

VAST Dual Driver

Crescent Bay Software

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Background

This note discusses the Vast Dual Driver (pv77/pv90). This driver applies both Vast/Parallel and Vast/Altivec in turn, together with compilers as needed, to a source file.

Command Line Options

The following new command line options have been added.

- vast, *type*** where *type* is **parallel** or **altivec** or **both** or **none**. This option allows you to choose from the command line which version of vast to run. By default this is **both**. Note that **-vast, none** corresponds to **-vn**.
- Yvva, *path*** Specifies the Vast/Altivec executable. By default this is **vastfav**.
- Yvvp, *path*** Specifies the Vast/Parallel executable. By default this is **vastfp**.
- Wvva, *list*** Gives a list of options that are given just to the Vast/Altivec executable.
- Wvvp, *list*** Gives a list of options that are given just to the Vast/Parallel executable.
- Wvv, *list*** Gives a list of options that are given to both Vast executables.

Note the following are also useful.

- Yvfc, *path*** Specifies the Fortran compiler executable. By default this is **f77**.
- Yvcc, *path*** Specifies the C compiler executable. By default this is **cc**.
- Wvfc, *list*** Gives a list of options that are sent to the Fortran compiler only.
- Wvcc, *list*** Gives a list of options that are sent to the C compiler only.

Configuration file

The following sections and keys have been added to the configuration file. The configuration file is read in before the command line options are processed. Thus any command line option overrides the values set in the configuration file.

- [vast]** This section is used to tell the driver which versions of Vast are installed.

parallel = **yes** | **no** | *path* Used to tell the driver that Vast/Parallel is installed. If the **parallel=path** version is used this is equivalent to **-Yvvp, path**

altivec = **yes** | **no** | *path* Used to tell the driver that Vast/Altivec is installed. If the **altivec=path** version is used this is equivalent to **-Yvva, path**

use = **parallel** | **altivec** | **both** | **none** Equivalent to **-vast, type**. The default is set by the value of **parallel** and **altivec**, if both are true then **use=both**, else **use** is set to the appropriate value.

Note that the driver at startup will attempt to find Vast/Parallel and Vast/Altivec and set the default values for **parallel** and **altivec**. Since certain values may not be set until after the configuration file is read, the default values may not be set correctly. It is better therefore to set **parallel** and **altivec** to the correct value in the configuration file. Note that apart from setting the default value of **use**, and enabling or disabling certain warning messages, the **parallel=yes**, etc forms have no other use. Thus you could have **parallel=no**, and use **-vast, both** on the command line, and assuming the Vast/Parallel executable can be found, both versions of Vast will be used.

[fortran]	This section can be use to set executables and options.
vast.parallel=path	Equivalent to -Yvvp, path
vast.altivec=path	Equivalent to -Yvva, path
vast.parallel.options=list	Equivalent to -Wvvp, list
vast.altivec.options=list	Equivalent to -Wvva, list
vast.options=list	Equivalent to -Wvv, list
compiler=path	Equivalent to -Yvfc, path
compiler.option=list	Equivalent to -Wvfc, list
[c]	This section set the c compiler path and options.
compiler=path	Equivalent to -Yvcc, path
compiler.option=list	Equivalent to -Wvcc, list
[fortran-options]	This section is included to be consistent with earlier versions
vast.parallel=list	Equivalent to -Wvvp, list
vast.altivec=list	Equivalent to -Wvva, list
vast=list	Equivalent to -Wvv, list
compiler=list	Equivalent to -Wvfc, list
[c-options]	This section is included to be consistent with earlier versions
compiler=list	Equivalent to -Wvcc, list