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I  JADE COMPUTER NOTE NR. 29  I
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HOW TO CREATE GRAPHICS MODULES WITHIN THE JADE GRAPHICS FRAMEWORK
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G.PEARCE, J.OLSSON
21.10.79
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SINCE INTERACTIVE GRAPHICS OFFER UNIQUE POSSIBILITIES OF PROGRAM CHECK OUT, PROGRAM TUNING ETC., SEVERAL USERS MAY WISH TO CREATE THEIR OWN PERSONAL EXECUTABLE GRAPHICS MODULES. THE FOLLOWING NOTE IS INTENDED TO HELP THE GENERAL USER TO DO THIS WHILE REMAINING WITHIN THE FRAMEWORK OF JADE GRAPHICS.

THE PRESENT FRAMEWORK ALLOWS SUCH A POSSIBILITY BY OFFERING THE GRAPHICS COMMAND "SPVA" (SPARE VIEW A). THIS COMMAND CAUSES A CALL TO

SUBROUTINE SPARE

WHICH ON THE GENERAL LIBRARY IS A DUMMY. THIS ROUTINE CAN BE REPLACED BY A USER WRITTEN ONE, CONTAINING ANY GRAPHICS FACILITY THE USER MAY WISH. FOR MORE DETAILS ON GRAPHICS, THE USER MAY CONSULT THE PLOT10 MANUAL AND NOTES ON TCS AT DESY (R02 GROUP). FOR INFORMATION ABOUT CONVENIENT SUBROUTINES TO USE IN THE DIALOGUE WITH THE SCREEN, PLEASE CONTACT L.O'NEILL OR J.OLSSON.

THE USER CAN MARK HIS SPECIAL MODULE BY INCLUDING A SUBROUTINE SUBROUTINE NOTICE

WHICH ON THE GENERAL LIBRARY IS A DUMMY, CALLED BY THE GRAPHICS MAIN. THIS SUBROUTINE WOULD THEN HAVE THE FORM

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SUBROUTINE NOTICE
CALL TRMOUT(80,' USERS PRIVATE MESSAGE ^')
RETURN
END

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THE "PRIVATE MESSAGE" WILL THE APPEAR ON THE SCREEN IN THE SESSION.

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**  OBS  OBS  OBS  OBS  OBS  OBS  OBS
**
**  NOTE ADDED 24.9.1982 (J. OLSSON)
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**
**  THE DESCRIPTION BELOW OF HOW TO LOAD A GRAPHICS MODULE IS
**  SEVERELY OUTDATED. USE INSTEAD THE MEMBER
**
**  FILHO.JADEGS(JBOVER)
**
**  WHICH CONTAINS THE COMPLETE OVERLAY STRUCTURE FOR THE JADE
**  GRAPHICS PROGRAM, AS WELL AS THE JCL FOR CREATING A MODULE.
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A CONVENIENT WAY TO COMPILE A MODULE IS BY EXECUTING A TSO CLIST, WHICH CAN BE DONE FROM ANY TSO TERMINAL, INCLUDING THE GRAPHICS TERMINALS. BEFORE STARTING OFF HOWEVER, THE USER HAS TO CREATE FOR HIMSELF A LOAD LIBRARY WITH THE NAME

USERID.GP.LOAD

WHICH IS THE LIBRARY WHERE THE NEWLY CREATED MODULE WILL BE LOADED. ONCE THIS LIBRARY EXISTS (AND IS FASTED), IT CAN OF COURSE BE USED

AGAIN AND THIS STEP CAN BE SKIPPED.

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//  THIS LIBRARY CAN BE CREATED BY THE TSO COMMAND
//      ALLOC DA('USERID.GP.LOAD') NEW DIR
//
//  AND ANSWERING THE SYSTEM PROMPTS AS FOLLOWS:
//      10
//      TRACKS
//      SPACE AND SPACE INCREMENT VALUES:
//      50.10
//

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ENTER      EX 'FLIPEA.CLIST(STARTUP)'

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(THIS COMMAND NEEDS TO BE GIVEN ONLY ONCE PER SESSION, THUS IT CAN BE SKIPPED IN YOUR SUBSEQUENT TRIALS.)

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NOW ENTER      NEWGP JADE 'USERID.XXXXXXX'

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THE 'USERID.XXXXXXX' SHOULD BE A PRIVATE LOAD LIBRARY AND IT CAN HAVE ANY NAME. THE USERID NEED NOT BE THE SAME AS THAT OF THE PRESENT USER. NORMALLY THIS WOULD BE THE PRIVATE LIBRARY WHERE THE USER HAS HIS OWN SPECIAL ROUTINES (E.G. SUBROUTINE SPARE) WHICH HE IS GOING TO INCLUDE (SEE BELOW). THIS LIBRARY WILL NOW, TOGETHER WITH ALL THE STANDARD LOAD LIBRARIES OF JADE, BE ALLOCATED TO THE FILE "MEMBER".

AFTER SOME PRINTOUT THE USER IS NOW PROMPTED FOR HIS SPECIAL INCLUDES. THEY MUST BE ENTERED IN THE FORM

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INCLUDE MEMBER(NAME1,NAME2,...)
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WHERE NAME1,NAME2 ETC. ARE MEMBERS ON ANY OF THE LOAD LIBRARIES THAT HAVE BEEN ALLOCATED TO THE FILE MEMBER (NORMALLY THE LIBRARY USERID.XXXXXXX). THE STANDARD INCLUDE OF THE GRAPHICS MAIN IS HERE DEFAULT AND NEEDS NOT BE GIVEN. AN EMPTY RETURN FINISHES THE INPUT, THAT MAY STRETCH OVER SEVERAL LINES.

THE MODULE WILL NOW BE LOADED. IN THIS PROCESS, THE LINKAGE EDITOR INSTRUCTIONS ARE LISTED ON THE SCREEN. THIS LIST ENDS WITH THE NAME OF THE MODULE (JADE). AFTER SOME WAITING TIME (BE PATIENT...) THE MODULE IS READY.

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A DATA SET WITH NAME
USERID.JADE.LINKLIST

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IS ALSO CREATED. IT CONTAINS THE LINKAGE EDITOR INPUT AND OUTPUT AND CAN LATER BE LISTED ON THE SCREEN OR SUBMITTED FOR TSO-PRINT WITH THE COMMANDS

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L JADE AND DRUCK JADE
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IF THIS DATA SET ALREADY EXISTS (E.G. FROM AN EARLIER SESSION), IT WILL HAVE BEEN OVERWRITTEN. IF IT HAS MEANWHILE MIGRATED OFF DISK, YOU WILL GET AN ABEND IN YOUR MODULE CREATING. THIS CAN BE OVERCOME BY SIMPLY DELETING 'JADE' AND STARTING NEWGP AGAIN. DO NOT TRY TO FAST THE DATASET IF YOU ARE GOING TO OVERWRITE IT ANYHOW.

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TO DELETE JADE, GIVE THE COMMAND:
DELETE JADE NOSCRATCH

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THE READY MODULE TYPICALLY OCCUPIES SOME 30 TRACKS ON THE LOAD LIBRARY. ONE SHOULD THEREFORE MAKE SURE THAT THERE IS ENOUGH SPACE AVAILABLE ON THE LOAD BEFORE STARTING THE NEWGP. FREQUENT MODULE LOADING UNFORTUNATELY REQUIRES FREQUENT LIBRARY COMPRESSING.

OBS OBS OBS: FOR THE TIME BEING, TSO SPACE REQUIREMENTS FORCES US TO USE SOME DEGREE OF OVERLAY IN THE LINK STRUCTURE. THIS OVERLAY CAN HAVE MANY DIFFERENT FORMS AND IS NOT YET OPTIMIZED. ONE VERSION OF OVERLAY IS ALSO AVAILABLE IN THE ABOVE-MENTIONED CLIST, UNDER THE NAME "JADEOVLY". THE LINK COMMAND WOULD THEN BE

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NEWGP JADEOVLY 'USERID.XXXXXXX'
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AND THEN PROCEED IN THE NORMAL WAY.

THE FOLLOWING COMMENTS CONTAIN SMALL VARIATIONS ON THE ABOVE PROCEDURE AND ARE INTENDED FOR THE MORE EXPERIENCED TSO-USER. THEY NEED NOT BE READ BY THE BEGINNER:

IF ONE DOESN'T WANT TO USE THE COMMAND EX 'FILLPEA.CLIST(STARTUP)' ONE CAN START DIRECTLY BY THE COMMAND EX 'FILLPEA.CLIST(NEWGP)'

THE USER WILL NOW BE PROMPTED FOR
TYPE ANSWER JADE OR JADEOVLY
LIB ANSWER 'USERID.XXXXXXX'
AND LOADING THE MODULE PROCEEDS AS ABOVE.

THE LIBRARY FOR LOAD OUTPUT, GP.LOAD, IS A DEFAULT. IF THE USER WISHES TO USE A DIFFERENT LOAD LIBRARY, HE SHOULD ENTER

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NEWGP JADE 'USERID.XXXXXXX' LOAD(''USERID.SPECIAL.LOAD''')
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THE THREE QUOTES ARE UNFORTUNATELY NECESSARY, SINCE THE SYSTEM OTHERWISE WILL ADD A 'LOAD' ONTO THE END OF THE NAME. HOWEVER, IF THE TRUE NAME OF THE LIBRARY WOULD BE USERID.SPECIAL.LOAD, THE LOAD PARAMETER CAN BE ENTERED AS

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LOAD(SPECIAL)
HOWEVER, THIS IS TRUE ONLY IF USERID IS IDENTICAL TO THE LOGON USERID
IF THE USER WISHES TO INCLUDE SPECIAL MEMBERS FROM SEVERAL DIFFERENT
LOAD LIBRARIES (NOT IN THE LIST OF STANDARD JADE LOAD LIBRARIES), HE
MAY DO SO BY ALLOCATING THESE LIBRARIES TO THE FILE MEMBER OR ANY
OTHER FILE NAME, BY THE COMMAND:
ALLOC F(NAME) DA('USERID.LIBRARY') SHR
AND LATER, IN THE INCLUDE PART OF NEWGP:
INCLUDE NAME(MEMBER1, MEMBER2,...)
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LASTLY, AT TIMES WITH HIGH LOAD ON THE IBM AND SLOW TSO-RESPONSE, THE USER MAY FIND IT CONVENIENT TO USE THE ADDITIONAL OPTION
NEWGP JADE 'USERID.XXXXXXX' LOGOFF(YES)
WHICH IS COMPLETELY IDENTICAL TO THE PROCEDURE NEWGP ABOVE, BUT HAS THE ADDITIONAL FEATURE OF MAKING A LOGOFF WHEN LINKING IS READY. THE USER MUST HOWEVER FIRST FOLLOW THE LISTING OF THE LINKAGE EDITOR INPUT DOWN TO THE NAME OF THE MODULE TO BE CREATED, AFTER THAT HE MAY LEAVE THE TERMINAL, DEVOTING HIMSELF TO OTHER TASKS. THIS LOGOFF IF AN ERROR OCCURS IN COURSE OF THE LINKING AND LOADING, THIS LOGOFF OPTION IS OVER-RIDDEN AND RETURN IS MADE INTO TSO READY MODE.

A COPY OF THIS INFORMATION CAN BE OBTAINED BY SUBMITTING THE JOB
JEMODULE ON THE LIBRARY F1010LS.JADESR

