

IF ONLY LITTLE TIME (< 100 MINUTES, SAY) REMAINS, ASK OTHER MEMBERS OF JADE IF THEY NEED IT BEFORE USING IT UP. IF IT IS STILL EARLY IN THE DAY (I.E. BEFORE 2000 HOURS) THE TIME MUST NORMALLY STILL BE SAVED FOR THE EVENING WORKERS.

--- JOB CLASSES ----->>>>

JOBS CAN BE SUBMITTED INTO DIFFERENT CLASSES, WITH DIFFERENT DEFAULT PRIORITIES AND DIFFERENT DEFAULT TIMES. IF PRIORITY AND TIME ARE NOT EXPLICITLY DECLARED, THE DEFAULTS ARE USED. THUS A USER WHO SUBMITS JOBS WITHOUT PROPERLY DECLARING PRIORITY AND TIME, CAN DRAIN THE ACCOUNT SEVERELY. THE VARIOUS CLASSES AND THEIR DEFAULTS ARE LISTED IN THE FOLLOWING TABLE:

CLASS	DEFAULT PRIORITY	DEFAULT TIME
E	MEDIUM	30 SECONDS
A	MEDIUM	2 MINUTES
K	MEDIUM	6 MINUTES
L	LOW	16 MINUTES
D	LOW	32 MINUTES

--- TIME PARAMETER ----->>>>

THERE IS ONLY ONE WAY TO SPECIFY A NON-DEFAULT TIME, NAMELY ON THE JOBCARD. EXAMPLES:

//JADEPR JOB CLASS=K,MSGLEVEL=(0,0),TIME=(3,30)

//JADEPR JOB CLASS=K,MSGLEVEL=(0,0),TIME=3

JOBS HEADED BY THESE CARDS WOULD SUBTRACT 3 MINUTES, 30 SECS AND 3 MINUTES FROM THE ACCOUNT, RESPECTIVELY. THE SECONDS ARE NOT SEEN IN THE KONT COMMAND, BUT ARE PROPERLY ACCOUNTED FOR (GENERAL BELIEF). OBS: TIME SPECIFICATIONS IN THE GO-STEP ARE NOT CONSIDERED IN THE CONTINGENT SYSTEM. THUS A MEDIUM PRIORITY L-JOB WITH NO TIME PARAMETER IN THE JOBCARD BUT WITH GOTIME LIMITED TO 30 SECONDS WILL STILL SUBTRACT 16 MINUTES FROM THE ACCOUNT.

--- PRIORITY PARAMETER ----->>>>

THERE IS ONLY ONE WAY TO SPECIFY A NON-DEFAULT PRIORITY, NAMELY IN THE *MAIN CARD. THIS FOLLOWS IMMEDIATELY AFTER THE JOB-CARD. EXAMPLES:

//*MAIN RELPRI=LOW

//*MAIN RELPRI=MED,ORG=EXT

//*MAIN ORG=EXT,LINES=(2),RELPR=HIG

--- RESERVED TIME ----->>>>

THE PRIORITY TIME AVAILABLE IS CLEARLY NOT ENOUGH FOR ALL PURPOSES. OF THE 450-500 MINUTES DAILY SUBMIT TIME, WHICH CONSTITUTES THE JADE FRACTION OF THE PRIORITY TIME, SOME 50 % HAS TO BE RESERVED FOR URGENT DATA PROCESSING AND ANALYSIS. THIS IS ALSO TRUE FOR THE 45 - 50 MINUTES OF HIGH PRIORITY.

URGENT DATA PROCESSING AND ANALYSIS ARE MAINLY THE FOLLOWING :

REDUC1
REDUC2 (MULTIHADRON ANALYSIS)
LUMINOSITY
CALIBRATION

USERS INVOLVED IN THESE STANDARD TASKS ARE

JADEPR,F11COD,F11LHO,F11PST,F11OLS
F22ORI,F22MIN,F22HOW,F11NOZ,F11WAG

J A D E C O M P U T E R N O T E 3 9 A

THE CPU-TIME CONTINGENT AND ITS USAGE

IMPORTANT IMPORTANT IMPORTANT

TO BE READ BY EVERY JADE COMPUTER USER

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THE CPU-TIME AT THE DESY COMPUTER CENTRUM IS ADMINISTERED IN A CONTINGENT SYSTEM: A CERTAIN FRACTION OF THE AVAILABLE CAPACITY IS TREATED AS PRIORITY TIME AND THIS FRACTION IS DIVIDED UP AMONG THE VARIOUS GROUPS. THUS EACH GROUP HAS A CERTAIN AMOUNT OF PRIORITY TIME AVAILABLE AND IT IS THE PURPOSE OF THIS NOTE TO CLARIFY THE RULES, PARTICULARLY TO NEWCOMERS TO JADE, TO INSURE EFFICIENT USAGE OF THE ALLOTTED TIME.

--- PRIORITY CLASSES ----->>>>

THERE ARE 3 CLASSES OF PRIORITY:
LOW
MEDIUM
HIGH

ONLY THE MEDIUM AND HIGH PRIORITY IS SUBJECT TO CONTINGENTING. THE ACTUAL AMOUNT AVAILABLE TO JADE AT ANY TIME CAN BE OBTAINED VIA THE TSO/NEWLIB COMMAND:

--- KONT COMMAND ----->>>>

AS AN EXAMPLE, THIS COMMAND WILL RETURN THE INFORMATION:

ACCOUNT NO XXXXXXXX HAS 212 MIN. CPU, INCL. 23 MIN. HIGH.
THIS MEANS THAT 212 MINUTES MEDIUM PRIORITY IS LEFT, OF WHICH 23 MAY BE USED AS HIGH PRIORITY. THE CONTINGENT IS UPDATED SHORTLY AFTER MIDNIGHT, ON A 24 HOUR BASIS.

--- SUBMIT TIME ----->>>>

THE CONTINGENT SYSTEM IS BASED ON THE "SUBMIT TIME", I.E. THE TIME WHICH IS ESTIMATED FOR THE JOB AT THE TIME OF SUBMIT. THUS A LONG RUNNER THAT FAILS IMMEDIATELY AT EXECUTION WILL STILL HAVE ALL ITS SPECIFIED TIME SUBTRACTED.

JOBS SUBMITTED WITH LOW PRIORITY DO NOT AFFECT THE CONTINGENT. JOBS THAT FAIL BY JCI-ERROR IMMEDIATELY AFTER SUBMISSION, IN THE INTERPRETER STEP, ALSO DO NOT AFFECT THE CONTINGENT. JOBS THAT HAVE BEEN ACCEPTED BY THE INTERPRETER AND HAVE ENTERED THE JOB QUEUE, DO AFFECT THE CONTINGENT, EVEN IF THEY ARE CANCELLED AFTERWARDS. TSO SESSIONS DO NOT SUBTRACT FROM THE ACCOUNT.

EXAMPLES:

SUBMITTING A 4 MINUTE JOB WITH MEDIUM PRIORITY CHANGES THE ACCOUNT FROM 212 MEDIUM, 14 HIGH TO 208 MEDIUM, 14 HIGH OR FROM 17 MEDIUM, 17 HIGH TO 13 MEDIUM, 13 HIGH

SUBMITTING A 4 MINUTE JOB WITH HIGH PRIORITY CHANGES THE ACCOUNT FROM 212 MEDIUM, 14 HIGH TO 208 MEDIUM, 10 HIGH OR FROM 17 MEDIUM, 17 HIGH TO 13 MEDIUM, 13 HIGH

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BEFORE SUBMITTING JOBS, THE KONT COMMAND SHOULD ALWAYS BE CONSULTED.

BEFORE USING UP LARGE REMAINING PARTS OF MEDIUM AND HIGH PRIORITY, IT IS GOOD PRACTISE TO ASK THESE USERS IF THEY NEED MORE TIME FOR THE MENTIONED PURPOSES.

--- PRIORITY TIME PER USER ----->>>>

WITH AN ESTIMATED NR OF 40 ACTIVE PROGRAMMERS IN THE JADE COLLABORATION, THE AVERAGE AMOUNT OF MEDIUM PRIORITY FALLING ON EACH USER CAN BE CALCULATED TO BE

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I      5 - 8 MINUTES, I
I      30-45 SECONDS OF HIGH PRIORITY I
I      I
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THIS IS NORMALLY ENOUGH FOR PROGRAM DEVELOPMENT.

--- THE COORDINATOR ----->>>>

FOR DATA PROCESSING, CONDENSATION ETC., CAREFUL PLANNING HAS TO BE DONE. FOR THIS PURPOSE, THE COORDINATION OF THE CPUTIME USAGE WITHIN THE JADE COLLABORATION IS HANDLED BY

THE COORDINATOR (ALSO KNOWN AS THE OFFICER)

THE COORDINATOR IS CHOSEN FROM THE AUTHORIZED JADE COMPUTER USERS. THE WORK AS COORDINATOR IS PERFORMED ON A MONTHLY BASIS.

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I      ANYBODY WHO PLANS LARGER USAGE OF PRIORITY TIME I
I      MUST CONSULT THE COORDINATOR I
I      I
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--- CPULIST COMMAND ----->>>>

THE ACTUAL USAGE OF SUBMIT TIME AS WELL AS EXECUTION TIME CAN BE OBTAINED BY THE NEWLIB COMMAND

((CPULIST))

THIS COMMAND WILL GIVE A LIST OF THE TIME USAGE OF EVERY USER FOR THE PREVIOUS DAY OR THE PREVIOUS MONTH. THUS MISUSE WILL SOONER OR LATER BE DETECTED.

--- COOPERATION ----->>>>

THE TIME BEFORE IMPORTANT CONFERENCES IS NORMALLY CHARACTERIZED BY DIFFICULT CONDITIONS AT THE DESK COMPUTER, WITH LITTLE OR NO CHANCE TO GET LOW PRIORITY JOBS THROUGH, ESPECIALLY IF THEY USE A TAPEDRIVE. MOREOVER, CERTAIN PROJECTS WILL HAVE TO BE GIVEN HIGHER WEIGHT THAN OTHERS, IN ORDER THAT IMPORTANT RESULTS WILL BE READY IN TIME. SPECIAL REGULATIONS WILL BE ISSUED AS REQUIRED AND AFTER DISCUSSION, E.G. IN THE JADE MEETING.

IN SUCH SITUATIONS THE JADE COLLABORATION WOULD BE SEVERELY HAMPERED BY A "WILD" USAGE OF THE PRIORITY TIME, ON A "FIRST COME, FIRST SERVED" BASIS. SIMILARLY, A SQUANDERING OF THE CONTINGENT TIME BY IGNORANCE CAN NOT BE TOLERATED. TO ACHIEVE A SMOOTH COMPUTING WITHIN THE JADE COLLABORATION WITHOUT SEVERE RESTRICTIONS FOR THE INDIVIDUAL, THE COOPERATION OF EVERYBODY IS NEEDED. ON THE OTHER HAND, IF LARGE AMOUNTS OF SUBMIT TIME STILL REMAINS LATE IN THE EVENING AND NOBODY ELSE IS AROUND TO USE IT, ONE SHOULD FEEL FREE TO MAKE SENSIBLE USE OF IT.

