Background Report: ABCD - ABC Music Notation extendeD with programming features*

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ABSTRACT

This is our project background research report for our new Domain Specific Language - ABCD, the extended language that adds programming features to the classic ABC notation. This report gives an overview of ABCD, its value, and how it is related to ABC. We also compare similiar music programming languages, discuss their design decisions. In the end, we describe a blueprint of ABCD and offer a few examples to showcase language implementatiopn.

KEYWORDS

Programming Language, Music, ABC Music Notation, Alda, Chuck, Overtone, EBNF, Parsing, Compiler

1 OVERVIEW

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2 VALUE/IMPORTANCE/IMPACT

aaa

3 SIMILAR WORK

aaa

3.1 Alda

aaa

3.2 Chuck

aaa

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*The authors' names are ordered by last name.

3.3 Overtone

aaa

4 POTENTIAL PROJECT

4.1 Features

4.2 Concrete Syntax

4.3 Parse into AST

4.4 Compiler

5 CITATIONS

Citations to articles [4–6, 16], conference proceedings [6] or maybe books [23, 31] listed in the Bibliography section of your article will occur throughout the text of your article. You should use BibTeX to automatically produce this bibliography; you simply need to insert one of several citation commands with a key of the item cited in the proper location in the `.tex` file [23]. The key is a short reference you invent to uniquely identify each work; in this sample document, the key is the first author's surname and a word from the title. This identifying key is included with each item in the `.bib` file for your article.

The details of the construction of the `.bib` file are beyond the scope of this sample document, but more information can be found in the *Author's Guide*, and exhaustive details in the *LATEX User's Guide* by Lamport [23].

This article shows only the plainest form of the citation command, using `\cite`.

Some examples. A paginated journal article [38], an enumerated journal article [9], a reference to an entire issue [8], a monograph (whole book) [22], a monograph/whole book in a series (see 2a in spec. document) [15], a divisible-book such as an anthology or compilation [11] followed by the same example, however we only output the series if the volume number is given [12] (so Editor00a's series should NOT be present since it has no vol. no.), a chapter in a divisible book [34], a chapter in a divisible book in a series [10], a multi-volume work as book [21], an article in a proceedings (of a conference, symposium, workshop for example) (paginated proceedings article) [2], a proceedings article with all possible elements [33], an example of an enumerated proceedings article [13], an informally published work [14], a doctoral dissertation [7], a master's thesis: [3], an online document / world wide web resource

[1, 27, 35], a video game (Case 1) [26] and (Case 2) [25] and [24] and (Case 3) a patent [32], work accepted for publication [28], 'YYYYb'-test for prolific author [29] and [30]. Other cites might contain 'duplicate' DOI and URLs (some SIAM articles) [20]. Boris / Barbara Beeton: multi-volume works as books [18] and [17].

A couple of citations with DOIs: [19, 20].

Online citations: [35–37].

6 CONCLUSIONS

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