Library Services

Citing and referencing in LaTeX - using BibTeX
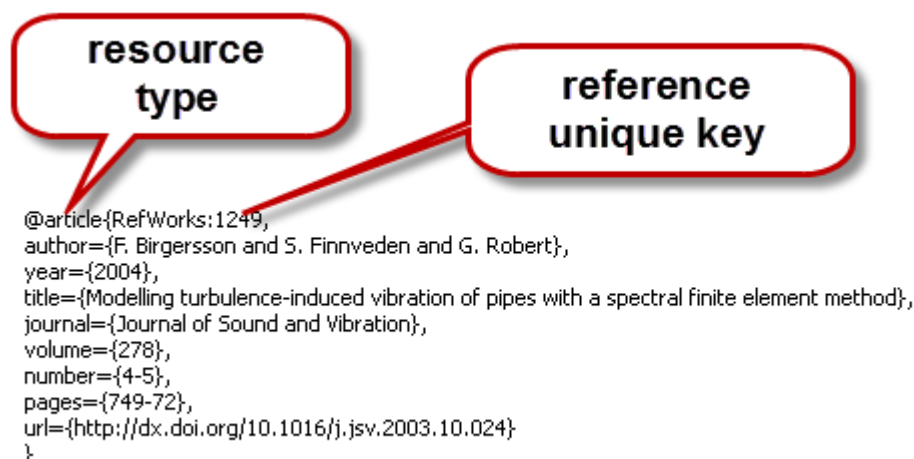
The following website provides much useful information:
http://en.wikibooks.org/wiki/LaTeX/Bibliography_Management

Rather than include reference details for your document within the document itself you can store them in separate BibTeX database files (.bib extension). Advantages to doing this include:

- Once stored in a BibTeX file, a reference can be re-used in future documents (you may choose to maintain one master or a series of BibTeX files)
- Many databases and reference management softwares allow automatic export of reference details as BibTeX files (in some cases bulk export of multiple references is possible)

A typical BibTeX record looks like this (quotes may be used around data rather than brackets):


```
@article{RefWorks:1249,
author={F. Birgersson and S. Finnveden and G. Robert},
year={2004},
title={Modelling turbulence-induced vibration of pipes with a spectral finite element method},
journal={Journal of Sound and Vibration},
volume={278},
number={4-5},
pages={749-72},
url={http://dx.doi.org/10.1016/j.jsv.2003.10.024}
}
```

1. Inserting citations and generating a reference list

Example:


```
\begin{document}

Airplanes are by no means the only application of aerodynamics \cite{RefWorks:1248}. The air flow over an automobile, the gas flow through the internal combustion engine powering an automobile, weather and storm prediction \cite{RefWorks:1245}, the flow through a windmill, the production of thrust by gas turbine jet engines and rocket engines \cite{RefWorks:1244}, and the movement of air through building heater and air-conditioning systems are just a few other examples of the application of aerodynamics \cite{RefWorks:1249}.

\bibliographystyle{unsrt}
\bibliography{references}

\end{document}
```

- To specify the output style of citations and references - insert the **\bibliographystyle** command e.g. **\bibliographystyle{unsrt}** where unsrt.bst is an available style file (a basic numeric style). Basic LaTeX comes with a few .bst style files; others can be downloaded from the web
- To insert a citation in the text in the specified output style - insert the **\cite** command e.g. **\cite{1942}** where 1942 is the unique key for that reference. Variations on the \cite command can be used if using packages such as natbib (see below)
- More flexible citing and referencing may be achieved by using other packages such as natbib (see below) or Biblatex
- To generate the reference list in the specified output style - insert the **\bibliography** command e.g. **\bibliography{references}** where your reference details are stored in the file references.bib (kept in the same folder as the document). Place the command where you want the reference list to appear. You can refer to multiple .bib files e.g. **\bibliography{references1,references2}**

2. BibTeX files generated from databases and reference management software

Much time and effort can be saved by automatically generating BibTeX files through bulk export of multiple references either direct from databases or from reference management software. This automatic process may cause some issues and require you to tidy up the BibTeX files. Below are some suggestions to help with this:

- LaTeX special characters (e.g. $, %, &, \,) present in a BibTeX file can create problems during typesetting. To avoid this, all these characters should be prefixed with the '\' character. Use a text editor such as Notepad or TeXworks to Find and Replace e.g. replace $ with \$
- The BibTeX file is likely to contain extra fields of information not required for the actual reference. This information may pull through into the reference e.g. Notes field. It is recommended to remove this information from the BibTeX file
- Retaining capitalization. Some bibliography styles strip out capitalization in fields such as the title field; this can be a problem if you want to preserve e.g. acronyms. To preserve capitalization, edit the BibTeX file and enclose the specific text (whole not partial words) in curly brackets:

  e.g. title={Study of incompressible {MHD} flow in a circular pipe with transverse magnetic field using a spectral/finite element solver},

.

3. Natbib

The natbib package allows more flexibility in terms of citing and referencing styles, including Harvard style. Please see our separate guides on Vancouver and Harvard referencing using natbib.