

Table Example

Tanvir Ahmed Khan

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1 Introduction

This article on \LaTeX tables from wikibooks community is the most comprehensive guide we have seen so far on how to construct tables in \LaTeX . Another good introductory article can be found here. However, they all taught you how to construct tables in \LaTeX , what they are lacking is how to present nice tables for technical publication and visual presentation. This document shows some overview of that.

We will see some rudimentary table examples in this article. Most of them are taken from this book, some of them are taken from the sources listed above. Feel free to explore them for further reading.

2 Simple Tables

Let us start with a simple table example. Table 1 illustrates a basic example of \LaTeX table.

	PRODUCTION	SEMANTIC RULES
1)	$L \rightarrow E\mathbf{n}$	$L.val = E.val$
2)	$E \rightarrow E_1 + T$	$E.val = E_1.val + T.val$
3)	$E \rightarrow T$	$E.val = T.val$
4)	$T \rightarrow T_1 * F$	$T.val = T_1.val \times F.val$
5)	$T \rightarrow F$	$T.val = F.val$
6)	$F \rightarrow (E)$	$F.val = E.val$
7)	$F \rightarrow \mathbf{digit}$	$F.val = \mathbf{digit}.lexval$

Table 1: Syntax-directed definition of a simple desk calculator

Now let us look at another table example where we have to wrap texts in table cells. \LaTeX does not do that automatically.

PRODUCTION SEMANTIC RULES

$$A \rightarrow B \quad \begin{array}{l} A.s = B.i; \\ B.i = A.s + 1 \end{array}$$

Instructions →	FP	INT	L/S	BRANCH
Instruction Count (× 10 ⁶)	50	110	80	16
CPI	1	1	4	2

Execution time after improvement	= = = 128 (ms)
Execution time without FP	= = 231 (ms)

Control Signal	0	1
RegDst	Write register address = rt	Write register address = rd
RegWrite	-	Write register
AluSrc	ALU Second Operand = Read data 2	ALU Second Operand = lower 16-bit of instruction
PCSrc	PC=PC+4	PC=branch target
MemRead	-	Read data from memory
MemWrite	-	Write data into memory
MemtoReg	Register Write Data from ALU	Register Write Data from data memory

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MemWrite	-	Write data into memory
MemtoReg	Register Write Data from ALU	Register Write Data from data memory

ALU Control				Operation
S_3	S_2	S_1	S_0	
0	0	0	0	AND
0	0	0	1	OR
0	0	1	0	ADD
0	1	1	0	SUBTRACT
0	1	1	1	SLT

	opcode	function
lw	35	-
sw	43	-
beq	4	-
add	0	32
sub	0	34
AND	0	36
OR	0	37
slt	0	42
j	2	-