Scientific Notebook #074A

RECORD

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074a issued To
Ron JANETZKE 3/31/93.
For SCCEX Code
work.

3/17/2000
BRUCE MAGALITO
CNWRA QA

20-5702-012

Substantially Complete Containment Example

SCCEX

Ron Janetzke
210-522-3318

Apr. 2, 1993

Prasad Nair, John Walton

Co-ordinated View graphs for Apr. 8 presentation

Files available on Scratchy.

Path: ~/sccex

brine.f
bulk.f
ecorr.f
hist.f
input.f
ode.f
subroutines.f
vapor.f
watt.f
input.dat
input.new (reformatted input.dat)
makefile
inside.out
main.out
simple.out
summary.out

compiles + runs with SIGFPE's.
Ron J

Apr. 6, '93

John Walton, Tony Torng

STRENGTH code will be added to the executive. IT will supply failure times. IT will receive a multipart file from SCCEX, one part for each cell. IT will handle 3 types of failure

- Buckling
- ductile yielding
- fracture

under a constant seismic load of 0.4 G.

OUTPUT to executive will have 3 columns:

- Zone #
- Time of failure
- Type of failure
  - 1 = fracture
  - 2 = buckling
  - 3 = yield
  - 4 = none

Possibly should include weighting factor for cell (zone) as 4th column.

Ron J

Apr. 8, '93

NRC meeting.

CCDF candidates:

- time of first wetting
- time of first leachate

Ron J

May 4, '93

Smlexc compiles on SUN, but has no SCCEX specific code.

Ron J

May 6, '93

Install and compile (in VAX mode) latest preFOR version of LHS.

Ron J

May 12, '93

Create SCCS for lhs3.

Store lhs.pre.

smlexc compiled with no SCCEX specific modifications yet applied (generic).

Ron J

May 17, '93

SCCEXP

Coded + debugged.

Ron J

May 18, '93

LHS + SCC EXP run as part of SMLEXC, with errors.

Ron J

May 19, '93

John Walton delivers new code with corrosion parameters added to input, and sampled set.
scratchy/sccex/JCW/*

Ron J

May 20, '93

SMLEXC without the Walton updates, runs without errors.

FIX = declare SUNOS 'system' function as INTEGER.

Ron J

May 21, '93

SCCEXP runs with Walton updates.

Ron J

May 25, '93

SMLEXC modified to handle SCCEX subprocess.

Meeting: Nair, Walton, Torng

Report draft 8-1-93

Local Equilibrium = 1 => yes => SCCEX will run faster.

ACTION: Performance analysis of SCCEX.

Ron J

May 26, '93

Telecon: Torng

Transferred STRENGTH code

from trantor: ~/SCCEX/MECH

to scratchy: ~/sccex/mech.

Failure type codes

0	none
1	buckling
2	fracture
3	yield

Ron J

May 27, '93

Telecon: Nair

Failure types are mutually exclusive.

Ron J

May 28, '93

Walton leaves the Institute.

He has deposited all his code on GOLIATH.

Ron J

May 28, '93

Add a new failure type
- corrosion.

Failure type codes

0 - none
1 - buckling
2 - fracture
3 - yield
4 - corrosion

Ronf

June 15, '93

Jorng

Data file format for executive

sccsml.dat

Title
Version
# of cell groups
[~~cell # or~~ group #
weight (# of cells in group)
failure time, type
wetting time, 0 = dry, 1 = wet
Leachate time, 0 = none, 1 = leachate
2 [⋮

Ronf

June 15, '93

Telecon: Torng, Walton

Mechanical will be merged into brine by Torng.

Ron J

July 16, '93

fT7 -C

Compiling and linking with the -C (uppercase) option causes 'smlexc' to crash. SUN compiler bug.

Ron J

July 19, '93

ODE has divide by 0 using 'ifudge'. Remove ieee fp notices by compiling without '-fast', & use call ieee_flags('clearall', 'exception', 'all', out) Ron J

Aug. 12, '93

cc mail on Scratchy

The ~~[illegible]~~ smlexc code crashes during the LHS sub-process on scratchy if cc mail is running.

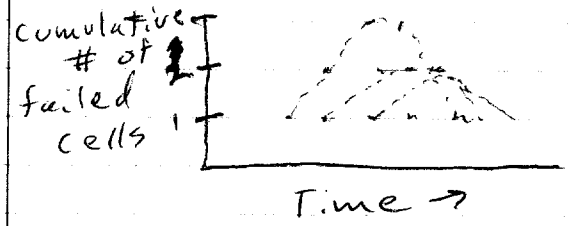
Ron J.

Sept. 12, '93

Production Runs.

hot	304L	50 vectors	on	Scratchy
warm	"	"	"	goliath
cold	"	"	"	"
warm	"	100 vectors	"	"

Desire:



Ron J.

This scientific notebook appears to have been properly maintained. It may be closed out.

Gordon Wittmeyer
3/14/2000

CNWRA Scientific Notebook No. 074a closed out 3/14/00. Discussions held with S. Mohanty and R. Janetzke to resolve the two (2) No. 074 notebooks that were issued in 3/93. This is now No. 074a.

[illegible]
3/17/2000