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LaTeX

A basic introduction to writing and managing citations in LaTeX.

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LaTeX and Accessibility Issues

Because LaTeX was designed as a typesetting program, PDF documents created using LaTeX do not include the document structure and tagging required for accessibility by default. It is possible to create accessible PDF documents using LaTeX but users will need to use additional LaTeX packages and should be aware of accessibility standards. LaTeX user wishing to create accessible documents can try the methods described below but should still check their documents for accessibility.

- [Accessibility checklist for LaTeX documents](#)

Adding Tags and Alt text

The Accessibility package in LaTeX can be used to add the structure, tagging, and alt text that PDF's created with LaTeX lack. To use the package, you will need to load it into the preamble of your LaTeX document and choose the package options. There are two option arguments accepted for the package: `untagged` or `tagged` and `flatstructure` or `highstructure`. In order to create a more accessible PDF, you will want to choose `[tagged, highstructure]`.

```
\usepackage[tagged, highstructure]{accessibility}
```

Once you have loaded in the accessibility package, you can use the `\alt` environment to add alt text to figures.

```
\begin{figure}
  \centering
  \includegraphics[width=10cm]{apollo17_earth.jpg}
  \alt{Image of the Earth from outer space}
  \caption{Image of the Earth from the Apollo 17 mission}
  \label{fig:earth}
\end{figure}
```

- [Accessibility package documentation](https://ctan.math.washington.edu/tex-archive/macros/latex/contrib/axessibility/axessibility.pdf) (https://ctan.math.washington.edu/tex-archive/macros/latex/contrib/axessibility/axessibility.pdf)

Accessible Mathematical Formulas

To make mathematical formulae accessible in you LaTeX document, you will need to load in the axessibility package into the preamble.

```
\usepackage{axessibility}
```

In order to make your equations readable by the package, you will need to use the equation environment for all equations and can use the `$$` inline mode.

```
\begin{equation}
  \frac{1 + \sqrt{5}}{2}
\end{equation}
```

- [Axessibilty package documentation](#)

HTML Method

Because of the limitations of LaTeX at this time, many experts recommend converting your LaTeX documents to HTML and [MathML](#). This can be accomplished through a number of applications including LaTeXML and Pandoc.

- [LaTeXML Documentation](#)

LaTeXML is a command line program that can be used to convert LaTeX documents to XML./ Latexmlpost converts this XML into other formats such as HTML or XHTML, with options to convert the math into MathML (currently only presentation).

- [Pandoc](#)

Pandoc is a command line program that can also be used to convert LaTeX to XML and HTML file types. See example 17 on the demos page for an example on how Pandoc can be used to convert LaTeX to HTML.

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- **URL:** <https://libguides.lib.msu.edu/latex>

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