Comparison of Databases for the Physics Derivation Graph

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Abstract

A comparison of candidates for how to store elements of the graph. It is assumed here that the Introduction to the Physics Derivation Graphhas been read.

1 Introduction

The Physics Derivation Graph is a project designed to capture mathematical physics knowledge.

In this article, we compare candidate data format options for storage of content for the Physics Derivation Graph. Candidate formats include XML[1], comma-separated plain-text (CSV), JSON key-value pairs, standard textbooks, Wikipedia, proprietary formats (i.e. Wolfram Alpha, Symbolab, Formula-Database), and other websites on the Internet (i.e. HyperPhysics).

	XML	CSV	key-value	JSON	textbooks	Wikipedia	proprietary	generic websites
free	yes	yes	yes	yes	generally no	yes	generally no	generally yes
open source	yes	yes	yes	yes	generally no	yes	generally no	generally yes

2 Conclusions

The Physics Derivation Graph uses CSV.

3 Bibliography

References

[1] Extensible markup language (xml) 1.0 (fifth edition), 2008.

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