

# “PLUGGED IN”

## An Electrical Contracting Memo

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## ESTIMATING – LABOR FACTORING

Labor Factoring is the process of adjusting labor hours for a project, in some cases increasing hours in others decreasing hours based on the specific conditions. There are two categories of labor factoring.

- 1) **Installation Labor Factors** – Installation Labor Factors are adjustments to material labor units determined by the installation conditions. The adjustment may increase or decrease the labor unit. This process is handled in the takeoff.

Trimble ACCUBID Classic Pro software provides the ability to factor any takeoff based on the specific installation condition. This is handled on the Takeoff Screen by selecting the installation condition from the Labor Factoring drop-down. The result of these adjustments is reflected in the Direct Labor hours indicated on the Extension Screen.

Installation Labor Factors include such installation conditions as: Standard, Metal Stud, Masonry, Trench, Slab, Exposed @ 40', etc.

This program feature makes percentage adjustments (increase or decrease) to the labor units of the selected material takeoff. The table below shows the labor per C result when labor factors are applied to 1/2" EMT.

1/2" EMT Labor		
Installation Labor Factors	Adjustment %	Hours Per C
Standard	100%	2.88
Metal Stud	125%	3.60
Masonry	200%	5.76
Branch Exposed @ 40 ft.	150%	4.32

- 2) **Project Labor Factors** – These are conditions that impact the project's labor productivity. Project labor factors are percentage adjustments determined by the project conditions and added to the direct labor hours total. Project Labor Factors can vary from one geographic location to another.

Project Labor Factor attributes:

- Are expressed in percentages

- Some are global to the project
- Impact only a portion of the project
- Based on geographic location
- Determined by the market(s)
- Are determined by labor forces abilities and availability
- Multiple may apply
- Project Labor Factors are cumulative

Project labor factors are addressed in the bid summarization utilizing the Labor Factoring Screen.

In the screenshot (Trimble ACCUBID Classic Pro) below you can view several project labor factors. Two factors (Lost Time & Job Location) are factored at 100%.

	Labor Factoring	Factor	% of Direct Hrs	Hours	Rate \$	SubTotal
1	LOST TIME	10.000	100.000	194.52	21.50	4,182.18
2	COLD WEATHER	15.000	15.000	43.77	21.50	941.06
3	HOT WEATHER	25.000	25.000	121.57	21.50	2,613.76
4	JOB LOCATION	5.000	100.000	97.26	21.50	2,091.09
5						

Each Project Labor Factor is expressed in a percentage of lost productivity to a percentage of the project's hours. For example, lost time for checking in and out of a correctional facility would be a percentage of time of each day for 100% of the project's duration. Lost productivity due to cold or hot weather would only be a percentage of the number of hours required during the inclement weather. For example, if a twelve-week project duration required three weeks of work exposed to inclement weather, only the affected work hours would be factored.

Adjustments are usually made in percentages to the total labor hours. Adjustments may be made in additional hours based on the additional work required for an area of phase of the project. Project Labor Factor adjustments are cumulative.

No two projects are the same. Be sure to consider all project labor risks and bid accordingly.