Apache Ant for VSI OpenVMS I64

Installation Guide and Release Notes
December 2023

`VSI-I64VMS-ANT-V0107-1C-1.PCSI$COMPRESSED`

Introduction

Thank you for your interest in this port of Apache Ant to VSI OpenVMS I64. The current release of Apache Ant for VSI OpenVMS is based on the Apache Ant 1.7.1 distribution.

Apache Ant (Another Neat Tool) is a Java library and command-line tool primarily used for building Java-based applications, based on supplied description files and build target specifications; however, the design of Ant is sufficiently flexible that it can be used more generally to drive essentially any process that can be described in terms of targets and tasks and be executed by Java.

Ant supplies a number of built-in tasks allowing to compile, assemble, test, and run Java applications. Ant can also be used effectively to build non-Java applications. Users of Ant can develop their own library extensions containing Ant tasks and types and are offered a large number of ready-made commercial or open-source extensions. Ant is extremely flexible and does not impose coding conventions or directory layouts upon the projects that use it as a build tool.

This VSI OpenVMS port of Apache Ant has been modified from the original Ant distribution found at http://ant.apache.org. The modifications were required to allow for differences in behaviour on VSI OpenVMS compared to other operating systems such as Windows and Linux.

Software prerequisites

Apache Ant for VSI OpenVMS I64 requires the following software:

- VSI OpenVMS 8.4-2L1 or higher

- OpenJDK 8 for VSI OpenVMS I64 (any version)

- It is required that you install Apache Ant on an ODS-5 enabled disk

Documentation

For detailed information about using Apache Ant, see the Apache Ant documentation available at https://ant.apache.org/.

Installing Ant

The kit is provided as an OpenVMS PCSI kit (`VSI-I64VMS-ANT-V0107-1C-1.PCSI`) that can be installed by a suitably privileged user using the following command:

```
$ PRODUCT INSTALL ANT
```

The installation will then proceed as follows (output may differ slightly from that shown):

```
Performing product kit validation of signed kits ...

The following product has been selected:
    VSI I64VMS ANT V1.7-1C                    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.

Configuring VSI I64VMS ANT V1.7-1C

    VMS Software Inc.

* This product does not have any configuration options.

Execution phase starting ...

The following product will be installed to destination:
    VSI I64VMS ANT V1.7-1C                    DISK$I64SYS:[VMS$COMMON.]

Portion done:
0%...10%...20%...30%...40%...50%...60%...70%...80%...90%...100%

The following product has been installed:
    VSI I64VMS ANT V1.7-1C                    Layered Product

VSI I64VMS ANT V1.7-1C

    Post-installation tasks are required for Ant for OpenVMS.

    After the installation is complete, perform the following tasks.

        1.  The logical name ANT$HOME must be defined to use Ant 1.7-1.

            $ DEFINE ANT$HOME <ANT Installation Directory>

        2.  The symbol ANT must be defined. For example:

            $ ANT :== @<ANT Installation Directory>.BIN]ANT.COM

        Then the command ANT can be used. For example:

            $ ant "-version" ! must quote DCL params
            $
```

Using Ant

Follow these steps to define the logical name for Ant and to use Ant:

1. The logical name `ANT$HOME` must be defined to use Ant 1.7-1C for OpenVMS. The directories used in the following examples assume that Ant for VSI OpenVMS has been installed into the default location, `SYS$COMMON:[000000]`.

   ```
   $ DEFINE ANT$HOME SYS$COMMON:[ANT_17]
   ```

2. The symbol `ANT` must be defined, for example:

   ```
   $ ANT :== @SYS$COMMON:[ANT_17.BIN]ANT.COM
   ```

3. Then the command `ANT` can be used, as shown below. Note that it may be necessary to quote DCL parameters (as done below), depending on parse style.

   ```
   $ ant "-version"
   ```

Sample post installation steps

Assuming that Ant has been installed into the default location (the `/DESTINATION` qualifier has not been used with "`PRODUCT INSTALL`" to specify an alternative location), developers would issue the following commands to start using the software:

```
$ @sys$startup:openjdk$setup.com
$ define ant$home sys$common:[ant_17]
$ ant :== @sys$common:[ant_17.bin]ant.com
$ ant "-version"
  Apache Ant version 1.7.1 compiled on October 25 2018
```

Known issues

This section provides descriptions of the known issues and limitations that exist in Ant 1.7-1 for VSI OpenVMS I64; they are as follows:

- Any known Java restrictions or limitations, which are documented in the VSI OpenVMS OpenJDK release notes.

- Failures with several `org.apache.tools.ant.types.selectors` that rely on obtaining the current file size from C functions `fstat()` or `stat()`, which will fail to return the correct file size for files still open for write that have been modified.

- Filename matching on OpenVMS is case-insensitive, which can lead to issues if an application attempts to access two filenames that only differ by case.

- Java on VSI OpenVMS does not allow redirecting `stdin` or `stdout` via the UNIX style file sharing methods.