

VISFIELD : A format converter for data visualization

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Visfield is an in-house format converter for the data visualization.

This modest software allows the user to convert binary files of instantaneous and statistical fields resulting from codes CHORUS or SUNFLUIDH to an appropriate format for the data visualization. At present, two softwares for visualization are targeted : Tecplot and Paraview. The binary files are therefore converted to plt or vtk format. The procedure is very simple :

- Install visfield from the server forge with svn : `svn co -username your_login https://forge.limsi.fr/svn/VISFIELD/TRUNK`
- Compile visfield for converting data in single or double real precision (depending on the real precision of binary files)
- place the visfield data file in the directory containing the binary field (or a specific directory where your OS
- run the command in the directory containing the binary field after setting the visfield data file.

Compilation procedure

For the Sorbonne university class, this step is automatically done by the install procedure.

After downloading the Visfield project from the server forge by means of svn:

- go to the directory VISFIELD/TRUNK/SOURCES_NEW
- According to the precision of your data and the software used for the data visualization (tecplot, parview), choose the appropriate makefile from :
 - `makefile_vtk_r4`
 - `makefile_vtk_r8`
 - `makefile_tcplt_r4`
 - `makefile_tcplt_r8`
- Compile visfield with the selected makefile, for example : `make -f makefile_vtk_r4`. An executable file is generated “visfield_r4.x” (or “visfield_r8.x” in double precision)

The version “r4” or “r8” is chosen in regard to the real precision of your data files.

The use of the version “tcplt” supposes the tecplot library “tecio.a” or “tecio64.a” is present in your environment.

The commands `visfield_r4.x` or `visfield_r8.x` generated from a “tcplt” makefile type are also able to convert the binary files to vtk format.

If you do not use Tecplot, it is easier to compile Visfield with a “vtk” makefile type.

Visfield setting for SUNFLUIDH

Visfield needs to know the type of field and some parameters to perform the format conversion. The setting is made in the input data files `visfield_s.dat` (old version) or `visfield_sunfluidh.dat` (new version). Both input data files are valid. The user can get these input data files by clicking [here](#).

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