


# SOFTWARE RELEASE NOTICE

01. SRN Number:EBS-SRN-158		
02. Project Title: Hanford TWRS-HLW Chemistry Manual		Project No. 20-5709-106
03. SRN Title: Installation of ORIGEN v. 2.1		
04. Originator/Requestor: Mark Jarzempa		Date: 9/15/97
05. Summary of Actions <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Release of new software</li> <li><input type="checkbox"/> Release of modified software:             <ul style="list-style-type: none"> <li><input type="checkbox"/> Enhancements made</li> <li><input type="checkbox"/> Corrections made</li> </ul> </li> <li><input type="checkbox"/> Change of access software</li> <li><input type="checkbox"/> Software Retirement</li> </ul>		
06. Persons Authorized Access		
Name	RO/RW	A/C/D
Mark Jarzempa	Read Only	A
James Weldy	Read Only	A
07. Element Manager Approval: <i>N. Jarzempa</i>		Date: 10/10/97
08. Remarks: Software installed and tested on 'Yucca'.		

# SOFTWARE SUMMARY FORM

01. Summary Date: 9/15/97	02. Summary prepared by (Name and phone) Mark Jarzempa (210)522-6828	03. Summary Action:  NEW	
04. Software Date: 8/1/91	05. Short Title: Installation of ORIGIN version 2.1		
06. Software Title: ORIGIN v. 2.1		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 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:  Oak Ridge National Laboratory		12. Technical Contact(s) and Phone:  Mark Jarzempa (210)522-6828	
13. Narrative:  ORIGIN 2.1 calculates radionuclide inventory, thermal powerm and some other characteristics of nuclear fuel after irradiation in a power reactor.			
14. Computer Platform:  SUN	15. Computer Operating System:  UNIX	16. Programming Language(s):  FORTRAN 77	17. Number of Source Program Statements:  11,138
18. Computer Memory Requirements:  4 Mb	19. Tape Drives:  NONE	20. Disk/Drum Units:  20 Mb	21. Graphics:  NONE
22. Other Operational Requierments: None			
23. Software Availability:  <input checked="" type="checkbox"/> Available <input type="checkbox"/> Limited <input type="checkbox"/> In-House ONLY		24. Documentation Availability:  <input checked="" type="checkbox"/> Available <input type="checkbox"/> Inadequate <input type="checkbox"/> In-House ONLY	
Software Custodian: <u></u> Date: <u>10/10/97</u>			

Sep 15, 1997

To: Bruce Mabrito  
Director: Quality Assurance

From: Mark Jarzempa  
Research Engineer



Re: Installation of ORIGEN Version 2.1

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This memo serves as documentation describing the installation and testing of the subject code. I installed the code on 'yucca', an ipx sparcstation currently located in Bldg. 57 from a copy that was purchased from the Radiation Shielding Information Center (RSIC) at Oak Ridge National Laboratory.

As a part of the installation, testing was performed to validate the proper operation of the code. The code comes with sample input and output files presumably developed with a controlled version by the authors of the code. I ran our compiled version of the code using one of the input sample files provided with the code. I then compared the output file that came with the code to the output file generated with our compiled version of the code and found no significant differences between the two (some formatting differences were found; blank lines, etc.).

The records of this test are stored in the directory 'home2/yucca/mjarzempa/origen2/install\_test' on yucca and will be maintained there. The files referred to above are:

'test.inp'-	test input file provided with ORIGEN v. 2.1
'test.con'-	corresponding test output file provided with ORIGEN v. 2.1
'test.out'-	output file generated with the Center's compiled version of the code.

total 15508

```
-rw-r--r-- 1 mjarzenbausers 3743 Jul 22 1996 HEADER.02
-rw-r--r-- 1 mjarzenbausers 2430 Jul 22 1996 PARAMS.02
-rw-r--r-- 1 mjarzenbausers 165483 Jul 7 14:19 TAPE10.INP
-rw-r--r-- 1 mjarzenbausers 3636 Jul 7 14:12 TAPE11.OUT
-rw-r--r-- 1 mjarzenbausers 13279 Jul 7 14:12 TAPE12.OUT
-rw-r--r-- 1 mjarzenbausers 0 Jun 27 16:38 TAPE13.OUT
-rw-r--r-- 1 mjarzenbausers 73661 Jul 7 14:12 TAPE15.OUT
-rw-r--r-- 1 mjarzenbausers 131362 Jul 7 14:12 TAPE16.OUT
-rw-r--r-- 1 mjarzenbausers 578 Jul 7 14:19 TAPE3.INP
-rw-r--r-- 1 mjarzenbausers 0 Jun 27 16:38 TAPE4.INP
-rw-r--r-- 1 mjarzenbausers 18517 Jul 7 14:19 TAPE5.INP
-rw-r--r-- 1 mjarzenbausers 36045 Jul 7 14:11 TAPE50.OUT
-rw-r--r-- 1 mjarzenbausers 2777958 Jul 7 14:12 TAPE6.OUT
-rw-r--r-- 1 mjarzenbausers 104256 Jul 7 14:12 TAPE7.OUT
-rw-r--r-- 1 mjarzenbausers 1063935 Jul 7 14:19 TAPE9.INP
-rw-r--r-- 1 mjarzenbausers 332 Jul 22 1996 date.for
-rw-r--r-- 1 mjarzenbausers 1420 Jul 7 13:58 date.o
-rw-r--r-- 1 mjarzenbausers 26 Jul 22 1996 file.txt
-rwxr-xr-x 1 mjarzenbausers 57 Jul 22 1996 link_origen2
-rw-r--r-- 1 mjarzenbausers 264 Jul 22 1996 mods.txt
-rw-r--r-- 1 mjarzenbausers 2123 Jul 22 1996 origen.txt
-rwxr-xr-x 1 mjarzenbausers 696320 Jul 22 1996 origen2
-rwxr-xr-x 1 mjarzenbausers 671172 Jul 7 13:59 origen2.exe
-rw-r--r-- 1 mjarzenbausers 889992 Jul 22 1996 origen2.for
-rw-r--r-- 1 mjarzenbausers 1000040 Jul 7 13:58 origen2.o
-rwxr-xr-x 1 mjarzenbausers 155648 Jul 22 1996 test
-rw-r--r-- 1 mjarzenbausers 272 Jul 22 1996 test.for * source code
yucca# exit
```

*Input/Output*

*data by monk*

*Tarzenba*

*9/15/97*

*For Origen*

*Version 2.1*

*SEE Memo*

*from M. Tarzenba*

goliath[root]107: tar cvf /dev/rmt/0 \*

```
a HEADER.02 8 tape blocks
a PARAMS.02 5 tape blocks
a TAPE10.INP 324 tape blocks
a TAPE11.OUT 8 tape blocks
a TAPE12.OUT 26 tape blocks
a TAPE13.OUT 0 tape blocks
a TAPE15.OUT 144 tape blocks
a TAPE16.OUT 257 tape blocks
a TAPE3.INP 2 tape blocks
a TAPE4.INP 0 tape blocks
a TAPE5.INP 37 tape blocks
a TAPE50.OUT 71 tape blocks
a TAPE6.OUT 5426 tape blocks
a TAPE7.OUT 204 tape blocks
a TAPE9.INP 2078 tape blocks
a date.for 1 tape blocks
a date.o 3 tape blocks
a file.txt 1 tape blocks
a link_origen2 1 tape blocks
a mods.txt 1 tape blocks
a origen.txt 5 tape blocks
a origen2 1360 tape blocks
a origen2.exe 1311 tape blocks
a origen2.for 1739 tape blocks
a origen2.o 1954 tape blocks
a test 304 tape blocks
a test.for 1 tape blocks
goliath[root]108:
```

goliath[root]108: tar tvf /dev/rmt/0

```
-rw-rw-rw- 6828/1      3743 Sep 15 20:36 1997 HEADER.02
-rw-rw-rw- 6828/1      2430 Sep 15 20:36 1997 PARAMS.02
-rw-rw-rw- 6828/1    165483 Sep 15 20:36 1997 TAPE10.INP
-rw-rw-rw- 6828/1      3636 Sep 15 20:36 1997 TAPE11.OUT
-rw-rw-rw- 6828/1     13279 Sep 15 20:36 1997 TAPE12.OUT
-rw-rw-rw- 6828/1         0 Sep 15 20:36 1997 TAPE13.OUT
-rw-rw-rw- 6828/1     73661 Sep 15 20:36 1997 TAPE15.OUT
-rw-rw-rw- 6828/1    131362 Sep 15 20:36 1997 TAPE16.OUT
-rw-rw-rw- 6828/1       578 Sep 15 20:36 1997 TAPE3.INP
-rw-rw-rw- 6828/1         0 Sep 15 20:36 1997 TAPE4.INP
-rw-rw-rw- 6828/1     18517 Sep 15 20:36 1997 TAPE5.INP
-rw-rw-rw- 6828/1     36045 Sep 15 20:36 1997 TAPE50.OUT
-rw-rw-rw- 6828/1   2777958 Sep 15 20:36 1997 TAPE6.OUT
-rw-rw-rw- 6828/1    104256 Sep 15 20:36 1997 TAPE7.OUT
-rw-rw-rw- 6828/1   1063935 Sep 15 20:36 1997 TAPE9.INP
-rw-rw-rw- 6828/1       332 Sep 15 20:36 1997 date.for
-rw-rw-rw- 6828/1     1420 Sep 15 20:36 1997 date.o
-rw-rw-rw- 6828/1        26 Sep 15 20:36 1997 file.txt
-rw-rw-rw- 6828/1        57 Sep 15 20:36 1997 link_origen2
-rw-rw-rw- 6828/1       264 Sep 15 20:36 1997 mods.txt
-rw-rw-rw- 6828/1     2123 Sep 15 20:36 1997 origen.txt
-rw-rw-rw- 6828/1    696320 Sep 15 20:36 1997 origen2
-rw-rw-rw- 6828/1    671172 Sep 15 20:36 1997 origen2.exe
-rw-rw-rw- 6828/1    889992 Sep 15 20:36 1997 origen2.for
-rw-rw-rw- 6828/1   1000040 Sep 15 20:36 1997 origen2.o
-rw-rw-rw- 6828/1    155648 Sep 15 20:36 1997 test
-rw-rw-rw- 6828/1       272 Sep 15 20:36 1997 test.for
```

goliath[root]109: