



Take a good look at your system ... with *CHART*

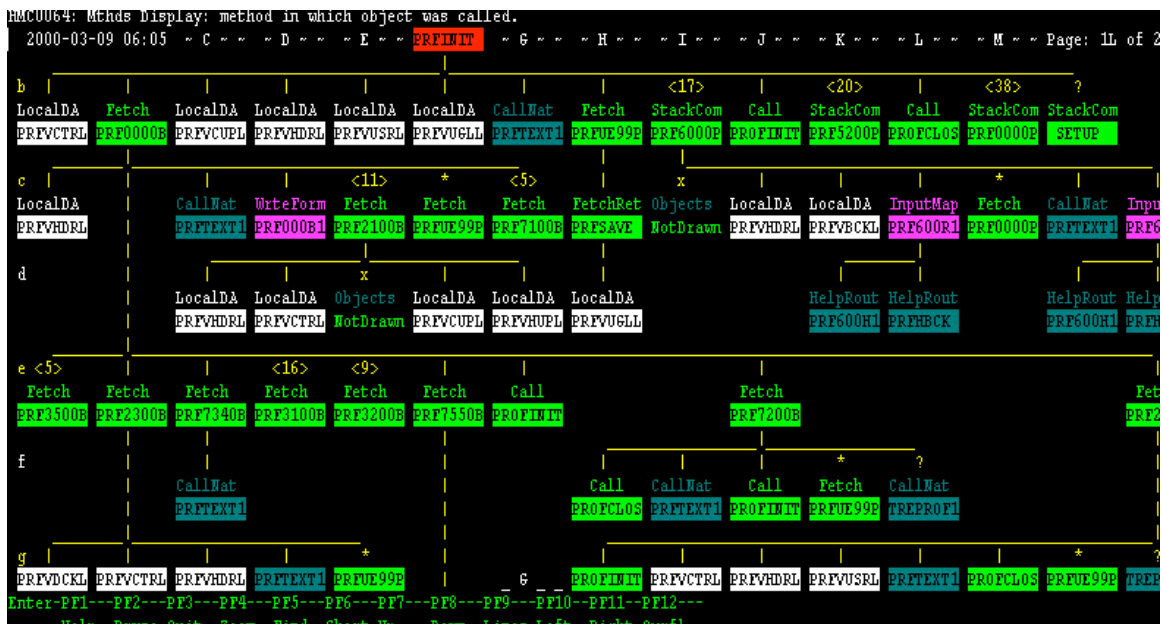
Tired of searching through Natural objects and XREF to find what calls what ?
Tired of moving from library to library to analyse your application system ?
Tired of drawing program structure charts by hand or on PC packages ?
And re-drawing them after any logic changes ?

Would you like a tool that draws a program chart for you, on-line, in seconds ?
Would you like a tool that documents your system automatically, with no mistakes ?
Across all your step libraries at once ?

If the answer is **YES** to any of these questions, then you need *CHART*.

CHART documents applications written in any version of Natural.
Type in an object name, choose any object types to be excluded,
and *CHART* will draw the program chart for you.

New Features and Changes for *Version 3.1F*



New Features and Changes for CHART Version 3.1F

- CHART Version 3.1F is faster and more efficient. Online CHARTs are now drawn up to 35% faster than in CHART Version 2.3E. In batch, CHART Version 3.1F uses up to 34% less CPU time and up to 22% less elapsed time than CHART Version 2.3E;
- CHART Version 3.1F supports large screen displays. While the normal 24x80 mainframe screen is commonly used, many terminal emulators now support the larger screen sizes: 32x80, 43x80, and 27x132. CHART now automatically detects the use of the larger screen displays and adjusts its own display to show you as much as possible;

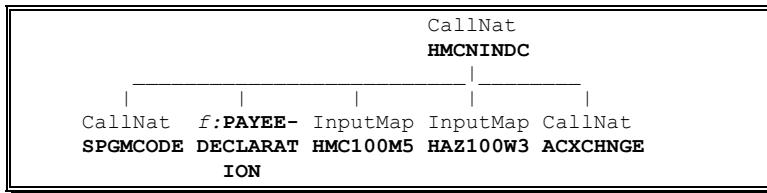
```

HMC0029: Press PF12 to view Objects with Descendants NOT Drawn.
2001-05-09 09:04 ~ C ~ ~ ~ D ~ ~ ~ E ~ ~ PRFINIT_ ~ G ~ ~ ~ H ~ ~ ~ I ~ ~ ~ J ~ ~ ~ K ~ ~ ~ L ~ ~ ~ M ~ ~ Page: 1L
b |-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
LocalDA LocalDA LocalDA LocalDA LocalDA CallNat CallNat Fetch CallNat CallNat Call Call StackCom Fet
PRFVCTRL PRFVCUPL PRFVHDRL PRFVUSRL PRFVUGLL PRFTEXT1 USR0050N PRFUE99P USR2004N USR0011N PROFINIT PROFCLOS SETUP PRF0
c |-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
FetchRet Fetch LocalDA CallNat WriteForm Fetch
PRFSAVE PRF2100B PRFVHDRL PRFTEXT1 PRF000B1 PRFUE99P
d |-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
StackCom StackCom LocalDA StackCom
PRF6000P PRF0000P PRFVUGLL PRF5200P
e |-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
CallNat LocalDA LocalDA Call Fetch Fetch Fetch Fetch Fetch Fetch Fetch Fetch Fetch
PRFTEXT1 PRFVHDRL PRFVBECKL PROFINIT PRF3500B PRF2300B PRF7340B PRF3100B PRF7550B PRF3200B PRF2200B PRF7100B PRF7
f |-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
LocalDA LocalDA LocalDA CallNat Fetch
PRFVDCKL PRFVCTRL PRFVHDRL PRFTEXT1 PRFUE99P
g |-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
PRF600R1 PRF0000P PRF60011 PRFUE99P PRF600L1 PRF6400P PRF6300P PROFINIT PRF1000P PRFUE99P PRF4000P PRF5200P PRF0000P PRF6
Enter-PF1---PF2---PF3---PF4---PF5---PF6---PF7---PF8---PF9---PF10---PF11---PF12---
Help Browse Quit Zoom Find Chart Up Down Lines Left Right Ovrfl
    
```

- CHART Version 3.1F allows a wildcard to be used in the seed name in batch. For example, if a seed of 'UXD*' is used, then CHARTs will be drawn for every program, subprogram, subroutine, and help routine starting with 'UXD';
- CHART Version 3.1F allows the seed name to be changed directly on the CHART display screen. Change the seed name and a new CHART will be drawn immediately (using the same "exclusions" and "don't explodes" as the previous seed);

- *CHART Version 3.1F* detects inline SQL and draws the database file/table referenced. When inline SQL statements such as SELECT .. FROM, DELETE ... FROM, INSERT ... INTO, and PROCESS SQL are embedded within NATURAL (and if you have chosen to include database files in your *CHART*), then these SQL statements will be detected and the referenced database file/table will be drawn;

For example, 'SELECT PD_UNLOAD_DATE FROM PAYEE-DECLARATION' would cause the database file reference to be drawn at row e, column D:



- *CHART Version 3.1F* allows you to browse any object (within your current step libraries) from the *CHART* display screen. While browsing an object (use PF2 to do this), type 'BR' or 'BROWSE' and an object name and you will immediately begin browsing the nominated object;

```

2001-02-18 12:41  C  QR1000  E  F  G  Page: 1L of 1
                                |  DEVLIB  Lib.
b  +  +  +  *  |
Fetch  LocalDA  Fetch  Perf Ext  CallNat  InputMap
XXXXFER  ZJOB  ZJOB  QR1000  DATERNGE  QR1000M1
  
```

```

Browse Object ...
> browse nx4000  Program  QR1000  Lib  DEVLIB
Brws  ....+....1....+....2....+....3....+....4....+....5.... Mode Struct
3110 END-DECIDE /* (2990)
3120 *
3130 DECIDE ON FIRST VALUE OF #FUNCTION
3140  VALUE 'S'
3150  MOVE TRUE  TO #STATS-REPORT-REQD
3160  MOVE ' ??'  L'  TO #ZJOB-SYSOUT-LIST
3170  MOVE ' 11'  TO #ZJOB-COPIES-LIST
3180  MOVE 'PORT'  TO #ZJOB-USER-ID
3190  VALUE 'D'
3200  MOVE TRUE  TO #DETAILED-REPT-REQD
Browse ....+.. PF1=? PF3=Q PF5=+19,SC= PF7=-P PF8=+P ...5... S 344 L 311
  
```

- *CHART Version 3.1F* has a new default installation option called 'AUTOSTEP' for initialising step libraries. 'AUTOSTEP' detects that NATURAL SECURITY is in use and will initialise your step libraries to be the same as those defined there. Otherwise, the existing installation option NONATSEC will be used;

Trace of Chart being built ...

Press <Enter> to continue building.
Press <PF3> to stop building the CHART
Press <PF5> to see what the incomplete
CHART looks like, so far

'source lines processed' is a count of number of Natural source code lines that have been processed by CHART, so far.

'objects placed in Chart' is a count of the number of Natural objects that have been placed on the 'page', so far.

The counts in brackets (eg. 7M, 5N) show a breakup of this object count by object type. That is, 7M indicates that seven of the objects placed are maps.

'objects still to be checked' is the number of called Natural objects that have not yet been checked/processed by CHART, so far. Any newly called objects that are found are added to this count.

- *CHART Version 3.1F* now produces a work file that can be read into Microsoft Visio2000. Information about every object drawn by *CHART* is automatically written to CMWKF04 in batch and can be read directly into Visio2000 as organisation charts.

