PS/CC NOTE 82-27

12-NOV-1982

SOFTWARE TOOLS FOR CONSOLE DISPLAYS USING THE PIPELINE CHANNEL.

CL.H.SICARD

ABSTRACT:

This Note lists the Functions available to NODAL or compiled programs running on the Consoles, in order to: START, STOP, MODIFY, or get information about the Repetitive Displays using the PIPELINE channel.

INDEX

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%                                                                       %
%        /-------------------------------\                              %
%          CONSOLE ICCI FUNCTION  NWDISP                                %
%        \_______________________________/                              %
%                                                                       %
%     SOURCE FILE:            NPL-NEW-DISPLAY:SYMB                      %
%                                                                       %
% VERSION 2.3 1ST EDIT = 11-JUN-79     THOMAS PETTERSSON                %
%            LAST EDIT = 14-JAN-82     CL-H. SICARD                     %
%                                                                       %
%                                                                       %
%                                                                       %
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
%                                                                       %
%                                                                       %
%     ICCI  FUNCTION FOR ACTIVATING A NEW VIDEO DISPLAY AND             %
%     INSERTING THE NEW OBJECT LIST INTO THE VIRTUAL OBJECT             %
%     LIST SPACE.                                                       %
%                                                                       %
%-----------------------------------------------------------------------%
%                                                                       %
%  CALLING SEQUENCE:                                                    %
%  ________________  NWDISP( DISPLAY-FILENAME, PROCEDURE#, COCO )       %
%                                                                       %
%  WHERE:    DISPLAY-FILENAME : RO STRING = DISPLAY FRAME FILENAME      %
%                                 (FILE EXTENSION MUST BE :DATA)        %
%                                                                       %
%            DISPLAY-PROC-NBR : RO INTEGER[1..64] = PROCEDURE NUMBER    %
%                               ASSOCIATED WITH THAT DISPLAY.           %
%                                                                       %
%            COCO : RW INTEGER = COMPLETION CODE ON RETURN:             %
%                                                                       %
%                          10: TOO MANY ACTIVE DISPLAYS                 %
%                          32: BAD LOGICAL UNIT# (ERROR IN FRAME FILE)
%                          37: DISPLAY-NBR OUTSIDE LIMITS               %
%                          43: DISPLAY ALREADY ACTIVE                   %
%                          OTHERS: ERRORS FROM FILE SYSTEM              %
%                                                                       %
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
```

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%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
%                                                                      %
%       /--------------------------------\                             %
%         CONSOLE ICCI FUNCTION  NWGRAP                                %
%       \________________________________/                             %
%                                                                      %
%       SOURCE FILE:           NPL-NEW-GRAPHIC:SYMB                    %
%                                                                      %
% VERSION 2.1 1ST EDIT = 04-MAR-80     THOMAS PETTERSSON               %
%             LAST EDIT = 14-JAN-82     CL-H SICARD                    %
%                                                                      %
%                                                                      %
%                                                                      %
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
%                                                                      %
%                                                                      %
%       ICCI  FUNCTION FOR ACTIVATING A NEW GRAPHIC DISPLAY AND        %
%       INSERTING THE NEW OBJECT LIST INTO THE VIRTUAL OBJECT          %
%       LIST SPACE FOR HP DISPLAYS                                     %
%                                                                      %
%----------------------------------------------------------------------%
%                                                                      %
% CALLING SEQUENCE:                                                    %
% ________________   NWGRAP( DISPLAY-FILENAME, DISPLAY-PROC#, COCO)    %
%                                                                      %
%  WHERE:    DISPLAY-FILENAME : RO STRING = DISPLAY FRAME FILENAME     %
%                                    (FILE EXTENSION MUST BE :GRA)     %
%                                                                      %
%            DISPLAY-PROC-NBR : RO INTEGER[1..64] = PROCEDURE NUMBER   %
%                                  ASSOCIATED WITH THAT DISPLAY.       &
%                                                                      %
%            COCO : RW INTEGER = COMPLETION CODE ON RETURN:            %
%                                                                      %
%                             10: TOO MANY ACTIVE DISPLAYS             %
%                             37: DISPLAY-NBR OUTSIDE LIMITS           %
%                             43: DISPLAY ALREADY ACTIVE               %
%                            124: FRAME-OBJECT OUT OF RANGE(ERROR IN FILE)
%                             OTHERS: ERRORS FROM GRAPHIC PROCESSOR    %
%                                     OR FROM FILE SYSTEM.             %
%                                                                      %
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
```

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%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
%                                                                          %
%        /--------------------------------\                                %
%         CONSOLE ICCI FUNCTION  STPDIS                                    %
%        \________________________________/                                %
%                                                                          %
%     SOURCE FILE:             NPL-NEW-DISPLAY:SYMB                        %
%                                                                          %
% VERSION 2.3 1ST EDIT = 11-JUN-79     THOMAS PETTERSSON                   %
%            LAST EDIT = 14-JAN-82     CL-H. SICARD                        %
%                                                                          %
%                                                                          %
%                                                                          %
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
%                                                                          %
%                                                                          %
%     ICCI  FUNCTION FOR STOPPING A CURRENTLY ACTIVE DISPLAY               %
%     ON A VIDEO OR GRAPHIC SCREEN.                                        %
%                                                                          %
%--------------------------------------------------------------------------%
%                                                                          %
%  CALLING SEQUENCE:                                                       %
%  ________________  STPDIS( PROCEDURE#, COCO )                            %
%                                                                          %
%  WHERE:    PROCEDURE-NBR: RO INTEGER[1..64]= DISPLAY PROCEDURE TO STOP
%                                                                          %
%            COCO:  RW INTEGER =  COMPLETION CODE ON RETURN:               %
%                                                                          %
%                              10: BAD DISPLAY NBR.                        %
%                              33: ERROR IN DATA-BASE (NOT FOUND)          %
%                              OTHERS: GRAPHIC ERROR DURING FRAME ERASING.%
%                                                                          %
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
```

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        /----------------------------------\
           CONSOLE  ICCI FUNCTION  RPSTA
        \----------------------------------/

     1STEDIT 9-JUN-81    CL-H SICARD

     PURPOSE:                START THE REPETITIVE PART OF A DISPLAY
                             RUNNING UNDER 'MDR' IN A GIVEN FEC.



PARAMETER LIST:

     CALL: RPSTA( DISPLAY-PROC# , FEC# , COCO)
     ----  -----  -------------   ----   ----

     WHERE   DISPLAY-PROC# = DISPLAY PROCEDURE NUMBER USED


             FEC#  =  FEC COMPUTER NBR ON WHICH REPETITIVE PART WILL RUN

            COCO = COMPLETION CODE :  37 => PARAMETER OUT OF RANGE
                                    OTHERS = REMOTE FETCH/STORE ERRORS



     NOTE: THIS FUNCTION WORKS ONLY FOR DISPLAYS USING THE "MDR" CONVENTION
     ----  (GLOBAL VARIABLE "COTMDR" IN THE FEC)
```

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        /---------------------------------\
           CONSOLE  ICCI FUNCTION  CLZON
        \---------------------------------/

     1STEDIT 2-JUN-81    CL-H SICARD
     LAST ED 25-JAN-82   CL-H SICARD

     PURPOSE:             -CLEAN A GIVEN "ZONE" ON THE DISPLAY RESSOURCES
                           OF A CONSOLE:
                              -STOPS THE REPETITIVE PART OF THE LAST DISPLAY
                               USING THE ZONE,AND CLEANS THE FRAME OBJECTS
                               IN THE CASE IT IS A GRAPHIC ZONE.
                              -IF DESIRED (DISPLAY NB ><O), ATTACHES THE ZONE
                               TO THE CALLER´S DISPLAY.


PARAMETER LIST:

     CALL: CLZON( ZONE# , DISPLAY#1 , FEC#1 , DISPLAY#2 , FEC#2 , COCO)
     ----  -----  -----   ---------   -----   ---------   -----   ----

     WHERE   ZONE# = DISPLAY ZONE NBR (CURRENTLY 1-16)

             DISPLAY#N = DISPLAY PROCEDURE WANTING TO USE THE ZONE
                           (IF ZERO,THEN ZONE IS CLEARED BUT NOT ATTACHED)

             FEC#N   =  FEC COMPUTER NBR ON WHICH REPETITIVE PART WILL RUN

            COCO = COMPLETION CODE :  37 => PARAMETER OUT OF RANGE
                                      34 => CORRUPTED GLOBAL ARRAYS!!
                                     OTHERS = REMOTE FETCH/STORE ERRORS
                                             OR GRAPHIC ERRORS IN ERASE



     NOTE: THIS FUNCTION WORKS ONLY FOR ATTACHING DISPLAYS USING THE "MDR"
     ----   CONVENTION (GLOBAL VARIABLE "COTMDR" IN THE FEC)

     NOTE1:THE FUNCTION HANDLES DISPLAYS HAVING TWO REPETITIVE PARTS IN TWO
     ----- DIFFERENT FECS, USING THE SAME ZONE.

     NOTE2: MUST BE CALLED FROM A PROGRAM DISPOSING OF THE "MIP" RESOURCES
     -----  IF USED ON GRAPHIC.

     GRAPHIC ZONES                COLOR TV ZONES          B&W TV ZONES

   ______________________        ______________         ____    ____
   I    I    I    I     I        I       I      I       I   I   I   I
   I  9 I 10 I 11 I 12  I        I   1   I   2  I       I 5 I   I 6 I
   I____I____I____I_____I        I_______I______I       I___I   I___I
   I    I    I    I     I        I       I      I       I   I   I   I
   I 13 I 14 I 15 I 16  I        I  3    I   4  I       I 7 I   I 8 I
   I    I    I    I     I        I       I      I       I   I   I   I
```

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%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
%           /-------------------------------\                          %
%            CONSOLE  ICCI FUNCTION  XPIPE                             %
%           \_______________________________/                          %
%                                                                      %
%      SOURCE FILE : (PIPE)NPL-XPIPE-FUN                               %
%                                                                      %
%      1ST EDIT : 26-APR-82  CL-H SICARD                               %
%                                                                      %
%            PURPOSE:        SIMULATE PIPE CALL FROM LOCAL CONSOLE     %
%            -------                                                   %
%                                                                      %
%            NOTE:           -DISPLAY MUST BE ACTIVATED BY NWDISP      %
%            ----            BEFORE CALLING THIS FUNCTION.
%                                                                      %
%      CALLING SEQUENCE:
%      ----------------    XPIPE( PIPE-ARRAY, COCO)                    %
%
%      WHERE :    PIPE-ARRAY (RO) =  RECORD: DISPLAY-NBR: INTEGER      %
%                                            REQUEST-TYP: INTEGER      %
%                                            VECTOR-SIZE: INTEGER      %
%                                            SPARE:       INTEGER      %
%                                                                      %
%                                            CONTROL-VECTOR: RECORD    %
%                                            (MIXTURE OF REALS/INTEGERS)
%                                                                      %
%                                                                      %
%                 COCO = COMPLETION CODE :                             %
%                                           20=>BAD DISPLAY-NB/REFRESH
%                                           23=>BAD CONTR.VECT SIZE    %
%                                           33=>CONSOLE FROZEN         %
%                                           43=>DISPLAY NOT ACTIVE     %
%                                           126=>DISPLAY BUSY          %
%                                                                      %
%                                                                      %
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           /--------------------------------\                        %
            CONSOLE  ICCI FUNCTION  RDPIP                            %
           \________________________________/                        %
%                                                                    %
%      SOURCE FILE : (PIPE)NPL-RDPIPE-FUN                            %
%                                                                    %
%      1ST EDIT : 2-JUN-81   CL-H SICARD                             %
%                                                                    %
%           PURPOSE:          READ LAST VALUES RECEIVED BY PIPE      %
%           -------           FOR A GIVEN DISPLAY INTO AN ARRAY.     %
%                                                                    %
%           NOTE:             -CONSOLE MUST BE FROZEN                %
%           ----              BEFORE CALLING THIS FUNCTION.
%                                                                    %
%      CALLING SEQUENCE:
%      ----------------    RDPIP(DISPLAY-NBR,TARGET-ARRAY,ARRSIZ,COCO)
%
%      WHERE :    DISPLAY-NBR (RO) = DISPLAY PROCEDURE NBR           %
%                                                                    %
%                 TARGET-ARRAY (WO) = ARRAY TO BE FILLED WITH PIPE DATA
%                                                                    %
%                 ARRSIZ (RO) = ARRAY WORD-COUNT.                    %
%                                                                    %
%                 COCO = COMPLETION CODE :  2 =>OBJECT-LIST SCAN ERROR
%                                           20=>WRONG DISPLAY NBR    %
%                                           23=>ARRAY TOO SMALL      %
%                                           33=>CONSOLE NOT FROZEN   %
%                                           43=>DISPLAY NOT ACTIVE   %
%                                                                    %
% TARGET ARRAY IS LOADED WITH PIPE DATA (MIXTURE OF INTEGERS & REALS)%
%                                                                    %
%  IN THE SAME ORDER AS THE CONTROL-VECTOR, BUT EXCLUDING THE        %
%                                                                    %
%   COLOUR/BLINK INFORMATION.                                        %
%                                                                    %
%                                                                    %
%                                                                    %
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
```

```
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
%                                                                 %
%       /-------------------------------\                         %
%        CONSOLE  ICCI FUNCTION  DISTA                            %
%       \-------------------------------/                         %
%                                                                 %
%     SOURCE FILE : (PIPE)NPL-DISTA-FUN                           %
%                                                                 %
%     1ST EDIT : 4-JUN-81   CL-H SICARD                           %
%     LAST EDIT: 1-OCT-81   CL-H-SICARD                           %
%                                                                 %
%           PURPOSE:        -GET STATUS OF A GIVEN DISPLAY        %
%           -------           ON THE CURRENT CONSOLE,             %
%                           -SET INIT FLAG OF A DISPLAY(IF INI=1) %
%                                                                 %
%     CALLING SEQUENCE:                                           %
%     ---------------- DISTA( PROC# , INI , STAT , ZONS , FEC , COCO)
%                                                                 %
%     WHERE  PROC# = DISPLAY PROCEDURE NBR (RC)                   %
%            ------                                               %
%            INI   = 0 -> NO WRITE ACTION.                        %
%            ---   = 1 -> SET DISPLAY INIT FLAG (FORCE REWRITING) %
%                                                                 %
%            STAT  = DISPLAY STATUS : /  0=INACTIVE , 1=STARTED   %
%            -----                    \  2=ACTIVATED FROM FEC     %
%                     ADD.BITS :  4=LOCKED ,  8=MARKED FOR RUNDOWN %
%                                                                 %
%            ZONS = ZONES USED  (EX: 1234 , 56 , 8)               %
%            ------                                               %
%            FEC = COMPUTER RUNNING REPETITIVE PART OF DISPLAY    %
%            ----                                                 %
%            COCO = RETURN CODE  (37 => PROC# OUT OF RANGE        %
%            ----                                                 %
%                                                                 %
%                                                                 %
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
```

```
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
%                                      %
%      ICCI  FUNCTION NWYLIM           %
%                                      %
%      BY  D.BATES  10.10.80           %
%                                      %
% LAST UPDATE: C.H.SICARD 12.8.82      %
%                                      %
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%

%      MODIFIES THE LOWER AND UPPER USER LIMITS OF A GIVEN Y-GRAPH   %
%      WITHIN THE ´:GRA´ FILE PRODUCED BY THE GRAPHICS EDITOR.       %
%        THE SCREEN LIMITS OF THE GRAPH DO NOT CHANGE.               %
%
%      PARAMETERS:
%
%            NWYLIM("<FILENAME>", <GRAPH#>, <NWY1>, <NWY2>, <COCO>)
%
%      WHERE:
%            <FILENAME>  -  <FILENAME>:GRA WILL BE DIRECTLY MODIFIED
%            <GRAPH#>    -  SEQUENTIAL GRAPH NUMBER FOLLOWING ORDER OF DECLARE
%            <NWY1>      -  NEW LOWER VALUE OF Y (IN USER UNITS).
%            <NWY2>      -  NEW UPPER VALUE OF Y (IN USER UNITS).
%            <COCO>      -  COMPLETION CODE:
%                                  0 - OK
%                                 -1 - GRAPH NOT FOUND
%                                 -2 - SEE SPECIALIST
%                                 -3 - FILE NAME TOO LONG
%                                 -4 - ILLEGAL GRAPH TYPE (XBAR,XGRAF,XMARK NOT ALLOWE
%                             OTHERS - STANDARD NODAL ERROR CODE (FILE ERRORS)
%
```

```
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
%                                                                      %
%              /-----------------------------\                         %
%               CONSOLE ICCI  FUNCTION NWTXT                           %
%              \_____________________________/                         %
%                                                                      %
%     SOURCE FILE: (PIPE)NPL-NWTXT-FUN                                 %
%     BY  C.H.SICARD  10.11.82                                         %
%                                                                      %
% LAST UPDATE:                                                         %
%                                                                      %
% PURPOSE:                                                             %
%                                                                      %
%     READS OR MODIFIES A VARIANT OF A TEXT-OBJECT DEFINITION,         %
%     WITHIN THE DATA FILE PRODUCED BY THE VIDEO OR GRAPHIC EDITOR.    %
%                                                                      %
% PARAMETERS:                                                          %
%-----------                                                           %
%   NWTXT( RO <FILENAME>:STRING;  RO<TEXT-OBJ#>:INTEGER; RO <VARIANT>:INTEGER;
%   -----  RW <STRING>:STRING[5]; RO <FLAG>:INTEGER; RW <COCO>:INTEGER;)
%     WHERE:                                                           %
%        <FILENAME>  -  <FILENAME>:DATA OR:GRA TO BE READ/WRITTEN.     %
%        <TEXT OBJ#> -  SEQUENTIAL TEXT NUMBER FOLLOWING ORDER OF DECLARE
%        <VARIANT-#> -  VARIANT OF ABOVE TEXT-OBJECT TO CHANGE [1..16]
%        <STRING>    -  NEW TEXT TO BE INSERTED (OR TO BE READ)        %
%        <FLAG>      -  INDICATOR FOR : -WRITE VIDEO FRAME=-1          %
%                                       -WRITE GRAPH FRAME=-2          %
%                                       -READ VIDEO  FRAME=1           %
%                                       -READ GRAPH  FRAME=2           %
%        <COCO>      -  COMPLETION CODE:                               %
%                              0 - OK                                  %
%                             -1 - TEXT-OBJECT NOT FOUND               %
%                             -2 - ILLEGAL FLAG OR VARIANT#            %
%                             -3 - FILE NAME TOO LONG                  %
%                             -4 - WRONG VARIANT-NBR                   %
%                             -5 - BAD FILE STRUCTURE (NOT A FRAME)    %
%                             40 - TEXT TRUNCATED (>5 CHARS)           %
%                         OTHERS - STANDARD NODAL CODE (FILE ERRORS)   %
%                                                                      %
%     MODIFIED:                                                        %
%                                                                      %
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
```

```
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
          /--------------------------------\                           %
            CONSCLE  ICCI FUNCTION  OBJNUM                             %
          \________________________________/                           %
%                                                                      %
%      SOURCE FILE : (PIPE)NPL-OBJNUM-FUN                              %
%                                                                      %
%      1ST EDIT : 15-NOV-82  CL-H SICARD                               %
%                                                                      %
%            PURPOSE:          RETURN THE SEQUENCE NUMBER OF THE       %
%            -------      DISPLAY OBJECT SUCH AS TEXT,NUMBER,LINE      %
%                         LOCATED AT THE GIVEN SCREEN COORDINATES.     %
%                                                                      %
%                            THIS ALLOWS A PROGRAM TO FIND AN OBJECT   %
%                         SELECTED BY THE OPERATOR WITHOUT CODING INTO %
%                         THE PROGRAM THE POSITIONS OF THE OBJECTS.    %
%                                                                      %
%                                                                      %
%      CALLING SEQUENCE:
%      ----------------     OBJNUM( DISPLAY-NBR, VALUE, XC, YC, COCO) %
%
%      WHERE :    DISPLAY-NBR (RO INTEGER[1..64])= DISPLAY PROCEDURE NBR.
%                                                                      %
%                 VALUE (RW INTEGER)= RETURNED SEQUENCE NUMBER, IF ANY
%                                                                      %
%                 XC,YC  (RO INTEGER)= SCREEN COORDINATES OF OBJECT   %
%                                                                      %
%                 COCO = COMPLETION CODE :  2 =>OBJECT-LIST SCAN ERROR
%                                           20=>DISPLAY NBR OUT OF RANGE
%                                           33=>OBJECT NOT FOUND      %
%                                           43=>DISPLAY NOT ACTIVE    %
%                                                                      %
%    - THIS FUNCTION WORKS CURRENTLY ONLY FOR VIDEO DISPLAYS.          %
%                                                                      %
%    - THE SEQUENCE NUMBER [1..N] FOLLOWS THE ORDER OF DECLARATION     %
%      OF VARIABLE OBJECTS INSIDE THE OBJECT-LIST.                     %
%                                                                      %
%      THE OBJECT IS FOUND IF THE SCREEN POSITIONS MATCH ANY OF THE    %
%      OBJECT CHARACTERS ON THE SCREEN, EXCEPT FOR HISTOGRAMS , FOR    %
%      WHICH THE CURSOR MUST BE SET ON THE HORIZONTAL AXIS.            %
%                                                                      %
%                                                                      %
%                                                                      %
%                                                                      %
%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%
```

List 8 Applications Software: all

V. Adorni, G. Baribaud, G.P. Benincasa, F. Beck,
M. Bennett, E. Cherix, J. Cupérus, G. Daems,
A. Daneels, R. Delgado, M.F. Desmaris, R. Dubé,
F. Giudici, C. Granieri, D. Gueugnon,
P. Heymans, J. Kenaghan, J. Kupiec, M. Lelaizant,
J. Lewis, E. Malandain, M. Martini, L. Mérard,
C. Poinard, R. Pluta, J.P. Potier,
K. Priestnall, G. Quickfall, J. Redard, Ch. Serre,
C.H. Sicard, P. Skarek, Ch. Steinbach, N. Vogt-Nilsen