

YOU FINISHED THE PROGRAM. HERE IS WHAT THAT MEANS.

Completing the CSE training program means you understand the methodology. It does not mean you are ready to run a project alone. Those are two different things and confusing them is the most common mistake a new CSE makes in the first six months.

This document tells you what to expect in your first 90 days on live projects, what you do not do without a second set of eyes, and what good CSE work actually looks like when you are doing it right.

SECTION 1 | YOUR FIRST 90 DAYS ON LIVE PROJECTS

What to expect and how to use that time well

The first 90 days on live projects are not about proving what you know. They are about building the pattern recognition that the training program cannot give you. That only comes from repetition on real projects with real customers and real consequences.

Here is what that period should look like.

Days 1 through 30 | Shadow and verify

You are present on every site visit, customer call, and internal review you can get into. You are not leading anything yet. You are watching how experienced CSEs read a building, listen to a customer, and translate what they hear into a system concept.

After every interaction you run the calculations yourself and compare your numbers to what the senior CSE produced. You will not always agree. When you do not agree, you find out which one of you is wrong before the proposal goes out. Most of the time it will be you. Occasionally it will be them. Both outcomes teach you something.

Days 31 through 60 | Lead the calc, shadow the customer

You are running the spec calc on live projects and presenting your numbers for review before they go into any proposal. You are drafting scope sections and limitations lists. A senior CSE is checking your work before it leaves the building.

You are still shadowing customer-facing conversations. You are preparing the questions and doing the listening. You are not yet the one who owns the customer relationship.

Days 61 through 90 | Lead the project, support in the room

You are running your first project with a senior CSE available but not leading. You own the site visit preparation, the calculations, the scope document, and the first draft of the proposal. The senior CSE reviews before anything goes to the customer and is present on the first customer presentation.

By the end of 90 days you will know whether you are ready to run a project solo. Not because someone told you, but because you will feel the difference between projects where you knew what to do and projects where you had to ask.

Michael Collins

The CSEs who develop fastest in their first year are the ones who ask the most specific questions. Not general questions like how do I get better at this but specific ones like I got a gap check failure on the ProSort 121 at 20 CPM and I tried increasing the sorter speed but then the takeaway spur spec went above catalog maximum. Walk me through how you would approach that. Specific questions get specific answers. General questions get general answers.

SECTION 2 | WHAT YOU DO NOT DO ALONE YET

Situations that require a second set of eyes before proceeding

This is not a list of things you cannot do. It is a list of situations where the cost of being wrong is high enough that a second set of eyes is required before the work moves forward. Every experienced CSE has their own version of this list. This is the starting version for yours.

RULE

If you are uncertain whether a situation belongs on this list, it does. Ask first. The question costs you five minutes. Getting it wrong costs the company a bad proposal and costs you credibility that takes months to rebuild.

Situations requiring review before the proposal moves forward

Complex mixed product mix going to a sorter

When the carton mix has extreme variation in length or width, the gap calculations get complicated and the binding case is not always obvious. Run your numbers, document which combination is binding, and have a senior CSE confirm before the sorter is specified.

Any 90 degree transfer where the gap check is close

Close means the available gap on the trunk line is within 15 percent of the minimum required. If you are that close to the margin, a small change in carton presentation or belt slip will cause a collision. Get a second opinion on the layout before locking it in.

Customer stated rate that feels aggressive for the product mix

If the required CPM is at or near the upper boundary of what the spec calc says is achievable with the product mix, flag it before the proposal. A proposal that promises a rate the system cannot reliably deliver is a problem that shows up at commissioning, not at signing.

Incline design with outlier cartons in the mix

One carton with a low tumble angle can limit the entire system incline. If removing that carton from the incline section is not an option, the incline angle must be set to its tumble angle with margin. Have a senior CSE confirm the decision before the layout is finalized.

First proposal in a new vertical or building type

Distribution, returns processing, cold storage, and manufacturing support all have different operating characteristics. If you are quoting into a vertical you have not worked in before, shadow someone who has before you take the lead.

Any project where the WMS integration scope is unclear

If you do not have a clear answer on WMS latency and who owns the controls interface, the proposal has an open item that can blow the budget. Do not let that open item get buried. Escalate it before the proposal goes out.

SECTION 3 | HOW YOU KNOW YOU ARE READY TO RUN A PROJECT SOLO

Not a time threshold — observable criteria

Readiness is not about how long you have been doing the job. It is about whether you can do the work without needing to be caught. Here are the observable criteria. When you can say yes to all of them honestly, you are ready.

- [**You have run the spec calc correctly on at least three live projects and had the numbers confirmed by a senior CSE with no significant corrections.**

Correct means the right inputs, the right outputs, and the right binding case identified. Not just no arithmetic errors.

- [**You have written a scope of work that held through the proposal and was not significantly revised before signing.**

A scope that required major revision means something was missed in the discovery phase. Three clean scopes means you know what questions to ask.

- [**You have been in a customer meeting where a question came up that you did not expect and you handled it without help.**

This happens to every new CSE. The first time is uncomfortable. The point is that you knew what to say and what not to say.

- [**You can articulate what you do not know on any given project before someone asks you.**

This is the most important one. A CSE who knows the edges of their knowledge will ask for help at the right time. A CSE who does not know the edges will not ask until it is too late.

- [**You have made at least one mistake on a live project, caught it before it reached the customer, and corrected it.**

Everyone makes mistakes. The question is whether you have the review process in place to catch them yourself.

Michael Collins

Readiness is not a conversation you wait for someone else to start. When you think you are ready, say so. Come with specific evidence. Tell your manager which projects you have run, what you got right, and what you would do differently. That conversation will either confirm you are ready or tell you specifically what is still missing. Either outcome is useful.

SECTION 4 | WHO TO CALL AND WHEN

Fill in the names for your organization

This section is a framework. The names and contact details are specific to your organization and your manager will complete them with you during your first week on live projects. The categories do not change.

Engineering and calculation questions

When: When a gap check fails and you are not sure which lever to pull. When the product mix is outside the range you have worked with before. When the layout has a constraint that the methodology does not clearly address.

Contact: _____

Customer escalations

When: When a customer pushes back on scope or pricing in a way that could change the project. When a customer asks for a commitment you are not sure the system can meet. When a site visit reveals something that changes the project significantly.

Contact: _____

Pricing and margin questions

When: When a customer asks you to justify a line item. When a scope change comes in after the proposal and you need to understand the cost impact. Never estimate pricing changes without talking to someone who owns the numbers.

Contact: _____

Controls and WMS integration

When: When the WMS conversation gets technical and you are not sure whether the controls scope is being correctly defined. When a customer's IT team starts asking questions that sound like they belong in a different conversation.

Contact: _____

SECTION 5 | THE HABITS THAT SEPARATE GOOD CSEs FROM AVERAGE ONES

Build these in from the beginning. They are harder to add later.

Every experienced CSE has a version of this list. This one is built from what actually causes proposals to go wrong, what causes projects to go sideways at commissioning, and what separates the CSEs who customers ask for by name from the ones who are interchangeable.

#	The Habit	Why it matters
1	Get the required rate in writing before running any calculations	Every number in the spec calc flows from the required rate. If the rate changes after the calc is done, every sorter number, every belt speed, every gap check is wrong. A verbal rate is not a rate. An email confirmation is the minimum.
2	Never design to the average carton	The average carton will not cause a gap failure. The minimum carton will. The average carton will not tip on an incline. The minimum height carton will. Design to the worst case. Document which carton is the worst case and why.
3	Always run the gap check. Every time. No exceptions.	The gap check is the last thing standing between your proposal and a collision at commissioning. It takes five minutes. There is no situation where skipping it is the right call.
4	Document every assumption at the time you make it	Assumptions made during a site visit and not written down are forgotten by the time the proposal is drafted. Assumptions not in the proposal are commitments the customer will hold you to anyway. Write them down immediately.
5	Never let an open item stay open past the next customer touchpoint	An open item that stays open becomes an assumption. An assumption that does not get documented becomes a gap in the scope. A gap in the scope becomes a change order or a margin problem. Close open items aggressively.
6	Read the flow diagram cold before the proposal goes out	If you cannot narrate the full carton path without asking a question, the diagram is not complete. Do this check yourself before anyone else sees the proposal. It takes ten minutes and catches more errors than any other review.
7	Ask the customer what a bad day looks like	The required rate is usually the target rate. The real constraint is often the peak day before a holiday or the day a truck arrives three hours late and volume compresses. If you design to the stated rate and the system cannot handle the actual peak, that is your problem at commissioning.
8	Separate what you know from what you were told	What you measured on the site visit is different from what the customer told you the dimensions were. What the spec calc produces is different from what the customer said the system needs to do. Keep those categories distinct in the proposal. It protects you and it is honest.

Michael Collins

The CSEs I have seen struggle in their first year are almost always good technically. The problem is usually one of two things. Either they are not asking enough questions before they start designing, or they are not documenting what they find out. The methodology handles the technical part. These habits handle everything else.