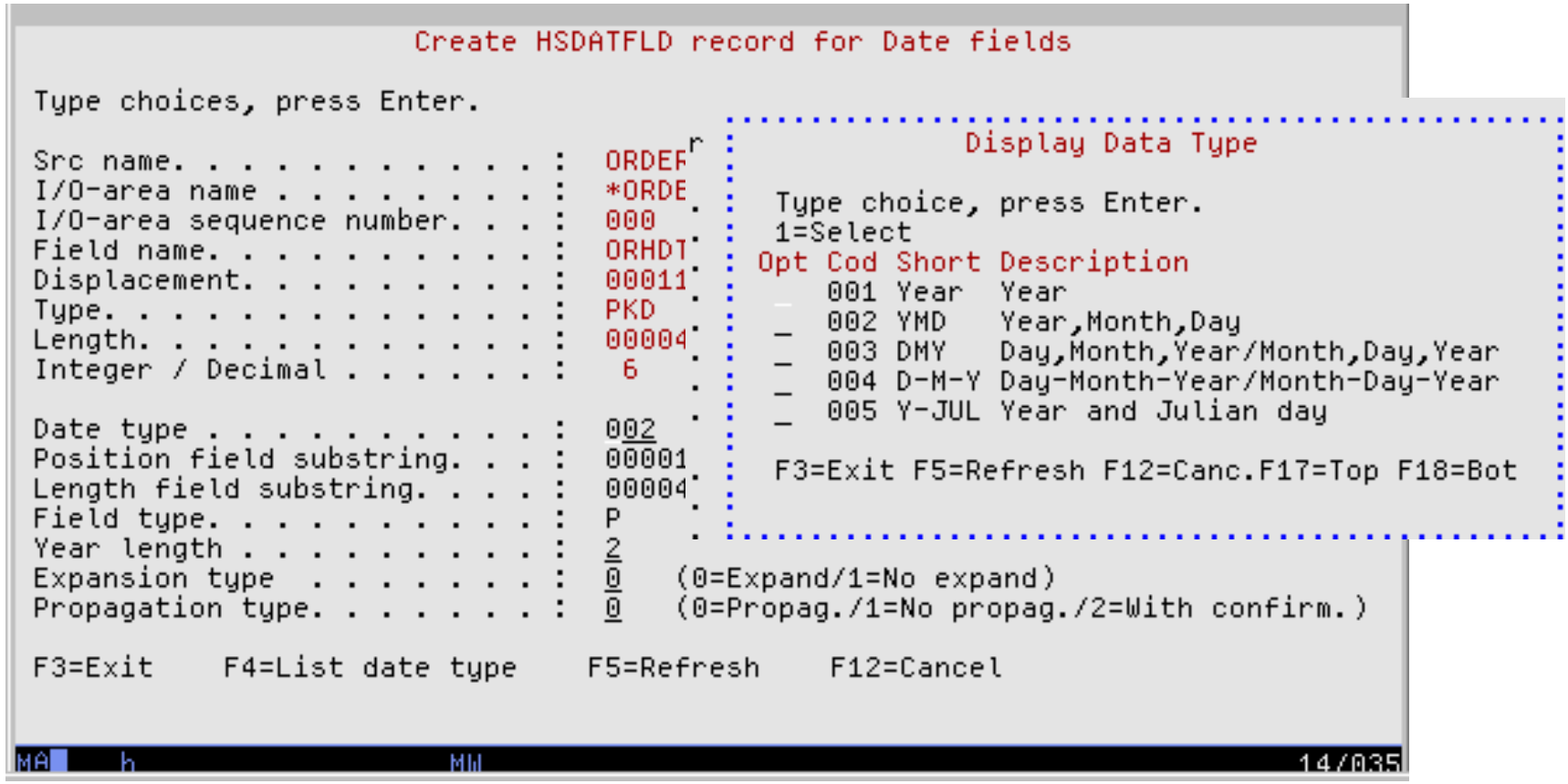
Identifying Date Fields



From the list of fields, find the date fields

- Also identify the format of each date
- F21 to see the data in the file
  - May help to confirm dates and formats

Date Field Details

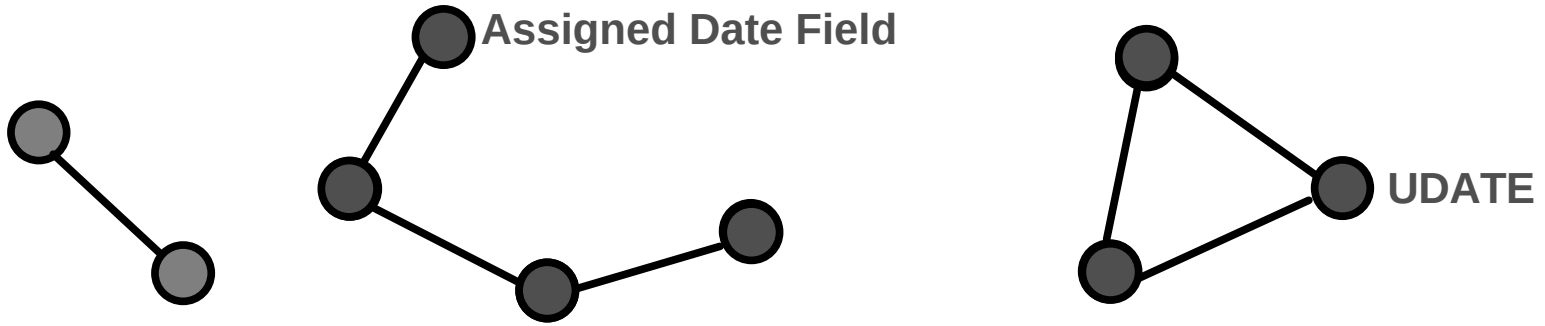


To assign a date field, provide a date type code

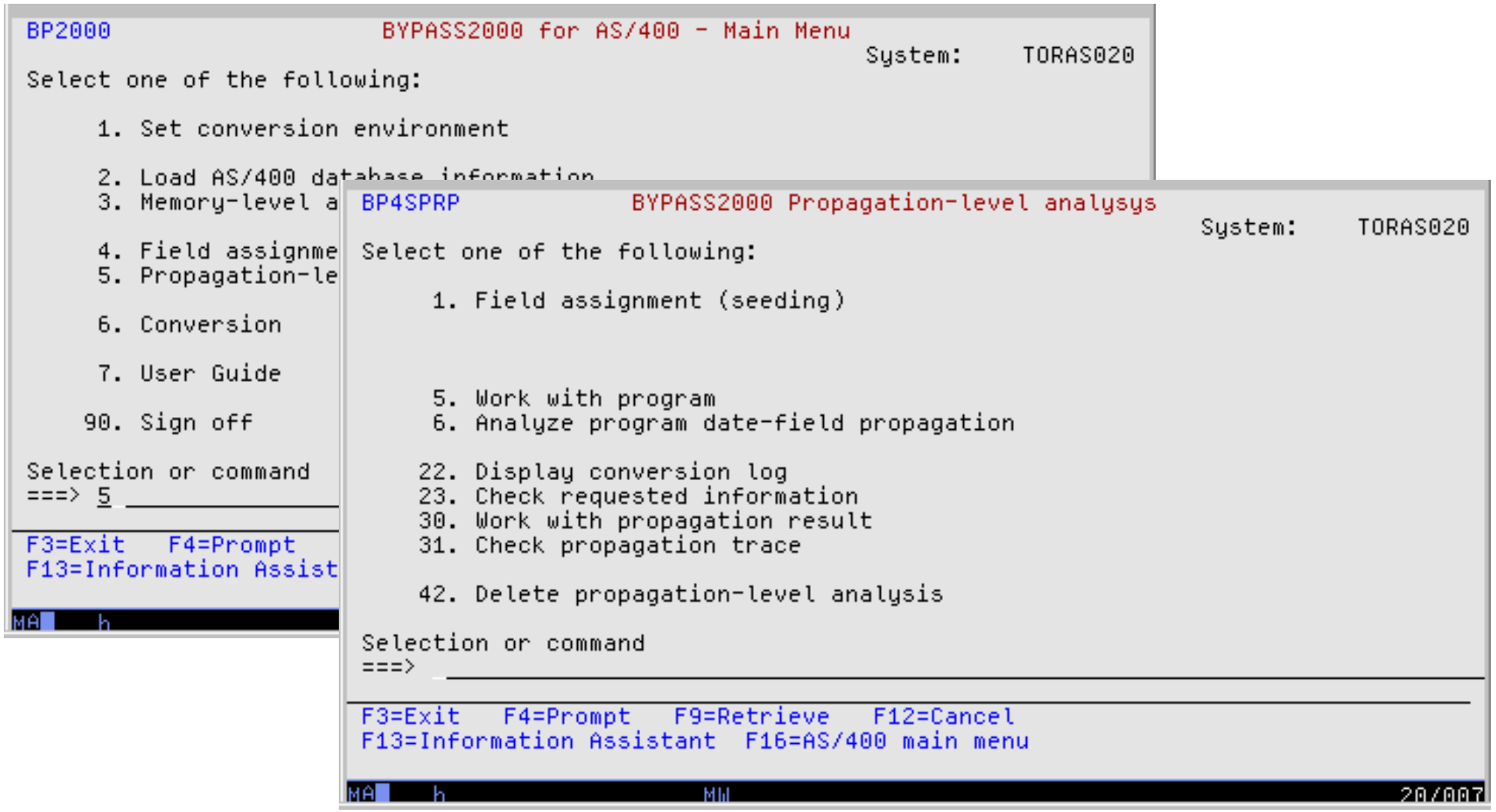
- Prompt (F4) for a list of formats supported
- Typically, the rest of the parameters may be default

Propagation

- The purpose of the propagation phase is to flag all the nodes linked to assigned date fields
  - Some date fields are "pre-assigned" by BYPASS
    - System date fields, such as UDATE
- BYPASS2000 already has the network of nodes and links in its repository database
  - Using the date assignments, BYPASS can search for and flag the rest of the date impacted fields
    - This process is called Propagation



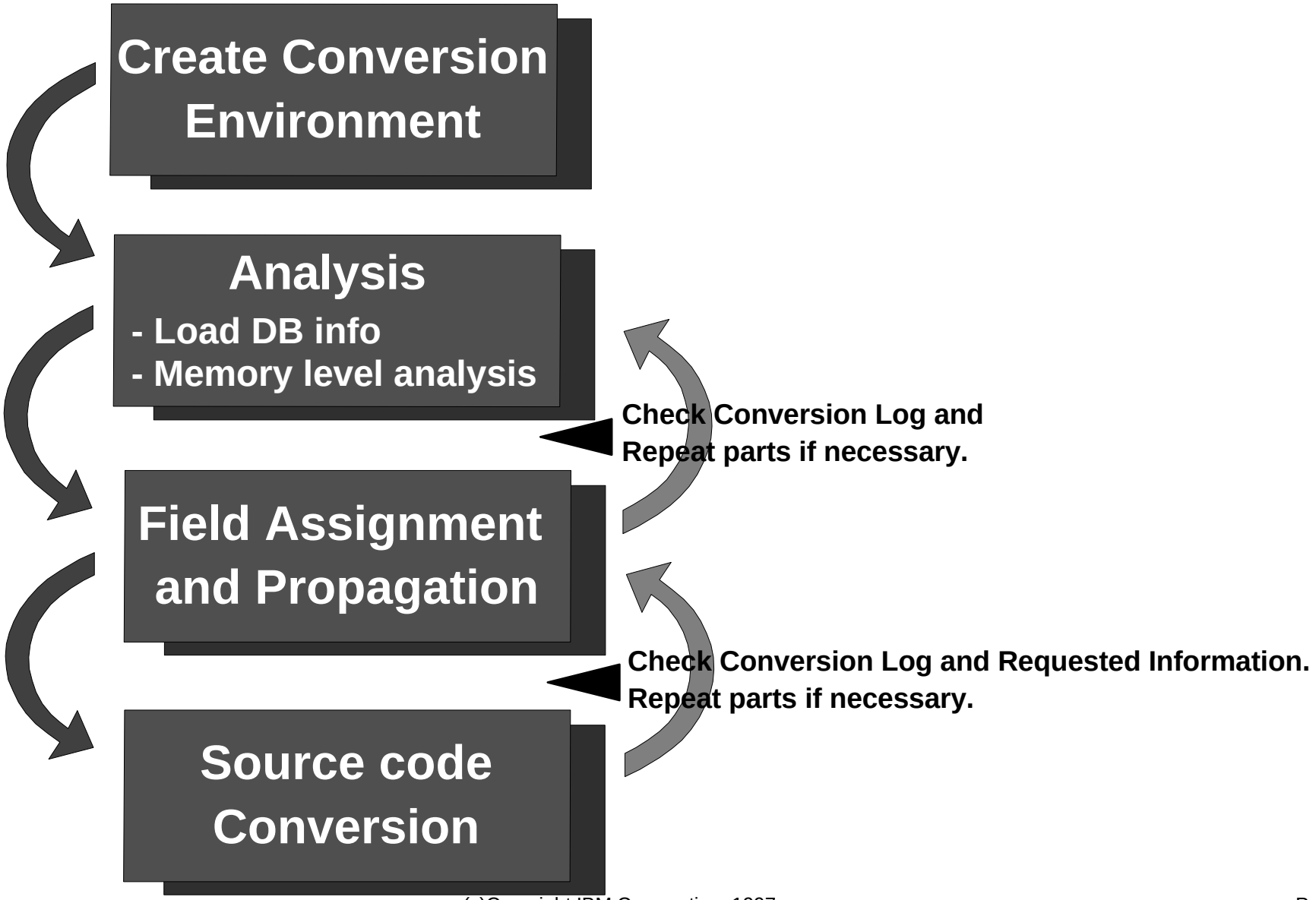
Propagation



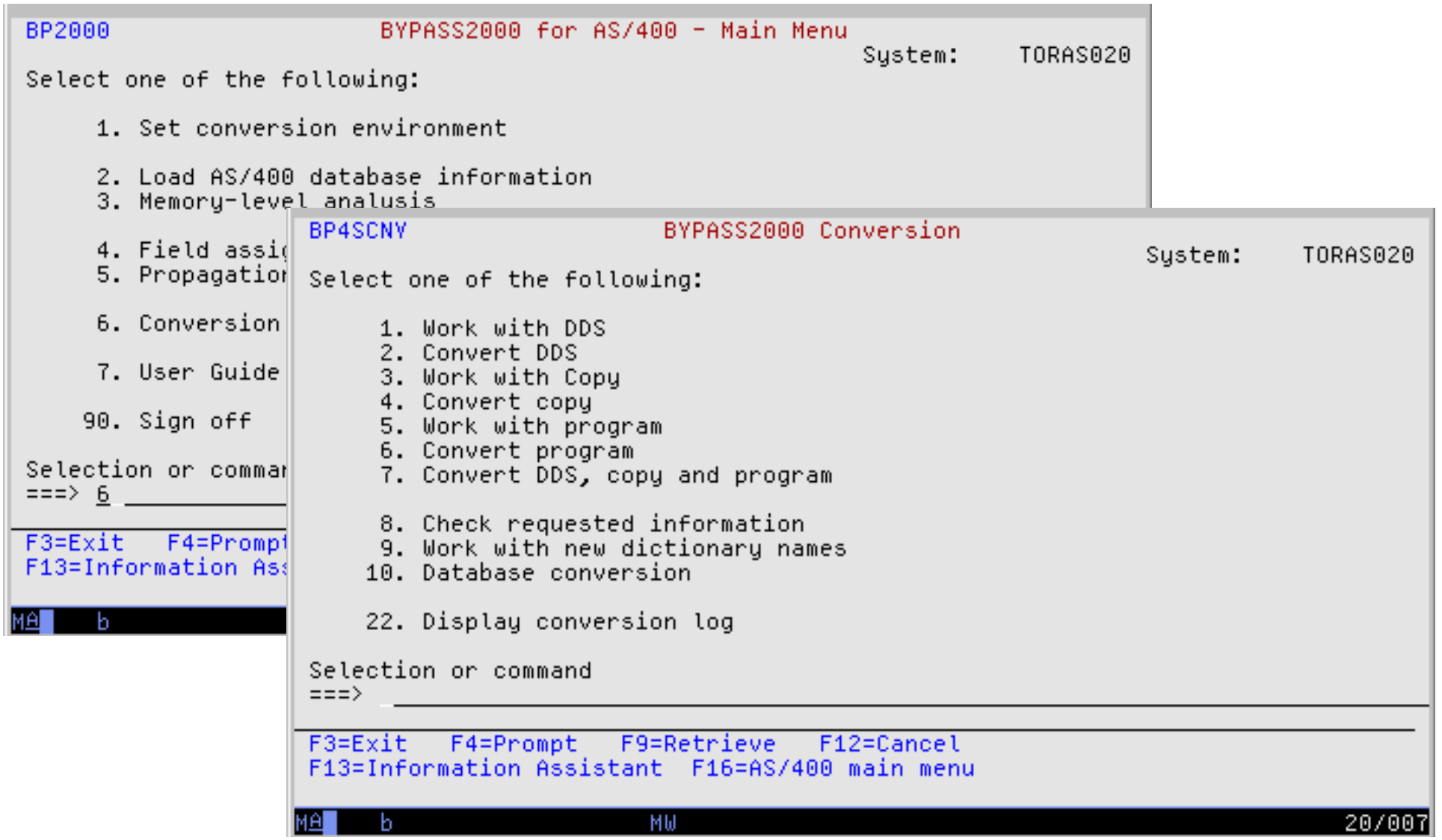
Propagation has its own menu

Note "Work with" and "Analyze propagation" options

The Conversion Process



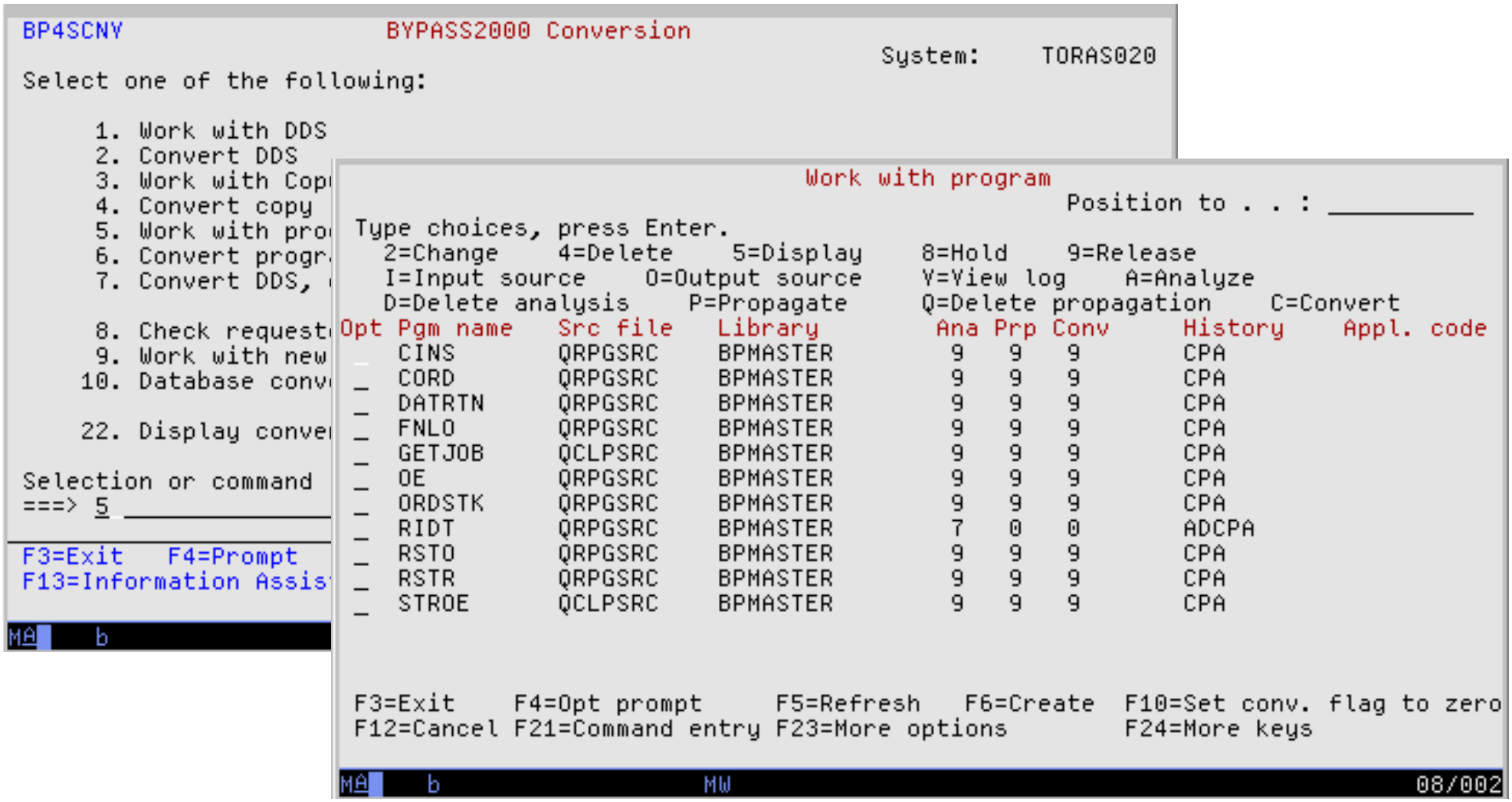
Conversion Process



The Conversion process has its own sub-menu

- Note the "Work with" and "Convert" options

Conversion Process



Use "Work with" options to convert specific ones

- Or to monitor progress
- Or to look at output source (option O)

Database Conversion

```
BP4DBCNY              BYPASS2000 Database conversion
                                                    System:    TORAS016
Select one of the following:

     1. Work with file

     2. Create migration program
     3. Create migration-dispatcher program

     4. Create test migration program
     5. Create test migration-dispatcher program

     6. Create DIM program
     7. Create DIM dispatcher program


    22. Display conversion log

Selection or command
===>

F3=Exit    F4=Prompt    F9=Retrieve    F12=Cancel
F13=Information Assistant  F16=AS/400 main menu
Type option number or command.
```

- Generates data migration programs for changed files
  - Expands 2 digit years to 4 digit years using windowing logic
  - Migration dispatcher program generates CLP to run migration
  - Can also generate test data and DIM programs

Conversion Results

DATE1 receives current date. APP is year portion of DATE1. DATE2 is new date.

```
C                   MOVE UDATE      DATE1   60
C                   MOVE DATE1      APP     20
C                   ADD  1          APP
C                   MOVELDATE1      DATE2   60
C                   MOVE APP        DATE2
```

DATE1 expanded. UDATE to *DATE. APP, DATE1 and DATE2 expanded.

```
B2REM ****************************
B2REM ****  CONVERSION START  ***
B2REM ****************************
B2OLDC*                     MOVE UDATE      DATE1   60
B2MODC                      MOVE *DATE      DATE1   80
B2REM ****************************
B2REM *****  CONVERSION END  ****
B2REM ****************************
B2MODC                      MOVE DATE1      APP     40
B2000C                      ADD  1          APP
B2MODC                      MOVELDATE1      DATE2   80
B2000C                      MOVE APP        DATE2
```

Conversion Results

```
C                   MOVELDATE2      DRHDLY
    ...     ....    ....    ....

C                   MOVE DRHDTE     ORHDTA
```

DATE2 is work field in program.
DRHDLY is display field.
DRHDTE is display field.
ORHDTA is database field.

008 - 8 Digit date
P - Packed
3 - Date Format 3

006 - 6 Digit date
N -Zoned
3 - Date Format 3

Windowing logic (add/remove century) added when moving to/from Display fields.

```
B2REM ****                      ******
B2OLDC*                         MOVELDATE2      DRHDLY
B2NEWC                          MOVE '008P3'    HB2@FA
B2NEWC                          MOVE DATE2      HB2@F
B2NEWC                          MOVE '006N3'    HB2@TA
B2NEWC                          EXSR HB@RMV                 RMV CENTURY
B2NEWC                          MOVE HB2@T      DRHDLY
B2REM **                        *****

B2REM *****                     *******
B2OLDC*                         MOVE DRHDTE     ORHDTA
B2NEWC                          MOVE '006N3'    HB2@FA
B2NEWC                          MOVE DRHDTE     HB2@F
B2NEWC                          MOVE '008P3'    HB2@TA
B2NEWC                          EXSR HB@ADD                 ADD CENTURY
B2NEWC                          MOVE HB2@T      ORHDTA
B2REM ****************************
```

Conversion Results

```
FSTOCK   IF  F      48            DISK
FQPRINT  O   F     132            PRINTER
ISTOCK   AA
I                                      1   5 PROD
I                                      6  25 DESC
I                                   P  34  360CURQTY
I                                   P  46  480MINQTY
C                    READ STOCK                    90
C           *IN90    IFEQ '1'
C                    SETON                     LR
C                    RETRN
C                    ENDIF
C           CURQTY   IFLE MI
C                    EXCPT
C                    ENDIF
OQPRINT  E
O
O                                                E
```

Program described data.
No dates in program.
Field names different from DDS definition.

```
B2MODFSTOCK   IF  F      49            DISK
     FQPRINT  O   F     132            PRINTER
     ISTOCK   AA
     I                                      1   5 PROD
     I                                      6  25 DESC
B2MODI                                   P  35  370CURQTY
B2MODI                                   P  47  490MINQTY
     C                    READ STOCK                    90
     C           *IN90    IFEQ '1'
     C                    SETON                     LR
     C                    RETRN
     C                    ENDIF
     C           CURQTY   IFLE MINQTY
     C                    EXCPT
     C                    ENDIF
     OQPRINT  E
     O                                 PROD      10
     O                                 DESC      40
```

Record length increased, field from/to positions adjusted for longer record length due to expanded date field in record.

Conversion Results

```
***** PARM BLOCK FOR  DATE ROUTINE ********
IMYDATA      DS
I                                        1   1 P1
I                                        2   70P2
I                                        6   70P2INC
I                                        8  100P3
 ************************************************
C           *ENTRY    PLIST
C                     PARM           MYDATA
C                     SELEC
C           P1        WHEQ 'Y'
 * INCREMENT YEAR BY 1
C                     ADD  1         P2INC
C           P1        WHEQ '
C                     SETON
C                     ENDSL
C                     RETRN
```

BYPASS2000 finds date in DS passed as parm into this program. No other indication of dates .

BYPASS2000 enlarges DS subfield containing the year.

```
      IMYDATA      DS
     I                                        1   1 P1
B2MODI                                        2   90P2
B2MODI                                        6   90P2INC
B2MODI                                       10  120P3
      ************************************************
     C           *ENTRY    PLIST
     C                     PARM           MYDATA
     C                     SELEC
     C           P1        WHEQ 'Y'
      * INCREMENT YEAR BY 1
B2000C                     ADD  1         P2INC
     C           P1        WHEQ 'X'
     C                     SETON                     LR
     C                     ENDSL
     C                     RETRN
```