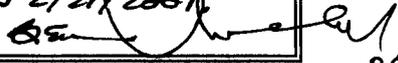


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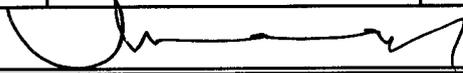
SOFTWARE RELEASE NOTICE

| | | |
|---|----------------------|---------------------------------|
| 1. SRN Number: <i>MGFE-SRN-240</i> | | |
| 2. Project Title: Repository Design and Thermal-Mechanical Effects | | Project No. 20.01402.671 |
| 3. SRN Title: ABAQUS Version 6.1 | | |
| 4. Originator/Requestor: Bruce Mabrito | | Date: 02/19/2001 |
| 5. Summary of Actions | | |
| <input type="checkbox"/> Release of new software <input checked="" type="checkbox"/> Release of modified software: <input checked="" type="checkbox"/> Enhancements made <input type="checkbox"/> Corrections made <input type="checkbox"/> Change of access software <input checked="" type="checkbox"/> Software Retirement <i>See 8/16/2001</i> | | |
| 6. Persons Authorized Access | | |
| Name | Read Only/Read-Write | Addition/Change/Delete |
| Goodluck Ofoegbu | Read Only | Change |
| Doug Gute | Read Only | Change |
| Amitava Ghosh | Read Only | Change |
| Simon Hsiung | Read Only | Change |
| Biswajit Dasgupta | Read Only | Change |
| 7. Element Manager Approval:  | | Date: 2-20-01 |
| 8. Remarks: Access is not limited for commercial software. <i>NOTE THAT THE DESIGN VERIFICATION REPORT WAS COMPLETED BY S. MABRITO AND G. OFOEGBU ON 2/21/2001</i>  | | |

2-22-2001

11

SOFTWARE RELEASE NOTICE

| | | |
|--|----------------------|------------------------------------|
| 1. SRN Number: MGFE-SRN-191 240 | | |
| 2. Project Title: Repository Design & Thermal-Mechanical Effects | | Project No.: 20-1402-671 |
| 3. SRN Title: ABAQUS/Pre Version 6.1 | | |
| 4. Originator/Requestor: Bruce Mabrito | | Date: 08/15/2001 |
| 5. Summary of Actions | | |
| <input type="checkbox"/> Release of new software <input type="checkbox"/> Release of modified software: <input type="checkbox"/> Enhancements made <input type="checkbox"/> Corrections made <input type="checkbox"/> Change of access software <input checked="" type="checkbox"/> Software Retirement | | |
| 6. Persons Authorized Access | | |
| Name | Read Only/Read-Write | Addition/Change/Delete |
| Goodluck Ofoegbu | Read Only | Change |
| Doug Gute | Read Only | Change |
| Amitava Ghosh | Read Only | Change |
| Simon Hsiung | Read Only | Change |
| Biswajit Dasgupta | Read Only | Change |
| 7. Element Manager Approval:  | | Date: 8-16-01 |

SOFTWARE SUMMARY FORM

| | | | |
|--|--|---|--|
| 01. Summary Date: 02/19/2001 | 02. Summary prepared by (Name and phone) Bruce Mabrito, (210) 522-5149 | 03. Summary Action: New | |
| 04. Software Date: 02/19/2001 | 05. Short Title: ABAQUS Version 6.1 | | |
| 06. Software Title: ABAQUS Version 6.1 | | | 07. Internal Software ID: NONE |
| 08. Software Type: <input type="checkbox"/> Automated Data System <input checked="" type="checkbox"/> Computer Program <input type="checkbox"/> Subroutine/Module | 09. Processing Mode: <input checked="" type="checkbox"/> Interactive <input checked="" type="checkbox"/> Batch <input type="checkbox"/> Combination | 10. Application Area a. General: <input checked="" type="checkbox"/> Scientific/Engineering <input type="checkbox"/> Auxiliary Analyses <input type="checkbox"/> Total System PA <input type="checkbox"/> Subsystem PA <input type="checkbox"/> Other b. Specific: | |
| 11. Submitting Organization and Address: CNWRA/SwRI 6220 Culebra Road San Antonio, TX 78228 | | 12. Technical Contact(s) and Phone: Goodluck Ofoegbu (210) 522-6641 Doug Gute (210) 522-2307 | |
| 13. Software Application: Used for thermal and mechanical modeling | | | |
| 14. Computer Platform "Pluto" Server (Silicon Graphics) | 15. Computer Operating System: IRIS 6.5 | 16. Programming Language(s): FORTRAN | 17. Number of Source Program Statements: N/A |
| 18. Computer Memory Requirements: N/A | 19. Tape Drives: NONE | 20. Disk Units: N/A | 21. Graphics: XWINDOW System |
| 22. Other Operational Requirements NONE | | | |
| 23. Software Availability: <input type="checkbox"/> Available <input checked="" type="checkbox"/> Limited <input type="checkbox"/> In-House ONLY | | 24. Documentation Availability: <input checked="" type="checkbox"/> Available <input type="checkbox"/> Preliminary <input type="checkbox"/> In-House ONLY | |
| 25. Software Developer/Contact Person:  Date: 2/20/2001 | | | |

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CENTER FOR NUCLEAR WASTE REGULATORY ANALYSES DESIGN VERIFICATION REPORT FOR CNWRA SOFTWARE

ACQUIRED CODE - NOT TO BE MODIFIED¹

Software Title/Name: ABAQUS Version 6.1

Version: 6.1

Demonstration workstation: "CALIB" - Bldg 189, Room A112 - SSWR *logged into*

Operating System: UNIX - specifically IRIX 6.5w 2/21/2001 *"Pluto"*

Developer: Hibbitt, Karlsson & Sorensen, Inc.
Pawtucket, RI

1. Output: TOP-018, Section 5.5.4

Software designed so that individual runs are uniquely identified by Date, Time, Name of software and version?

Yes: No: N/A:

Date and time of run: Accept "AS IS" per instructions.

Name and version: _____

Notes: Acquired code that is not to be modified is accepted as is.

2. Medium and Header Documentation: TOP-018, Section 5.5.6

The physical labeling of software medium (tapes, disks, etc.) contain required information?

Yes: No: N/A:

Program Name: yes - ABAQUS

Module/Name/Title: Version 6.1 - SGI 32 bit / SGI 64 bit

Module Revision: 6.1

File Type (ASCII, OBJ, EXE): Executable code only

Recording Date: 3000 SW 2/22/2001

Operating System of Supporting Hardware: SGI-IRIX 64

Notes: Acquired code that is not to be modified may not have all above elements.

¹ See TOP-018, Table 1 for criteria.

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DESIGN VERIFICATION REPORT FOR CNWRA SOFTWARE
ACQUIRED CODE - NOT TO BE MODIFIED

3. User's Manual: TOP-018, Section 5.5.5

a) Is there a Users' Manual for the software?

Yes: No: N/A:

User's Manual Version and Date: 6.1 - year 2000

Notes: Kept in A112 Room of Bldg 189.

b) Are there basic instructions for the use of the software?

Yes: No: N/A:

Location of Instruction: In Users Manual -

Notes: in Bldg 189, Room A112.

4. Acceptance Testing: TOP-018, Section 5.6

a) Has installation testing been conducted for each intended computer platform and operating system?

Yes: No: N/A:

Platform(s): Tested on Pluto Server

Operating System(s): TRIX.

Location of Test Results: In This folder.

Notes:

5. Configuration Control: TOP-018, Section 5.7

a) Is the Software Summary Form completed and signed?

Yes: No: N/A:

Software Summary Form Approval Date: 2/20/2001

Notes:

b) Is a software technical description prepared, documenting the essential mathematical and numerical basis?

Yes: No: N/A:

Location Technical Description: in Users Manuals - in Bldg 189 Room A112.

Notes:

c) Is the source code available (or, is the executable code available in the case of (acquired/commercial codes)?

Yes: No: N/A:

Location of Source Code: With company that developed code -

Notes:

carried has only executable which is leased annually.

DESIGN VERIFICATION REPORT FOR CNWRA SOFTWARE
ACQUIRED CODE - NOT TO BE MODIFIED

6. Configuration Control, continued: TOP-018, Section 5.7

Have all the script/make files and executable files been submitted to the Software Custodian?

Yes: No: N/A:

Location of Script/Make Files: in CNWRA QA Records Room

Notes: in Bldg 189.

7. Software Release: TOP-018, Section 5.9

Upon acceptance of the software as verified above, has a Software release Notice, Form TOP-6 been issued?

Yes: No: N/A:

Version number on software (1.0 for 1st issue): 6.1 on THIS SOFTWARE

Version number on SRN: Version 6.1

Notes:

8. Software Validation: TOP-018, Section 5.10

a) Has a Software Validation Test Plan (SVTP) been prepared for the range of application of the software?

Yes: No: N/A:

Version/Date of SVTP: performed by developer

Date reviewed and approved via QAP-002: N/A

Notes:

b) Has a Software Validation Test Report (SVTR) been prepared that documents the results of the validation cases, interpretation of the results, and determination if the software has been validated?

Yes: No: N/A:

Version/Date of SVTR: performed by developer

Date reviewed and approved via QAP-002: N/A

Notes:

Additional Remarks:

[Signature]
CNWRA Software Developer/Date
Contact Person
2/21/2001

[Signature] 2/22/2001
CNWRA Software Custodian/Date

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PLUTO.ofoegbu: abaqus58 post restart=dm501
 ABAQUS Warning: Your ABAQUS license will expire in 7 days
 Please contact your local ABAQUS support office to renew your license.
 Old journal file exists. Overwrite? (y/n): y
 ABAQUS JOB abaqus
 Wed Feb 21 16:48:04 CST 2001
 The ABAQUS License Manager checked out one license
 from the license server on pluto
 (0 out of 1 licenses remain available).
 ABAQUS Warning: Your ABAQUS license will expire in 7 days
 Please contact HKS to renew your license.

***NOTE: YOUR POST LICENSE WILL EXPIRE ON 2/28/2001. POST JOBS WILL NO LONGER
 RUN AFTER THIS DATE. PLEASE RENEW YOUR POST LICENSE IMMEDIATELY.

ON MACHINE pluto,
 YOU ARE AUTHORIZED TO RUN
 POST UNTIL FEB. 28, 2001

YOUR SITE ID IS: 08SRI2

FOR USE BY Southwest Research Institute UNDER LICENSE FROM HKS, INC.

ABAQUS/Post Version 5.8-16

Reading restart file : dm501

| | | |
|--------------------------|-------------------|----------------|
| ABAQUS Version: 5.8-16 | Date: 24-AUG-2000 | Time: 16:15:46 |
| No. of elements : 2449 | | |
| No. of nodes : 7580 | | |
| No. of element sets : 10 | | |
| No. of node sets : 7 | | |

*This shows typical output and this is Version 5.8 of ABAQUS, NOT
 Version 6.1. Version 6.1 has these same features, and this is evidence
 of capability. Steve M... 2/21/2001.*

6/10
***NOTE: YOUR POST LICENSE WILL EXPIRE ON 2/28/2001. POST JOBS WILL NO LONGER
RUN AFTER THIS DATE. PLEASE RENEW YOUR POST LICENSE IMMEDIATELY.

ON MACHINE pluto,
YOU ARE AUTHORIZED TO RUN
POST UNTIL FEB. 28, 2001

YOUR SITE ID IS: 08SRI2

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ABAQUS/Post Version 5.8-16

Reading restart file : dm501

ABAQUS Version: 5.8-16

Date: 24-AUG-2000

Time: 16:15:46

No. of elements : 2449
No. of nodes : 7580
No. of element sets : 10
No. of node sets : 7

Reading element data...
Reading node data...
Reading element sets...
Reading node sets...

Restart file = dm501

Current step/inc = 3 / 44

Wed Feb 21 16:53:12 CST 2001

ABAQUS JOB abaqus COMPLETED

PLUTO.ofoegbu: █

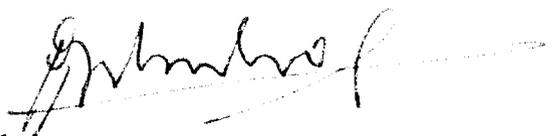
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CENTER FOR NUCLEAR WASTE REGULATORY ANALYSES

MEMORANDUM

February 20, 2001

TO: Bruce Mabrito
FROM: Goodluck Ofoegbu
SUBJECT: ABAQUS 6.1 Installation



ABAQUS 6.1, the latest update of the ABAQUS analysis software, has been installed on the CNWRA Silicon Graphics computer platform named "Pluto." The installation was performed in my presence by Jose DeLaEspriella who conducted the standard installation-verification tests supplied by the vendor. The result of the verification tests (Attachment 1) show that the software has been installed properly. Thank you.

ABAQUS Product Install Verification...

Mon Feb 19 10:55:00 2001

Making /verify. All verification files will reside in this directory.

ABAQUS/Standard

...PASS

Continuing...

ABAQUS/Standard w/User Subroutines

...PASS

Continuing...

ABAQUS/Explicit (single precision)

...PASS

Continuing...

ABAQUS/Explicit (double precision)

...PASS

Continuing...

ABAQUS/Explicit w/User Subroutines (single precision)

...PASS

Continuing...

ABAQUS/Explicit w/User Subroutines (double precision)

...PASS

Continuing...

Acceptance Testing
by CNWRA.

ABAQUS/Viewer

...PASS
Continuing...

ABAQUS/CAE

...PASS
Continuing...

ABAQUS/ADAMS

...WARNING
Product is not licensed, verification procedure will be
skipped.
Continuing...

ABAQUS/C-MOLD

...WARNING
Product is not licensed, verification procedure will be
skipped.
Continuing...

ABAQUS/Standard Parametric Study

...PASS
Continuing...

ABAQUS/Explicit Parametric Study

...PASS
Continuing...

ABAQUS/Design

...WARNING

Product is not licensed, verification procedure will be
skipped.

Continuing...

Clean-up...

Verification directory /verify has been deleted.