XML Java Technology for HP OpenVMS Installation Guide and Release Notes

February 2007

Version 2.0, based on
Apache Xerces-Java Version 2.3.0 and
Apache Xalan-Java Version 2.4.1

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Before Installing XML Java Technology

Hardware Prerequisites

XML Java Technology for OpenVMS is available on HP OpenVMS Alpha and HP OpenVMS Industry Standard 64 (I64). XML Java is based on Apache Xerces-Java Version 2.3.0 and Apache Xalan-Java Version 2.4.1.

The XML Java Technology for OpenVMS V2.0 self-extractable file for OpenVMS Alpha and I64 requires approximately 71,500 blocks of disk space. To install the product, a minimum of 197,500 blocks of disk space is required.

Software Prerequisites

For Alpha:

- HP OpenVMS Alpha Version 7.3-2 (or higher)
- HP Software Development Kit (SDK) for the Java™ Platform Version 1.4.2 (or higher)

For I64:

- HP OpenVMS I64 Version 8.2 or higher
- HP Software Development Kit (SDK) for the Java™ Platform Version 1.4.2 (or higher)

For both Alpha and I64:

All patches required for the HP SDK for the Java™ Platform. Check the SDK documentation for the version of Java you are installing to be sure that you have all prerequisite OpenVMS patches.

Installing on an ODS-5 enabled disk is required. Because of long file names and directory depth issues, the installed code base and the accompanying documentation cannot be guaranteed to function properly in a non-ODS5 environment.

Removing Previous Version of XML Java Technology

There are two ways a user can remove the previous installation:

1. Run `XML-J$ROOT:[XML-J-2_0]UNINSTALL_XML-J-2_0.COM` to remove the product. For example, `@ XML-J$ROOT:[XML-J-2_0]UNINSTALL_XML-J-2_0.COM`

2. The PCSI product installation provides an option to delete the previous JAR based installation. It checks for `XML-J$ROOT:[XML-J-2_0]UNINSTALL_XML-J-2_0.COM` and prompts for removal.

Downloading and Installing XML Java Technology

Downloading the Kit

The XML Java Technology for OpenVMS can be obtained in three different ways:

1. OpenVMS Alpha via the e-Biz CDs for OpenVMS Alpha
2. I64 Delta CDs for OpenVMS Integrity
3. OpenVMS website for both OpenVMS Alpha and Integrity. To download the kit, please submit the registration form.

Expanding the Kit

To expand the XML Java Technology for OpenVMS, perform the following steps:

1. Create a temporary directory on an ODS-5 disk to hold the installation file that will be extracted from the `XMLJ-V0200-AXP.EXE` or `XMLJ-V0200-I64.EXE` file. For example:

```
$ CREATE/DIRECTORY DISK$:[TEMP]
```

2. Copy `XMLJ-V0200-AXP.EXE` or `XMLJ-V0200-I64.EXE` to the temporary directory created in Step 1.

3. Set default to the temporary directory created in Step 1. For example:

```
$ SET DEFAULT DISK$:[TEMP]
```

4. Enter the following command to extract PCSI files:

```
$ RUN XMLJ-V0200-AXP.EXE (For Alpha)
$ RUN XMLJ-V0200-I64.EXE (For Integrity)
```

The following is an example of expanding the self-extractable kit on OpenVMS Alpha and I64 respectively.

```
$ RUN XMLJ-V0200-AXP.EXE
UnZipSFX 5.41 of 16 April 2000, by Info-ZIP
(Zip-Bugs@lists.wku.edu).
inflating: hp-vms-xml_j-v0200--1.pcsi$compressed
```

```
      inflating: hp-vms-xml_j-v0200--1.pcsi$compressed_esw

      $ RUN XMLJ-V0200-I64.EXE
      UnZipSFX 5.42 of 14 January 2001, by Info-ZIP
      (Zip-Bugs@lists.wku.edu).
      inflating: HP-VMS-XML_J-V0200--1.PCSI$COMPRESSED
      inflating: HP-VMS-XML_J-V0200--1.PCSI$COMPRESSED_ESW
```

Installing the Kit

To install the XML Java Technology for OpenVMS, enter a command similar to the following:

```
      $ PROD INSTALL XML_J

The following product has been selected:
    HP VMS XML_J V2.0                       Layered Product

Do you want to continue? [YES]

Configuration phase starting ...

You will be asked to choose options, if any, for each selected product
and for any products that may be installed to satisfy software
dependency requirements.

HP VMS XML_J V2.0: XML Java Technology for OpenVMS is based on Apache
Xerces-Jav a Version 2.3.0 and Apache Xalan-Java Version 2.4.1

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* This product does not have any configuration options.

Execution phase starting ...

The following product will be installed to destination:
    HP VMS XML_J V2.0                       DISK$ALPHASYS:[VMS$COMMON.]

Portion done: 0%...10%...80%...90%

XML-J$ROOT, XERCES-J$ROOT and XALAN-J$ROOT have been defined.
The following lines must be added to SYS$MANAGER:SYLOGICALS.COM so
that it will be defined each time the system is rebooted.

define/system/nolog/trans=concealed XML-J$ROOT
DISK$ALPHASYS:[SYS0.SYSCOMMON.XML.]
define/system/nolog/trans=concealed XERCES-J$ROOT
DISK$ALPHASYS:[SYS0.SYSCOMMON.
XML.Xerces-J-2_0.]
define/system/nolog/trans=concealed XALAN-J$ROOT
DISK$ALPHASYS:[SYS0.SYSCOMMON.X
ML.Xalan-J-2_0.]
```

Verification of the installation can be performed using the XML-J Test Procedure. To run the XML-J Test Procedure, enter the following command:

```
 $ @XML-J$ROOT:[XML-J-2_0]XML-J-2_0-TP

The file XML-J$ROOT:[XML-J-2_0]XML-J-2_0_SetClassPath.com has been
provided to set up the Java class path for the XML-J Test Procedure.
It may also be useful to retain for your own XML applications.
...100%

The following product has been installed:
    HP VMS XML_J V2.0                     Layered Product
$
```

After Installing the XML Java Technology for OpenVMS

After the installation is complete, perform the following tasks.

1. Optionally run the XML Java Test Procedure. To run the test procedure, enter the following command:

   ```
   $ @XML-J$ROOT:[XML-J-2_0]XML-J-2_0-TP
   ```

Interpreting the results of the XML Java Test Procedure

The XML Test Procedure compares the output from the tests with a set of benchmarks. Because of the nature of the tests, some differences between the results and the benchmarks are to be expected. The following describes the common differences, which are expected to occur. These differences can be ignored because they do not indicate a potential problem with the XML installation:

Xerces dom.Counter

The output of this program shows the time and count of elements, attributes, ignorable whitespaces, and characters appearing in the document. Three times are shown: the parse time, the first traversal of the document, and the second traversal of the tree. The times are not likely to match the times in the benchmark; however, the element counts should match.

Note: The results produced by this program should never be accepted as true performance measurements.

Following is a session log containing a run of the XML Test Procedure followed by a section showing the differences between the run log and supplied benchmark:

```
$@XML-J$ROOT:[XML-J-2_0]XML-J-2_0-TP

No test specified.  All applicable tests will be run.

Starting Xerces-J tests...
%DCL-S-SPAWNED, process SYSTEM_77 spawned
%DCL-S-ATTACHED, terminal now attached to process SYSTEM_77
%DCL-S-RETURNED, control returned to process SYSTEM

Starting Xalan-J tests...
%DCL-S-SPAWNED, process SYSTEM_155 spawned
%DCL-S-ATTACHED, terminal now attached to process SYSTEM_155
%DCL-S-RETURNED, control returned to process SYSTEM
```

```
Tests complete.  Check XML-J$ROOT:[XML-J-2_0]XML-J-TP.LOG for errors.

$ type XML-J$ROOT:[XML-J-2_0]XML-J-TP.LOG
************
File XML-J$ROOT:[Xerces-J-2_0.samples.RESULTS]XML-XERCES-TP.OUT;1
49 personal.xml: 580;46;0 ms (37 elems, 18 attrs, 140 spaces,
   128 chars)
50 $ java "dom.Counter" -x 5 personal.xml
51 personal.xml: 750/5=150;45;0 ms (37 elems, 18 attrs, 140 spaces,
   128 chars)
52 $ java "dom.Counter" -n personal.xml
53 personal.xml: 581;46;0 ms (37 elems, 18 attrs, 140 spaces,
   128 chars)
54 $ java "dom.Counter" -N personal.xml
55 personal.xml: 581;46;1 ms (37 elems, 18 attrs, 140 spaces,
   128 chars)
56 $ java "dom.Counter" -s personal-schema.xml
57 personal-schema.xml: 1307;30;0 ms (37 elems, 20 attrs, 0 spaces,
   268 chars)
58 $ java "dom.Counter" -S personal-schema.xml
59 personal-schema.xml: 1312;28;1 ms (37 elems, 20 attrs, 0 spaces,
   268 chars)
60 $ java "dom.Counter" -f personal.xml
61 personal.xml: 575;54;1 ms (37 elems, 18 attrs, 140 spaces,
   128 chars)
62 $ java "dom.Counter" -F personal.xml
63 personal.xml: 580;51;1 ms (37 elems, 18 attrs, 140 spaces,
   128 chars)
64 $ java "dom.Counter" -v personal.xml
65 personal.xml: 620;44;1 ms (37 elems, 18 attrs, 140 spaces,
   128 chars)
66 $ java "dom.Counter" -V personal.xml
67 personal.xml: 626;45;0 ms (37 elems, 18 attrs, 140 spaces,
   128 chars)
68  $ set nover
******
File XML-J$ROOT:[Xerces-J-2_0.samples.benchmarks]XML-XERCES-TP.BMK;1
49 personal.xml: 1054;108;1 ms (37 elems, 18 attrs, 140 spaces,
   128 chars)
50 $ java "dom.Counter" -x 5 personal.xml
51 personal.xml: 1259/5=251;107;1 ms (37 elems, 18 attrs, 140 spaces,
   128 chars)
52 $ java "dom.Counter" -n personal.xml
53 personal.xml: 1046;103;1 ms (37 elems, 18 attrs, 140 spaces,
   128 chars)
54 $ java "dom.Counter" -N personal.xml
55 personal.xml: 1050;108;1 ms (37 elems, 18 attrs, 140 spaces,
   128 chars)
56 $ java "dom.Counter" -s personal-schema.xml
57 personal-schema.xml: 2507;64;1 ms (37 elems, 20 attrs, 0 spaces,
   268 chars)
58 $ java "dom.Counter" -S personal-schema.xml
59 personal-schema.xml: 2617;64;0 ms (37 elems, 20 attrs, 0 spaces,
   268 chars)
60 $ java "dom.Counter" -f personal.xml
61 personal.xml: 1094;109;1 ms (37 elems, 18 attrs, 140 spaces,
   128 chars)
```

```
62 $ java "dom.Counter" -F personal.xml
63 personal.xml: 1022;115;1 ms (37 elems, 18 attrs, 140 spaces,
   128 chars)
64 $ java "dom.Counter" -v personal.xml
65 personal.xml: 1080;112;0 ms (37 elems, 18 attrs, 140 spaces,
   128 chars)
66 $ java "dom.Counter" -V personal.xml
67 personal.xml: 1216;112;0 ms (37 elems, 18 attrs, 140 spaces,
   128 chars)
68 $ set nover
************

Number of difference sections found: 1
Number of difference records found: 19

DIFFERENCES
/IGNORE=(SPACING,TRAILING_SPACES,FORM_FEEDS,CASE,BLANK_LINES)/MERGED=1-
XML-J$ROOT:[Xerces-J-2_0.samples.RESULTS]XML-XERCES-TP.OUT;1-
XML-J$ROOT:[Xerces-J-2_0.samples.benchmarks]XML-XERCES-TP.BMK;1
Number of difference sections found: 0
Number of difference records found: 0

DIFFERENCES
/IGNORE=(SPACING,TRAILING_SPACES,FORM_FEEDS,CASE,BLANK_LINES)/MERGED=1-
XML-J$ROOT:[Xalan-J-2_0.samples.RESULTS]XML-XALAN-TP.OUT;1-
XML-J$ROOT:[Xalan-J-2_0.samples.benchmarks]XML-XALAN-TP.BMK;1
```

2. To locally access the XML Java reference page, point your browser to the following URL:

```
file:///XML-J$ROOT/XML-J-2_0/index.html
```

Installing the sources and documentation

The sources and documentation are provided in the form a backup savesets. The “sources” restore operation requires approximately 122,898 blocks of disk space and the “documentation” restore operation requires approximately 35,208 blocks of disk space. Execute the following command to restore the documentation and sources.

```
$ set def XML-J$ROOT:[000000]
$ @xmlj_restore_backups.com

*** THIS PROCEDURE WILL LET YOU RESTORE DOCUMENTATION OR SOURCE
OR BOTH ON TO XML-J$ROOT:[000000…] ***
            1. RESTORE DOCUMENTATION ONLY
            2. RESTORE SOURCES ONLY
            3. RESTORE DOCUMENTATION AND SOURCES
                4. EXIT
TYPE 1 OR 2 OR 3 OR 4 : 1

BACKUP RESTORE OPERATION STARTS.....

DOCUMENTATION IS RESTORED.
$ @xmlj_restore_backups.com
*** THIS PROCEDURE WILL LET YOU RESTORE DOCUMENTATION OR SOURCE
OR BOTH ON TO XML-J$ROOT:[000000…] ***
             1. RESTORE DOCUMENTATION ONLY
             2. RESTORE SOURCES ONLY
```

```
              3. RESTORE DOCUMENTATION AND SOURCES
              4. EXIT
TYPE 1 OR 2 OR 3 OR 4 : 2

BACKUP RESTORE OPERATION STARTS.....

SOURCE IS RESTORED
$ @xmlj_restore_backups.com
*** THIS PROCEDURE WILL LET YOU RESTORE DOCUMENTATION OR SOURCE
OR BOTH ON TO AXIS$ROOT:[000000…] ***
              1. RESTORE DOCUMENTATION ONLY
              2. RESTORE SOURCES ONLY
              3. RESTORE DOCUMENTATION AND SOURCES
              4. EXIT
TYPE 1 OR 2 OR 3 OR 4 : 3
BACKUP RESTORE OPERATION STARTS.....

DOCUMENTATION AND SOURCES ARE RESTORED
$ @xmlj_restore_backups.com
*** THIS PROCEDURE WILL LET YOU RESTORE DOCUMENTATION OR SOURCE
OR BOTH ON TO AXIS$ROOT:[000000…] ***
              1. RESTORE DOCUMENTATION ONLY
              2. RESTORE SOURCES ONLY
              3. RESTORE DOCUMENTATION AND SOURCES
              4. EXIT
TYPE 1 OR 2 OR 3 OR 4 : 4
$
```

Removing the Kit

To remove the XML Java Technology for OpenVMS, enter the following command:

```
$ PROD REMOVE XML_J
```

The sample output of a product remove operation is shown below.

```
The following product has been selected:

    HP VMS XML_J V2.0                     Layered Product

Do you want to continue? [YES]
The following product will be removed from destination:
    HP VMS XML_J V2.0
DISK$I64WRKA:[FINAL_XMLJ_KIT.XML_TEST.]
Portion done:
0%...10%...20%...30%...40%...50%...60%...70%...80%...90%...100%

The following product has been removed:
    HP VMS XML_J V2.0                     Layered Product
$
```

Release Notes

There are no release notes for the current release of XML Java Technology for OpenVMS.

Support

Version 2.0 Customer Release Version

Please see the XML Technology Support Page for support information.

If you do not have a support contract and are not interested in acquiring one, you can informally exchange information with other users in the OpenVMS newsgroup `comp.os.vms`.

For technical feedback to the XML Java Technology for OpenVMS engineering team, please send mail to OpenVMS.eBusiness@hp.com.