VMS Software

SWIG for OpenVMS I64 and Alpha

December 2021

```
VSI-I64VMS-SWIG-V0401-0-1.PCSI$COMPRESSED
VSI-AXPVMS-SWIG-V0401-0-1.PCSI$COMPRESSED
```

1.   Introduction

Thank your for your interest in this port of SWIG to OpenVMS. The current release of SWIG for OpenVMS is based on the SWIG 4.1.0 Open Source distribution.

SWIG (Simplified Wrapper and Interface Generator, http://www.swig.org/) connects libraries written in C/C++ with scripting languages such as Lua, Perl, PHP, Python, R, Ruby, Tcl, and with other languages like C#, Java, and JavaScript, facilitating the calling of native functions from these other languages. Input to SWIG is an interface definition that looks similar a C header file with a few extra constructs, and output is generated code that can be compiled and linked to provide the desired interface.

This OpenVMS port of the SWIG includes all functionality provided by the Open Source 4.1.0 release.

2.   Acknowledgements

VMS Software Inc. would like to acknowledge the work of the SWIG development team for their on-going efforts in developing and supporting this product.

3.   Requirements

The kit you are receiving has been compiled and built using the operating system and compiler versions listed below. While it is highly likely that you will have no problems installing and using the kit on systems running higher versions of the products listed, we cannot say for sure that you will be so lucky if your system is running older versions.

- OpenVMS 8.4-1H1 I64

- The software must be installed on an ODS-5 enabled disk (the installation will fail if this requirement is not met)

- C compiler - VSI C V7.4-001 or similar

- An installation of the language or languages with which you intend to use SWIG to implement extensions

In addition to the above requirements, it is assumed that the reader has a good knowledge of OpenVMS and of software development in the OpenVMS environment.

4. Recommended reading

It is recommended that developers read some of the excellent tutorials, examples, and other documentation available via the SWIG web site (http://www.swig.org).

5. Installing the kit

The kit is provided as an OpenVMS PCSI kit (`VSI-I64VMS-SWIG-V0401-0-1.PCSI` or `VSI-AXPVMS-SWIG-V0401-0-1.PCSI`) that can be installed by a suitably privileged user using the following command (output may differ, depending on platform and other factors):

```
$ PRODUCT INSTALL SWIG

Performing product kit validation of signed kits ...

The following product has been selected:
    VSI I64VMS SWIG V4.1-0                Layered Product [Installed]

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 SWIG V4.1-0: Swig for OpenVMS is based on Swig
Version 4.1.0

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* This product does not have any configuration options.

Execution phase starting ...

The following product will be installed to destination:
    VSI I64VMS SWIG V4.1-0                DISK$I64SYS:[VMS$COMMON.]

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

The following product has been installed:
    VSI I64VMS SWIG V4.1-0                Layered Product

VSI I64VMS SWIG V4.1-0: Swig for OpenVMS is based on Swig Version 4.1.0

    Post-installation tasks are required.

    To start SWIG at system boot time, add the following lines to
    SYS$MANAGER:SYSTARTUP_VMS.COM:

        $ file := SYS$STARTUP:SWIG$STARTUP.COM
        $ if f$search("''file'") .nes. "" then @'file'

    To shutdown SWIG at system shutdown time, add the following lines to
    SYS$MANAGER:SYSHUTDWN.COM:

        $ file := SYS$STARTUP:SWIG$SHUTDOWN.COM
        $ if f$search("''file'") .nes. "" then @'file'
```

5.1.   *Post-installation steps*

After the installation has successfully completed, include the commands displayed at the end of the installation procedure into `SYSTARTUP_VMS.COM` to ensure that the logical names required in order for users to use the software are defined system-wide at start-up.

Users will then be able to use SWIG by defining a foreign command as follows:

```
$ SWIG :== $SWIG$ROOT:[BIN]SWIG.EXE
```

The example directories under `SWIG$ROOT:[EXAMPLES]` for Lua, Java, and Ruby contain simple command procedure named `BUILD.COM` that can be used to build the example code in each of these directories.

5.2.   *Privileges and quotas*

Generally speaking, there are no special quota or privilege requirements required for users wishing to develop applications using SWIG.

6.   What's missing?

The supplied kit for OpenVMS includes all functionality supported by the SWIG 4.1.0 Open Source distribution; however only examples for Lua, Java, and Ruby are provided with the OpenVMS kit. Additional language examples will be provided with future releases.