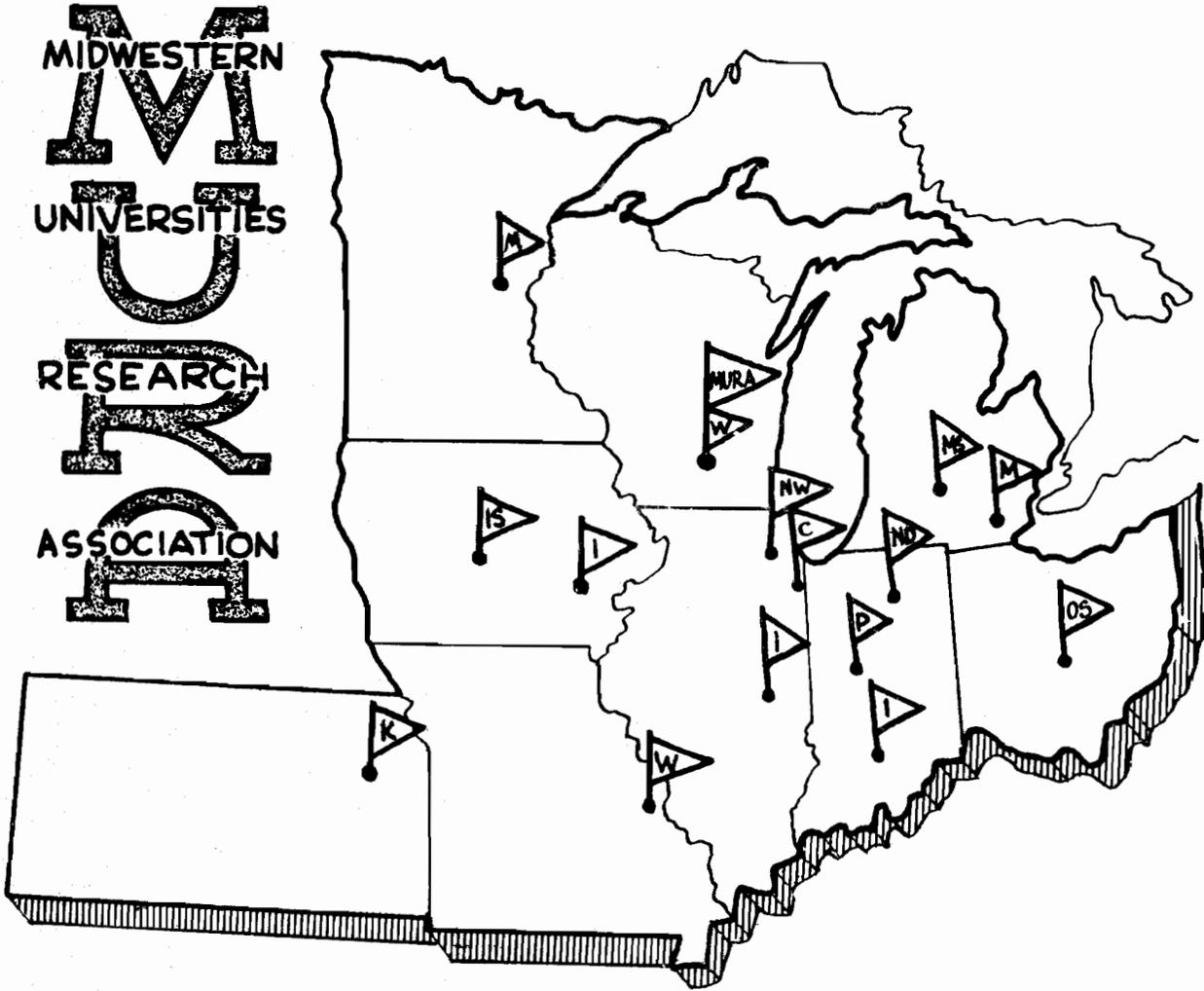




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REPORT

FORMESH WITH MUMBLEBUMPS NUMBER
 (Program 61)
 February-March, 1957

235

Internal
 (IBM Program)

FORMESH WITH MUMBLEBUMPS (Program 61)

J. N. Snyder

This program originated via the memorandum, L. Jackson Laslett to J. N. Snyder of 29 Dec. 1956.

The program is a version of FORMESH (Program 26) in which the machine is regarded as having a larger periodicity than the sector periodicity superimposed on the latter. This larger period has N_B integration steps. The counter C_B which counts this periodicity can be given an initial setting $(C_B)_0$. If this be not done, the value zero will automatically be used.

Integration proceeds as usual using a multiple a of the fields from mesh A (called the "Normal mesh") until $C_B = \mathcal{N}_{IN}$ (≥ 1 is necessary) at which time a multiple b of the fields from mesh B (called the "Bumped mesh") is used until $C_B = \mathcal{N}_{OUT}$ ($< N_B$ is necessary) at which time mesh A is used again. ETC. These changes are made after the integration step in question but before printing, if printing be called for on the step. The parameters used are always those of mesh A. $a/2$ and $b/2$ must be entered on the agendum sheet. The quantities entered must not exceed 1.

Each mesh can be produced from FOROCYL or FORMERGE in the standard way. The limitation $3ab \leq 3695$ (or 3649 if FORMESH INVARIANTS are being computed also) must be observed. Larger meshes may be read into the machine if the b_{PHONY} procedure is also executed where b_{PHONY} satisfies the above condition.

If sense switch 4 be moved up the switching of meshes will be cancelled and the problem will run on the mesh then being used until sense switch 4 be moved down. However, phase will not be lost in this process.

Printing format is the same as FORMESH except that the Program Number 61 61 61 61 61 will appear. The mesh ID number printed will be that of mesh A.

A sample agendum sheet for FORMESH MUMBLEBUMPS is attached.

FORMESH MUMBLEDUMPS
PROGRAM 61
AGENDUM SHEET

(To be attached by staples to the front of a series of FORMESH runs)

Sense Switch 4 must be down; otherwise bumps are omitted even if overwrite be present.

Employs:

FOROCYL MESH A (NORMAL MESH)	
FOROCYL MESH B (BUMPED MESH)	

Each to have $3ab \leq 3695$ (3649 with invariants) or else enter b_{PHONY} on FORMESH run sheets.

INTEGERS (Go among FORMESH DATA)

Parameter	Address	Value	Remarks
N_B	7601		Held from run to run
n_{IN}	7602		Held from run to run
n_{OUT}	7603		Held from run to run
$(C_B)_0$	7589		Must be reset on each run

FRACTIONS (Go into FORMESH PROGRAM DECK)

Parameter	Address	Value	Remarks
$a/2$	7500		Held from run to run
$b/2$	7501		Held from run to run
Both these values must be entered			$12R =$ MUMBLEDUMPS DATA

Are FORMESH INVARIANTS to be used?

Check, if yes

Attach FORMESH INVARIANTS AGENDUM SHEET following this sheet but before FORMESH sheets for each run of series.