

## SBOM Tool Classification Taxonomy

Software products today are made up of software components built on other software components. A software bill of materials, or SBOM, is effectively a nested inventory of these components.<sup>1</sup> To help manage their software supply chain and vulnerability risks, suppliers and consumers of software need a set of well recognized formats for exchanging metadata about the software, as well as tooling to be able to author, consume, and transform the data as it passes through the software supply chain as a bill of materials.

Below is a categorization of the different types of tools that the NTIA Formats & Tooling<sup>2</sup> Working Groups identified as being critical to the range of use cases in SBOM generation and consumption. This should cover most relevant tools in the open source and commercial world.

Category	Type	Description
Author during Build	Build	Document is automatically created as part of building an artifact and contains information about the build.
Author after Creation	Manual	A person will manually fill in the information
	Audit Tool	A source code analysis or audit tool will generate the document by inspection of the artifact and any associated sources.
Consume	View	Be able to understand the contents in human readable form (picture, figures, tables, text.). Use to support decision making & business processes.
	Diff	Be able to compare two documents of a given formation and clearly see the differences. For instance, comparing between two versions of a piece of software.
	Analyze	Be able to import a document into
Transform	Translate	Change from one file type to another file type while preserving the same information.
	Merge	Multiple sources of documents can be merged together for analysis and audit purposes
	Tool integration	Support use in other tools by APIs, libraries.

<sup>1</sup> For more information on SBOM and its value in vulnerability management and software development and use, please see <https://ntia.gov/SBOM>.

<sup>2</sup> More information about the Working Group is available at <https://ntia.gov/SoftwareTransparency>