



Artsolute Media Group

AMG EXHIBITION DESIGN ACADEMY · APPLIED
WORKBOOK

From Brief to Booth

Twelve chapters, one project, carried all the way through. Each chapter hands in one document, and nothing moves on until it passes — this is a book to work in, not a book to read.

*About This Workbook***How It Works** How to Use This Workbook

This is the applied companion to the **Junior Exhibition Designer Training Manual** (AEDM Book 1). Book 1 teaches the principles; this book has you apply them to one project from start to finish: **AXIS-R** — a **fictional teaching company** with a 20 × 30 ft, 600 sq ft booth open on three sides.

Each chapter hands in one document, and that document is the next chapter's input. The area schedule in Chapter 4 is the contract for the floor plan in Chapter 7; the evidence judgements in Chapter 3 decide what each wall may say in Chapter 9. So the order cannot be skipped: skip a chapter, and the one after it has nothing to stand on.

CHAPTER GATE

Every chapter ends with an **Instructor Checkpoint**, with three possible results: **Pass** (go on to the next chapter), **Revise** (the named items must be corrected) and **Restart** (the premise does not hold; do it again). **Rendering quality cannot make up for an objective that does not hold, a plan that cannot be used, an unsafe assumption or missing evidence.**

Information arrives in instalments, as it does on a real project. From Chapter 3 on, each chapter receives a **Project Information Release**: the facts newly in hand at that stage, the known limitations, and the **questions still unanswered**. That last column keeps growing all the way to Chapter 12 — and by then, every one of those questions has to be accounted for.

*※ **AXIS-R** is a fictional teaching company and is unrelated to any real business with the same or a similar name. Every number, regulation, quotation and piece of feedback in the book's Releases is practice data — not the terms of any real show, venue or supplier — and may not be used as a basis for quotation or for regulatory compliance.*

*※ **Real cases are marked as such.** Each chapter's Real Case uses photographs of real AMG projects. Cases included in AEDM Book 3 carry that case's evidence limits; the others are shown only as examples of a space or a method, and **make no performance claim.***

Contents

Twelve Chapters, Twelve Deliverables

Contents

Ch.	Content	What you hand in
1	Reading the Client Brief From raw material to a working document	Client Brief Analysis Sheet
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3	Brand and Product Research What the booth has to say, and what it has to prove	Research Summary Board
4	Building the Space Program Does it fit, before anyone draws	Space Program and Area Schedule
5	Visitor Journey and Zoning Where each thing goes, and who meets what first	Visitor Journey Map + Zoning Diagram
6	Creating the Design Concept The one sentence everything else answers to	Concept Statement + Concept Board
7	Floor Plan and Elevation Relationships become dimensions	Dimensioned Floor Plan + Two Key Elevations
8	Designing the Booth Experience Order and handoffs, where the drawing has no people	Experience Sequence + Touchpoint Plan
9	Materials, Lighting, and Graphics The surface people actually see, touch and read	Material, Lighting and Graphic Schedule
10	Budget and Buildability Can it be made, shipped, installed, used and taken down	Buildability Review + Budget Response
11	Rendering and Presentation A design explained as the answer to the question already agreed	Client Presentation Deck
12	Revision and Final Delivery Revise without losing the objective, and record honestly what was learned	Final Design Package + Project Reflection

Once all twelve documents have passed, together they make up:
AXIS-R Exhibition Design Project — From Brief to Booth

Workbook Rules

Twelve WB Rules Workbook Rules WB-01 ... WB-12

Every chapter ends on a rule. These are **not** new AEDM rules, and they are not EDBOK First Principles — each one applies the six rules of AEDM Book 1 to that chapter's work, which is why every rule names the rule it applies.

#	Rule	Applies
WB-01	Do Not Design from Assumptions.	RULE-04
WB-02	One Project. One Primary Objective.	RULE-02
WB-03	A Claim Without Proof Is Labeled, Not Repeated.	RULE-06
WB-04	Area Is Proven, Not Assumed.	RULE-03 · RULE-04
WB-05	If a Stage Has No Place, It Will Not Happen.	RULE-03
WB-06	If Removing the Concept Changes Nothing, There Was No Concept.	RULE-01 · RULE-03
WB-07	Every Dimension Has a Source.	RULE-04 · RULE-06
WB-08	A Handoff Is a Movement, Not an Intention.	RULE-03
WB-09	A Finish Is a Decision About Light.	RULE-03 · RULE-04
WB-10	Value Engineering Changes the Method, Not the Objective.	RULE-01 · RULE-02
WB-11	A View Is Chosen by the Question It Answers.	RULE-03 · RULE-06
WB-12	Claim What You Delivered, Not What You Hope It Did.	RULE-06

※ The six rules of AEDM Book 1: **RULE-01** Design for Business · **RULE-02** Start with the Objective · **RULE-03** Every Element Has a Job · **RULE-04** Zero Questions · **RULE-05** Size Changes the Tools, Not the Thinking · **RULE-06** Evidence, Not Adjectives.

Chapter 1

Reading the Client Brief

From raw material to a working document

Turn the raw material a client sends you into a working document you can design from — one that keeps facts, assumptions and open questions apart.

CHAPTER DELIVERABLE

One complete Client Brief Analysis Sheet

This document becomes the project's starting point for the twelve chapters that follow.

Learning Objective

By the end of this chapter you should be able to:

- ☐ Identify what actually matters inside a Client Brief.
- ☐ Tell confirmed information, assumptions and unanswered questions apart.
- ☐ Find the contradictions, risks and gaps a brief contains.
- ☐ Turn a client's description into a document you can begin designing from.
- ☐ Complete a Brief Analysis Sheet before you open SketchUp.

1.1

Introduction

Every exhibition project begins with information.

That information may arrive as:

- A client email.
- A phone call.
- Show organiser documents.
- A brand presentation.
- Product data.
- Photographs of past shows.
- A hand sketch.
- One very vague sentence.

For example:

"We want a clean, modern booth with a sense of technology."

Many juniors read that sentence and immediately start collecting reference images, picking colours, opening SketchUp. But what is clean? What is modern? What is a sense of technology? None of that is information you can design from. It is the client's picture of the result. The designer's real work is converting a vague picture into clear design conditions.

So reading a brief is not finishing the text. It is judging four things: **what can be used as it stands, what has to be confirmed, what contradicts something else, and what critical information is simply not there.**

1.2

What a Client Brief Is

A Client Brief is the client's first account of the project.

It usually tells the designer:

- Who the company is.
- Which show they are exhibiting at.
- How large the booth is.
- What they want to display.
- Which functions they want.
- What style they like.
- What the budget and schedule are.

But a Client Brief is not necessarily complete, and not necessarily correct. Clients leave important things out. Different departments ask for different things. Marketing may want open space. Sales may ask for more meeting rooms. The product team may want every product shown. Management may want the booth to look larger than the competitor's.

Every request is reasonable on its own. Put into the same finite space, they may not all be able to stand at once.

So a brief is not the design answer. It is raw material that has to be analysed.

1.3

Client Brief and Design Brief Are Not the Same Document

A junior has to keep these two apart.

Client Brief

Supplied by the client. It contains what the client knows, what the client wants, and what the client is asking for right now.

Design Brief

Compiled by the design team. It contains the conditions that will actually guide the design, after they have been confirmed, analysed and put in order.

Put simply:

A Client Brief is what the client said.

A Design Brief is what the designer has confirmed they are solving.

A mature designer does not treat a Client Brief as a Design Brief. They read, then ask, then organise once the answers are in, and only then start designing.

There are three separate documents on this path. They do different jobs, and the order cannot be swapped:

Document	Who writes it	What it is
Client Brief	The client	The raw material as sent
Client Brief Analysis Sheet	The designer	The analysis that separates facts, assumptions and questions (this is what you hand in for this chapter)
Design Project Request	Designer and client together	The form that formally opens the project once the Critical Questions have answers (AEDM Book 1 Appendix A)

1.4

The Nine Items Every Brief Has To Be Checked Against

Every brief should be checked against at least these nine items.

1. Company

You need to know:

- The company's name and where it is based.
- What product or service it provides.
- Where it sits in its industry.
- What impression the brand currently gives.
- What new impression it wants to build.

Do not just copy the About Us page.

You must be able to explain, in one plain sentence:

"Which kind of customer does this company help, and what problem does it solve for them?"

If you cannot answer that, you do not yet understand the client.

2. Exhibition

You need to know:

- The name of the show.
- Dates and location.
- What industry the show serves.
- Who the main audience is.
- Whether competitors are exhibiting.
- What rules and deadlines the organiser sets.

The same company can need a completely different booth at a different show, because the audience changes, the competition changes, and the objective may change too.

3. Objective

You need to confirm:

- Why are they exhibiting?
- What is the most important business objective?
- What are the secondary objectives?
- What does the client want to hold after the show closes?
- How will this show be judged a success?

"Increase exposure" is too vague. "Over three days, take **80 target visitors through the complete product demonstration and have them answer four qualifying questions** (counted per person at scheduled sessions; a badge scan alone does not count), and produce 50 qualified leads" is an objective a design can be built against.

4. Audience

You need to know:

- Who the most important visitor is.
- Their role and how much they can decide.
- What problem they are facing.
- Why they would stop.
- What they need to see, hear or experience.
- What they should have done before they leave the booth.

A booth is not designed for everybody. It should serve the most important audience first.

5. Product and Message

You need to confirm:

- Which products are being shown.
- Which one matters most.
- Whether the product is physical, digital, equipment or a service.
- Product size, weight and power requirements.
- Whether it needs static display, running demonstration or hands-on operation.
- The one sentence the visitor should leave remembering.

If every product is described as the most important one, the priority has not been decided yet.

6. Space

You need to confirm:

- Booth size.
- Number of open sides.
- Aisle positions.
- Neighbouring booths.
- Columns, fire equipment and other obstructions.
- Maximum build height.
- Rigging points and hanging limits.
- Floor, wall, power and network conditions.

Do not look only at the area. At the same 36 square metres, an island booth open on four sides and a booth open on one side are designed on completely different logic: the first has no back wall to lean on, the second is only ever seen from one direction. (The AXIS-R project in this workbook uses imperial units throughout; in practice follow the client's and the venue's units, and state them on the drawing.)

7. Function

You need to confirm:

- Reception.
- Product display area.
- Demonstration area.
- Open discussion area.
- Enclosed meeting room.
- Storage.
- Pantry.
- Staff area.
- LED, screens or a stage.

Beyond asking what is needed, ask:

- How many people use it at once?
- For how long?
- Who uses it?
- What equipment do they need while using it?

"We need a meeting room" is not a complete requirement. "We need an enclosed meeting room for six people, with a screen and a sound-privacy requirement" is.

8. Brand and Style

You need to obtain:

- Logo files.
- Brand guidelines.
- Brand typefaces and colours.
- Image and video assets.
- Photographs of past booths.
- Reference projects the client likes and dislikes.

A style description has to be converted into design language somebody can execute.

For example:

"Premium" may mean precise proportion, restrained colour, fewer but better materials, and clean detailing. It does not necessarily mean gold.

9. Budget and Schedule

You need to confirm:

- Design budget.
- Fabrication and installation budget.
- What the quotation does and does not include.
- The date of the first presentation.
- The client's approval date.
- The organiser's submission deadline.
- Fabrication, freight, move-in and dismantle dates.

Budget and schedule are not problems to be handled after the design is finished. They shape the design from day one.

1.5

The Three-Column Method

When you finish reading the brief, do not start drawing. Put everything into three columns first.

Column A: Confirmed Facts

Information the client or a formal document has clearly confirmed.

For example:

- The AXIS-R booth is 20 × 30 ft.
- The booth is open on three sides.
- Two physical machines must be displayed.
- The budget ceiling is USD 80,000.

Column B: Assumptions

Things the team currently believes but which have not been formally confirmed.

For example:

- The main entrance probably faces the south main aisle.
- A product demonstration probably takes fifteen minutes.
- The client probably wants to reuse last year's LED screen.

An assumption is not an error. An assumption nobody has marked as one is the risk.

Column C: Open Questions

Information that is missing and that will change a design decision.

For example:

- Of the two products, which is the lead?
- How many seats does the meeting room need?
- Is rigging permitted?
- Does the budget include AV equipment?

These three columns stop a team from treating guesses as facts.

1.6

Judging How Much a Question Matters

Not every question has to go to the client immediately. Judge its effect on the project first.

Critical

Without an answer you cannot reasonably begin designing.

For example:

- Booth size and open sides.
- The primary objective.
- The lead product.
- The main functions.
- The budget range.

Important

You can begin, but the answer will move the space or the visual direction.

For example:

- The exact seat count in the meeting room.
- Screen sizes.
- Material preferences.
- The delivery date for brand assets.

Minor

Can be confirmed as the design develops.

For example:

- The final chair model.
- The number of shelves inside the pantry.
- How giveaways are stored.

A mature designer does not send fifty unsorted questions at once. They ask the ones that would change the whole design first.

1.7

Finding the Contradictions

The most dangerous thing in a brief is not always missing information. It is two requirements that cannot both be met.

Common contradictions:

They want the space completely open

But they ask for three enclosed meeting rooms.

They want the booth to look minimal

But they ask for twenty products and a large amount of copy.

They want a premium brand impression

But the budget and the schedule only allow the most basic method of building.

They want heavy traffic

But every activity is programmed inside an enclosed space.

They want to display large equipment

But no dimensions, weight or operating envelope have been provided.

When you find a contradiction, do not quietly decide it for the client. **Write the contradiction down, state what it will cost, and ask the client to confirm the priority** — miss any one of those three steps and the decision becomes yours.

1.8

Turning Adjectives Into Design Conditions

Clients describe what they want in adjectives.

For example:

- Modern.
- Premium.
- Innovative.
- Open.
- Welcoming.
- Sustainable.

None of these can be built. The designer has to ask what each one means on this project.

Client's word	The question you must ask	What it might become
Open	Open sightlines, or more ways in?	Fewer solid walls, several entry points, clear sightlines
Premium	Who is meant to feel it?	Restrained colour, precise detailing, fewer and better materials
Innovative	Innovative product, or innovative spatial form?	Live demonstration, digital interaction, non-traditional display
Welcoming	How should a visitor enter and be received?	No threshold, forward reception, an obvious route
Sustainable	Materials, reuse, or brand message?	Modular structure, rented components, less waste

Do not reject the adjective. Turn it into a condition you can design and check.

1.9

Project Case: AXIS-R

This workbook runs one simulated project all the way from brief to booth.

Fiction marker: AXIS-R is a fictional teaching company and has no connection to any real business of the same or a similar name. This case exists for practice; every number in this chapter is exercise data, not an AMG project record.

Client Brief

Company

AXIS-R is an industrial automation company supplying collaborative robots and vision inspection systems.

Exhibition

Advanced Manufacturing Expo, Las Vegas.

Booth Space

20 × 30 ft, open on three sides.

Client Request

We want the booth to look modern and technological, and more open than last year. We will show two collaborative robots, one vision inspection system and our new control software. We need a reception counter, storage, two demo stations, a small meeting space and a large LED wall.

Brand blue and white as the primary colours. We expect eight staff in the booth at the same time. We want more visitors and more leads.

First Analysis

This brief supplies some of the basics. It is not yet something you can design from.

The critical questions missing include:

- Of the three things being shown, which matters most?
- Is the main audience plant managers, engineers, purchasing, or distributors?
- How many leads did last year produce? What is this year's number?
- What are the robots' dimensions, weight, motion range and safety distance?
- Is the demonstration continuous, or run at scheduled times?
- How many seats does the small meeting space need? Does it need privacy?
- Is the LED wall showing a brand film, a software demo, or live presentations?
- What has to fit inside the storage room?
- What is the project budget?
- Is rigging permitted?

Up to this point the designer still should not be drawing the booth; the question list comes first.

1.10

Real Case: What a Real Brief Looks Like

This section is about real projects, and should be read separately from the fictional AXIS-R. Cases drawn from AEDM Book 3 v0.2 carry the evidence limits that book records for them; projects not in Book 3 have no written record and appear only to show how differently a brief can be shaped, with no performance claim.

Aramco — F1 United States Grand Prix 2021, Austin (Book 3 • Case 07)

A real brief looks nothing like the textbook version. The governing fact on this project was that **the date could not move** — it belonged to the F1 calendar — and that three purposes arrived at once (hospitality, brand, and an energy-transition narrative) with no order between them. The scope was set to serve all three rather than to pick one. AEDM's own RULE-04 was not satisfied here, and Book 3 says so.

One more thing worth knowing early: documents get things wrong. On this project's quotation the client's line was typed as **LAW EMISSIONS**; what was built on the wall reads Low Emissions. The typo itself does not matter. How it was caught does — someone checked the document against the site. So the scope is whatever the approved quotation **QUO-16159-02** says, not what the emails say or what anyone remembers, and what was built is whatever is on site. Check both, because they will not always agree.

Photographs (suggested layout)



the view from the suite balcony: the main straight, the LAP board, F1 containers trackside. **On this project the "booth" was a suite overlooking the track** — the venue was not an exhibition hall, and the client did not own it. (That the dates were fixed by the race calendar comes from the project file, not from this photograph.)



the hospitality room before doors: high tables, banquettes, rows of glasses and napkins, a ring pendant, partner marks on the back wall. One of the three simultaneous purposes is this room.

Evidence limit: output is verifiable against the approved quotation and project photographs; outcome is qualitative; impact was not measured.

Gigabyte / AORUS — CES 2023, ballroom at The Venetian Resort Las Vegas

This is not a typical exhibition-hall booth; it is a temporary display inside a ballroom. The venue is a ballroom at The Venetian Resort Las Vegas. **What the photographs show** is the room as it was — panelled walls, chandeliers, the hotel's carpet — and the display structure brought into it. **The original brief, the fixing method and the dismantle record were never obtained**, so how the surfaces were protected, whether anything could be hung and whether carpet could be laid are questions a designer should ask, not answers this project has established.

For Chapter 1 the value of this case is the reminder that **a brief does not have to be the shape you expect**. Run the same nine-item checklist (company, exhibition, objective, audience, product, space, function, brand, budget) and the "space" item cannot be answered with booth size and open sides alone. The venue still has to be measured, but what actually constrains the design is which surfaces may not be touched, how much may be hung, and whether carpet may be laid.

Read this brief as though it were for a booth and on day one you will be filling in a form that asks the wrong questions — you will measure the dimensions, but the things that will actually stop you have no field on it.



the temporary show inside the ballroom: portal structures, screens and floor arrows standing on the floor, with nothing visibly attached to the panelled walls or the chandeliers. **Booth size and open sides are not enough here** — the venue and the structure still have to be measured, but a room like this adds its own questions: which surfaces may not be touched, how much may be hung, whether carpet may be laid.



products laid out on long tables against The Venetian's gold panelling and the ballroom ceiling. In a room like this, "stands on its own, moves, leaves cleanly" is a condition to settle before anything else — and this project's fixing and dismantle records were not obtained.

Note: this project is not in Book 3 and has no written evidence record. It appears here only to show how far the shape of a brief can vary, and makes no performance claim.

1.11

How To Ask a Client a Question

A good question has three properties.

Clear

- ✗ "Could you tell us more about the products?"
- ✓ "Of the three items being shown, which should receive the most space and the highest visual priority?"

The first hands the work of organising information back to the client. The second asks them for one decision.

Reasoned

Let the client know why you need the answer.

For example:

"To confirm the safety envelope for the robot demonstration, please provide equipment dimensions, motion radius, and the minimum safe distance for visitors."

Easy to answer

Do not ask one over-abstract question. Offer clear options, or state the format you need.

For example:

"Should the meeting area be one of: four-person open discussion, six-person semi-enclosed, or six-person enclosed room?"

1.12

The Five Mistakes Juniors Make Most

Mistake 1

Treating the arrival of a brief as proof the information is complete.

Do this instead:

Check it against the nine items, one by one.

Mistake 2

Treating your own guess as the client's decision.

Do this instead:

Put every guess in the Assumptions column.

Mistake 3

Asking only about form and style.

Do this instead:

Confirm objective, audience, product, function, budget and constraints first.

Mistake 4

Seeing requirements conflict and not raising it.

Do this instead:

State the conflict, its consequence, and the priority that has to be decided.

Mistake 5

Many questions, none of them ranked.

Do this instead:

Handle the Critical Questions — the ones that would change the whole design — first.

WB-01

Do Not Design from Assumptions.

Applies AEDM RULE-04 — Zero Questions.

Do not decide an answer yourself simply because the client did not supply one.

Sort what you have into:

- Confirmed.
- Not yet confirmed.
- Currently assumed.

One wrong assumption can send an entire booth back to the start.

Chapter Summary

A Client Brief is the project's raw material. It is not the final design instruction.

The designer has to confirm nine items from it:

1. Company.
2. Exhibition.
3. Objective.
4. Audience.
5. Product and Message.
6. Space.
7. Function.
8. Brand and Style.
9. Budget and Schedule.

Then sort everything into:

- Confirmed Facts.
- Assumptions.
- Open Questions.

If the critical questions have no answers yet, do not rush into design. **The fastest way to design is not drawing faster. It is going the wrong way one time fewer.**

Chapter Assignment

Client Brief Analysis Sheet

Using the AXIS-R Client Brief, complete the following.

PART A

Project Facts

Item	Information
Company	
Exhibition	
Location and Date	
Booth Size	
Open Sides	
Main Objective	
Primary Audience	
Main Product	
Required Functions	
Budget	
Key Deadlines	

PART B

Three-Column Analysis

Confirmed Facts	Assumptions	Open Questions

PART C

Question Priority

Question	Priority	Why It Matters
	Critical / Important / Minor	
	Critical / Important / Minor	
	Critical / Important / Minor	
	Critical / Important / Minor	
	Critical / Important / Minor	

PART D

Contradiction Log

List the contradictions you found in the brief. Any two requirements that are reasonable alone but cannot both stand inside the same booth count.

The two requirements in conflict	Why they cannot both stand	Effect (space / budget / schedule / safety)	What the client has to decide

If you found none, write "none found" and state which sets of requirements you checked — a blank is not the same as a check.

PART E**Brief Summary**

In no more than 150 words, state:

1. Who AXIS-R is.
2. Why they are exhibiting.
3. Who the most important audience is.
4. What the booth most needs to accomplish.
5. What the largest design risk is right now.

Evaluation Criteria

CRITERION	POINTS	WHAT A PASS LOOKS LIKE
Factual accuracy	25	Project facts match the Client Brief; nothing has been invented to fill a gap
Facts separated from assumptions	20	Confirmed Facts, Assumptions and Open Questions are clearly sorted
Question quality and priority	20	The Critical Questions would actually change objective, space, budget or a safety judgement
Conflict and risk identified	20	Competing requirements are named, with the priority that needs confirming
Clarity and professional usability	15	Readable in one page; can be handed to the project team as it stands
Total	100	

Result: Pass (may proceed to Chapter 2) / Revise (right direction, named items need completing) / Restart (assumptions recorded as facts, or a critical question missed that would change the project's direction).

Instructor Checkpoint

Before Chapter 2, confirm:

1. **Facts and assumptions are separated** — nothing the client has not confirmed is written down as decided.
2. **The Critical Questions are identified** — every unknown that could move the Objective Definition is on the list.
3. **The main conflicts are stated** — the team knows which requirements cannot both stand under current conditions.

If any one of the three is unclear, the result is Revise.

Reflection

In no more than 150 words:

1. What **decision** did you make in this chapter?
2. What is the largest **uncertainty** right now?
3. Given better information, which judgement would you **change**?

Submission Requirement

Submit a one-page PDF, named:

AEDA_FBTB_C01_YourName_BriefAnalysis.pdf

Do not begin the floor plan or the 3D design until the Critical Questions have answers.

Chapter Source Note

- The brief precedes the design, and unknowns must be listed: AEDM Book 1 Chapter 4 and **RULE-04 Zero Questions**.
- Exhibition objectives, primary and secondary: AEDM Book 1 Chapter 2.
- The formal project-opening fields of the Design Project Request: AEDM Book 1 Appendix A.
- The Client Brief Analysis Sheet is an AEDA learning and analysis tool. It does not replace Appendix A and does not establish a new canonical definition of a brief.
- All AXIS-R material in this chapter is a fictional teaching case and may not be cited as evidence for AMG or for any real project.

Chapter 2

Defining the Exhibition Objective

From vague hopes to a result you can test

Narrow vague expectations down to one exhibition objective that can be tested, and a set of concrete visitor actions.

CHAPTER DELIVERABLE

One Objective Definition Sheet

Until this document is confirmed, do not begin the Space Program, the Floor Plan or the 3D Design.

Learning Objective

By the end of this chapter you should be able to:

- ☐ Tell an exhibiting purpose, a design objective and a spatial solution apart.
- ☐ Identify a project's Primary Objective.
- ☐ Define the most important audience and the action you want from them.
- ☐ Turn a vague requirement into a result that can be measured.
- ☐ Complete an Objective Definition Sheet.

2.1

Introduction

Clients say things like:

"We want the booth to be more eye-catching."

"We want it to feel more high-tech."

"We want this year to be better than last year."

Requirements like these help a designer understand what the client hopes for. They are not yet exhibition objectives.

None of them says:

- Who should be drawn in?
- Why draw that person in?
- What should that person do?
- What result would count as success?

When the objective is unclear, the designer fills the gap with personal taste, and the team can end up delivering a good-looking booth that does not do the thing the client actually needed. So before any spatial design starts,

get this one sentence straight:

This company is exhibiting so that which audience can take what important action, producing what business result?

That sentence sets the direction for the whole project.

2.2

Purpose, Objective and Solution

Juniors most often run three different levels of thinking together.

Purpose

Why is the company exhibiting at all?

For example:

- Entering a new market.
- Launching a new product.
- Looking for distributors.
- Building recognition in the industry.
- Looking after existing customers.

Purpose is the business reason.

Objective

What does this particular show need to produce?

For example:

- Complete 80 product demonstrations and capture 50 qualified leads.
- Book 20 post-show technical assessments.
- Open partnership conversations with 5 regional distributors.
- Get the target audience to understand that the new product can cut inspection time by 30%.

Objective is the result that has to happen.

Solution

How does the booth help that result happen?

For example:

- Two demo stations that can run continuously.
- A product message at the entrance that is easy to recognize.
- A lead qualification point at reception.
- A semi-private area for follow-up conversations.

Solution is the design response.

The right order is:

Purpose → Objective → Solution

Do not start from the Solution. "We need an LED wall" is not an exhibition objective. It is a solution whose necessity nobody has shown yet.

2.3

Primary Objective

A company usually brings many hopes to a show.

AXIS-R might want, all at once, to:

- Build brand awareness.
- Launch its control software.
- Demonstrate its collaborative robots.
- Capture more leads.
- Meet existing customers.
- Find systems integration partners.

Any of these could matter. They cannot all be first, because the booth's space, budget, time and the audience's attention are all limited. So the project has to define a single Primary Objective.

A Primary Objective must answer

1. Who is the most important audience?
2. What action do you want from them?
3. What business value does that action produce?

AXIS-R's working Primary Objective

Get manufacturing decision-makers with a near-term automation need to complete a targeted product demonstration and agree to a post-show technical assessment meeting.

This is more useful than "attract more people."

Because it starts telling the designer that:

- There is no need to attract everyone walking past.
- The booth has to identify decision-makers with a real need.
- The product demonstration is the core activity.
- The post-show meeting is the next step that matters.

2.4

Secondary Objectives

The Primary Objective sets the main direction. Secondary Objectives cover the other results the booth still needs to support.

AXIS-R's Secondary Objectives could be:

1. Raise awareness of the new control software among existing customers.
2. Maintain relationships with current systems integration partners.
3. Gather market feedback on the vision inspection features.

A Secondary Objective has to support the Primary Objective, never undermine it.

For example:

if a large LED show makes conversation at the demo stations impossible, it may be working against the Primary Objective — and even if it draws a crowd, that is no guarantee it should stay.

2.5

Defining the Primary Audience

"All visitors" is not a usable audience definition. The designer needs to know who the most important audience is.

To define the Primary Audience, confirm at least:

- Industry: which industry are they from?
- Role: what is their position?
- Authority: can they influence or decide a purchase?
- Need: what problem are they facing now?
- Timing: when do they need it solved?
- Barrier: why have they not acted yet?

AXIS-R Primary Audience

Industry

Mid-sized and large manufacturers.

Role

Plant managers, heads of automation, manufacturing engineering leads.

Authority

Can define technical requirements, recommend suppliers or influence purchasing decisions.

Need

Lower manual inspection costs, steadier production lines, and an answer to the labour shortage.

Timing

An automation project within the next twelve months.

Barrier

Worried about implementation time, integration risk, return on investment and operating complexity. Now the designer knows the booth is not only there to show machines. It has to reduce the audience's doubts about the risk of adopting them.

2.6

Visitor Action Ladder

Nobody becomes a customer the moment they step into a booth. They usually move through a series of small actions, which can be laid out as a Visitor Action Ladder.

Step 1: Notice

The visitor notices the booth from the aisle.

They have to grasp, quickly:

"This has to do with my work."

Step 2: Approach

The visitor is willing to come closer to the entrance or a display.

They have to feel:

"I can walk in easily, without getting trapped or being sold to."

Step 3: Understand

The visitor understands the core problem the product solves.

They have to come away knowing:

"This company might be able to help me."

Step 4: Engage

The visitor watches a demo, tries an interface, or starts a conversation.

They have to feel:

"This is worth a few more minutes."

Step 5: Qualify

Staff learn the visitor's needs, role, timing and project status.

Both sides establish:

"Is this worth continuing?"

Step 6: Commit

The visitor agrees to a next step.

For example:

- Booking a meeting.
- Requesting an assessment.
- Sharing project information.
- Accepting a quotation or a sample.

The booth's job is not just to bring people in. It is to help the right people move on to the next action.

2.7

Defining the Desired Action

Every objective needs a clear Desired Action, and a Desired Action has to be behaviour you can observe.

Vague descriptions

- Interested in the brand.
- Thinks the product is innovative.
- Left with a strong impression.

Observable actions

- Completes an eight-minute demo.
- Discusses application requirements with a product specialist.
- Has their badge scanned and answers four qualifying questions (a scan alone is not a qualified lead).
- Books a post-show technical assessment.

Design cannot control what visitors think. It can create an environment where a particular action is more likely to happen.

2.8

Building Success Measures from the Objective

If you cannot say how success will be measured, the objective is usually not clear enough yet.

Common success measures include:

- Qualified leads.
- Product demonstrations.
- Scheduled meetings.
- Sample requests.
- Technical assessments.
- Distributor conversations.
- Existing customer meetings.
- Post-show opportunities.

Vanity Metrics and Useful Metrics

Vanity Metric

A number that looks good but does not necessarily prove business value. (AEDM Book 2, Chapter 7)

For example:

- High foot traffic.
- The number of giveaways handed out.
- Unsorted badge scans.

Useful Metric

A number that shows whether the important audience completed the action you wanted.

For example:

- Qualified leads with a purchasing plan inside twelve months.
- The share of demo visitors who go on to book a technical assessment.
- The number of leads that become formal opportunities after the show.

A crowd can be a good thing. The right people taking the right action is the more valuable result.

2.9

The Objective Statement Formula

Use this sentence to build the project's Objective Statement:

We are designing a booth for _____ so that _____ audience can _____, making them willing to _____, and ultimately helping the company achieve _____.

AXIS-R example

We are designing a booth for AXIS-R so that manufacturing decision-makers with a near-term automation need can quickly understand and experience its collaborative robot and vision inspection solutions, making them willing to book a post-show technical assessment, and ultimately helping the company build high-quality sales opportunities.

The Statement does not decide what the booth looks like. What it does establish is the standard every design judgement will be held to.

Any future design decision can be asked:

"Does it help the target audience understand, experience, and take the next step?"

If the answer is no, it may not be a necessary part of the design.

2.10

Objective-to-Design Translation

The objective now has to start turning into design requirements. At this stage that means setting direction only — no floor plan yet.

Objective Requirement	Design Implication
Attract manufacturing decision-makers with an automation need	The long-distance message has to state manufacturing and automation value directly
Help visitors understand three solutions	Set a clear product hierarchy so the content is not all competing at once
Complete targeted demos	Demo stations have to support watching, operating, explaining and a safe distance
Identify high-quality leads	Qualification has to fit naturally into the reception and demo flow
Book post-show technical assessments	The booth has to offer a clear, quick next-step moment
Look after existing customers	Keep a conversation space that does not disturb the demos

Note that "we need a 16 ft LED wall" should not appear anywhere in this table. An LED wall is a Solution, not an objective, and the team still has to show it is the right way to reach one.

2.11

Real Case: How the Objective Decides the Booth

Real projects, to be read separately from the fictional AXIS-R. The case in this section is **not in Book 3** and has no written evidence record; it appears only to show how an objective can decide a booth, and makes no performance claim.

Aivres — NVIDIA GTC 2026

When the hero product cannot be brought to the show, the objective decides what stands in for it. Aivres sells infrastructure for entire AI data centers — nothing that fits inside a booth. They did not switch to selling something smaller, and they did not settle for a few renderings. They built a **physical scale model under glass**: racks, liquid-cooling lines, power distribution, down to the tables and the human figures.

What the photographs show is a cutaway data-center model on an illuminated round plinth, a real server rack beside it, and a wall reading "Enabling End-to-End AI Data Center Deployment."

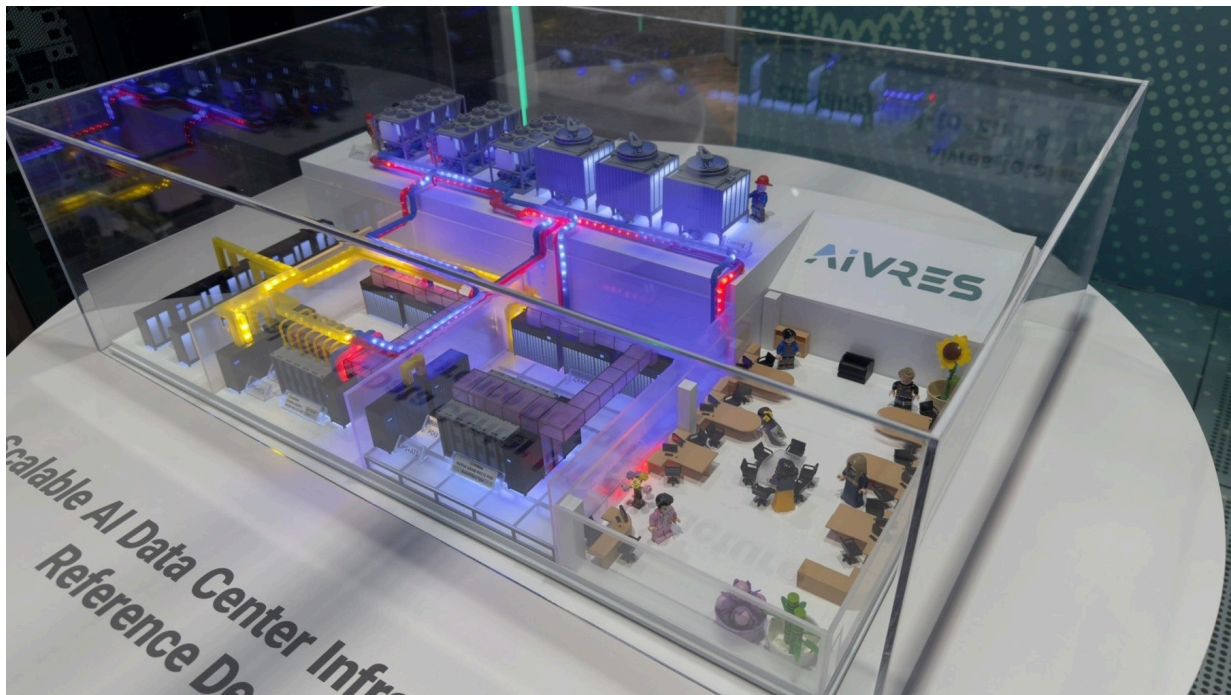
Reading this as "the objective chose the hero" is an interpretation. If the objective was to convince decision-makers that the company can deliver the whole system, then putting the model rather than a single server in the lead position makes sense. **The client's actual objective, and the reasoning behind this layout, are not in our records** — this is a reading worked backwards from what was on display.



from the aisle: an illuminated identity band overhead, product scenes on three faces of the corner. **At this distance you cannot yet tell what the hero is.**



closer in: the model on an illuminated round plinth, a real server rack to its left, and behind it a wall reading "Enabling End-to-End AI Data Center Deployment." **The claim is on the wall; a model representing the system is on the plinth.**



inside the case: rows of racks, cooling lines, power distribution, aisles, even the human figures. **Something that cannot be shipped, made small enough to see all at once.**

Note: this project is not in Book 3 and has no written evidence record. It appears here only to show an objective choosing the hero, and makes no performance claim.

2.12

The Objective Filter

When the client or the team raises a new requirement, test it against five questions:

1. Which objective does it serve?
2. Which audience does it serve?
3. What action does it want from that audience?
4. How much space, budget and attention does it take?
5. Does it get in the way of the Primary Objective?

Example: a large LED wall

The client wants to add a large LED wall. The designer should neither accept nor refuse on the spot.

Establish first:

- What will the LED wall show?
- Which audience is that content for?
- What should they do after watching it?
- Will the LED wall interfere with the product demos?
- Could the same objective be met more cheaply, or more effectively, another way?

The designer is not there to cut the client's ideas. The designer is there to make sure every investment has a purpose.

2.13

Project Case: AXIS-R Objective Definition

Working from the Chapter 1 Brief Analysis, AXIS-R and the design team confirm the following.

Fiction marker: AXIS-R is a fictional teaching company and has no connection to any real business of the same or a similar name. This case exists for practice; every number in this chapter is practice data, not an AMG project result.

Business Purpose

Increase the company's sales opportunities in the North American mid-sized manufacturing market.

Primary Objective

Get manufacturing decision-makers with an automation need inside twelve months to complete a product demo and book a post-show technical assessment.

Secondary Objectives

1. Introduce the new control software to existing customers.
2. Gather market feedback on the vision inspection solution.
3. Maintain relationships with systems integration partners.

Primary Audience

Plant managers, heads of automation and manufacturing engineering leads.

Desired Action

Complete a demo, answer the qualifying questions, and book a post-show technical assessment.

Success Measures

Evidence tier	Success measure
Output	The booth scheme, the approved functional layout, drawings and material / lighting / graphics / AV schedules, and the VE response.
Outcome	80 people from the target audience complete the full product demonstration and answer the four qualifying questions; timed sessions are counted person by person, and a scan alone does not count.
Outcome	50 qualified leads.
Outcome	20 post-show technical assessments.
Outcome, approaching Impact	At least 8 opportunities entering a formal sales process.

Before the project starts, it is worth using the **one-indicator-before-design** worksheet to name at least one useful indicator for this show and where its data will come from. The tool is recommended, not required; without a record made in advance, later case write-ups can only honestly mark the result "not recorded."

Design Priority

Product demos and high-quality business conversations come before simply adding foot traffic. Only now does the project have a clear enough direction to move on to Brand and Product Research.

2.14

The Five Mistakes Juniors Make Most

Mistake 1

Treating "we need LED, a meeting room and a reception desk" as the objective.

Do this instead:

Confirm the Purpose and the Objective first, then decide which Solutions are needed.

Mistake 2

Accepting "everyone is our target audience."

Do this instead:

Identify the industry, role, need and decision-making power that matter most.

Mistake 3

Setting several Primary Objectives at once.

Do this instead:

Keep only one — the objective that must not fail.

Mistake 4

Judging every result by foot traffic and badge scans.

Do this instead:

Measure whether the important audience completed the important action.

Mistake 5

Writing the objective and then never using it again in the design.

Do this instead:

Use the Objective Statement as the filter for every design decision.

WB-02

One Project. One Primary Objective.

Applies AEDM RULE-02 — Start with the Objective.

A project can carry many hopes. It can have only one first priority. **If everything is most important, nothing really is.**

Chapter Summary

An exhibiting purpose, a concrete objective and a spatial solution are three different things.

The right order is:

Purpose → Objective → Solution

An objective that can guide design has to make clear:

- Who the most important audience is.
- What action you want them to take.
- What business result that action produces.
- How success will be measured.

Do not start by deciding what goes in the booth. Start by deciding what the booth has to make happen.

Chapter Assignment

Objective Definition Sheet

Using the AXIS-R project, complete the following.

PART A Purpose and Objectives	
Item	Definition
Business Purpose	
Primary Objective	
Secondary Objective 1	
Secondary Objective 2	
Secondary Objective 3	

PART B

Primary Audience

Audience Factor	Definition
Industry	
Role	
Decision Authority	
Current Need	
Project Timing	
Main Barrier	

PART C

Visitor Action Ladder

Stage	Required Visitor Action	Booth Must Provide
Notice		
Approach		
Understand		
Engage		
Qualify		
Commit		

PART D

Desired Action

In one sentence, write the action the most important audience should complete before leaving the booth. It has to be **behaviour that can be observed**, not a state of mind.

Desired action: _____

Check	Your answer
Who completes this action?	
Where in the booth is it completed?	
What do staff have to do for it to happen?	
Once it is done, what is the next step?	

PART E

Success Measures

Measure	Target	Why It Matters

PART F

Objective Statement

Complete this sentence:

We are designing a booth for _____ so that _____ audience can _____, making them willing to _____, and ultimately helping the company achieve _____.

PART G

Objective Filter

Choose three requirements from the Client Brief and test whether they support the Primary Objective.

Client Request	Objective Supported	Keep / Change / Remove	Reason

Evaluation Criteria

CRITERION	POINTS	WHAT A PASS LOOKS LIKE
Clarity of the Primary Objective	20	Exactly one main objective, written as a statement that produces a result
Specificity of the Primary Audience	20	Industry, role, authority, need, timing and barrier are all defined
Visitor actions aligned with business results	20	Every step of the Visitor Action Ladder supports the Desired Action and the main objective
Quality of the Success Measures	15	At least one Useful Metric, with Output, Outcome and near-Impact results kept distinct
Objective kept separate from Solution	15	No LED wall, meeting room or other spatial element is treated as an objective
Clarity of the final statement	10	The Objective Statement can serve directly as the test for later chapters
Total	100	

Result: Pass (may proceed to Chapter 3) / Revise (the direction works, but the objective, audience, action or measures need correcting) / Restart (the objective is still a request about form, or there is no identifiable Primary Objective).

Instructor Checkpoint

Before Chapter 3, confirm:

1. **There is one Primary Objective** — no two first priorities competing with each other.
2. **The Primary Audience is specific** — not "everyone," but a group with a defined role, need and influence over decisions.
3. **The Desired Action is observable** — you can see whether a visitor completed it, rather than only describing a feeling.
4. **At least one Useful Metric is aligned with the objective** — with a data source or someone responsible for recording it named, or honestly marked as not yet recorded.

If any one of the four is unclear, the result is Revise.

Reflection

In no more than 150 words:

1. What **decision** did you make in this chapter?
2. What is the largest **uncertainty** right now?
3. Given better evidence, which judgement about the objective, audience or measures would you **change**?

Submission Requirement

Submit a one-page PDF, named:

AEDA_FBTB_C02_YourName_ObjectiveDefinition.pdf

The Primary Objective, Primary Audience, Desired Action and Success Measures must all be complete before you move on to Chapter 3.

Chapter Source Note

- The eight exhibiting objectives, and primary versus secondary objectives: AEDM Book 1 Chapter 2; this chapter builds on **RULE-02 Start with the Objective**.
- The levels of Output, Outcome and Impact: AEDM Book 2 Chapters 4, 5 and 7.
- The terms Audience / Visitor / Participant and qualified lead: AEDM Book 2 Chapter 5.
- **one-indicator-before-design** is a recommended tool, not a mandatory standard; results that were not recorded in advance must be marked honestly.
- The Visitor Action Ladder is, for now, a teaching model inside the AEDA Workbook. It is not an EDBOK FW– object and does not establish a new canonical definition.
- Every AXIS-R number in this chapter is fictional practice data and may not be cited as evidence of results for AMG or for any real project.

Chapter 3

Brand and Product Research

What the booth has to say, and what it has to prove

Build a research foundation that states what this booth must communicate and what it must prove.

CHAPTER DELIVERABLE

One Research Summary Board

Until this document passes review, do not move on to the Space Program in Chapter 4.

Learning Objective

By the end of this chapter you should be able to:

- ☐ **Write** the company's positioning in your own words, rather than copying marketing copy.
- ☐ **Identify** the brand promise this particular show actually has to deliver on.
- ☐ **Rank** the products into a hierarchy, and explain why there can be only one hero.
- ☐ **Separate** claims from evidence, and label each claim with its type of evidence.
- ☐ **Map** the audience's problems against the products' relevance.
- ☐ **Observe** competitors' patterns rather than copying competitors' forms.
- ☐ **Turn** research findings into five design implications that can be checked.

3.1

Introduction

Research is not reading through the client's deck and product catalogue. A designer researches in order to answer two very specific questions: **what this booth has to say**, and **what it has to prove**.

Chapter 2 defined the main objective and the most important audience. But the objective on its own does not tell you which sentence belongs on the wall, or which movement the demo should let visitors see. Research fills that gap: out of the company, the brand, the products and the competitive setting, it finds material solid enough to support design decisions.

The commonest junior approach is to paste paragraphs from the client's website into a presentation and call it research. That is not research; it is transport. Research has to produce **information that has been organized, is sourced, and can change a design decision**. If no design decision changes after someone reads your research, the research has done nothing for this project.

AEDM Book 1's **RULE-06 Evidence, Not Adjectives** is put to real use for the first time in this chapter: adjectives do not go on the wall. What goes on the wall is what can be checked.

3.2

Fact, Claim and Proof

Research material arrives mixed together. The first job is to sort it into three kinds.

Kind	Definition	Example
Fact	Information that can be independently verified	This robot arm has a working reach of 900 mm
Claim	What the company says about itself, not yet supported	"Our inspection system is the fastest in the industry"
Proof	Concrete material that supports a claim	A third-party test report, before-and-after customer data, a demo that can be repeated on the floor

Claims are not a problem. Every company makes them. The only question is: **can this claim be proved on the booth?**

An unprovable claim set as a headline at distance gets discounted by visitors as advertising. Put the same sentence beside a demo that repeats the result, and it becomes an argument. That is a design decision, not a copywriting decision — it decides where the sentence goes and what stands next to it.

Record how strong the evidence is, too. Do not file everything under "has evidence":

Type of evidence	Strength	How it works on a booth
A demo that can be repeated on the floor	Strong	Visitors operate it themselves or see the result with their own eyes
A customer case (named, verifiable)	Strong	A short account + specific numbers + who the customer is
Third-party testing or certification	Moderate to strong	A mark or a report summary, with its source
Internal test data	Moderate	The test conditions have to be stated
A customer case (anonymous, no data)	Weak	Usable as a story, not as an argument
None	None	Mark it "Not tested," and keep it out of any position that makes a claim

The last row matters most. Having no evidence does not forbid talking about something; it forbids pretending. A claim you cannot find evidence for goes into the research table as "Not tested," so that every later design decision knows how little weight that sentence can bear.

3.3

Company Positioning: One Sentence, Not the About Us Page

Chapter 1 asked you to be able to say which kind of customer this company helps and what problem it solves. This chapter fixes that sentence, and it has to be in your own words.

A workable pattern is:

_____ helps _____ (which kind of customer) solve _____ (what problem) by _____ (how), which is different from _____ (whom).

The last part is often skipped, and it is the most useful part of the sentence: if you cannot say who this company is different from, the booth probably cannot say it either.

3.4

Brand Promise: The One This Show Has to Keep

Brand guidelines usually cover every market a company operates in. A booth lasts three days and faces the audience Chapter 2 defined. So what you are looking for is not "what the brand is" but **which of the brand's promises this particular show has to deliver on.**

The test is direct: set the brand promises against Chapter 2's Primary Objective. The one that can hold up the main objective stays; the rest become background for this project.

For brand assets (logo, colours, typefaces, image guidelines), this chapter only needs to confirm **what has been received and what restrictions apply**; applying them comes in Chapter 9. What to record now: which files are in hand, which are not, and whether any usage rules may not be altered.

3.5

Product Hierarchy: Only One Hero

Chapter 1 already warned that if every product is described as the most important, the priority has not been decided. This chapter decides it.

Level	What it means	Spatial consequence
Hero	The one thing a visitor remembers, when they remember one thing	The best sightline, the largest display volume, the most complete demo
Supporting	Products or features that make the hero's argument hold	Close to the hero, sharing its circulation, a smaller display face
Context	Other items that show the company's full capability	Can be handled with graphics, screens or a catalogue; takes no primary display face

The ranking follows the **main objective**, not how important a product is in itself. The same company can have a different hero at a different show — which extends Book 1 Chapter 2's "eight exhibiting objectives, eight kinds of booth."

3.6

Audience Problem × Product Relevance

Research cannot cover only the company's side. Chapter 2 defined the Primary Audience's Need (the problem they face now) and Barrier (why they have not acted yet). This chapter connects those to the products.

The method is a matrix: the left column is the audience's problem, the right column is how this product responds, and the middle column holds the **evidence**. Where all three columns can be filled in, you have content worth space on the booth. Where only the first two can, you have an item that still needs material from the client. Where only the first can, the product does not actually answer that problem — keep it off the wall.

3.7

Competitive Context: Read the Pattern, Do Not Copy the Form

You look at competitors to learn **what has already become background in this hall**. When ten companies use the same device, that device stops being distinctive — however good it looks on its own.

What to record is the pattern: most of the field keeping products in closed glass cases, most using a dark backwall with a video wall, most putting a reception desk at the entrance. What to avoid is lifting a competitor's form into your concept. It is not distinctive, and it makes the client's brand look like a follower.

Record the limits as well. Before the show, most of what you can find about competitors is websites, photographs of past shows and press releases, and none of that tells you what they will do this year. Mark source and date clearly, and note "not verified for this year" in the research table.

3.8

From Research to Design Implications

The last step of research is to write the conclusions as design implications. A usable design implication has to be **something that can be checked**:

- ✕ "The brand needs to feel more high-tech." — cannot be checked.
- ✓ "From ten metres away, the primary audience must see the application category 'vision inspection' before the company name." — can be checked on the floor plan and the elevations.

Every design implication should point to the research finding it came from. One that cannot is usually the designer's own preference, not a result of the research.

3.9

Project Information Release 03-A

About this device: From this chapter on, every chapter receives a **Project Information Release** — new material that arrives while the project is under way. Chapters 1 and 2 have none, because at that stage there is only the Client Brief and the objective definition; new evidence starts arriving at the research stage. Every Release has three sections: **facts supplied, known limitations, and questions still unanswered.** That last section accumulates all the way to Chapter 12, and every question must be traceable to where it ended up in the final delivery.

Fiction marker: AXIS-R is a fictional teaching company and has no connection to any real business of the same or a similar name. This case exists for practice; all material in this chapter is for practice and is not a project result of AMG or of any real company.

Source within the case: Product material and brand guidelines supplied by AXIS-R marketing; verbal additions from the sales team

Date received: Project day 6

Facts supplied

- Product lines and what will be shown: collaborative robots **AR-7** (working reach 900 mm, payload 7 kg) and **AR-12** (working reach 1,300 mm, payload 12 kg); the vision inspection system **AXIS Vision**; the control software **AXIS Studio 3.0** (first public showing).
- The three lines used in marketing copy: "faster implementation," "easier to learn," "lower integration risk."
- Two customer cases: an auto parts plant (named, cleared for display; inspection labour fell from 6 hours to 2 hours per shift after implementation), and an electronics assembly plant (**may not be named** — only as "an electronics assembly customer," with no data).
- Brand assets: logo vector files, colour swatches and typefaces all received; the only video footage is of the product in operation, with no footage from customer sites.
- The organizer lists 14 exhibitors in the same category, 4 of them direct competitors.

Known limitations

- "Faster implementation" and "easier to learn" are currently backed by **no testing and no third-party data** — only sales experience.
- No customer has yet gone live on AXIS Studio 3.0; it can only be demonstrated on the floor.
- Competitor information comes only from websites and last year's show photographs, and is **not verified for this year**.

Questions still unanswered

- Can the auto parts plant's data be shown as specific numbers on the booth, or only described verbally?
- Is there a publishable statement of test conditions for AXIS Vision's inspection speed?
- What network and hardware conditions does the on-floor demo of AXIS Studio 3.0 need?

3.10

Worked Application: AXIS-R's Research Judgements

Company positioning (one sentence)

AXIS-R helps mid-sized manufacturers solve the high cost of manual inspection and the labour shortage on the line by integrating collaborative robots and vision inspection into a **single inspection solution you can watch working on the floor**, which is different from suppliers that sell only a standalone robot arm.

Note the last part: the difference is "integration," not "robots." That one sentence will directly shape what the long-distance message says.

Note what this sentence deliberately leaves out. The marketing copy said implementation is faster, but Release 03-A states plainly that **implementation speed has no testing or third-party data behind it**. Putting it into the positioning sentence would break WB-03, the rule this chapter teaches, at the very first step. The positioning sentence can use only what holds up — **integration**, and **operation you can see**.

Claims and evidence

Claim	Type of evidence	Strength	Judgement in this chapter
Inspection labour fell from 6 hours to 2	A named customer case (pending the customer's consent to publish the numbers)	Strong (if consent is given)	The only one with concrete material. It supports "inspection takes less time after implementation," not "implementation is faster"
Implementation is faster	No test data, only sales experience	Not tested	May not appear in the positioning sentence or in any position that makes a claim. The number in the row above cannot be used as its evidence — they are two different things
Easier to learn	No test data, only sales experience	Not tested	Kept out of claim positions; replaced by a demo on the floor that visitors can operate and judge for themselves
Lower integration risk	No third-party data	Not tested	Rewritten as something observable: demonstrate one complete setup process on the floor, and the time it takes

The second row is the most important row in this table. A number that looks related is used to support a claim it does not support. "Saving four hours a day after implementation" and "implementation itself being faster" are two different things, and hanging the first one's number under the second is the most common evidence misuse in this trade — and the hardest to catch.

Of the marketing lines, only one holds up, and what it supports is narrower than the copy wanted. That is not bad news. It tells the designer that the booth's real persuasion has to come from **operation people can see**, not from adjectives on the wall.

Product hierarchy (working)

- **Hero:** the integrated inspection demo of AXIS Vision + AR-7. It answers the primary audience's need (lower inspection cost) and carries the strongest piece of evidence.
- **Supporting:** AR-12 (showing the payload range) and AXIS Studio 3.0 (showing operation and integration).
- **Context:** the rest of the product line, handled with graphics and the catalogue.

Design implications (five)

1. The long-distance message must name the application category (automated vision inspection) first and the company name second — because the primary audience searches by problem, not by brand.
2. The hero demo must let visitors see the **result** (the inspection verdict), not just a robot arm moving.
3. The named customer case needs a quiet position where people can talk: the numbers have to be something people point at and discuss, not something glanced at in passing.
4. Since "easier to learn" cannot be proved, it has to become a hands-on experience — which requires an interface position where visitors can actually use it.
5. Competitors mostly use closed glass cases, so this project should avoid shutting the hero inside one; otherwise "you can operate it" is visually contradicted before anyone reads a word.

3.11

Real Case: How a Real Project Handles a Claim

Real projects, to be read separately from the fictional AXIS-R. The case in this section is **not in Book 3** and has no written evidence record; it appears only to show claims and evidence, and makes no performance claim.

BenQ — Adobe MAX 2022

A claim that adjectives cannot prove. BenQ's claim is "Colors You Can Trust." To a photographer or a retoucher, that sentence is either empty or something that can be disproved on the spot. So the whole booth had one job: **turn that sentence into something that can be checked.**

It worked in three layers, which map neatly onto this chapter's claim / evidence split and Chapter 9's distance layers: **at distance, the sentence; at mid-range, real work running on a screen; up close, a specification card with numbers on it.** The card reads 99% Adobe RGB, 95% DCI-P3 and **factory calibration $\Delta E \leq 3$. The value of those numbers is not that they have been verified** — they are still the manufacturer's claims — but that they are **written in a form a third party could measure.** Adjectives cannot do that. Proving that the unit on the floor actually met those values would take a test report or an independent record, and this project has neither.



all three layers in one frame: "AQCOLOR — Colors You Can Trust" on the wall is the claim; the screen in front running a high-detail image (a demonstration that can be checked on the spot, which is not the same as verified evidence); and on the counter, the SW321C card with the specification.



the close-up layer: the specification card reading 99% Adobe RGB, 95% DCI-P3, factory calibration $\Delta E \leq 3$, beside the monitor itself and a drawing tablet. A number belongs next to the thing it describes.



Photoshop open on the screen, retouching a real photograph. Not a beauty shot of the product, but the work the customer does every day — this is what the chapter means by a demonstration that can be repeated on the floor.

Note: this project is not in Book 3 and has no written evidence record. The specification figures are quoted from the card displayed at the booth; the case appears only to show claims and evidence, and makes no performance claim.

3.12

Common Mistakes

Mistake 1: Treating marketing copy as a research conclusion.

Do this instead: copy is only a claim. Look for the evidence first, and if there is none, mark it "Not tested."

Mistake 2: Putting every product on the same level.

Do this instead: let the main objective decide the hero, and move the rest down to supporting or context.

Mistake 3: Researching only the company's side, with no audience problems.

Do this instead: check with the problem × relevance × evidence matrix, and keep anything missing its third column off the wall.

Mistake 4: Copying a competitor's form into the concept.

Do this instead: record the patterns and the devices that have become background, and use them to decide what to avoid.

Mistake 5: Finishing the research without changing a single design decision.

Do this instead: every design implication has to point to its source. One that cannot is a preference, not research.

WB-03

A Claim Without Proof Is Labeled, Not Repeated.

Applies AEDM Book 1 RULE-06 Evidence, Not Adjectives.

A claim can stay in the research table, but it has to be labelled with its type of evidence. A claim with no evidence may not be placed in the long-distance message, a main headline, or the argument of a proposal. The label is not there to deny what the client says; it is there so later design knows which sentences can bear weight.

Chapter Summary

The purpose of research is to decide what the booth has to say and what it has to prove. Material has to be sorted as it arrives into fact, claim and proof, and each claim labelled with its type and strength of evidence. The company's positioning has to be written as one sentence of your own, including what makes it different; the brand promise has to be narrowed to the one this show actually has to deliver. The products must be ranked, with only one hero, chosen by the main objective rather than by how important a product is in itself. The audience's problems and the products' relevance have to be connected in a matrix, and only content that fills all three columns earns space. The competitive context is about patterns, not forms. Finally, research has to produce design implications that can be checked; if no design decision changes after the research, the research has done nothing for the project.

Chapter Assignment

Research Summary Board

Using the Brief Analysis from Chapter 1, the Objective Definition from Chapter 2 and **Project Information Release 03-A**, complete the following. Do not introduce any AXIS-R fact that is not in the Release; information you need that has not been supplied goes on the open-questions list in Part H.

PART A

Company Summary

Item	Content
One-sentence positioning (including the difference)	
Position in the industry	
The impression the market currently has	

PART B Brand Position for This Exhibition	
Item	Content
	The brand promise this show has to deliver
	Why this one (which objective it serves)
	Brand asset status and restrictions

PART C Product Hierarchy		
Level	Product / Content	Why
	Hero	
	Supporting	
	Supporting	
	Context	

PART D Claim and Proof			
Claim	Type of evidence	Strength	How it is handled on the booth
		Strong / Moderate / Weak / Not tested	
		Strong / Moderate / Weak / Not tested	
		Strong / Moderate / Weak / Not tested	
		Strong / Moderate / Weak / Not tested	

PART E

Audience Problem and Product Relevance

The audience's problem (from Ch2)	How the product responds	Evidence

PART F

Competitive Context

Pattern observed	How many competitors do this	What it means for this project	Source and date

PART G

Evidence and Source Log

Information	Source	Date obtained	Verification status
			Verified / Not verified / Pending client confirmation
			Verified / Not verified / Pending client confirmation

PART H

Design Implications and Open Questions

List **five** design implications, each marked with the research finding it came from; then list the questions still needing the client's confirmation.

#	Design implication (a statement that can be checked)	Source finding
1		
2		
3		
4		
5		

Evaluation Criteria

CRITERION	POINTS	WHAT A PASS LOOKS LIKE
Source quality and traceability	20	Every key piece of information points to its source and verification status
Product hierarchy	20	One hero only, with the reason tied to the main objective
Audience relevance	20	The problem, response and evidence columns correspond to one another
Claims separated from evidence	15	Claims without evidence are labelled "Not tested," not repeated
Usefulness of the design implications	15	All five can be checked on a later plan or elevation
Economy of expression	10	Readable on one page, with no pasted marketing paragraphs
Total	100	

Result: Pass (may serve as input to Chapter 4) / Revise (the direction works; named items need correcting) / Restart (the research rests on an invalid objective or on assumptions that were never labelled).

Instructor Checkpoint

Before Chapter 4, the following must pass:

1. **The main product is clear** — there is one hero, and the reason connects to the Primary Objective.
2. **The main message is clear** — the one sentence the booth has to say can be written down, and you know what proves it.
3. **The limits of the evidence are clear** — which claims have no evidence, and which information is still unverified, are all on paper.

If any one of the three is unclear, the result is Revise.

Reflection

In no more than 150 words:

1. What **decision** did you make in this chapter (for example, choosing the hero or downgrading a claim)?
2. What is your largest **uncertainty** right now?
3. With better evidence, which judgement would you **change**?

Submission Requirement

Submit a one-page PDF, named:

AEDA_FBTB_C03_YourName_ResearchSummary.pdf

Until the hero product, the main message and the limits of the evidence are all clear, do not move on to the Space Program in Chapter 4.

Chapter Source Note

- Evidence versus adjectives: AEDM Book 1 **RULE-06 Evidence, Not Adjectives**.
- The objective deciding the form of the booth, and primary versus secondary objectives: AEDM Book 1 Chapter 2.
- The distinction between audience, visitor and participant, and the definition of a qualified lead: AEDM Book 2 Chapter 5.
- The terms for claim strength (Supported / Consistent / Qualified / Contradicted / Not tested) follow the Case Evidence Verdict in AEDM Book 3 v0.2 and are used as defined in EDBOK TM-009; this chapter does not redefine them.
- All AXIS-R material in this chapter comes from **Project Information Release 03-A** (a fictional teaching case) and may not be cited as evidence for any real project.

Chapter 4

Building the Space Program

Does it fit, before anyone draws

Translate the objectives and activities into a list of space requirements someone can be held to, and confirm it fits before a plan is drawn.

CHAPTER DELIVERABLE

One Space Program and Area Schedule

Until this document passes review, do not begin Zoning in Chapter 5, and do not begin any floor plan.

Learning Objective

By the end of this chapter you should be able to:

- ☐ **List** the user groups and the activities they actually carry out on the booth.
- ☐ **Define** each function's capacity, duration, equipment, circulation, privacy, storage, power and safety requirements.
- ☐ **Distinguish** net functional area, circulation and allowance.
- ☐ **Rank** functions as essential, supporting or optional.
- ☐ **Calculate** the total area required, and **judge** whether it fits the area available.
- ☐ **Record** the trade-offs: what was cut, on what basis, and who decided.

4.1

Introduction

Chapter 3 decided what the booth has to say and what it has to prove. This chapter asks a colder question: **does all of that fit?**

The commonest junior order is to draw the plan first, push the functions into it, and shrink things when they do not fit. The problem with that order is not that the drawing starts too early. It is that **the trade-offs happen where nobody can see them**: by the time the plan is drawn, the meeting room has quietly gone from six people to four, the demo's audience standing area has been squeezed to a single row, and nobody ever made that decision.

The Space Program exists so the trade-offs happen on paper, with names attached. It first works out how much area each function needs, adds it up and compares it with the area available. If it does not fit — and it usually does not — you decide what to cut before anything is drawn, and record why.

AEDM Book 1's **RULE-03 Every Element Has a Job** becomes a very concrete sentence here: **an element that cannot state its job cannot state what entitles it to floor area either.**

4.2

User, Activity, Function: Three Different Things

A common error in space programs is running three things together on one line.

Concept	The question it asks	Example
User	Who?	The primary audience, existing customers, staff, presenters, cleaning and service crews
Activity	What are they doing?	Watching a demo, operating an interface, being qualified, meeting, restocking, resting
Function	What space does that need?	Demo area, reception point, conversation area, storage room

The order is **user** → **activity** → **function**. Skip the middle step and the program simply copies the client's wish list ("reception desk, meeting room, LED") — and nothing on that list says whom it serves, how long it lasts, or how many people use it at once.

Ask at least four questions of every function: **How many people use it at once? For how long each time? Who staffs it? What equipment does it need?** A function that cannot answer them cannot have its area calculated either.

4.3

Net Area, Circulation and Allowance

Area is not finished once you multiply the equipment's length by its width. A workable breakdown has three layers:

Layer	What it covers	Common misunderstanding
Net functional area	The equipment itself + where its users stand or sit + the side clearance needed to operate it safely	Counting only the equipment and forgetting where people stand
Circulation	The space people need to move between functions, and to stop inside the booth without blocking the way	Treating circulation as "whatever is left over"
Allowance	Construction tolerance, uneven floors, power and cable runs, and the things that only turn up on site	Leaving none at all

There is no industry standard to copy here. How much of the floor circulation takes depends on the number of open sides, the direction of traffic, peak numbers and the arrangement of functions. No single figure is true for every booth, and this workbook does not supply one.

So what this chapter asks you to do is **run three scenarios**, not apply a ratio:

Scenario	Circulation and turnover	Net functional area left (600 sq ft)
Loose	35%	390 sq ft
Moderate	40%	360 sq ft
Conservative	45%	330 sq ft

These three numbers are assumptions for this exercise, not industry norms. Use them to calculate three versions of the usable area and see under which scenario your program fits — then, in Chapter 5's Zoning and Chapter 7's plan, replace them with real figures from actual aisle widths.

Run the three scenarios and you see the same thing each time: net functional area is far smaller than the total. In this exercise, 600 square feet leaves at most 390 and at least 330 — which is why the client's list does not fit. **But those are this booth's numbers, not a rule;** change the number of open sides or the direction of traffic and the proportion changes.

4.4

Equipment and Safety Clearance

Equipment always needs more space than the equipment itself. Record at least five things:

1. **Body dimensions** (length × width × height) and weight.
2. **Operating envelope** — a robot arm's working reach, which way doors swing, drawers and service faces.
3. **Safety distance** — the distance that must be kept between people and running equipment.
4. **Service requirements** — power specification, network, compressed air, heat, noise.
5. **Handling limits** — whether it fits the freight elevator, whether it has to be disassembled.

Safety distance is not a number a designer gets to decide. A collaborative robot's safety distance depends on the model, speed, payload and a risk assessment on site, and has to be confirmed by the manufacturer or the systems integrator. What the workbook asks you to do is **list it as an item needing confirmation by a named person**, not fill in a number that looks reasonable. (Book 1 **RULE-04 Zero Questions**: what is uncertain belongs on the question list, not on the drawing.)

4.5

Priority: Essential, Supporting, Optional

When the total exceeds the area available, cutting cannot be done by feel. Write the definitions of the three levels before you calculate:

Level	Definition	Consequence of cutting it
Essential	Without it, the Primary Objective cannot be met	The project loses its point
Supporting	It makes an essential function more effective, but the objective can still be met	Effectiveness drops; the objective survives
Optional	It serves a secondary objective or comfort	Almost no effect

The test is Chapter 2's Primary Objective — not the order the client raised things in, and not what the equipment costs.

4.6

Adjacency

Area calculated correctly is still no use in the wrong place. Adjacency requirements have to be written as rules before anything is drawn, for example:

- **Must be adjacent:** the demo area and the qualification point (once visitors have watched, the conversation has to be able to start at once).
 - **Must be separated:** demo noise and the conversation area (happening at the same time, they spoil each other).
 - **Must be reachable:** the storage room and every restocking point (and without passing through the conversation area).
 - **Must be visible:** the hero product and the main aisle (a Chapter 3 design implication).
- These rules turn directly into Chapter 5's bubble diagram, so the more specific they are now, the less work comes later.

4.7

When It Does Not Fit

On most projects the first total comes out too large. That is not failure; it is the reason this chapter exists. When it happens there are four ways to deal with it, in this order of preference:

1. **Downgrade** — turn a function from a dedicated space into a shared one (enclosed meeting room → semi-open conversation area).
2. **Combine** — let one space carry two activities (the reception point is also the qualification point).
3. **Reduce** — shrink the dimensions, once the safety and operating needs have been confirmed.
4. **Cut** — remove functions in priority order, and record who decided.

What you may not do is a fifth thing: make the numbers smaller and act as though nothing happened. If a program quietly trims the safety distance or the audience standing area so the total looks right, the document stops being a management tool and becomes a way of hiding the problem.

4.8

Project Information Release 04-A

Fiction marker: AXIS-R is a fictional teaching company and has no connection to any real business of the same or a similar name. This case exists for practice; every dimension, quantity and area in this chapter is practice data, not the specification of any real equipment or project.

Source within the case: Equipment data from AXIS-R product engineering, staffing plan from sales, the organizer's exhibitor manual

Date received: Project day 9

Facts supplied

Item	Data
Booth	20 × 30 ft, 600 sq ft in total, open on three sides, maximum height 16 ft
AR-7	Body with base 4 × 3 ft, working reach 900 mm, needs 220V single-phase
AR-12	Body with base 5 × 4 ft, working reach 1,300 mm, needs 220V single-phase
AXIS Vision	Inspection table 6 × 3 ft, must sit beside the robot, needs dark-field lighting

(continued)

Item	Data
AXIS Studio 3.0	Touch display stations, 4 × 2 ft each, need a wired network
On-site staff	8 at once (2 demo operators, 2 product specialists, 2 sales, 1 reception, 1 manager)
Storage	12 shipping cases (3 × 2 ft each), giveaways, coats, cleaning supplies
Meeting	Sales asks for a space that "holds 6 people and can be used to discuss pricing"
LED Wall	The client asks for 16 ft wide

Known limitations

- **The safety distance between people and a running robot has not been confirmed by the manufacturer;** throughout this chapter it is treated as "pending confirmation," and no number may be filled in.
- The organizer's rigging rules have not been obtained.
- Whether all 12 shipping cases must stay inside the booth has not been confirmed (some may go to storage).

Questions still unanswered

- Does the six-person meeting space have to be enclosed? Do pricing discussions need sound isolation?
- Is the 16 ft LED wall a requirement, or "the bigger the better"?
- Will the demos run as timed sessions or continuously? (This affects how much audience standing area is needed.)

4.9

Worked Application: Does AXIS-R Fit?

First convert the client's list into net functional area. The safety distance is unconfirmed, so a table like this **needs two columns**: optimistic (1 ft side clearance) and conservative (3 ft side clearance), with both marked on the document. **Only the conservative column is worked below** — the optimistic column has to be recalculated from the same components and added before this document goes out; the difference between the two columns is what "safety distance unconfirmed" actually costs.

Function	Components	Net area (conservative)
Demo Cell A: AR-7 + AXIS Vision	Equipment 4×3 + 6×3 side by side, 3 ft operating side, audience standing area 4 ft deep × 10 ft wide	about 110 sq ft
Demo Cell B: AR-12	Equipment 5×4, larger working reach, 3 ft operating side, audience standing area 4 ft deep × 8 ft wide	about 105 sq ft
Software display	2 touch stations at 4×2 each + user standing space	about 40 sq ft
Reception / qualification	Counter 6×2, 3 ft staff side, 3 ft visitor side	about 45 sq ft
Six-person enclosed meeting room	10 × 8, including the door and moving around	about 80 sq ft
Storage room	12 cases stacked + access space	about 35 sq ft
LED Wall	Structure 2 ft deep × 16 ft	about 32 sq ft
Total net functional area		about 447 sq ft

Estimating the usable area:

- Total area 600 sq ft
 - Circulation and turnover estimated at 40%: 240 sq ft
 - Usable net functional area ≈ 360 sq ft
- 447 > 360. About 87 sq ft over — before counting any viewing space in front of the LED wall. A booth open on three sides also gives up more floor to circulation around its edges, so the real gap may be larger.

Trade-offs (judged against Chapter 2's Primary Objective)

Function	Level	Decision	Basis
Demo Cell A (hero)	Essential	Keep, dimensions unchanged	Chapter 3's hero; the only one supported by named customer data
Demo Cell B (AR-12)	Supporting	Downgrade: no second running demo; static display + video instead	The main objective is completing targeted demos, not showing the full range
Six-person enclosed meeting room	Supporting	Downgrade: a semi-open six-person conversation area; sound isolation becomes "pending client confirmation"	The objective is booking post-show technical assessments, not negotiating price on the floor
Software display	Essential	Keep	"Easier to learn" has no evidence, so visitors have to operate it themselves (Chapter 3, design implication 4)
Reception / qualification	Essential	Keep, and it must be adjacent to the demo	Where qualified leads are captured
Storage	Essential	Keep the minimum, and ask whether off-booth storage is possible	Without it, cases end up stacked where visitors can see them
LED Wall	Optional	Reduce: 16 ft → to be confirmed; estimated at 10 ft for now	The client has not said which audience action it serves (Chapter 2 Objective Filter)

The adjusted total cannot be calculated yet, because the three downgrades have no new dimensions. Only these can be checked:

Function	Original	Adjusted	Can it be checked?
Demo Cell A	110	110	Dimensions unchanged
Software display	40	40	Dimensions unchanged
Reception / qualification	45	45	Dimensions unchanged
LED Wall	32	20	2 ft × 10 ft, can be checked
Demo Cell B (now static + video)	105	Pending	No new equipment or standing dimensions
Six-person meeting room → semi-open conversation area	80	Pending	No new table or circulation dimensions
Storage (minimum kept)	35	Pending	"Minimum" not yet converted into a number
Subtotal	447	215 + three pending	

215 sq ft is held provisionally at current dimensions; with 360 sq ft usable, that leaves 145 sq ft for the other three (they originally needed 220). Keep the word "provisionally": this 145 is a **planning allowance under this exercise's 40% circulation assumption** — not an approved layout, and certainly not clearance for a safety distance. Until those three have new dimensions, any total is a guess — **which is exactly how "about 330" came about: it had no line items anyone could check.**

Writing it as "to be calculated, ceiling 145" rather than a tidy total is what a Fit-Risk Statement should look like: **that the margin is small has to be written down now, not discovered when the plan will not fit — but how small it is will only be known once those three are calculated.**

Still unresolved: the safety distance is unconfirmed. If the manufacturer requires more side clearance than the conservative 3 ft, Demo Cell A grows again. At that point you come back to this table and recalculate — you do not quietly shrink the audience standing area on the plan.

4.10

Real Case: When It Really Does Not Fit

Real projects, to be read separately from the fictional AXIS-R. Cases drawn from AEDM Book 3 v0.2 carry that case's evidence limits; projects not in Book 3 have no written record and appear only to show how area is allocated, with no performance claim.

Japan Tech — CES 2026 Eureka Park

A space program that divides the floor evenly. This national pavilion holds dozens of startups, and each one gets **exactly the same bay**: a counter of the same size, a panel of the same size, a screen of the same size. Nobody gets a bigger one.

That is useful for this chapter because it turns "how the area is divided" into **a decision you can see**. When there are far more exhibitors than floor, the program's job is not to work out what each one needs; it is to **decide the allocation rule first** and make the functions fit the rule. Equal division is one such rule. What it buys is fairness and predictability; the price is that nobody gets to be the hero.

Notice the shared identity band overhead and the red volume in the middle: **shared elements take their area first, and only what remains is divided among the members**. That is exactly the order you followed on the AXIS-R program: take off circulation and allowance first, and only what remains is net functional area.



a row of identical bays under one shared JAPAN TECH identity band. **Area allocation is a decision made before design.**



one bay in use: **the real scale of two or three visitors stopping at once**, plus a carton nobody has cleared away yet. The photograph shows this moment, not a capacity limit — **but this is the scale a space program has to be honest about.**

Note: this project is not in Book 3 and has no written evidence record. It appears only to show an area allocation rule, and makes no performance claim.

CAE — WATS 2026 (Book 3 • Case 05)

A simulator does not fit in 800 square feet, and does not need to. This case shows a different trade-off: **not chasing the largest thing into the booth**, but giving the area to meetings.



looking across the floor: the illuminated brand wall and a screen at the front, the bar in the middle, the glass meeting room at the back right. **What the photograph shows is a low-contrast, low-stimulation treatment of light** — the area was spent on making people willing to sit down, not on being seen. (There is no photograph of the sound environment, and the project file holds no measurement of it.)



the whole run outside the meeting room: the bar, seating, a catering counter, and staff plating food. Supporting functions do not stop taking area just because they are not the hero — this run is where the "everything else" in 800 square feet went.

Evidence limit: the number of meetings and the commercial results are client confidential.

4.11

Common Mistakes

Mistake 1: Counting the equipment and not the people.

Do this instead: net area has to include where users stand or sit and the side clearance for operation.

Mistake 2: Treating circulation as whatever is left over.

Do this instead: take off circulation first, then look at the usable net area; a booth open on three sides has to take off more.

Mistake 3: Filling in a safety distance that looks reasonable.

Do this instead: list it as an item needing named confirmation, and work from scenario estimates (optimistic / conservative) in the meantime.

Mistake 4: Simply making the numbers smaller when the area is exceeded.

Do this instead: downgrade, combine, reduce or cut in essential / supporting / optional order, and record who decided and why.

Mistake 5: Writing the program and then throwing it away, while new functions grow on the plan.

Do this instead: the Chapter 7 plan has to trace back to this table; anything not on the table cannot appear on the drawing.

WB-04

Area Is Proven, Not Assumed.

Applies AEDM Book 1 RULE-03 Every Element Has a Job and RULE-04 Zero Questions.

Every function has to be able to say how much area it needs, why it needs that much, and which objective it serves. When it does not fit, the cutting has to happen on the program, with a basis and a name; quietly shrinking a safety distance or a user's standing space to make the total look right amounts to falsifying the document.

Chapter Summary

A space program is a translation from users to activities to functions. Every function has to answer how many people, for how long, who staffs it and what equipment it needs; only then can its net functional area be calculated. Area comes in three layers: net functional, circulation and allowance. There is no general proportion for circulation, so this chapter has you calculate once each at 35, 40 and 45% and see under which scenario the program fits. In this chapter's three practice scenarios, the usable net functional area is only a little over half the total. Equipment always needs more space than the equipment itself, and a safety distance has to be confirmed by the manufacturer or integrator, never filled in by you. When the total requirement exceeds the area available — as it does on most projects — downgrade, combine, reduce or cut in essential, supporting and optional order, and write down the decisions and their basis. Finally, write the remaining margin and the unconfirmed items as a Fit-Risk Statement, so that the next chapter's Zoning starts from a real set of numbers.

Chapter Assignment

Space Program and Area Schedule

Using the Objective Definition from Chapter 2, the Research Summary Board from Chapter 3 and **Project Information Release 04-A**, complete the following. Do not introduce any equipment dimension, quantity or rule that is not in the Release.

PART A **Function Inventory**

Function	Which objective it serves	User	New (not raised by the client)?

PART B **Activity and User Table**

Function	Activity	People at once	Duration each time	Staffed by

PART C **Equipment and Clearance Schedule**

Equipment	Body dimensions	Operating / opening envelope	Safety distance	Service needs (power / network / other)	Confirmation status
					Confirmed / Pending named confirmation

PART D **Area Schedule**

Function	Net area (optimistic)	Net area (conservative)	How it was calculated
Total net functional area			

Item	Value
Total area	600 sq ft
Circulation and turnover (% , with reasoning)	
Usable net functional area	
Difference (usable – required)	

PART E

Priority Ranking

Function	Essential / Supporting / Optional	Basis (which objective it ties to)

PART F

Adjacency Requirements

Relationship	Must be adjacent / Must be separated / Must be reachable / Must be visible	Why

PART G

Fit-Risk Statement

In no more than 150 words, state:

1. The current difference between total requirement and usable area.
2. Which trade-offs you made, on what basis, and who needs to confirm them.
3. Which unconfirmed item is most likely to force this table to be recalculated.

Evaluation Criteria

CRITERION	POINTS	WHAT A PASS LOOKS LIKE
Completeness of the functional requirements	25	Users, activities, capacity, equipment and service needs are all present; not merely copied from the client's list
Soundness of capacity and clearance	20	People's positions are counted; the safety distance is marked pending rather than filled in
Consistency with the objectives	20	Every function points to the objective it serves
Priority decisions	15	Essential / supporting / optional have a basis, and cuts are recorded
Adjacency logic	10	Adjacency and separation rules are specific enough to draw as a bubble diagram
Disclosure of risk and uncertainty	10	Margin, unconfirmed items and the conditions for recalculating are all written out
Total	100	

Result: Pass (may proceed to Chapter 5) / Revise (the direction works; named items need correcting) / Restart (the program rests on assumptions that were never labelled, or the total was never compared with the area available).

Instructor Checkpoint

Before Chapter 5, the following must pass:

1. **The total has been compared with the usable area** — the difference is a number, not "should be fine."
2. **If it does not fit, the cuts are on record** — stating downgrade / combine / reduce / cut, the basis, and who decided.
3. **Unconfirmed items have names against them** — above all the safety distance, the rigging rules and off-booth storage, with who will confirm each.

If any one of the three is missing, the result is Revise. **No floor plan may be started until the program passes.**

Reflection

In no more than 150 words:

1. What **trade-off decision** did you make in this chapter?
2. What is your largest **uncertainty** right now?
3. If the safety distance comes back larger than your conservative estimate, what would you **change**?

Submission Requirement

Submit a one-page PDF, named:

AEDA_FBTB_C04_YourName_SpaceProgram.pdf

Until the program passes review, do not begin Zoning in Chapter 5 or any floor plan.

Chapter Source Note

- Every element must be able to state its job: AEDM Book 1 **RULE-03 Every Element Has a Job**.
- Area that cannot be calculated goes on the list of items pending confirmation, rather than being filled in with a number that looks reasonable: AEDM Book 1 **RULE-04**.
- Japan Tech (CES 2026 Eureka Park) is **not in Book 3**, and appears only to show an area allocation rule, with no performance claim.
- **This workbook does not supply a general circulation proportion.** 35/40/45% are the three scenario inputs for this exercise, not industry norms; the real proportion has to be worked out from the plan and the aisle widths, and checked against the venue's rules.
- Safety distance, rigging and fire rules are matters **requiring confirmation by a named professional**; the workbook supplies no values for them.
- All AXIS-R material in this chapter comes from **Project Information Release 04-A** (a fictional teaching case) and may not be cited as evidence for any real project.

Chapter 5

Visitor Journey and Zoning

Where each thing goes, and who meets what first

Arrange the actions visitors need to complete, the work staff have to do and what the equipment needs into a spatial structure people can actually move through.

CHAPTER DELIVERABLE

One Visitor Journey Map and Zoning Diagram

Until this document passes review, do not begin the concept in Chapter 6, and do not begin any dimensioned floor plan.

Learning Objective

By the end of this chapter you should be able to:

- ☐ **Map** the six stages — Notice, Approach, Understand, Engage, Qualify, Commit — onto concrete positions in space.
- ☐ **Distinguish** five kinds of circulation: visitor, staff, product, service and emergency.
- ☐ **Identify** attraction, decision, dwell and transition points.
- ☐ **Establish** four kinds of zone: public, semi-public, private and service.
- ☐ **Check** sightlines, accessibility, congestion and operational conflicts.
- ☐ **Compare** at least three zoning alternatives, and choose one on the evidence.

5.1

Introduction

Chapter 4 worked out how much area each function needs. This chapter decides **where they go, and who meets what first**.

A booth with the right areas in the wrong places looks reasonable and does not work: the qualification point is too far from the demo, so visitors watch and leave; the restocking route runs through the conversation area, so every restock interrupts a conversation; the hero product is placed at the very back, so people in the aisle cannot tell what this booth is doing.

This chapter draws no dimensioned plan. What it deals with is **relationships**: what sits next to what, what can see what, and what must never pass through what. Once the relationships are settled, the Chapter 7 plan has something to converge on; start drawing before they are settled and what you draw is form, not space.

5.2

Putting the Visitor Action Ladder on the Floor

Chapter 2's Visitor Action Ladder is a set of behaviours. The question this chapter asks is: **at each stage, where is the person standing?**

Stage	What the visitor is doing	What the space has to provide	Distance range
Notice	Judging from the aisle whether this has anything to do with them	A message readable at distance, a recognizable hero	10–30 m
Approach	Deciding whether to come in	An entrance with no threshold, a view of what is happening inside	3–10 m
Understand	Grasping what problem this company solves	One sentence + one thing they can make sense of	2–4 m
Engage	Watching a demo, operating an interface, starting to talk	Somewhere to stand, and a sound environment where people can hear	1–2 m
Qualify	Answering questions, having their needs understood	A place to stop and talk without blocking the way	0.5–1 m
Commit	Agreeing to a next step	A place where it can be recorded and a time can be booked	0.5–1 m

The distance ranges are a starting estimate, not a standard (editorial judgment). The real values depend on the hall's height, the aisle width and how bright the neighbouring booths are, and have to be verified on site or on the plan.

A useful check is to ask it the other way round: **if a stage has no place on the booth, that stage will not happen.** On many booths Qualify never happens, not because the sales team is not trying but because there is nowhere on the floor where two people can stop and talk for three minutes without blocking the way.

5.3

Five Kinds of Circulation

Five kinds of movement happen on a booth at once, and they interfere with one another.

Circulation	Who	Common conflict
Visitor	Visitors, existing customers	Competing with staff for the same route
Staff	Demo operators, sales, reception	Needs a route behind the scenes, or it cuts through the visitor area
Product	Equipment move-in, sample restocking	Large items, concentrated before and after show hours
Service	Restocking, cleaning, rubbish, catering	Routes that pass through the conversation or demo areas
Emergency	Evacuation, fire access	Blocked by displays or storage

Emergency circulation is not a design option. Venue and fire rules fix the aisle widths and the places that may not be obstructed. The workbook asks you to list it as an item that must be verified, confirmed by the organizer or the venue — not something you may assume.

5.4

Four Kinds of Zone

Zone	Who may enter	Example
Public	Anyone, with no need to be received	Hero display, long-distance message, open demo viewing area
Semi-public	People willing to interact	Conversation area, hands-on stations
Private	By invitation or arrangement	Enclosed meeting room
Service	Staff only	Storage, power, spares, coats

The **transitions** between zones go wrong more easily than the zones themselves. Moving from public to semi-public should be a natural step (one step fewer, one threshold fewer); moving from semi-public to private should involve a clear act of invitation. The service zone has to be reachable from the staff side, never by passing through any visitor zone.

5.5

Four Kinds of Point

Mark four kinds of point on the plan. They decide where the flow of people will jam.

- **Attraction:** what makes someone in the aisle turn their head (usually the hero in motion).
- **Decision:** where people decide whether to come in and whether to stay — usually the first step inside the entrance.
- **Dwell:** where people stand and watch for a while — the demo viewing area, the hands-on stations.
- **Transition:** where a visitor moves from one stage to the next — where that step after the demo actually goes.

The point most often overlooked is the transition. Booths are often designed with attraction and dwell but with no arrangement for "how does the conversation start once they have watched," so the ladder breaks between Engage and Qualify.

5.6

Three Alternatives, Not One

Drawing a single answer first time usually means nothing was compared. This chapter requires at least three zoning alternatives, and they have to be **genuinely different** — a different hero position, a different entrance strategy, a different service route — not three styles of the same scheme.

Compare them against the same criteria, scoring each or marking the risk:

Criterion	Question
Consistency with the objective	Which stage of the Primary Objective does it help?
Recognition at distance	How many seconds before someone in the aisle knows what happens here?
Ease of entry	Is there a threshold at the entrance? Can you see inside?
Congestion risk	Will the demo audience block the entrance or the aisle?
Qualification	Where is the transition point from Engage to Qualify?
Staff operations	Is there a route behind the scenes? Does restocking cross the visitor area?
Sound conflict	Will demo noise make conversation impossible?
Safety and regulations	Do the safety distance, fire access and emergency exits work?

The choice needs a basis. "Looks better" is not a basis; "it gives Qualify a place, and Scheme A does not" is.

5.7

Project Information Release 05-A

Fiction marker: AXIS-R is a fictional teaching company and has no connection to any real business of the same or a similar name. This case exists for practice; every position, width and time slot in this chapter is practice data, not the rules of any real show.

Source within the case: The organizer's floor plan and exhibitor manual; AXIS-R sales

Date received: Project day 12

Facts supplied

Item	Data
Booth position	On the corner where the main aisle meets a secondary aisle, with the long side (30 ft) facing the main aisle
Aisle widths	Main aisle 12 ft, secondary aisle 8 ft
Closed side	One short side (20 ft) shares a backwall with the neighbouring booth
Main direction of traffic	In from the east entrance of the main aisle; most visitors move from east to west
Neighbours	Across the main aisle, a direct competitor's 20 × 20 island booth with large-scale AV; on the backwall side, a small non-competing booth
Show days	Three days, 9:00–17:00 each day
Demo arrangement	Sales has decided on timed sessions : one per hour, 12 minutes each, with individual demos possible the rest of the time
Estimated peak	During a timed session, 10–14 people may be in the demo viewing area at once

Known limitations

- No written version yet of the fire access and minimum clear width rules.
- Rigging rules still unconfirmed (carried over from Release 04-A).
- Robot safety distance still awaiting the manufacturer's confirmation (carried over from Release 04-A).

Questions still unanswered

- Will the timed sessions use amplification? What is the volume limit?
- Does the organizer limit the volume of the competitor's AV across the aisle?
- Does the corner position allow an entrance on both sides?

5.8

Worked Application: AXIS-R's Three Alternatives

The function list that passed in Chapter 4: the hero demo cell (AR-7 + AXIS Vision), software stations ×2, reception / qualification, a semi-open six-person conversation area, an AR-12 static display, storage, and the LED wall (width to be confirmed).

Release 05-A brings in three key facts, and they change the zoning: **traffic moves east to west, across the aisle is a direct competitor with large-scale AV, and demos run as timed sessions with a peak of 10–14 people.**

Scheme A: the hero on the corner

The hero demo sits on the corner where the two aisles meet, reception on the main-aisle side, conversation and storage on the backwall side.

- Recognition at distance is **strongest**: the hero can be seen moving from both directions.
- Congestion risk is **highest**: the 10–14 people at a timed session stand right on the corner and may spill into the aisle.
- Qualification: reception sits right beside the demo, so the transition point is clear.

Scheme B: the hero set back, the entrance left open

The hero demo moves back toward the middle of the booth, leaving an open entry space on the main-aisle side, with reception moved to one side of the entrance.

- Congestion risk is **lowest**: visitors stand inside the booth and do not block the aisle.
- Recognition at distance **drops**: from the aisle you see open floor and a sign, not something in motion.
- Needs stronger overhead messaging to make up for the Notice stage.

Scheme C: the hero against the backwall

The hero demo goes against the shared backwall, with visitors standing facing the wall and all the open sides left for circulation and conversation.

- The smoothest circulation and the quietest conversation.
- But visitors have **their backs to the aisle**: people in the aisle see only the backs of other people, so Notice is weakest.
- And demo sound reflects off the backwall into the booth, conflicting with conversation.

Comparison

Criterion	A Corner	B Set back	C Backwall
Consistency with the objective (demo as core)	Strong	Moderate	Moderate
Recognition at distance	Strong	Weak	Weak
Ease of entry	Moderate	Strong	Moderate
Congestion risk	High	Low	Moderate
Engage → Qualify transition	Strong	Moderate	Moderate
Staff route behind the scenes	Moderate	Strong	Weak
Sound conflict	Moderate	Moderate	High
Safety and regulations	To be confirmed	To be confirmed	To be confirmed

Choice and reasoning

Choose A, but only with corrections for congestion.

The reason: the main objective is getting decision-makers with a need to **complete a targeted demo**, and Notice is the entrance to the whole ladder. Directly across the aisle is a competitor with large-scale AV; if people in the aisle cannot see what is happening here, none of the next five stages will happen. Scheme B is safest on congestion, but what it gives up in exchange is Notice — the thing this project needs most.

Corrections (all of them go onto the Chapter 7 plan):

1. Set the demo viewing area **back from the corner by at least one standing depth**, so any overflow happens inside the booth rather than in the aisle.
2. At timed sessions, visitors **face into the booth**, so the crowd does not form a wall with its back to the aisle.
3. Move the reception point **downstream** of the viewing area (to the west), following the flow of traffic to pick up Engage → Qualify.
4. Storage and the restocking route run along the backwall side, **without passing through the conversation area** (Chapter 4's adjacency rule).

Unresolved: fire clear width, amplification volume and safety distance all still lack a written answer. If any one of them changes, Scheme A's corner arrangement has to be checked again — and that belongs in the reasoning for the choice now, not dealt with when the plan comes back rejected.

5.9

Real Case: What Zoning Looks Like on Real Projects

Real projects, to be read separately from the fictional AXIS-R. Cases drawn from AEDM Book 3 v0.2 carry the evidence limits that book records for them; projects not in Book 3 have no written record and appear only to show zoning techniques, with no performance claim.

JAXA / Japanese Space Industry — the space industry pavilion

One motif holding up the zoning for many companies. The whole pavilion uses one thing as its identity: a band of illuminated lattice (proportioned like shoji screens) hung above every member. The zoning comes not from partition walls but from **rhythm** — one bay per company, and each bay with its own small nameplate, its own screen, its own counter and its own high stools.

That is useful for this chapter in two ways. First, **a shared identity and individual zones can both hold at once**: at distance you read "Japanese Space Industry," and only up close do you read Synspecive, Bridgestone, TOYOTA. Second, **the boundary of a zone can be nothing more than a bay** — no wall needed; the repeated rhythm is itself the zoning.

In the photographs one bay is red and the rest share the same rhythm. **Reading that as a deliberately planted point of attraction is an interpretation** — the design intent is not in our records, and there is no measurement of attention. Only one thing can be observed: in a pavilion where everything is the same, **the one visual difference is right there.**



looking along the pavilion: two runs of illuminated lattice overhead, member bays below one after another, a visitor walking down the middle. **Identity above, zones below, circulation in between.**



the corner: each bay with its own nameplate (Synspec, SANTECH, BRIDGESTONE, TOYOTA), and the red bay breaking the rhythm. **Zoning by rhythm, not by walls.**



a bay in use: two people sitting down to talk in the foreground, someone standing to read a screen behind them. The same bay has to hold "standing to look" and "sitting down to talk" at once — two kinds of dwell, at two depths.

Note: this project is not in Book 3 and has no written evidence record. It appears only to show zoning and shared identity, and makes no performance claim.

Dreame — pop-up store, Westfield Century City

When there are no enclosed rooms, zoning comes from the floor and the setting.

This is the atrium of an open-air shopping centre, with other brands' storefronts on either side. **What the photographs show:** the front completely open, nothing hung overhead, the neighbouring storefronts left unobscured; branded backdrops stand behind the sets, but **none of them is enclosed into a room**. Whether the venue prohibited rigging or enclosure, this project has no written record to check.

So the zoning is made from three things: **the boundary printed on the floor, settings built as rooms, and the branded backdrop behind them** — the backdrop defines a zone's background without enclosing anyone. The floor is printed with the brand and the campaign name, so the moment someone steps onto it they know they have entered somewhere else; inside, instead of products standing in rows, there is a **bedroom, a living room** — the zone needs no label, because it looks like the very thing it is there to say.

It makes a direct contrast with the previous case: JAXA zones by rhythm; Dreame zones by floor, setting and backdrop. **Neither of them encloses anyone.**



from the walkway: the ring of lettering on the floor is the boundary, the living room inside it, the mall outside it, and the backdrop behind printed with product information defines the background. **The front is completely open, and the zone still holds.**



inside the boundary: a complete bedroom, the product placed in the room where it would be used, a dark backdrop standing where a wall would be. **The zone explains what it is by itself** — yet it is open on three sides.

Note: this project is not in Book 3 and has no written evidence record. It appears only to show a zoning technique, and makes no performance claim.

Taiwan Excellence — ITSACE 2026, Detroit (Book 3 • Case 06)

The basis for zoning does not have to be "who"; it can be "what problem." This was a 20×50 national pavilion at ITSACE, the intelligent transportation show at Huntington Place in Detroit. The client was not a single company but a national mark carried jointly by a group of award-winning Taiwanese companies. AMG delivered it with **17 Design**: 17 Design led the concept, and AMG handled fabrication, graphics, demo integration and on-site construction.

The classic failure of a national pavilion is a flea market of ten logos all shouting at once. This project avoided it through exactly the decision this chapter is about: **zoning by application theme, not by company**. What hangs over the zone counters are theme headings — vehicle sensing and image processing, smart transportation infrastructure, communications and remote management, autonomous driving and vehicle systems — with the member products grouped under the theme they solve.

The reasoning is written in the project record, and it is pure audience logic: a **transportation buyer thinks in problems, not in vendor names**. They are not looking for "some-company Technology"; they are looking for "how do I sense what is happening at my intersection." Zoning by exhibitor identity would require visitors to know every company before they could find anything.

The layering of identity is part of the zoning too: **the national brand on the skyline, member brands at counter height**. A continuous white identity band runs across the top of the whole island, so at hall distance you read one country; the member logos appear at the height where people actually stop and talk.

The three cases in this section are three different bases for zoning — **JAXA by rhythm, Dreame by floor and setting, Taiwan Excellence by named category**. None of the three encloses people in a closed room.



two theme counters (communications and remote management; autonomous driving and vehicle systems) under the same overhead identity band. The zone headings on the counters, the national brand in the sky.



counter height: one member company's product on the shared counter, its own logo no bigger than a small card. **Member brands have not disappeared; they have been placed at the height where conversation happens.**

Evidence limit: the national pavilion's structure, the theme-zoning logic and the implementation of the overhead identity band can be verified from the project file and photographs, with concept leadership belonging to 17 Design; visitor and lead metrics are not in AMG's records, and whether they exist elsewhere has not been established; results cannot be broken down by individual member company, so no such record is available for review. Output confidence is high; Outcome is qualitative.
5.10

Common Mistakes

Mistake 1: The three alternatives are really three styles of the same scheme.

Do this instead: at least one of hero position, entrance strategy or service route has to be genuinely different.

Mistake 2: Drawing only visitor circulation.

Do this instead: draw all five kinds of circulation, restocking and emergency above all.

Mistake 3: Arranging no transition point.

Do this instead: state plainly where people go after the demo, and who takes over.

Mistake 4: Leaving fire and safety rules for later.

Do this instead: list them as items that must be verified, and state in the reasoning for your choice which alternative they could overturn.

Mistake 5: Choosing the scheme that "looks better."

Do this instead: explain the choice with the comparison criteria, and say where each rejected alternative lost.

WB-05

If a Stage Has No Place, It Will Not Happen.

Applies AEDM Book 1 RULE-03 Every Element Has a Job, and extends Chapter 2's Visitor Action Ladder.

Every stage on the ladder has to point to a place on the plan where it happens. A stage with no place will not happen by itself just because people work hard on the floor; it becomes the line in the post-show report that says "lots of visitors, but no leads."

Chapter Summary

Zoning deals with relationships, not dimensions. First map the six stages of the Visitor Action Ladder onto positions and make sure every stage has somewhere to happen; then draw the five kinds of circulation — visitor, staff, product, service and emergency — and find where they interfere with one another. Zones come in four kinds: public, semi-public, private and service, and the transitions go wrong more easily than the zones themselves. Mark attraction, decision, dwell and transition points on the plan; the transition point is the one most often missed, and it is exactly why the ladder breaks between Engage and Qualify. Finally, put forward at least three genuinely different alternatives, compare them against the same criteria, and choose on evidence rather than preference; write down where each rejected alternative lost.

Chapter Assignment

Visitor Journey Map and Zoning Diagram

Using the Objective Definition from Chapter 2, the Space Program from Chapter 4 and **Project Information Release 05-A**, complete the following. Do not introduce any show rule or dimension that is not in the Release.

PART A Visitor Journey Map				
Stage	Visitor action	Where it happens	What the booth has to provide	Staffed by
Notice				
Approach				
Understand				
Engage				
Qualify				
Commit				

PART B

Staff Workflow

Role	Main position	Route	Problems at peak times

PART C

Bubble Diagram

Show the relative relationships between functions as a bubble diagram, marking: must be adjacent, must be separated, must be reachable, must be visible. (A scanned hand drawing or a digital one is fine; no dimensions.)

PART D

Three Zoning Alternatives

One diagram for each alternative, with one sentence stating how its strategy differs.

Alternative	How the strategy differs (hero position / entrance / service route)
A	
B	
C	

PART E

Comparison Matrix

Criterion	A	B	C
Consistency with the objective			
Recognition at distance			
Ease of entry			
Congestion risk			
Engage → Qualify transition			

(continued)

Criterion	A	B	C
Staff operations			
Sound conflict			
Safety and regulations			

PART F **Selected Zoning Rationale**

In no more than 200 words, state:

1. Which alternative you chose, and on which criteria.
2. Where each rejected alternative lost.
3. What corrections you added to the chosen alternative.
4. Which unconfirmed item could overturn this choice.

Evaluation Criteria

CRITERION	POINTS	WHAT A PASS LOOKS LIKE
Circulation consistent with the objective	20	All six stages point to a place, and serve the Primary Objective
Clarity of circulation	20	All five kinds of circulation are drawn, and the conflict points identified
Staff and service operations	15	There is a route behind the scenes and a restocking route, and neither passes through the visitor area
Sightlines and accessibility	15	The hero can be seen from the main aisle; the entrance has no threshold
Quality of the alternatives	15	The three alternatives genuinely differ in strategy, not in the styling of one scheme
Choice based on evidence	15	Explained with the comparison matrix, stating where the rejected alternatives lost
Total	100	

Result: Pass (may proceed to Chapter 6) / Revise (the direction works; named items need correcting) / Restart (the three alternatives are essentially the same, or the choice has no basis).

Instructor Checkpoint

Before Chapter 6, the chosen zoning must pass four checks:

1. **Accessibility** — the entrance, conversation area, storage and emergency routes can all be reached, and the service route does not cross the visitor area.
2. **Capacity** — peak visitor numbers can stand without spilling into the aisle.
3. **Safety** — equipment safety distance and fire clear width are listed as pending confirmation with a name against them, not replaced by assumed numbers.
4. **Operational conflict** — conflicts between sound, restocking and the timing of demo sessions have been identified, with a response for each.

If any one of the four has not been dealt with, the result is Revise.

Reflection

In no more than 150 words:

1. What was the hardest **trade-off** in choosing your alternative?
2. What is your largest **uncertainty** right now?
3. If the fire or safety rules come back unfavourable, which part of the arrangement would you **change**?

Submission Requirement

Submit a one-page PDF (drawings may be attached separately), named:

AEDA_FBTB_C05_YourName_JourneyZoning.pdf

Until the zoning passes review, do not begin the concept in Chapter 6, and do not begin any dimensioned floor plan.

Chapter Source Note

- Visitor Action Ladder: Chapter 2 of this workbook; it is an AEDA teaching model and is not yet registered as an EDBOK framework object.
- Every element must be able to state its job: AEDM Book 1 **RULE-03**.
- What is uncertain stays on the question list and off the drawing: AEDM Book 1 **RULE-04 Zero Questions**.
- The distinction between audience, visitor and participant: AEDM Book 2 Chapter 5.
- Value is decided by the quality of the encounter, not the number of people: AEDM Book 2 Chapter 1 (working principle 1.2).
- The distance ranges (10–30 m / 3–10 m and so on) are **editorial judgment and practical experience**, not measured data, and must be verified against the conditions of the venue.
- Fire clear width, emergency exits and equipment safety distance are matters **requiring confirmation by a named professional**; the workbook supplies no values for them.
- All AXIS-R material in this chapter comes from **Project Information Release 05-A** (a fictional teaching case) and may not be cited as evidence for any real project.

Chapter 6

Creating the Design Concept

The one sentence everything else answers to

Build a concept that holds up — one that joins business purpose, visitor experience, brand, product and space into a single idea.

CHAPTER DELIVERABLE

One Concept Statement and Concept Board

Until this document passes review, do not begin the plans and elevations in Chapter 7.

Learning Objective

By the end of this chapter you should be able to:

- ☐ **Distinguish** theme, style, form and concept.
- ☐ **Identify** this project's core design problem.
- ☐ **Write** a one-sentence Concept Proposition.
- ☐ **Set** three to five design principles specific to this project.
- ☐ **Translate** concept language into spatial behaviour.
- ☐ **Test** whether the concept holds against the objective, the constraints and feasibility.

6.1

Introduction

By this chapter you have an objective, an audience, research, an area program and zoning. **None of that turns into a design by itself.**

The concept is the sentence that joins them: it says **by what means** this booth reaches its objective, and it says so specifically enough that every later decision has something to answer to.

The two commonest junior misunderstandings about concepts:

- Treating the concept as a **story** — "our concept is 'a journey'." But what does a journey demand? What has to happen within three metres? If you cannot say, it is not a concept.
- Treating the concept as a **form** — "our concept is streamlined." Streamlined for whom? Which stage does it make easier?

A usable test is simple: **if you swapped the concept out, would the design change?** A concept whose removal changes nothing is an ornament on page three of the proposal.

6.2

Theme, Style, Form, Concept: Four Different Things

Term	What it is	Example	The danger
Theme	The subject of the content	"Sustainable manufacturing"	Can leave the space completely untouched
Style	A visual vocabulary	Minimal, industrial	Can be laid over any objective at all

(continued)

Term	What it is	Example	The danger
Form	The actual geometry	A curved wall, an arch, a grille	Form without a reason is only preference
Concept	A claim about how this booth works	"Let buyers see their own production line within three minutes"	Must be something that can be tested

The four do not conflict; the order is what matters: **the concept decides the form, not the other way round.** Theme and style are materials, not answers.

6.3

Finding the Core Design Problem

A concept is an answer, so the problem has to be written clearly first. A core design problem usually looks like this:

Under the condition of _____ (constraints), how do we get _____ (the primary audience) to _____ (the key action), without their having to _____ (a price they are unwilling to pay)?

A good design problem has three features:

1. **It contains the real constraints** — area, time, budget, regulations, surroundings.
2. **It names the audience and the action**, not "everyone" and "leave an impression."
3. **It is capable of failing** — if any design could satisfy it, it is not a problem.

6.4

The Concept Proposition

A proposition is one sentence, and it has to be a **claim**, not a description. A usable pattern:

This booth uses _____ (approach) to let _____ (audience) _____ (action), because _____ (basis).

The "because" matters most: it connects the concept back to the research and the objective. **A concept that cannot say "because" is a preference.**

6.5

Project Design Principles

A single proposition is not enough to guide ten decisions, so expand it into **three to five principles specific to this project**. These are not AEDM's six RULEs, nor EDBOK's FPs — those belong to the whole profession. What you write here are **rules that hold only for this project**.

A usable project principle:

- is written as an instruction ("keep the hero approachable and clearly visible"), not as an adjective ("feels high-tech");
- points to the objective or research finding it serves;
- **can be broken** — a principle that cannot be broken will not influence any decision.

6.6

Translating Concept into Space

A concept has to land as concrete spatial behaviour. The method is a two-column table: concept language on the left, and on the right **what it looks like on the plan or the elevation**.

Concept language	Spatial consequence (can be checked on the drawing)
"Let buyers do it themselves"	A place to stand and operate, interface height 1,000–1,100 mm, 900 mm clear in front
"The result matters more than the machine"	The inspection verdict on screen at eye height, the machine behind it
"Don't lock the hero away"	The hero is not put in a glass case; only a safety line separates visitors from the equipment

Concept language whose right-hand column cannot be filled in **either has not been thought through yet, or is just an adjective.**

6.7

Stress-Testing the Concept

Once the concept is written, put it under five questions:

1. **Objective** — which stage of the Primary Objective does it help?
2. **Audience** — does it make the most important audience more likely to act?
3. **Evidence** — for what it asks the booth to prove, can Chapter 3 find evidence?
4. **Constraints** — can area, regulations, time and budget carry it?
5. **Replaceability** — take the concept away: does the design collapse? If it does not, the concept is not doing any work.

A concept that fails question 5 does not need fixing; it needs replacing.

6.8

The Trap of the Decorative Metaphor

Metaphors are not wrong in themselves. What is wrong is **a metaphor that does nothing.**

- "Like a river" → so the walls curve. Whom does a curved wall help do what? No answer, and it is only form.
- "Like a bridge" → so there is an arch. The arch blocks the main sightline and makes Notice harder.

The test: delete the metaphor and keep only the spatial behaviour it demands. If those behaviours still stand once it is gone, the metaphor can stay (it helps the team remember); if nothing is left, it was never a concept.

6.9

Project Information Release 06-A

Fiction marker: AXIS-R is a fictional teaching company and has no connection to any real business of the same or a similar name. This case exists for practice; every rule, value and client reply in this chapter is practice data, not the regulations of any real show or manufacturer.

Source within the case: The organizer's written rules, the NX manufacturer's technical department, AXIS-R marketing and sales

Date received: Project day 16

Facts supplied

Item	Data
Fire and aisle rules (written)	No fixed structure taller than 40 in within the 3 ft band along the booth's main-aisle edge; the clear width of emergency routes may not be obstructed
Amplification limit	No more than 65 dB at 10 ft outside the booth boundary
Safety distance (manufacturer's reply)	AR-7 needs 1.5 ft of side clearance when running, with a further 3 ft between the audience line and the outer edge of the working reach
Client's reply on zoning	Agrees to Scheme A and the four corrections; also agrees to reducing the LED wall to 10 ft. What was approved is the position and size of the zones, not whether the conversation area is enclosed or its sound isolation — that item has still not been answered
Brand guidelines	AXIS Blue may be used only for brand elements, not for safety signage or floor wayfinding; typefaces limited to two
Auto parts plant case	The client has obtained consent: the specific numbers may be shown publicly

Known limitations

- Supplier and construction quotations not yet obtained (dealt with in Chapter 10).
- AXIS Studio 3.0's on-site network requirements still unconfirmed.

Questions still unanswered

- Does the 40 in limit apply to movable displays (for example, a portable sign)?
- Is 65 dB a continuous or a peak value?

6.10

Worked Application: AXIS-R's Concept

First, see where the new rules bite. Chapter 5 chose "the hero on the corner" because it gave the strongest Notice. But Release 06-A's **3 ft / 40 in rule** means nothing tall can stand in the band along the main aisle. That does not overturn Scheme A, but it **changes what Notice has to rely on** — not a tall wall, only **height overhead** (rigging) and **motion down low** (the demo itself).

Core design problem

Within 600 square feet, with nothing taller than 40 in inside 3 ft of the aisle and a competitor with a video wall directly opposite, how do we get manufacturing decision-makers with an automation need to know within ten seconds that this is where inspection problems get solved, and to stop and complete a demonstration, without first having to talk to a salesperson?

Concept proposition

This booth **puts the act of inspection itself where it can be seen best**, letting manufacturing decision-makers with an automation need see the result first and then decide whether to talk, because the research shows that this company's only claim that holds up comes from **operation that can be seen**, not from adjectives.

Project design principles (four)

1. **Keep the hero approachable and clearly visible** — the hero demo is not put in a glass case; but visitors must stop **outside the boundary confirmed by the manufacturer and the safety review**, and may not touch the equipment while it runs unless there is an approved interaction procedure. **A line on the floor does not make touching safe.**
2. **Result first, machine second** — the inspection verdict on screen is always at eye height, with the machine behind it.
3. **Work down low, speak up high** — only things lower than 40 in go within 3 ft of the aisle; the message is carried by rigging and the tall walls inside the booth.
4. **Conversation does not compete with demo sound** — at least one functional element separates the conversation area from the demo, and the sound design works backwards from the 65 dB limit.

Concept-to-space translation

Concept language	Spatial consequence
Keep the hero approachable and clearly visible	No glass enclosure; the audience line is defined by a change of floor material, set back 3 ft from the working reach, with 1.5 ft of side clearance (Release 06-A, manufacturer's reply)
Result first, machine second	The verdict screen at 1,400–1,600 mm high, directly facing the audience position; the machine behind the screen
Work down low, speak up high	Within 3 ft of the aisle side, only display plinths of ≤40 in; the main message on rigging and the inner walls
Conversation does not compete with sound	The conversation area on the backwall side, with the software stations as a buffer between it and the demo

Stress test

Question	Answer
Objective	Serves the Notice and Engage stages, pointing directly at "complete a targeted demo"
Audience	Decision-makers can look before they talk, lowering the "being sold to" barrier (Chapter 2's Barrier)
Evidence	What the booth is asked to prove is "operation can be seen" — the live demo is the evidence, with no need for an untested claim
Constraints	Passes 3 ft / 40 in and 65 dB; the area fits within Chapter 4's margin
Replaceability	Take the concept away and the booth falls back to "product display + slogan wall," with Notice left only overhead — it collapses, so the concept is doing work

Note what this chapter did not do: it did not decide materials, colours or form. Those are Chapter 9. The concept here only requires that "the act of inspection must be visible"; what material frames it has not been reached yet.

6.11

Real Case: What a Concept Looks Like on Real Projects

Cases drawn from AEDM Book 3 v0.2 carry their evidence limits; projects not in Book 3 serve only as spatial examples and **claim no results of any kind.**

Alibaba — CoCreate 2025, Las Vegas (Book 3 • Case 01)

The concept proposition is a sentence that can be tested: **the space itself is the funnel — recruit believers, don't display products.** Its spatial consequences are concrete: thirty thousand square feet was not cut into product zones but laid out as a sequence of "see it → touch the evidence → talk to a real person," and check-in and people throughput were design problems in their own right.



one seller's story built into a display plinth: the founder's name and photograph, the history in his own words, and what he makes locked in a lit acrylic case. **"Recruit believers, don't display products"** made physical — what is on display is a person.



stacked blocks of colour spell out the next move directly: an arrow, then **ASK / Accio / ANYTHING**. There are three passages of text on the wall, but what actually directs people's feet is those four blocks. **The space is not displaying; it is pointing the way.**

Evidence limit: the project file records outputs; Outcome is qualitative; Impact was not measured.

Sumitomo / SOLAMENT — SXSW 2025

The concept is the material itself. The whole space is one suspended sheet of translucent fabric plus black plinths, with almost all of the identity work done by that one sheet; the product sits under the canopy, the material is overhead, and a coat made of the same material hangs on a mannequin in the display area. It shows how "one soft gesture" can replace a whole set of hard construction.



the fabric canopy and the plinths: the whole concept in one frame.



the same material made into a coat, hung on a mannequin in the display area: it is overhead, and it is on the body too. Visitors can come to arm's length and look at the weave.

Note: this project is not in Book 3 and has no written evidence record. It appears here only as a spatial and material example, and makes no performance claim of any kind.

6.12

Common Mistakes

Mistake 1: Treating the theme as the concept.

Do this instead: ask "what does it require the space to do?" If you cannot answer, it is not a concept yet.

Mistake 2: Drawing the form first and adding the reasons afterwards.

Do this instead: the "because" in the concept proposition has to connect back to the research and the objective.

Mistake 3: Writing principles as adjectives.

Do this instead: write them as instructions, and write them so they **can be broken**.

Mistake 4: A metaphor that does nothing.

Do this instead: delete the metaphor and see whether the spatial behaviour is still there.

Mistake 5: Deciding materials and colours at concept stage.

Do this instead: materials and colours are Chapter 9; here you decide only behaviour and relationships.

WB-06

If Removing the Concept Changes Nothing, There Was No Concept.

Applies AEDM Book 1 RULE-01 Design for Business and RULE-03 Every Element Has a Job.

A concept's value lies not in how it sounds but in what it changes. A design that stays exactly the same once the concept is taken away shows that the concept never took part in the work — it was only a page in the proposal.

Chapter Summary

The concept is the one sentence that joins objective, audience, research, area and zoning into a single idea. It is not a theme, not a style and not a form: the concept decides the form, not the reverse. Before writing a concept, write the core design problem; a good problem contains the real constraints, names the audience and the action, and is capable of failing. The concept proposition has to have a "because" that connects the claim back to the research. Then expand the proposition into three to five project-specific principles, written as instructions that can be broken. Every piece of concept language has to translate into a spatial consequence you can check on the drawing; language that will not translate is usually just an adjective. Finally, stress-test it with five questions, the most important being: take the concept away — does the design collapse?

Chapter Assignment

Concept Statement and Concept Board

Using the Objective Definition from Chapter 2, the Research Summary from Chapter 3, the Space Program from Chapter 4, the zoning decision from Chapter 5 and **Project Information Release 06-A**, complete the following.

PART A

Design Problem Statement

Under the condition of _____ (constraints), how do we get _____ (the primary audience) to _____ (the key action), without their having to _____ (the price)?

PART B

Concept Statement

This booth uses _____ (approach) to let _____ (audience) _____ (action), because _____ (basis).

PART C

Project Design Principles

#	Principle (as an instruction)	Which objective / research finding it serves	What happens if it is broken
1			
2			
3			
4			

PART D

Concept Board

One page, containing: the concept proposition, the four principles, reference images (sources stated, and competitors' forms not copied), and a direction for materials and atmosphere (direction only, nothing selected).

PART E

Concept-to-Space Translation

Concept language	Spatial consequence (can be checked on plan / elevation)

PART F

Concept Stress Test

Question	Your answer
Which stage of the objective does it serve?	
Will the most important audience act more easily?	
For what it asks to be proved, does Chapter 3 have evidence?	
Can area, regulations and time carry it?	
Take the concept away — does the design collapse?	

Evaluation Criteria

CRITERION	POINTS	WHAT A PASS LOOKS LIKE
Relevance to the objective and audience	25	The concept directly serves a stage of the Primary Objective
Clarity and specificity	20	The proposition has a "because"; the principles are instructions that can be broken
Spatial consequence	20	Every piece of concept language translates into a result that can be checked on the drawing
Consistency with brand and product	15	Meets the brand guideline restrictions, with a hero hierarchy consistent with Chapter 3
Feasibility	10	Passes an initial check against area, regulations and time
Visual coherence, not imitation	10	Reference images state their sources, and competitors' forms are not copied
Total	100	

Result: Pass (may proceed to Chapter 7) / Revise (the direction works; named items need correcting) / Restart (the concept is a theme or a form, and the design does not change when it is removed).

Instructor Checkpoint

Before Chapter 7, confirm:

The concept has changed at least three spatial or experience decisions, and you can say which three. If you cannot, the result is Revise.

Reflection

In no more than 150 words:

1. Which earlier decision did your concept **change**?
2. What is your largest **uncertainty** right now?
3. If the constraints tightened one more notch (area or regulations), which part of the concept would you **give up**, and which would you keep?

Submission Requirement

Submit a one-page PDF (the Concept Board may be attached as a separate page), named:

AEDA_FBTB_C06_YourName_Concept.pdf

Until the concept passes review, do not begin the plans and elevations in Chapter 7.

Chapter Source Note

- Design serves a business purpose: AEDM Book 1 **RULE-01**.
- Every element must be able to state its job: AEDM Book 1 **RULE-03**.
- Adjectives do not go on the wall: AEDM Book 1 **RULE-06**, whose approach this chapter's way of writing principles follows directly.
- The layering of purpose, objective and solution: Chapter 2 of this workbook; the concept belongs to the Solution layer and may not replace the Objective.
- An example of the space as a funnel: AEDM Book 3 v0.2 **Case 01 — Alibaba, CoCreate 2025** (with its evidence limits).
- Sumitomo / SOLAMENT (SXSW 2025) is **not in Book 3**; in this chapter it serves only as a spatial and material example, with no performance claim.
- All AXIS-R material in this chapter comes from **Project Information Release 06-A** (a fictional teaching case).

Chapter 7

Floor Plan and Elevation

Relationships become dimensions

Converge the approved requirements, circulation, zoning and concept into one set of dimensioned drawings that agree with one another.

CHAPTER DELIVERABLE

One dimensioned floor plan and at least two key elevations

Until this set of drawings passes review, do not move on to experience design in Chapter 8.

Learning Objective

By the end of this chapter you should be able to:

- ☐ **Keep** the space program's priorities while resolving the dimensions.
- ☐ **Place** products and equipment using verified footprints and clearances.
- ☐ **Make sure** the entrance and circulation are accessible, including for people using mobility aids.
- ☐ **Coordinate** walls, storage, conversation, demos, graphics and AV.
- ☐ **Check** staff operations and peak capacity.
- ☐ **Distinguish** proposal drawings from construction drawings.
- ☐ **Complete** a drawing self-check.

7.1

Introduction

The six chapters before this one all worked to **avoid drawing too early**. This chapter does the opposite: it forces everything already decided onto one set of drawings that are dimensioned, consistent, and able to stand up to questioning.

A floor plan is not a tracing of the bubble diagram. The bubble diagram says "A has to be next to B." The floor plan has to answer "**how wide is A, how far is it from B, and is the path between them wide enough for two people to pass.**" This is the stage where the reckoning every earlier chapter managed to avoid finally arrives:

- whether the clearances estimated in the area schedule are enough at real dimensions;
- whether the positions chosen in zoning still work once they meet columns, fire equipment and a shared wall with the neighbouring booth;
- whether the behaviour the concept demands can be seen on a 1:50 drawing.

Chapter 4's space program is this chapter's contract. Nothing that is not on the program may appear on the drawing; anything the drawing cannot achieve means going back to change the program, not quietly shrinking it.

7.2

From Relationships to Dimensions: Fix Three Things First

Before drawing, pin down three things so everything else has something to work from:

- 1. **The boundary and whatever cannot move** — the booth edges, column positions, fire equipment, shared walls, changes in floor level, and where power and network come in.
- 2. **The hero's position and its clearances** — the hero equipment's dimensions, operating envelope, safety distance and audience standing area.
- 3. **The main aisle** — where people come in, where they go, and how wide it is.

Once those three are fixed, the other functions are **arranged in the space that remains**, not redesigned. A common junior order goes wrong the other way: draw a beautiful curved wall first, then find the hero will not fit.

7.3

Where the Dimensions Come From

Every dimension on the drawing should be able to point to its source:

Dimension	Source
Equipment footprint, working reach	Project Information Release (manufacturer's data)
Safety distance	Named confirmation from the manufacturer or integrator
Aisle clear width, fire limits	The organizer's and the venue's written rules
Audience standing area, operating height	Ergonomic rule of thumb (editorial judgment, to be marked as such)
Functional area	Chapter 4's Area Schedule

A dimension you worked out yourself has to be marked as an assumption. A number on the drawing with no source becomes somebody else's problem at quotation, in construction or on site.

7.4

Accessibility Is Not an Extra

The entrance and circulation have to work for people using mobility aids. Check at least four things:

- **The entrance has no change in level**, or has a ramp that meets the rules;
- **The main aisle's clear width** lets a wheelchair pass and turn;
- **The operating interface height** is within reach (this workbook starts from 1,000–1,100 mm, to be verified against the rules);
- **Important information does not depend on only one sense** — sound needs captions or a text backup.

The detailed requirements vary by venue and region, and are matters **needing named confirmation**. The workbook asks you to list them, not to decide them yourself.

7.5

Proposal Drawings and Construction Drawings

What this chapter draws are **proposal drawings**: they state the design intent, their dimensions can be trusted, and their relationships are correct. They are not construction drawings.

	Proposal drawings	Construction drawings
Purpose	Let the client understand and decide	Let the shop and the site build it
Dimensions	Key dimensions, clearances, capacity	Every component, joint and material thickness
Who reads them	The client, the project team	Carpenters, metalworkers, electricians, AV, site crew
Due in this chapter	✓	✗ (after Chapter 10)

Do not fake construction detail on a proposal drawing. Drawing a joint you do not yet know how to build is writing a cheque on the drawing that you cannot cover.

7.6

What the Elevation Is Saying

The plan decides where people are; **the elevation decides what they see**. Draw at least two:

1. **The elevation facing the main aisle** — the picture of the Notice stage. The message heights, the rigging position and the 40 in limit band are all tested on this drawing.
2. **The elevation where the hero sits** — the picture of the Engage stage. The verdict screen's height, the equipment's height, and whether the front row blocks the view.

What goes on an elevation is not only dimensions but **sightlines**: what can be seen from 10 metres away in the aisle, and what can be seen from the audience position.

7.7

Drawing Self-Check

Before handing drawings in, run through this yourself:

Check	Question
Agrees with Chapter 4	Is every function on the drawing on the space program? Is everything on the program on the drawing?
Dimensions have sources	Are there numbers with no source? Are assumptions marked?
Clearances	Is there enough safety distance, aisle width and door swing?
Capacity	Can people stand at peak times? Will they spill into the aisle?
Operations	Do staff have a route behind the scenes? Does restocking cross the visitor area?
Concept	Can Chapter 6's four principles be pointed to on the drawing?
The drawing itself	Scale, north / aisle direction, drawing title, revision and units all present?

7.8

Project Information Release 07-A

Fiction marker: AXIS-R is a fictional teaching company and has no connection to any real business of the same or a similar name. This case exists for practice; every dimension and site condition in this chapter is practice data.

Source within the case: The organizer's site plan; the venue's technical department

Date received: Project day 20

Facts supplied

Item	Data
Column	A 24 × 24 in structural column inside the booth, on the backwall side, 12 ft from the corner
Floor	Concrete, maximum level difference 3/4 in
Power supply	Enters through the floor on the backwall side, 3 ft from the column
Network	Same location; cabling to each point is the exhibitor's responsibility
Rigging	The organizer approves rigging, maximum projected area 20 × 10 ft, lower edge no lower than 12 ft
Neighbours	The neighbouring booth on the backwall side is 8 ft high; no shared structure

Known limitations

- Whether the column may be wrapped, or have anything attached to it, has not been confirmed.
- Move-in times and freight elevator limits not yet obtained (Chapter 10).

Questions still unanswered

- Does the floor level difference call for a raised platform?
- What is the weight limit for the rigged structure?

7.9

Worked Application: A Column Appears

What the new information changes. A 24 × 24 in column turns up on the backwall side, 12 ft from the corner — exactly where Chapter 5 decided to put the conversation area.

Three ways to deal with it, judged by Chapter 6's principles:

Approach	Consequence	Does it break a principle?
Move the conversation area elsewhere	Conversation ends up near the demo, with sound conflict	Breaks principle 4 (conversation does not compete with sound)
Wrap the column as storage	Storage moves off the restocking route, but the column is dealt with	No
Wrap the column as a brand element	Looks good, but storage has nowhere to go	Breaks no principle, but does not solve the space program

Choose the second: wrap the column as one face of storage. On Chapter 4's program, storage is Essential and must be "reachable without crossing the visitor area" — the column is on the backwall side, which fits exactly. The conversation area moves 3 ft toward the main aisle and stays within the quiet band on the backwall side.

Key dimensions to mark on the plan

Item	Dimension	Source
Demo Cell A audience line setback	Outer edge of working reach +3 ft	Release 06-A (manufacturer)
AR-7 side clearance	1.5 ft	Release 06-A (manufacturer)
Low-structure band along the aisle	≤40 in within 3 ft	Release 06-A (organizer, written)
Main aisle clear width	6 ft	Assumption, to be verified against the venue's rules

(continued)

Item	Dimension	Source
Operating interface height	1,000–1,100 mm	Ergonomic rule of thumb, marked as an assumption
Rigging lower edge	≥12 ft	Release 07-A

Two elevations

- **Main-aisle elevation:** only 40 in high display plinths within 3 ft of the aisle; rigging above 12 ft; the demo's verdict screen in the middle ground (1,400–1,600 mm) — **the three layers of Notice tested on one drawing.**
- **Demo elevation:** the verdict screen in front of the machine, the change of floor material at the audience position, and the safety line setback dimensioned.

One thing the self-check found: the approved rigging area is 20 × 10 ft, and the booth is 20 × 30 ft — **what is approved is a third of the booth's area.** (These two sets of dimensions alone cannot tell you where it sits: a 20 × 10 could run as a section along the 30 ft side, or span the 20 ft side; the coordinates have to come from the approval document.) So the "speak up high" principle has to say which part it means: what we want is above the corner, because that is where Notice happens — **and that is an approved position we still have to ask for, not one we already have.** Findings like this are exactly why the self-check exists.

7.10

Real Case: When the Drawings and the Site Agree

Cases drawn from AEDM Book 3 v0.2 carry their evidence limits; projects not in Book 3 serve only as spatial examples.

Durofix — Shanghai + Bangkok 2026 (Book 3 • Case 03)

One set of drawings, built in two cities. What is most worth looking at in this project is not the form but **the consistency between the two finished builds:** the concrete-textured walls, the recessed product cabinets, the height of the logo — all traceable to the same document. It is evidence of the drawing as contract.



the Bangkok build, seen from the aisle: the hexagonal cabinet units, concrete-textured panels, the logo band overhead. **What the photograph shows is what this build looks like** — it came from the same set of drawings as the Shanghai build; whether the two really match has to be checked item by item against both sides' construction drawings and handover photographs, not read off this one image.

Evidence limit: the show reports are qualitative; lead and order figures are not in the project file.

Hyphen Solutions — IBS

How an open plan gets decided on the drawing: **the kiosk towers are a repeated unit, printed lettering on the floor marks out the zones, and seating sits at the edges.** From an overhead angle the logic of the plan can almost be read straight off — this is what a booth with a clearly drawn plan looks like on site.



looking in from the aisle: repeated kiosk towers and rigging, with the logic of the layout directly readable.



inside: the relationship between the towers, the tables and the zones on the floor.

Note: this project is not in Book 3 and has no written evidence record. It serves only as a spatial example, and makes no performance claim.

7.11

Common Mistakes

Mistake 1: Drawing the form first, then pushing the functions in.

Do this instead: fix the boundary, the hero's clearances and the main aisle first, and arrange the rest in the space that remains.

Mistake 2: Things on the drawing that are not on the space program.

Do this instead: to add something, go back and change the program, and record what it displaced.

Mistake 3: Dimensions with no source.

Do this instead: mark where every key dimension comes from; mark anything you worked out yourself as an assumption.

Mistake 4: Drawing construction detail on a proposal drawing.

Do this instead: proposal drawings state intent and relationships; joints and construction are left for the construction drawings.

Mistake 5: Drawing the plan and not the elevations.

Do this instead: the Notice and Engage stages both happen on vertical surfaces, which a plan cannot show.

WB-07

Every Dimension Has a Source.

Applies AEDM Book 1 RULE-04 Zero Questions and RULE-06 Evidence, Not Adjectives.

Every key dimension on the drawing has to be able to say where it came from: the manufacturer's data, the venue's written rules, the space program, or an **assumption that has been marked as one**. A number with no source is not design, it is a guess — and a guess turns into someone else's loss at quotation, in construction or on site.

Chapter Summary

This chapter turns relationships into dimensions. First pin down the boundary and whatever cannot move, the hero's position and clearances, and the main aisle; the other functions are arranged in the space that remains. Every key dimension needs a source, and anything you worked out yourself has to be marked as an assumption. Accessibility is not an extra but a basic check on the entrance and circulation, and its detailed requirements are matters needing named confirmation. What this chapter hands in are proposal drawings, not construction drawings: they state intent and relationships and do not pretend to construction detail. Draw at least two elevations — the main-aisle elevation tests Notice, the hero elevation tests Engage — and mark sightlines, not only dimensions. Finally, run the self-check: agrees with the space program, dimensions have sources, clearances and capacity are enough, operations work, and the concept's principles can be pointed to on the drawing.

Chapter Assignment

Dimensioned Floor Plan and Key Elevations

Using the Space Program from Chapter 4, the zoning decision from Chapter 5, the concept and principles from Chapter 6, and **Project Information Releases 06-A and 07-A**, complete the following.

PART A

Floor Plan

At 1:50 or 1:25, showing: booth edges, column position, main aisle, each function's position, products and equipment, audience standing areas, safety lines, storage and service routes.

PART B

Critical Dimensions

Item	Dimension	Source (manufacturer / venue / space program / assumption)

PART C**Product and Equipment Locations**

Equipment	Position	Footprint	Operating / safety clearance	Service needs

PART D**Key Elevations (at least two)**

1. The elevation facing the main aisle (Notice).
2. The elevation where the hero sits (Engage).

On each, mark: key heights, the message hierarchy, sightlines, and the bands limited by regulations.

How to start an elevation (seven steps — follow this order the first time)

1. **Place an elevation marker on the plan:** an arrow pointing at the face you want to look at, with a number (for example E-01). The elevation's title has to match it. **This is not a section line** — a section line is for cutting through a volume, and what this chapter draws is an elevation seen from outside.
2. **Choose the scale** — the same as the plan (1:50 or 1:25) — and mark it on the drawing.
3. **Project the horizontal positions up from the plan** — take the left and right edges of every component straight up from the plan. **This step is what guarantees the plan and the elevation agree;** draw the projection lines even by hand.
4. **Draw a ground line** at level 0. Every height is measured from this line.
5. **Mark three height bands:** the regulated band (≤ 40 in within 3 ft of the aisle), the sightline band (1,400–1,600 mm), and the rigging lower edge (≥ 12 ft).
6. **Place the components, and mark the message positions as reserved zones** — label "the long-distance message goes here," "the mid-distance goes here," but **do not set letter heights yet**. Letter heights have to wait for Chapter 9, where they are worked out from viewing distance, and are filled in on this elevation then. **Setting letter heights in this chapter would mean relying on a decision that has not been made yet.**
7. **Draw the sightlines:** sightlines are drawn **on the elevation**, not on the plan. The plan gives you horizontal distance and direction; on the elevation, first set an **eye height** (this workbook starts from 1,550 mm, marked as an assumption), draw a line from that height to the hero, and see whether anything in between blocks it. Use the two drawings together — the plan decides where people stand, the elevation decides whether they can see.
How to check: put the plan and the elevation one above the other; the left and right edges of the same component should fall on one vertical line. If they do not, step 3 was skipped.

PART E

Capacity and Clearance Annotations

Location	Peak number of people	Area needed	Spills into the aisle?

PART F

Drawing Review Checklist

Check	Pass?	If not, what you will do
Agrees with the space program		
Dimensions have sources		
Clearances are enough		
Peak capacity		
Staff operations		
The concept's four principles can be pointed to		
Drawing complete (scale, title, revision, units)		

Evaluation Criteria

CRITERION	POINTS	WHAT A PASS LOOKS LIKE
How fully the functions are resolved	25	Every function on the space program is on the drawing, at workable dimensions
Credibility of the dimensions	20	Key dimensions have sources; assumptions are marked
Consistency with circulation and zoning	15	The drawing matches Chapter 5's decisions, or explains why it changed
Product and operating clearances	15	Safety distance, operating sides and restocking route all work
Accessibility and entrance logic	10	No threshold at the entrance, a passable aisle, a sensible interface height
Coordination between drawings	10	The plan and elevations agree with each other
Clarity of the drawings	5	Scale, title, revision and units all present
Total	100	

Result: Pass (may proceed to Chapter 8) / Revise (named items need correcting) / Restart (the drawing does not match the space program, or key dimensions have no source).

Instructor Checkpoint

Before Chapter 8, there must be none of:

1. **Major unresolved conflicts** (equipment and aisles, safety distance and audience standing area, the column and a function).
2. **Essential functions that cannot be reached.**
3. **Key dimensions with no source.**

If any one of the three is present, the result is Revise.

Reflection

In no more than 150 words:

1. Which **estimate** was **overturned by reality** while you drew?
2. What is your largest **uncertainty** right now?
3. If you lost another 10% of the area, what would you **sacrifice first**?

Submission Requirement

Submit a PDF (plan on one page, elevations on one page), named:

AEDA_FBTB_C07_YourName_PlanElevation.pdf

Until the set of drawings passes review, do not move on to Chapter 8.

Chapter Source Note

- What is uncertain stays on the question list: AEDM Book 1 **RULE-04 Zero Questions**.
- What can be verified comes before adjectives: AEDM Book 1 **RULE-06**.
- Scale changes the tools, not the way of thinking: AEDM Book 1 **RULE-05**.
- Evidence of one set of documents built in two places: AEDM Book 3 v0.2 **Case 03 — Durofix** (with its evidence limits).
- Hyphen Solutions (IBS) is **not in Book 3**, and serves only as a spatial example, with no performance claim.
- The 1,000–1,100 mm operating interface height and the 6 ft main aisle are **rules of thumb and assumptions**, not regulations; the real values must be verified against the venue's and region's rules.
- Accessibility requirements, fire clear width and rigging loads are matters **requiring confirmation by a named professional**; the workbook supplies no values for them.
- All AXIS-R material in this chapter comes from **Project Information Release 07-A** (a fictional teaching case).

Chapter 8

Designing the Booth Experience

Order and handoffs, where the drawing has no people

Coordinate messages, interaction, demonstrations, service and conversion into one continuous experience that visitors will actually go through.

CHAPTER DELIVERABLE

One Experience Sequence and Touchpoint Plan

Until this document passes review, do not move on to materials, lighting and graphics in Chapter 9.

Learning Objective

By the end of this chapter you should be able to:

- ☐ **Define** the purpose of every touchpoint.
- ☐ **Rank** messages by **distance and stage**.
- ☐ **Coordinate** human interaction with physical and digital media.
- ☐ **Design** a demonstration's entry, viewing, participation and exit.
- ☐ **Plan** the handoffs from Engage to Qualify to Commit.
- ☐ **Identify** moments of failure, and prepare ways to recover.
- ☐ **Consider** visitors in different situations and with different abilities.

8.1

Introduction

Once the floor plan is drawn, the booth works on paper. But **a booth that works on paper can stop working in the first hour of the show** — because there are no people on the drawing.

This chapter deals with what the drawing cannot show. When someone walks up, who speaks first? Where do they stand before the demo starts? What happens in the three seconds after it ends? When they want to leave, can they?

Chapter 5 already fixed the positions. This chapter fixes **the order and the handoffs**. Positions are static; experience is not: the same plan can fail completely because a handoff was never designed.

8.2

Touchpoints: Every One Needs a Purpose

A touchpoint is any moment at which a visitor and the booth make contact — not only screens and posters, but also people, sound, the floor, smell and waiting.

Every touchpoint has to be able to fill in this row:

Touchpoint	At which stage	Purpose	What the visitor does here	Provided by whom / what	What success looks like
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A touchpoint that cannot fill it in is surplus. A wall with no purpose, a screen nobody watches, is not just waste; it draws attention away from what really needs to be seen.

8.3

Message Hierarchy: Distance Decides Content

The same piece of content cannot serve thirty metres and thirty centimetres at once.

Distance	What the visitor is doing	What the message should be	Common mistake
20–30 m	Scanning the aisle	A category word or a movement	Putting up the company slogan
8–15 m	Deciding whether to come closer	One sentence saying what problem it solves	Putting up three paragraphs
2–4 m	Judging whether it is worth stopping	One piece of evidence they can make sense of	Putting up product specifications
0.5–1 m	Already interacting	Detail, specifications, data	This is where specifications belong

The distance ranges are **rules of thumb** (editorial judgment). They are affected in practice by the hall's height, lighting and the brightness of neighbouring booths, and have to be verified on site or on the elevation.

8.4

The Four Parts of a Demonstration

A demonstration is not "press play." It has four parts, and each has to be designed:

1. **Entry** — how do visitors know a demonstration is about to start? Where do they stand? Timed sessions need a visible countdown or a spoken invitation.
2. **Viewing** — will the front row block the back? Is the sound loud enough? Can the result be seen?
3. **Participation** — which part can visitors do with their own hands? If they cannot touch anything, there needs at least to be a position where they can look closely.
4. **Exit** — where do people go once it ends? This step decides whether Engage turns into Qualify.

The part most often overlooked is the fourth. The demo ends, people applaud, and everyone disperses — because nobody designed "the step just before they disperse."

8.5

Handoffs: From Engage to Commit

Handoffs are the part of experience design most likely to break, and the most valuable.

Handoff	Who hands over to whom	What it needs
Engage → Qualify	Demonstrator → product specialist or sales	A place where two people can stand and talk for three minutes without blocking the way
Qualify → Commit	Sales → recording / booking	A surface to write or operate on, and a clear next step
Commit → leaving	Anyone	A sentence of confirmation, something to take away

Handoffs have to name names. "Sales will take over" is not a design; "the demonstrator says the last line, steps aside to clear the right-hand side, and the product specialist steps out from the second station" is.

8.6

Moments of Failure and Recovery

Something will always go wrong on site. How mature an experience design is shows in whether it has recovery ready.

Moment of failure	Recovery
The equipment stops mid-demo	A prepared explanation + a video that can be played
Too many people at peak	A second reception point; something to look at from the queue
Nobody at the reception point	A position designed so you can see at a glance whether anyone is there; a backup sign
A visitor wants to leave but is blocked	No single-exit circulation; no route that "has to pass sales"
The network drops	An offline version of the demo content

Treat "a visitor wants to leave but is blocked" seriously. A booth that is hard to get out of looks, in the short run, as though it holds people well; in practice it teaches people to walk around it next year.

8.7

Visitors in Different Situations and with Different Abilities

The same booth will meet people who are in a hurry, people hearing of this company for the first time, existing customers, people who cannot hear well, people who cannot see well, and people who do not want to be approached.

Prepare at least three depths:

- **Ten seconds** — one look tells them what happens here (message + movement).
 - **Three minutes** — they watch one demonstration and understand what problem it solves.
 - **Fifteen minutes** — they sit down to talk and see the data and the cases.
- And check: does spoken content have a text backup? Is any important information distinguished by colour alone? Is the operating interface at a reachable height?
(Accessibility requirements are matters **needing named confirmation.**)

8.8

Project Information Release 08-A

Fiction marker: AXIS-R is a fictional teaching company and has no connection to any real business of the same or a similar name. This case exists for practice; every staffing arrangement, script and time in this chapter is practice data.

Source within the case: AXIS-R sales and product departments; the on-site staffing plan

Date received: Project day 24

Facts supplied

Item	Data
Demo script	12 minutes per session: 1 minute opening, 6 minutes inspection demo, 5 minutes Q&A
On-site staffing	Demo operators 2, product specialists 2, sales 2, reception 1, manager 1 (8 at once, in shifts)
Qualifying questions	Four: industry and application, current inspection method, timing, decision-making role
Recording method	Tablet form, usable offline, synced to the CRM after the show

(continued)

Item	Data
Customer case display	The auto parts plant's data may be shown publicly (Release 06-A)
Language	Mainly English on site; two staff can speak Spanish

Known limitations

- Network quality in the hall is unknown; the tablet form has to work offline.
- The handoff movements have not been rehearsed.

Questions still unanswered

- Will the timed sessions use a microphone? (Limited to 65 dB.)
- Will there be printed material to take away, or only files sent electronically?

8.9

Worked Application: AXIS-R's Experience Sequence

The ten-second version (Notice → Approach)

What people in the aisle see: the category word on the rigging (automated vision inspection) + a robot arm moving down low + "PASS / FAIL" appearing on the verdict screen. **No slogan** — because Chapter 3 judged that this company's adjectives cannot hold up.

The middle layer: timed sessions (Understand → Engage)

In this project this layer is twelve minutes, not three. The general three-depth heuristic (ten seconds / three minutes / fifteen minutes) is a way of dividing depth, not a rule about time; 05-A sets one session per hour at twelve minutes each, and that figure is an existing record, not something to change because the framework would look tidier.

The cost has to be stated plainly: this project has no three-minute version written for visitors who wander up. 05-A says **individual demos are possible** between sessions — so people who arrive are not left only to wait — but **how long that demo runs, what it covers, who gives it and how it is handed over to the product specialist are all still undefined.** Treating "individual demos are possible" as a finished three-minute version is writing an undefined blank as a layer of design. This is a gap, not a finished piece.

During the twelve minutes of a timed session, visitors stand behind the audience line set back 3 ft; the verdict screen is at eye height, with the machine behind it (Chapter 6, principle 2).

The handoff (Engage → Qualify) — written as movement

The demonstrator says the last line ("this round's verdict is on the screen — feel free to come closer and look"), and steps aside to clear the right-hand side; **the product specialist steps out from the software station and stands between the audience line and the station**, and asks the first question (how are you doing inspection now?). Visitors who want to continue drift naturally toward the station; the rest leave to the left — **and the exit route passes no one from sales.**

The fifteen-minute version (Qualify → Commit)

A semi-open six-person conversation area; the named customer case's numbers can be pointed at and discussed (consent obtained in Release 06-A); booking a post-show technical assessment is done on the tablet, which works offline.

Moments of failure and recovery

Failure	Recovery
The robot stops during a session	The demonstrator switches to "this is exactly what integration risk looks like in real life" + plays a 90-second recording; the manager comes to deal with it
A session peaks above 14 people	A second receptionist opens a second line on the station side; the queue faces the customer case wall
No network on the tablet	The form stores offline and syncs after closing
A visitor wants to leave	There is always an exit on the left that passes no one from sales

One problem this chapter exposed: there is only 1 receptionist on site, but the handoff design needs a second person available at the instant a session ends. **This is not a design problem, it is a staffing problem** — it has to be reported to the client and put on the list of items pending confirmation, not covered over as though there were enough people.

8.10

Real Case: Handoffs and Message Hierarchy in Practice

Cases drawn from AEDM Book 3 v0.2 carry their evidence limits; projects not in Book 3 serve only as spatial examples.

Elytone × Peak Amplification — ISE 2026

One booth, two brands, three depths of dwell. The orange half is Elytone and the black half is Peak; each has its own claim wall and demo counter, but they share one floor and one set of seating. The three depths this chapter asks for are physically separated here:

- **Matching the "ten-second" layer** — the one sentence on each of the orange and black walls, readable from the aisle;
- **Matching the "three-minute" layer** — the demo counters, with the speakers sitting on the counter tops for visitors to reach out, touch and operate themselves;
- **Matching the "fifteen-minute" layer** — the sofas and armchairs in front, where conversation happens only once people sit down.
(Ten seconds / three minutes / fifteen minutes are **this chapter's way of dividing layers**, not dwell times measured on site.)

What is worth learning is **the distance of the handoff**: the sofas are not in some room at the back; they are **right in front of the demo counters, a few steps away**. Getting from "touching the product" to "sitting down to talk" needs nobody to lead the way and means passing no one. (The photographs can prove the two are adjacent; **the exact distance would need the floor plan, and this project is not in the project file.**)



the layer matching this chapter's "three-minute" depth: the claim written on the orange wall overhead ("Three New PoE Networked Amplifiers"), the products within reach, visitors operating them themselves. **The words overhead, the thing in their hands.**



the other half: Peak's black wall reading "Reaching a new peak of performance with GaN amplifiers — Better, Cooler, Smaller," with two speakers and an amplifier directly below. **One booth, two sets of claims, each with its own product display and demo equipment.** "Better, Cooler, Smaller" is the brand's comparative claim; what the photograph can prove is that the wall says it and that speakers and an amplifier stand beneath — **what the comparison is based on, and what it is compared against, the photograph does not say.**



the whole area from the aisle: the orange and black volumes, people at the demo counters, and the sofas in the foreground. **The position matching this chapter's "fifteen-minute" layer is directly in front of the "three-minute" layer, with nothing in between.**

Note: this project is not in Book 3 and has no written evidence record. It appears only to show depth of experience and the distance of a handoff, and makes no performance claim.

Kingston Brass — KBIS

Each of three product families is named (SONA / TULARE / HEIRLOOM), divided into three arched niches on the same elevation. Visitors need no guide to know which family they are looking at — **the message hierarchy has been built directly into the space.**



three named families on the same elevation.



a bathroom setting: a freestanding bath, a floor-mounted tap, real towels on the towel rail. **A position that can match this chapter's "fifteen-minute" layer** — the product is put back in the room where it would be used.

Note: this project is not in Book 3 and has no written evidence record. It serves only as a spatial example, and makes no performance claim.

8.11

Common Mistakes

Mistake 1: Touchpoints with no purpose.

Do this instead: every one has to fill in all six columns; if it cannot, cut it.

Mistake 2: The same copy serving every distance.

Do this instead: divide into four layers at 20–30 m / 8–15 m / 2–4 m / 0.5–1 m.

Mistake 3: A demonstration with no design for "the step after it ends."

Do this instead: write the Engage → Qualify handoff as specific movements and positions.

Mistake 4: No preparation for moments of failure.

Do this instead: prepare recovery for at least three: equipment stopping, peak congestion, and no network.

Mistake 5: Treating "hard to leave" as a way of holding visitors.

Do this instead: always keep one exit that passes no one from sales.

WB-08

A Handoff Is a Movement, Not an Intention.

Applies AEDM Book 1 RULE-03 Every Element Has a Job, and extends Chapter 2's Visitor Action Ladder.

"Sales will take over" is not a design. A handoff has to be written as who stands where, makes what movement and says which line — a handoff whose movement cannot be written will not happen on site, and the break between Engage and Qualify is exactly why most booths come away without qualified leads.

Chapter Summary

The plan decides positions; the experience decides order and handoffs. Every touchpoint has to be able to state its purpose, its stage, what the visitor does and what success looks like; touchpoints that cannot draw attention away. Messages divide into four layers by distance: at twenty metres, a category word or a movement, with specifications left until the visitor is standing right beside them. A demonstration has four parts — entry, viewing, participation and exit — and the one most often overlooked is exit, which is exactly what decides whether Engage becomes Qualify. Handoffs have to be written as movement and position, not intention. Recovery has to be prepared for moments of failure, and "making it hard to leave" is not a way of holding visitors. Finally, the same booth has to prepare three depths — ten seconds, three minutes and fifteen minutes — and check accessibility in sound, colour and height.

Chapter Assignment

Experience Sequence and Touchpoint Plan

Using the circulation from Chapter 5, the principles from Chapter 6, the drawing set from Chapter 7 and **Project Information Release 08-A**, complete the following.

PART A

Experience Sequence

Stage	What the visitor experiences	Where on the drawing	Who takes part	Time
Notice				
Approach				
Understand				
Engage				
Qualify				
Commit				

PART B

Touchpoint Inventory

Touchpoint	Stage	Purpose	What the visitor does	Provided by whom / what	What success looks like

PART C

Message Hierarchy

Distance	Content	Position and height	Why this line
20–30 m			
8–15 m			
2–4 m			
0.5–1 m			

PART D

Demo Interaction Script

Write the four parts of the demonstration: entry, viewing, participation and exit. **The exit part must include specific movements and positions.**

PART E

Staff / Visitor Handoff Map

Handoff	Who hands over to whom	At which position	Movement and lines	Props needed
Engage → Qualify				
Qualify → Commit				

PART F

Failure and Recovery

Moment of failure	Warning sign	Recovery	Who is responsible

Evaluation Criteria

CRITERION	POINTS	WHAT A PASS LOOKS LIKE
Complete experience sequence	20	All six stages have a position, people and a time
Touchpoint purpose and coordination	20	Every touchpoint fills in all six columns, and they do not compete for attention
Message hierarchy	15	Each of the four distances has content, and what sits at twenty metres is not a slogan
Planning of human interaction	15	Handoffs are written as movement and position, not intention
Inclusion and accessibility	15	All three depths are present; sound, colour and height have been checked
Failure identification and recovery	15	At least three failures have a named recovery
Total	100	

Result: Pass (may proceed to Chapter 9) / Revise (named items need correcting) / Restart (touchpoints have no purpose, or the handoffs only state intentions).

Instructor Checkpoint

Before Chapter 9, confirm:

Every main touchpoint serves an identified visitor action or operational need, and the Engage → Qualify handoff has been written as movement and position. If either is missing, the result is Revise.

Reflection

In no more than 150 words:

1. Which **handoff** that you designed is the most fragile?
2. What is your largest **uncertainty** right now?
3. If there were one fewer person on site, which touchpoint would you **give up first**?

Submission Requirement

Submit a PDF (sequence and touchpoints on one page, script and handoffs on one page), named:

AEDA_FBTB_C08_YourName_Experience.pdf

Until it passes review, do not move on to Chapter 9.

Chapter Source Note

- Every element must be able to state its job: AEDM Book 1 **RULE-03**.
- The quality and consequences of an encounter, not only the number of people: AEDM Book 2 Chapter 1 (working principle 1.2).
- The definition of a qualified lead, and "a scan alone does not count": AEDM Book 2 Chapter 5.
- Elytone × Peak Amplification (ISE 2026) is **not in Book 3**, and appears only to show depth of experience and the distance of a handoff, with no performance claim.
- Kingston Brass (KBIS) is **not in Book 3**, and serves only as a spatial example, with no performance claim.
- The distance layers (20–30 m and so on) are **rules of thumb and editorial judgment**, not measured values, and must be verified against the conditions of the venue.
- Accessibility requirements are matters **requiring confirmation by a named professional**; the workbook supplies no values for them.
- All AXIS-R material in this chapter comes from **Project Information Release 08-A** (a fictional teaching case).

Chapter 9

Materials, Lighting, and Graphics

The surface people actually see, touch and read

Set a coordinated visual and physical system that supports brand recognition, understanding, operations and buildability.

CHAPTER DELIVERABLE

One Material, Lighting, and Graphic Schedule

Until this document passes review, do not move on to budget and buildability in Chapter 10.

Learning Objective

By the end of this chapter you should be able to:

- ☐ Choose materials by **performance, finish, reuse, cost and fabrication method**.
- ☐ Define the purpose of lighting **by zone and by who it is for**.
- ☐ Organize graphics by **viewing distance and information priority**.
- ☐ Apply brand assets **without letting the logo stand in for communication**.
- ☐ Make AV content work with the physical sightlines and the conditions on site.
- ☐ Record the **finish and supplier assumptions** that are not yet confirmed.

9.1

Introduction

Chapter 7 gave the dimensions; Chapter 8 gave the order. This chapter gives the **surface** — the layer people actually see, touch and read.

Juniors most often treat materials, lighting and graphics as "the final decoration." They are not decoration. They are the checkpoint that decides **whether every earlier chapter's decisions can be seen at all**:

- The concept says "result first, machine second" — but if a glossy white wall stands in front of the verdict screen and the ceiling lights reflect into it, the result cannot be seen;
 - The plan puts the hero on the corner — but if there is no light there, it will look grey in photographs and on site;
 - The message hierarchy says it must be readable at twenty metres — but if the letter heights were set the way a presentation is laid out, that sentence does not exist in the aisle.
- So this chapter's work is not "pick what looks good." It is **writing down, for every surface, every light, every graphic and every screen, what its job is and how it gets installed**.

9.2

Materials: Five Conditions Have to Hold at Once

A material is chosen only when it passes five questions at the same time. Miss one and it is only a reference image.

Condition	The question to answer
Performance	Load-bearing? Fire rating? Weight? Wear resistance? Will people keep touching it?
Finish	What does it do to light? (See 9.3)
Reuse	Used for one show, or taken down and rebuilt ten times? Will the corners get damaged?
Cost	The material itself, fabrication, shipping and labour on site — all four counted together
Fabrication	Who can make it? How long does it take? Can the shop's existing equipment do it?

Fire and flame-retardancy rules are not something a designer gets to decide. Venues and organizers have different rules for materials, fabrics and carpet, and these are matters **needing named confirmation:** the workbook asks you to put them on the list of items pending confirmation and to require documentation from the supplier — not to judge for yourself that "it should be fine."

What that document is called varies by place. At US shows, the one most often required for **fabrics, films and similar hanging decorative materials** is **NFPA 701** — a flame-propagation test for textiles and films, not a general certificate for every decorative material; millwork, plastic sheet and carpet each have their own rules. Taiwan, Japan and Europe each have their own standards and labelling too. **What to remember is not the standard's number but the action:** when you choose a material, ask the supplier which certificate they can supply and in what format, and write the answer into the material specification — rather than waiting until someone asks to see it on site.

The questions are concrete: "Does this material have a flame-retardancy certificate? Under which standard? What format is the documentation, and can it be kept on site for inspection during the show?" Only when all three can be answered is the material usable.

Common materials and their trade-offs:

Material	Strength	Cost
Millwork (veneered / spray-finished)	Free form, can take thickness and detail	Heavy, long labour, corners damaged in teardown and rebuild
Aluminium system + fabric graphic	Light, fast, reusable, cheap to ship	Form limited by the system; tension marks in the fabric
Acrylic / PC sheet (including lightboxes)	Can transmit light, can make a glowing surface	Surfaces scratch easily; large areas have seams
Metal (brushed / powder-coated)	Texture and durability	High cost, long fabrication cycle
Printed vinyl	Cheap, covers large areas	Only a surface; cannot hide the workmanship underneath

A material is derived from "the job it has to do," not picked out of a reference image. A reference image tells you only what something looks like — not how heavy it is, whether it can be taken apart, or whether it still looks right after the third build.

9.3

Finish Is a Decision About Light

The same colour in gloss, semi-matte or full matte is three completely different things on a show floor. This is where juniors are most likely not to look, and where a good plan is most often ruined.

Finish	What it does to light	Suits	Risk
Gloss	Reflects its surroundings — including the hall's ceiling lights and the booth opposite	Small areas, where the light can be controlled	A large glossy area becomes a mirror for the ceiling lights
Semi-matte	Keeps texture while breaking up reflections	Most vertical surfaces	Almost none
Dark full matte	Absorbs light	Backgrounds for screens and illuminated objects	Swallows light; needs light added separately

(continued)

Finish	What it does to light	Suits	Risk
Fabric	Softens, evens out	Large areas, where lightness is needed	Texture and tension marks close up
Brushed metal	Directional reflection	Small detailed areas	At the wrong angle the whole panel flashes white

One practical judgement: the hero's background should absorb light, and the hero itself should be lit. A dark full-matte backdrop makes a lit machine or a screen read clearly; mount a screen on a white gloss wall instead, and you have built a reflector for your competitors.

9.4

Lighting: Write the Purpose, Then Choose the Fixture

Juniors often start from "how many lights do we need." The right order starts from **what each light has to do**. Light on a booth has only four jobs:

Purpose	For whom / what	Common method	Check
Identification	People at distance	Rigged lightboxes, illuminated letters, edge light strips	Can it be seen from ten metres out in the aisle?
Guidance	Entrances and transitions	Differences in floor brightness, light above a portal	Do people know where to come in?
Display	Products, the hero, graphics	Track spotlights, shelf lights, wall washing	Is the hero brighter than its surroundings? Whose view do shadows block?
Task	Counters, writing, staff	Under-counter lighting, local lighting	When someone bends to write, does their own head block the light?

Three things that always hold on a show floor:

1. **You cannot control the hall's ambient light; you can only add to it.** The ceiling lights' colour temperature and illuminance are existing conditions. What design can do is raise the contrast between the hero and its surroundings, not "dim the whole hall."
2. **The light for graphics and the light for products are not the same kind.** Graphics need evenness (wall washing); products need direction (spotlighting). Using one kind of light for both jobs usually means neither works.
3. **Contrast is more useful than absolute brightness.** The hero needs to be clearly brighter than its background, but **do not write a general ratio on the drawing** — it is affected by the hall's ceiling lights, the brightness of neighbouring booths and the finishes. The acceptance sentence that can go into the document reads like this: **"Under the actual ambient light on site, the hero is visually dominant; verified by sample or by focusing the lights on site."**

The practical items to record as well: **power demand (total wattage and circuits), fixture weight and how it is rigged, heat, and who focuses the lights on site.** The last is the one most often forgotten: lights need someone on site standing in the visitors' position, turning them one by one to the right angle.

9.5

Graphic Hierarchy: Distance Decides Size

Chapter 8 decided **what** each distance says; this chapter decides **how big it is, which surface it goes on, and what it is printed on.**

Distance	Content	Position	Starting size
20–30 m	A category word or a movement	Rigging, high band surfaces	Letter height starting at about 170–250 mm
8–15 m	One sentence saying what problem it solves	Top edge of the main vertical surfaces	Scaled in proportion to the above
2–4 m	One piece of evidence they can make sense of	Walls or counter faces at eye height	Heading size, can be paired with an image
0.5–1 m	Detail, specifications, data	Counter tops, beside products, tablets	Body-text size

Go back to Chapter 7's elevations first. Those two drawings already have the message zones marked out, but the letter heights were deliberately left blank — only now is there a basis for filling them in. Once they are filled in, the elevations get a new revision number.

Letter heights start from an old rule: **about 25 mm of letter height for every 3 metres of viewing distance** (equal to 1 inch for every 10 feet). So about 35 mm at 4 metres, about 125 mm at 15 metres, and about 250 mm at 30 metres.

This is a rule of thumb for starting exhibition graphics (editorial judgment), not a rule and not a regulation. The letter height actually needed depends on the typeface, weight, contrast, ambient brightness and viewing angle, and **must be verified on site or on a 1:1 sample.**

And it is a different thing from accessible-signage regulations. Each region has its own rules on letter height, contrast and mounting height for signage, graded by mounting height and viewing distance rather than a single general proportion. For any signage governed by regulations (exit, wayfinding and accessibility signage), local regulations and the venue's rules apply, and **this rule of thumb does not.**

The commonest junior mistake is setting letter heights at a third of this value — a heading that looks huge on screen does not exist at twenty metres.

Three practical points:

- **Match resolution to distance.** A large image seen from far away does not need high resolution; only close-range product images do. Demanding 300 dpi for every image drives up files, schedule and cost, and visitors cannot see the difference.
- **Look at the seams before laying out.** A large graphic is split into panels, and where the seams fall is a structural decision. Setting the main headline across a seam, or a face across a corner, is an error you only discover once it is printed.
- **The floor is a surface too.** Floor graphics, colour changes in carpet and changes of material are the cheapest zoning tool (Chapter 5's zoning made physical).

9.6

Brand Assets: The Logo Says "Who," Not "What"

The logo answers "who is this." It does not answer "what problem is being solved here." Making the logo three times bigger does not make the booth easier to understand.

A direct test:

Cover every logo. Can the booth still say what problem it solves?

If it can → the message holds, and the logo is the signature.

If it cannot → this booth has only a signature and no content.

This chapter has to confirm four things about brand assets, and **write them into the Schedule rather than going on memory**:

Item	What to record
Files	Are the vector files in hand? Which version? Who is the contact?
Usage restrictions	Minimum size, clear space, prohibited uses, whether single-colour is allowed
Colour	Print colour references, screen colour values, and the equivalent for illuminated media
Typefaces	Does the licence cover large-format output and video?

Be especially careful with colour: print, illuminated lightboxes and screens will never match exactly. The same brand blue printed on fabric, lit through a lightbox and shown on LED is three different colours. The way to deal with it is not to argue over colour references but to **sample on the same batch of material and compare side by side under the same light**, and to write "the sample governs" into the document.

9.7

AV: Every Screen Has to Say Where Its Content Comes From

Screens are the thing most often drawn onto the plan and least often put on a schedule. Every one has to fill in this row:

Screen	Position and size	Content	Supplied by	Length / loop	Sound	What plays with no network
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And check three environmental conditions along with it:

- **The brightness of the booth opposite and the neighbours** — your screen is not in a darkened room; it is glowing at the same time as the video wall next door.
 - **Viewing angle and height** — standing and sitting are not the same height, and a wall-mounted screen loses colour at an oblique angle.
 - **Sound** — amplification has a limit (65 dB in the AXIS-R case), and sound competes with the demo (Chapter 6, principle 4).
- "We'll sort out the content later" is the most expensive sentence in this chapter.** The screen gets built into the millwork, cabled up and rigged, and the day before the show opens someone discovers nobody has prepared the content — at which point all that is left is to play a brand video, which means turning the best position on the booth into an advertisement.

9.8

Write Down What Is Uncertain; Do Not Draw It

This chapter produces a great many assumptions that have not been proved: Can this finish be bought? What is the lead time on this batch of fabric? What does this colour reference look like on a lightbox? Can this light's weight be rigged?

Handle them the same way as Chapter 7's dimensions: **put them on a list, with someone responsible and a date.**

Item pending confirmation	Type	Who confirms	Deadline	Alternative if it does not work
Every item needs an alternative. "Waiting for the supplier to reply" is not a plan; "if the lead time exceeds three weeks, switch to aluminium system + fabric, and simplify the form to flat surfaces" is.				

9.9

Project Information Release 09-A

Fiction marker: AXIS-R is a fictional teaching company and has no connection to any real business of the same or a similar name. This case exists for practice; every rule, colour reference, lead time and piece of equipment data in this chapter is practice data, not the regulations of any real show, venue or supplier.

Source within the case: The organizer's technical manual, AXIS-R brand department, AXIS-R marketing, the AV supplier's initial reply

Date received: Project day 28

Facts supplied

Item	Data
Fire rules (written)	All finish materials must be supplied with fire / flame-retardancy certificates; fabrics must carry flame-retardancy labels , kept on site for inspection
Hall ambient light	The existing ceiling lights are a mix of metal halide and LED; the organizer supplies no illuminance values , and they may not be switched off
Rigging	Approved area 20 × 10 ft, lower edge ≥ 12 ft (Release 07-A); rigging point load limit awaiting the venue's reply
Brand	AXIS Blue has two sets of values, one for print and one for screen; it may not be used for safety signage or floor wayfinding ; the typeface licence covers output and video
Product photographs from the client	Web-resolution files, 1,200 px on the long edge
Screens	The client supplies 2 × 55-inch; the verdict screen must be fed live from the demo equipment
Network	Hall Wi-Fi bandwidth is not guaranteed ; wired connections are charged separately
Booth opposite	The competitor has a large video wall (Release 05-A)

Known limitations

- The millwork supplier's capacity and lead time are unconfirmed.
- Whether the fabric supplier's flame-retardancy certificate format meets the organizer's requirement is unconfirmed.

Questions still unanswered

- What is the rigging point load limit? (It affects how the lightbox is built.)
- Can the verdict screen be recorded as an offline backup?

9.10

Worked Application: AXIS-R's Surfaces

First, see where the new information bites. The client's product photographs are only 1,200 px on the long edge. The design had called for a 2.4 m-wide product scene on the main vertical surface — **it can be output, but enlarged to 2.4 m it is only about 12.7 ppi**, which fails at the 2–4 m viewing distance that surface requires. Three options:

Approach	Consequence
Enlarge it anyway	Blurred up close; the 2–4 m "evidence" becomes evidence against
Reshoot	Takes time and money; has to be reported to the client for a decision
Change the design	Turn that surface into large type + small images, and leave the detail to the counter

Choose the third, and put the second forward as a recommendation. The reasoning comes from Chapter 3: this company's claim that holds up comes from **operation that can be seen**, not from beauty shots of the product. So that wall's job never needed a large image in the first place.

Materials (excerpt)

Position	Material	Finish	Why
Demo backdrop	Millwork	Dark full matte	Absorbs light, so the verdict screen and the lit machine read clearly (9.3)
≤40 in display plinths along the aisle	Aluminium + millwork face	Semi-matte	The low-structure band is limited by regulation (Release 06-A), and has to withstand knocks

(continued)

Position	Material	Finish	Why
Main vertical surfaces	Millwork	Semi-matte	Large type has to sit flat and read clearly from a distance; weight, freight and reuse are the known costs
Hands-on station counter tops	Solid surface	Semi-matte	Touched constantly; has to resist scratches and clean easily
Conversation area back wall	Fabric	Fabric	Also absorbs sound, reducing competition with the demo

Lighting intent (excerpt)

Purpose	For whom / what	Method
Identification	Aisle, 20–30 m	Rigged lightbox (the position we want is above the corner; what rigging approves is a third of the booth's area, and the exact coordinates still have to be approved by the organizer — a Chapter 7 finding)
Display	Hero demo	Track spotlights on the machine; the verdict screen is not lit, relying on its own glow + the dark backdrop
Display	Customer case wall	Wall washing, even
Task	Hands-on stations and recording counter	Local counter lighting, so users do not block their own light
Guidance	Main aisle entrance	A change of floor material + light above; AXIS Blue not used for floor wayfinding (brand restriction)

AV

Screen	Content	Supplied by	With no network
Verdict screen (55-inch)	Live feed from the demo equipment	Client's technical department	To be confirmed: whether it can be recorded as a 90-second offline backup (which is also Chapter 8's failure recovery)
Case wall screen (55-inch)	The auto parts plant case (cleared for public display, Release 06-A)	AXIS-R marketing	Played locally, not dependent on the network

Two things this chapter exposed

1. **Nobody is yet responsible for the verdict screen's offline backup.** It is also Chapter 8's failure recovery — which means an unconfirmed technical item is propping up a commitment already written into the experience design. It has to go on the list of items pending confirmation, with a person named.
2. **The rigging point load limit is unknown, but the lightbox is already on the drawing.** Until the load limit comes back, the lightbox can only be marked as an assumption, with a lighter alternative ready (a fabric lightbox or illuminated letters).

9.11

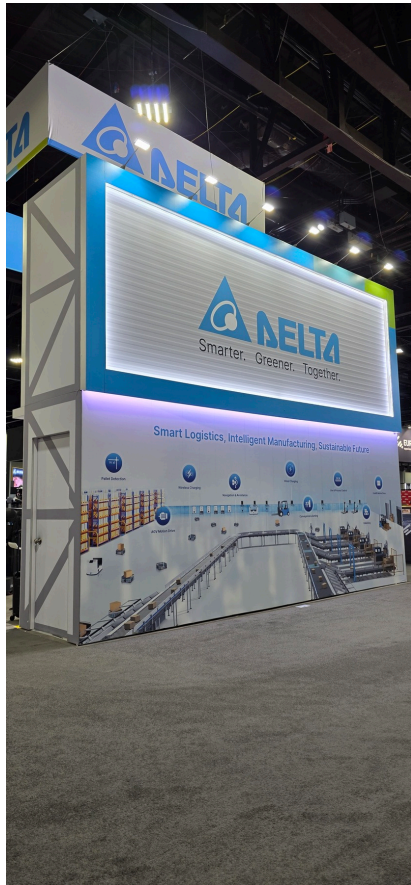
Real Case: What Surfaces Look Like on Real Projects

Cases drawn from AEDM Book 3 v0.2 carry their evidence limits; projects not in Book 3 serve only as spatial examples, with no performance claim.

Delta Electronics — MODEX 2026 (Book 3 • Case 04)

The same outer elevation carries three layers of information, and they are in different media: at the top a hard-edged brand band, in the middle an **illuminated lightbox** (the brightest thing on the whole elevation), and at the bottom a printed band. The three layers correspond to three distances — **this is what a graphic hierarchy looks like built as objects**: not a hierarchy in layout, but a hierarchy in materials.

The same project shows one more thing: the "frame" around the products is not printed; it is **drawn with light**.



the three layers of the outer elevation: the brand band at the top, the illuminated lightbox in the middle ("Smarter. Greener. Together."), and the caption band at the bottom that can only be read up close. On the left you can see the back of the wall's frame — the side facing the neighbouring booth is a surface too.



the frame drawn with light: a ring of illuminated line in a white niche around two products, three lines of specification above at reading height, connectors and cabling left exposed.

Evidence limit: outputs (the booth, the demos, the schedule) are documented; results are qualitative; impact was not measured.

MaxShine — SEMA 2025

Three materials, four kinds of light. Black frame, white interior, red identity — the whole booth uses only three material vocabularies, and light is put to four different jobs: edge light strips for identification, the bright interior ceiling for product display, spotlights on the hero car, and red light slots under the counters for outline. Because there are few materials, the light can be read.

The long wall at the back is a clean example of graphic hierarchy: the brand lettering reads from the furthest distance, the angled product photographs at mid-distance, and the service doors are the same colour as the wall with no signage added — **pushed to the bottom of the graphic hierarchy** (whether that was deliberate, this project has no record to check).



the system of materials and light: black frame, white interior, red light strips, and the rigged identity band on all four sides.



the long back wall seen from inside the hall: the brand lettering at the furthest readable distance, angled product photographs at mid-distance, and at the far right two service doors the same colour as the wall with no signage at all. **What the photograph shows is how the three layers divide the distances** — the service doors pushed to the bottom so they do not compete with the first two.

Note: this project is not in Book 3 and has no written evidence record. It serves only as an example of materials and lighting, and makes no performance claim.

9.12

Common Mistakes

Mistake 1: Choosing the material first and finding reasons afterwards.

Do this instead: write what job the surface has to do first, then choose the material; the five conditions have to hold at once.

Mistake 2: Thinking about colour and not finish.

Do this instead: treat finish as a decision about light — the hero's background absorbs light, and the hero itself is lit.

Mistake 3: The number of fixtures coming before the purpose of the light.

Do this instead: write out the four jobs — identification, guidance, display and task — first, then choose fixtures and circuits.

Mistake 4: Setting letter heights the way a presentation is laid out.

Do this instead: work letter heights out from viewing distance, and verify them on a 1:1 sample.

Mistake 5: Screens on the drawing, with nobody responsible for the content.

Do this instead: every screen has to have a content supplier, a length, sound and an offline backup.

WB-09

A Finish Is a Decision About Light.

Applies AEDM Book 1 RULE-03 Every Element Has a Job and RULE-04 Zero Questions.

What a material schedule records is not only "what colour" but "what this surface has to do to light": absorb it, reflect it, diffuse it, or give it off. Choose the wrong finish and the judgements of the previous six chapters vanish together on site — a verdict screen that cannot be read is a claim that has not been proved. And any finish, light, graphic or screen that cannot say how it gets installed, who supplies it and how long it takes to arrive is not yet a specification, only a picture.

Chapter Summary

This chapter turns the earlier decisions into surfaces people can see and touch. Materials have to pass five conditions at once — performance, finish, reuse, cost and fabrication method — and fire and flame retardancy are matters needing named confirmation. Finish is a decision about light: the hero's background absorbs light, and the hero itself is lit. Lighting starts from purpose — identification, guidance, display and task — before fixtures are chosen; the hall's ambient light cannot be controlled, only the contrast raised. Graphics take their size, position and resolution from distance, and the letter-height proportion is a rule of thumb that has to be verified on site or on a 1:1 sample. The logo says "who," not "what"; a booth that cannot say its problem once the logos are covered has a signature and no content. Every screen has to be able to say where its content comes from, how long it runs, whether it has sound and what plays with no network. Finally, every unconfirmed finish, lead time and colour goes on a list with an alternative, not onto the drawing.

Chapter Assignment

Material, Lighting, and Graphic Schedule

Using the concept and principles from Chapter 6, the drawing set from Chapter 7, the experience sequence from Chapter 8, and Project Information Releases 06-A, 07-A and 09-A, complete the following.

PART A Material Schedule

Position / element	Material	Finish	Performance needs (fire / load / wear)	Reuse	Fabrication method and time	Source / assumption

PART B Lighting Intent Plan

Purpose (identification / guidance / display / task)	For whom / what	Position and method	Power and rigging needs	How it is checked

And mark the fixture positions and aiming directions on the plan or elevations.

PART C Graphic Hierarchy and Location Plan

Distance	Content	Surface / position	Size (starting letter height)	Medium and resolution	Seams avoided?
20–30 m					
8–15 m					
2–4 m					
0.5–1 m					

PART D

Logo and Message Visibility Check

1. Cover every logo, and write the sentence the booth can still say.

2. If it cannot say one, identify which surface has to change.

3. List the brand restrictions: minimum size, clear space, prohibited uses, colour (print / illuminated / screen).

PART E

AV Content-Purpose Schedule

Screen	Position and size	Content	Supplied by	Length / loop	Sound	What plays with no network

PART F

Sample / Specification Request List

Item pending confirmation	Type (finish / lead time / colour / load limit)	Who confirms	Deadline	Alternative

Evaluation Criteria

CRITERION	POINTS	WHAT A PASS LOOKS LIKE
Suitability of materials	20	All five conditions can be answered; fire / flame retardancy listed as items to confirm
Lighting purpose and coordination	20	All four purposes identified; the contrast between hero and background can be stated
Graphic hierarchy and legibility	20	Each of the four distances has content and a basis for its size; seams and positions checked
Brand consistency	15	The problem can still be stated with the logos covered; brand restrictions fully recorded
Buildability and maintenance	15	Every item can say how it is installed, who makes it and how long it takes; durability and cleaning considered
Recording of uncertainty	10	The pending list has people responsible, deadlines and alternatives
Total	100	

Result: Pass (may proceed to Chapter 10) / Revise (named items need correcting) / Restart (materials or fixtures have no purpose, or graphic sizes have no basis).

Instructor Checkpoint

Before Chapter 10, confirm:

Every finish, light, graphic and screen can state its job and carries a workable installation assumption. If any one is missing, the result is Revise.

Reflection

In no more than 150 words:

1. Which surface on your booth depends most on **light** to work? If that effect cannot be achieved on site, what will you do?
2. What is the largest **supply risk** right now?
3. If the materials budget were cut by a third, which item would you **replace first**, and why is that one the least painful?

Submission Requirement

Submit a PDF (material schedule on one page, lighting intent and graphic hierarchy on one page, AV and the pending list on one page), named:

AEDA_FBTB_C09_YourName_Schedule.pdf

Until it passes review, do not move on to Chapter 10.

Chapter Source Note

- Every element must be able to state its job: AEDM Book 1 **RULE-03**.
- Anything that cannot say how it is installed, who supplies it and how long it takes to arrive belongs on the pending list, not in a specification: AEDM Book 1 **RULE-04**.
- Adjectives do not go on the wall; evidence does: AEDM Book 1 **RULE-06** (used for the logo test in 9.6).
- Three layers of information built in three media, and a frame drawn with light: AEDM Book 3 v0.2 **Case 04 — Delta Electronics** (with its evidence limits).
- MaxShine (SEMA 2025) is **not in Book 3**, and serves only as an example of materials and lighting, with no performance claim.
- The letter-height proportion (about 25 mm per 3 metres) and hero / background contrast are **rules of thumb for starting exhibition graphics, and editorial judgment**, not measured values, and must be verified on site or on a 1:1 sample. **They do not apply to signage governed by regulations** — accessibility and fire signage follow local rules and the venue's requirements, and are matters needing named confirmation.
- Fire, flame retardancy and rigging point load limits are matters **needing named confirmation**; the workbook supplies no values for them.
- All AXIS-R material in this chapter comes from **Project Information Release 09-A** (a fictional teaching case).

Chapter 10

Budget and Buildability

Can it be made, shipped, installed, used and taken down

Check that, under the known conditions, this proposal can be made, delivered, installed, operated and dismantled.

CHAPTER DELIVERABLE

One Buildability Review and Budget Response

Until this document passes review, do not move on to rendering and presentation in Chapter 11.

Learning Objective

By the end of this chapter you should be able to:

- ☐ **Distinguish** design intent from the construction solution.
- ☐ **Identify** this project's main cost drivers.
- ☐ **Recognize** nine kinds of risk: structure, span, rigging, materials, finish, AV, labour, transport and schedule.
- ☐ **Check** the installation sequence and access on site.
- ☐ **Weigh** the consequences of reuse and disposal.
- ☐ **Propose** value-engineering options that do not break the objective.
- ☐ **Identify** the questions that must be confirmed by a fabricator or an engineer.

10.1

Introduction

By this chapter the booth is complete on paper: an objective, an area program, circulation, a concept, dimensions, an experience, materials. This chapter asks the last question, and the least forgiving one: **can it be built — for this money, in this time, in this venue?**

The two commonest junior reactions to this chapter are both wrong:

- **"That's the fabricator's job."** It is not. The fabricator is responsible for the method; the designer is responsible for **judging which decisions will send the cost out of control**. Seeing the numbers for the first time when the quotation comes back means the whole design was done without any sense of cost.
- **"If it's over budget, shrink everything in proportion."** The worst response. Shrinking in proportion weakens the hero and the secondary functions at the same time, until every item is just short of enough.

The right move is: **first know where the money is, then decide what to take out**. And the test for "what to take out" is not preference; it is Chapter 2's objective.

10.2

Design Intent and the Construction Solution

This is the most important division of labour in this chapter. (The **"design intent / construction solution"** distinction is a teaching distinction in this workbook, not a formal EDBOK definition.)

	Design Intent	Construction Solution
Answers	What this thing has to do, what it looks like, how big it is	What material, how it joins, how it is fixed
Who is responsible	The designer	The fabricator, engineer, contractor
Example	"A curved backdrop, 3 m high, dark full-matte surface, no visible fixings"	How the frame is split into parts, panel thickness, joint method, where it is assembled on site

A designer who draws construction detail they are not sure of is signing for a risk they do not carry. (Someone with the competence and the responsibility should of course draw it — what is meant here is the kind beyond your own competence and remit.) If you do not know how that joint is made, write it as intent ("no visible fixings") and let someone who knows propose a solution — rather than drawing a detail that looks professional and cannot actually be built.

The reverse holds too: **intent has to be written clearly, not pushed onto the fabricator.** "Make this bit look nice" is not intent; "this face is at visitors' eye height and may have no visible screws" is.

10.3

Where the Money Is: Seven Cost Drivers

The same floor area can cost several times as much from one booth to the next, and almost all of the difference comes down to these seven things.

Cost driver	Why it is expensive	The cheaper move
Non-repeating parts	Every part has to be set out, cut, assembled and finished individually	Reuse units; turn curves into facets
Curves and irregular shapes	Making a curve from flat sheet = many pieces + a great deal of hand finishing	Use curves only on the hero; straighten the rest
Size and span	A longer span needs a larger structural section or reinforcement	Add points of support; split a long span into two

(continued)

Cost driver	Why it is expensive	The cheaper move
Rigging	Rigging point fees, structure, insurance, and the venue's rigging labour	Use floor-standing towers instead; shrink the rigged area
Finish grade	Paint grade and hours of metal fabrication	Keep a high grade for the hero; lower it elsewhere
AV	Screens, players, cabling, racks — and content production	Use the client's existing equipment; reuse content
Labour on site and duration	People × hours × overtime rates, plus the venue's minimum labour rules	Keep site work to assembly, not fabrication

Count transport and storage separately. Millwork is heavy and bulky, and both freight and the crates themselves cost money; a lightweight system costs more per unit of material but less in freight, labour and storage. **What the two approaches have to be compared on is the total, not the unit price of the material.**

10.4

Nine Risks to Identify on the Drawing

Before anything goes out, spread the drawings out and ask each of these in turn:

Risk	The question to ask
Structure	Does this wall stand up by itself? Does it need ballast or bracing?
Span	How far does this beam span? Is there no support in between?
Rigging	What is the rigging point load limit? Who does the structural calculation? Has the venue approved it?
Materials	Can they be bought? What is the lead time? Is there a fire / flame-retardancy certificate?
Finish	Can the shop achieve a surface of this grade? How is damage on site repaired?
AV	How does the signal run? Latency? Who makes the content? What if there is no network?

(continued)

Risk	The question to ask
Labour	How many trades are needed on site? Does the venue require its own labour?
Transport	Will it fit the freight elevator and the doors? How many pieces must it split into? How big are the crates?
Schedule	Which item has the longest lead time? What does it have to follow, and how many days are left after it?

The last is the one juniors underestimate most, and it is easy to underestimate only half of it. The item with the longest lead time is a **long-lead risk** and has to be identified first — but it is not the project's duration. Metalwork five weeks, everything else two: this is **not a five-week project**. Before those five weeks come approval and purchasing; after them come shipping, move-in and installation.

There is a counterexample later in this book: AXIS-R in Chapter 12 puts two more weeks of purchasing ahead of the metalwork, and it is still not closed on day 42. **As an illustration only** — if the purchase requisition has to be complete before the order can be placed, that is $2 + 5 = 7$ weeks before shipping and installation can begin, not 5; the real figure depends on which stretches can overlap and which cannot. Seven weeks is not the new general answer. "Find the longest item, then join up what comes before and after it" is.

10.5

Installation Sequence and Access on Site

Get the order wrong and the same job gets done twice, and every rework on site is overtime.

A typical move-in sequence:

- 1. Setting out and the floor (platform, carpet)
- 2. Main structure and walls
- 3. Power and low-voltage trunk runs
- 4. Panels and finishes
- 5. Graphics and vinyl
- 6. AV and lighting fixtures in place, **initial positioning** (not final focusing)
- 7. Products in and on display
- 8. **Final focusing of the lights** — aimed at the products as actually placed, finished before handover
- 9. Cleaning and handover

This sequence is typical for this kind of booth, not a general rule — the order of floor and services changes with the venue's power distribution and platform method, and at some venues the trunk runs have to go in before the platform. Use it as a starting point for checking, not a list to copy.

At every step, ask "is the step before this one finished?" Graphics that arrive before the structure can only be stacked in the aisle, taking up space; and lights can only be finally positioned once the products are in place — which is exactly why the list above splits "in place" and "final focusing" into two steps. **Putting all the focusing before the products is buying yourself a rework.**

Check at least five things about access: **freight elevator size and load, door width, aisle width, whether a forklift can be used, and the rules for working at height.** Add the one most often forgotten: **the labour rules on site** — some venues require venue or union labour, with minimum charges and overtime rates.

10.6

Reuse and Disposal

Whether a booth is used once or ten times changes almost every material decision.

	Single use	Reuse
Structure	Single-use millwork is acceptable	Systemized, demountable, numbered
Graphics	Can be printed permanently	Must not carry dates or edition numbers
Packing	Cardboard boxes	Crates / flight cases (a cost, and also an asset)
On site	Quick	Needs assembly instructions and a parts list

Print the year on the key visual and that print becomes single-use. Whether the structure can be reused is a separate matter: the aluminium frame, the platform and the lights usually survive, and what gets replaced is the graphic — so deciding whether to print the year is really deciding **how big a panel has to be reprinted next time.** A one-word decision costs that wall the reuse value of its graphic — the kind of thing to settle before the graphics are laid out, not to discover at dismantle.

Disposal has to be counted too: carpet, vinyl and permanently printed graphics are, at most shows, rubbish the moment it closes. **Stating in the proposal "what will be kept and what will be thrown away"** is professional, and some clients will ask directly.

10.7

Value Engineering: Change the Method, Not the Objective

When a project is over budget, value engineering is not "cut until it fits." It is **changing the method without moving the objective**. There are three legitimate moves:

1. **Change the method, not the job.** A curved wall becomes a faceted one; millwork becomes an aluminium system + fabric — what that surface has to do has not changed; how it does it has.
2. **Reduce non-repeating parts.** Three display plinths in three different sizes become three plinths in one size.
3. **Move money from where nobody looks to the hero.** Downgrade the secondary surfaces on the back, the storage and the aisle side, and put the savings into the hero.

There is one illegitimate move: **cutting the hero's evidence**. If Chapter 3 judged that this company's only claim that holds up comes from the live demonstration, then cutting the demo equipment and replacing it with a poster buys, with the money saved, **a booth that can no longer reach its objective** — that is not saving money, it is giving up.

Every VE option has to be written in three columns: **the order of the saving / what it affects / whether the objective still holds**. An option whose third column says "no" has to be marked "not recommended" and left for the client to decide — not quietly carried out by the designer.

Keep two things apart: the total gap can be calculated; how much each item saves cannot.

The total gap is arithmetic: the approved budget of USD 80,000 (Chapter 1) $\times$ 18% over (Release 10-A) = a quoted total of **USD 94,400, a gap of USD 14,400**. That figure should be written down — it has a source and is not a guess.

What cannot be calculated is **how much each VE option saves**: that needs the fabricator's itemized quotation. Filling in a precise-looking number before you have one is only dressing a guess up as a calculation (WB-07). Write the order of magnitude as **large / medium / small**, with one sentence of basis — which cost driver, or which quotation. **Turn the order of magnitude into an amount only once the itemized quotation arrives**; until then, what you tell the client is "these three directions can bring the cost back; the actual amounts await the fabricator's itemized quotation."

10.8

When It Has to Be Handed Over

Some questions do not belong to the designer, and answering them anyway is signing for someone else's profession.

Question	Who confirms
Span, rigging, platform load, stability of tall structures	Structural engineer
Method, lead time, whether it can be made	Fabricator
Rigging point load limits, fire and flame retardancy, labour rules, aisles	Venue and organizer
Signal, latency, playback and backup	AV integrator
Total power, circuits, distribution	Electrical contractor
Equipment safety distance and operating conditions	Equipment manufacturer

"Should be fine" is not an answer. The workbook asks you to write each question like this as a row: the question, who it goes to, the deadline, and the provisional assumption until the answer comes back.

10.9

Project Information Release 10-A

Fiction marker: AXIS-R is a fictional teaching company and has no connection to any real business of the same or a similar name. This case exists for practice; every quotation, lead time, rule and figure in this chapter is practice data, not the terms of any real supplier, venue or show.

Source within the case: Millwork and metal fabricators' quotations, the freight carrier's quotation, the venue's technical department's reply, the AV supplier's reply

Date received: Project day 33

Facts supplied

Item	Data
Fabrication quotations (total)	18% over the approved budget
Lead times	Millwork 4 weeks; metalwork 5 weeks ; fabric 2 weeks (including flame-retardancy certificate); graphics 1 week
Non-repeating parts	The curved backdrop is set out as a single piece, about a quarter of the millwork quotation
Rigging	Venue reply: rigging point load limit 500 lb per point (the open question from Release 09-A answered)
AV	The demo verdict screen can be recorded as an offline backup (the open question from Release 09-A answered)
Transport	Two crates + one 26 ft truck; freight elevator door width on site 7 ft
On-site labour	Venue labour must be used, minimum charge 4 hours ; nights at 1.5 times
Move-in	Two days; main structure must be complete by 12:00 on the second day

Known limitations

- The structural calculation for the curved backdrop has not been done.
- Whether the weight of the demo equipment needs platform reinforcement has not been confirmed.

Questions still unanswered

- Does platform reinforcement need a structural engineer's certification?
- Can night labour be used for graphics installation?

10.10

Worked Application: AXIS-R's Budget Response

First find where the 18% is, then decide what to change.

Cost driver	Share (estimated)	Is it essential to the objective?
Curved backdrop (non-repeating part)	1/4 of the millwork	No — the concept calls for "work down low, speak up high," not for a curve
Metalwork	Medium	Partly — its 5-week lead time is this project's long-lead risk (10.4)
Demo equipment and safety provisions	High	Yes — Chapter 3's only strong evidence
Customer case wall screen	Medium	Yes — the second-strongest evidence position
Low display plinths along the aisle	Medium	Yes — required by regulation (3 ft / 40 in)

Three value-engineering options

Option	Order of saving (basis)	What it affects	Objective still holds?
A. Faceted backdrop instead of curved	Large (Release 10-A: this piece is about 1/4 of the millwork quotation)	The form changes; the dark full-matte finish and its light-absorbing job do not	Yes
B. Main vertical surfaces in aluminium system + fabric	Medium (drivers: finish grade + transport; no itemized quotation)	Lower weight and freight; fabric texture visible up close	Yes (flame-retardancy certificate format to be confirmed)
C. Case wall's 55-inch screen replaced by the client's existing 43-inch	Small (one piece of equipment, already owned by the client)	Shorter viewing distance, same content	Yes (sightlines to be re-verified on the elevation)

Will the three together cover the USD 14,400? That is not known yet — the gap is certain, and each option's contribution is not. Say so plainly in the response; do not assemble three estimates into an illusion that adds up to exactly the gap.

One option rejected: replacing the demo with video playback. It saves the most, but Chapter 3 has already judged that this company's claim can only be supported by **operation that can be seen**. Replacing it with video = trading strong evidence for advertising, and the objective no longer holds. **Put it in the report, mark it not recommended, and let the client decide.**

One drawing error this chapter caught: the freight elevator door is 7 ft wide, and the demo backdrop is drawn as a single 8 ft piece. It has to be split — **and where the split falls will decide the graphic layout** (Chapter 9's rule on seams). Discovered only on site, the cost is a reprint.

Questions that must be handed over

Question	To whom	Deadline	Provisional assumption
Stability and ballast of the faceted backdrop	Fabricator + structural engineer	Day 37	Assume rear bracing is needed; allow 1 ft
Whether platform reinforcement needs certification	Venue + structural engineer	Day 37	Assume it does; include it in the budget now
Whether the rigged lightbox's weight is <500 lb per point	Fabricator	Day 36	Assume it is close to the limit; prepare a lightweight fabric version
Whether night labour can be used for graphics	Organizer	Day 35	Assume not; schedule graphics for daytime on the second day

10.11

Real Case: What Buildability Looks Like on Real Projects

Cases drawn from AEDM Book 3 v0.2 carry their evidence limits; projects not in Book 3 serve only as examples, with no performance claim.

Gainbridge — F1 Miami 2022 (Book 3 • Case 02)

A smooth shape begins as a stack of numbered flat pieces. Every curve of the car body is broken down into a pile of CNC-cut sections, numbered one by one in pencil and stacked in assembly order. This is where you can see where the cost really goes: not in the sheets of plywood but in the labour of **cutting, numbering, assembling, finishing and sanding**.

The same project shows one more thing that is often forgotten: once something is made, **it still has to be moved**.



stacks of sections on the shop floor: each stack is the skeleton of one curve, with pencil numbers written on the side. **The price of free form is the number of pieces.**



a finished tyre volume on a trolley padded with protective blankets, waiting to ship. **What the photograph directly proves is the trolley and the surface protection;** crate sizes, door widths and the transport arrangement for each piece have to be confirmed from the packing list, the crate drawings and the venue's logistics information.

Evidence limit: no exposure or recall metrics were recorded; statements about brand results rest on delivery evidence, not audience measurement.

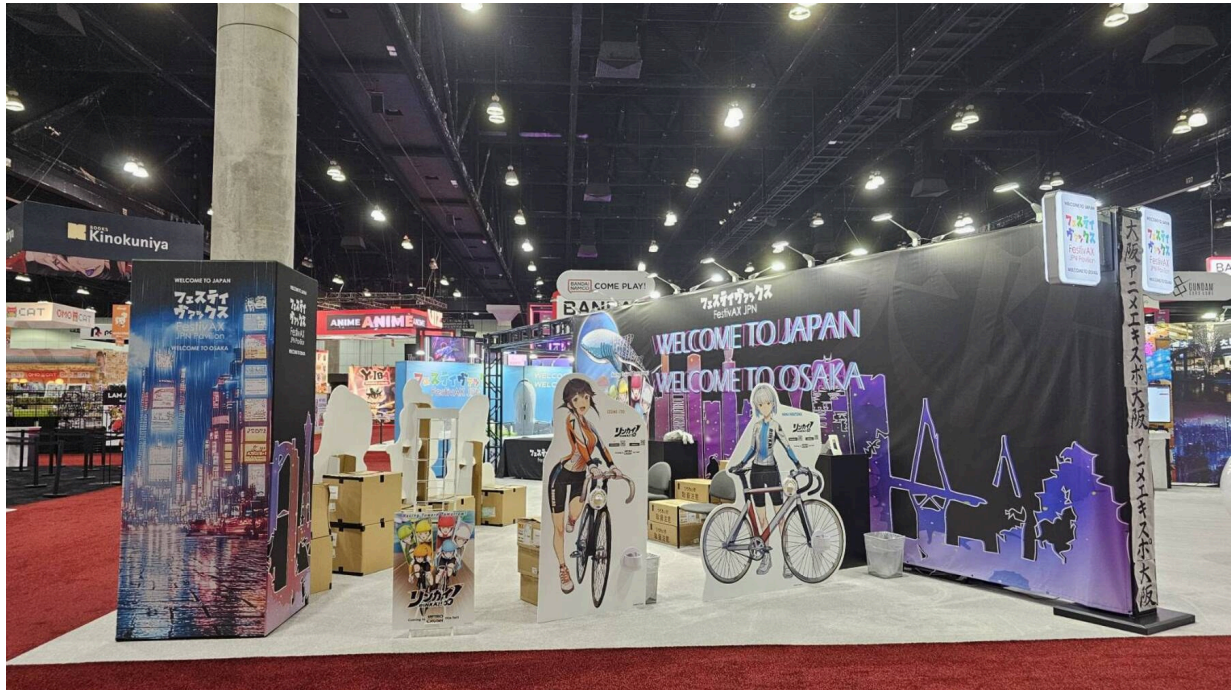
FestivAX JPN — Anime Expo 2025

Almost the entire booth is a single graphic. The main wall is printed fabric stretched over an aluminium frame, with identity, message and city imagery all done in print; partner logos and the QR code sit at the closest reading distance. Besides the printed fabric and the aluminium frame, the physical things you can see are the floor, the lights, the standees and the two bicycles. **What each of them cost, this project has no itemized quotation to show** — do not write "looks cheap" as "only these two things cost money."

What the photographs show is that the same two jobs — reading "WELCOME TO OSAKA" from far away, and scanning a code up close — were done with print and lightweight structure rather than millwork. **Whether this project first had a millwork scheme, and how much changing it saved, we have no record to check**, so the comparison that follows is **an exercise, not this project's history**: if the same two jobs were done with a custom millwork wall, which of the seven cost drivers would your cost land in? The price, on the other hand, the photographs can show: the frame is visible from above, and the fabric has seams up close.



the main wall made of two panels of fabric: a seam visible down the middle, the aluminium frame and clip lights visible along the top. Identity, message and city imagery **all land on this printed surface** (how many print files it was output from, the photograph cannot show).



the site before opening: the long wall, the tower and the human standees are all flat, with cartons and some furniture still on the floor. **What can be packed flat and what cannot are both in this photograph** — the bicycles clearly belong to the second group, but **what actually shipped flat, and in how many cartons, is a question for the packing list, not the photograph.**

Note: this project is not in Book 3 and has no written evidence record. It appears only to show a method of construction, and makes no performance claim.

10.12

Common Mistakes

Mistake 1: Thinking about cost for the first time when the quotation comes back.

Do this instead: know where the seven cost drivers are while you are still drawing.

Mistake 2: Shrinking everything in proportion when over budget.

Do this instead: rank by Chapter 2's objective, and decide what to take out and what to keep.

Mistake 3: Drawing the construction solution as fixed.

Do this instead: write intent, and let the fabricator propose the method; do not pretend to know details you are unsure of.

Mistake 4: Forgetting that things have to be shipped, moved and installed.

Do this instead: check the freight elevator, door widths, aisles, forklifts and labour rules, and split things into parts.

Mistake 5: VE that cuts into the hero's evidence.

Do this instead: cut secondary surfaces and non-repeating parts; options that touch the evidence are marked not recommended and left for the client to decide.

WB-10

Value Engineering Changes the Method, Not the Objective.

Applies AEDM Book 1 RULE-01 Design for Business and RULE-02 Start with the Objective.

When a project is over budget, you may change materials, change methods, reduce the number of parts, and move budget from where nobody looks to the hero. **What you may not change is why this booth exists.** A scheme that saves 20% and can no longer reach its objective is not value engineering; it is paying in advance for failure. And any trade-off that touches the objective is the client's decision, not the designer's — your job is to set out the options, **the order of cost and its basis**, and the consequences side by side. Amounts wait for the itemized quotation; until then, write the order of magnitude.

Chapter Summary

This chapter checks whether the proposal can be built. The designer is responsible for intent, and the fabricator and engineers for method; drawing a detail you do not understand is signing for someone else's risk, while details you are sure of and responsible for should be drawn. Cost concentrates in seven drivers — non-repeating parts, curves, span, rigging, finish grade, AV and labour on site — and transport and storage have to be totalled separately rather than comparing unit prices of material. The nine risks have to be identified one by one on the drawing; for schedule, first find the item with the longest lead time, then join up the approval, purchasing, shipping and installation before and after it — the longest item is a risk, not the duration. Get the installation sequence wrong and things get done twice, so check the freight elevator, door widths, aisles and labour rules on site. Reuse has to be decided before the graphics are laid out, because printing the year makes that graphic single-use — the frame, platform and lights usually survive, and it is the graphic that gets replaced. Value engineering when over budget means changing methods, reducing parts and moving money to the hero; the only thing that may not move is the objective, and options that touch it are marked not recommended and left for the client to decide. Finally, span, rigging, loads, signal and power all go to a named professional to confirm; "should be fine" is not an answer.

Chapter Assignment

Buildability Review and Budget Response

Using the drawing set from Chapter 7, the material and lighting schedule from Chapter 9, and Project Information Releases 09-A and 10-A, complete the following.

PART A Buildability Checklist

Element	Structure	Span	Rigging	Materials	Finish	AV	Labour	Transport	Schedule	Pass?

PART B Cost-Driver Map

This column takes a relative weight, not a percentage. Without a supplier quotation a share cannot be calculated, and forcing a number in only writes a guess as fact (WB-07). Once you actually have an itemized quotation, turn the weights into amounts.

Element	Main cost driver	Relative cost weight (high / medium / low)	What the judgement is based on	Essential to the objective?

Only three bases for judging a weight may be written: a fabricator's quotation, a comparable past project, or the seven cost drivers in 10.3. For the third, name the driver.

PART C Risk Register

Risk	Warning sign	Impact (cost / schedule / safety)	How it is handled	Owner

PART D Installation Sequence Outline

Write the steps in order from move-in to handover, marking **each step's precondition** and the trades it needs. Also list the access checks: freight elevator size and load, door widths, aisles, forklifts, working at height, and labour rules.

PART E Three Value-Engineering Options

Option	Order of saving (large / medium / small) and basis	What it affects	Does the objective still hold?	Recommended / not recommended
A				
B				
C				

PART F Fabricator / Engineer Question List

Question	To whom	Deadline	Provisional assumption until the answer comes back

PART G Budget Response Statement

One page, written to the client. It must include: **the specific gap (approved USD 80,000 / quoted USD 94,400 / gap USD 14,400)**, the three options you recommend with **the order of each saving, the one you do not recommend and why**, and what the client needs to decide by which date.

Write the gap as an amount; do not write how much the options save. Until the itemized quotation arrives, the correct wording is: "The gap is USD 14,400. These three directions can bring the cost back; whether they close the gap needs the fabricator's itemized quotation to confirm."

Evaluation Criteria

CRITERION	POINTS	WHAT A PASS LOOKS LIKE
Identification of construction risk	20	All nine risks have been checked, and the real risks are named
Understanding of cost drivers	20	Says where the money is, rather than only listing a total
Awareness of installation and logistics	15	The sequence has preconditions; freight elevator, door widths and labour rules all checked
Quality of value engineering	15	All three options state the order of saving, basis, effect and consequence; no invented amounts
Protection of the objective	15	No evidence cut to save money; options touching the objective marked not recommended
Appropriate escalation	15	Questions belonging to engineers, fabricators and the venue have been handed over, with provisional assumptions
Total	100	

Result: Pass (may proceed to Chapter 11) / Revise (named items need correcting) / Restart (VE breaks the objective, or key technical assumptions have no one assigned to them).

Instructor Checkpoint

Before Chapter 11, confirm:

Every key technical assumption has been identified and assigned to a named person to verify. If any one only says "should be fine," the result is Revise.

Reflection

In no more than 150 words:

1. What is **the most expensive decision** in your design? Is it worth it?
2. If you could keep only one high-cost element, which would it be, and on what basis?
3. Which technical assumption, if the answer came back "no," would send you back to Chapter 7 to redraw?

Submission Requirement

Submit a PDF (checklist and cost map on one page, risks and installation sequence on one page, VE options and budget response on one page), named:

AEDA_FBTB_C10_YourName_Buildability.pdf

Until it passes review, do not move on to Chapter 11.

Chapter Source Note

- Design for a business purpose, with trade-offs ranked by the objective: AEDM Book 1 **RULE-01**.
- Trade-offs are based on the objective, not on preference: AEDM Book 1 **RULE-02**.
- What is uncertain belongs on the question list, not on the drawing: AEDM Book 1 **RULE-04**.
- A smooth form as a stack of numbered flat pieces, and still having to be moved once finished: AEDM Book 3 v0.2 **Case 02 — Gainbridge** (with its evidence limits).
- FestivAX JPN (Anime Expo 2025) is **not in Book 3**, and appears only to show a method of construction, with no performance claim.
- Cost shares, durations and transport conditions vary by region, venue and supplier; every figure in this chapter comes from the fictional Release 10-A and **may not be used as a basis for quotation**.
- Structure, rigging, loads, fire, power and signal are matters **requiring confirmation by a named professional**; the workbook supplies no values for them.
- All AXIS-R material in this chapter comes from **Project Information Release 10-A** (a fictional teaching case).

Chapter 11

Rendering and Presentation

A design explained as the answer to the question already agreed

Produce a client presentation that explains the design as

the answer to the question that has already been agreed .

CHAPTER DELIVERABLE

One Client Presentation Deck

Until this document passes review, do not move on to revision and delivery in Chapter 12.

Learning Objective

By the end of this chapter you should be able to:

- ☐ Organize a proposal in the order **objective** → **decisions** → **experience**.
- ☐ Choose images **by the question each view answers**, not by how good it looks.
- ☐ Distinguish **persuasion** from **visual spectacle**.
- ☐ Make the plan, circulation, products, graphics, materials and operations agree with one another in a single document.
- ☐ State assumptions and open items plainly.
- ☐ Anticipate the client's questions, and make a clear request for decisions.

11.1

Introduction

By this chapter the design is finished. This chapter deals with something else: **getting someone who was not part of the process to understand it in forty-five minutes, and to be able to make a decision.**

The commonest junior proposal looks like this: page one is a large 3D render, page two is more 3D renders, and the last page says "Thank You." A proposal like that has one fatal problem — **it asks the client to judge a business decision on taste.** The client can only say "I don't like that colour," because you have given them nothing else to say.

This chapter's review threshold is stated directly:

Someone who was not in the room must be able to understand, from the document alone, why this proposal exists.

If it only holds together with the presenter beside it filling in, the document is not finished — and in reality your deck will be forwarded to people who were not at the meeting, including the person who signs.

11.2

Narrative Order: Objective → Decisions → Experience

A proposal that can be judged follows a fixed order:

Section	Content	What it answers
1	Objective summary	Why are we exhibiting? What does success look like? (Chapter 2)
2	Design problem	Under what constraints, getting whom to do what? (Chapter 6)
3	Concept and key decisions	What are we claiming? Why this approach?
4	Plan and circulation	Where do people come in, and what will they meet? (Chapters 5, 7)
5	Views	What will it actually look like, and how will it be used?
6	Material, lighting and graphic intent	What will it feel like, and where are the messages? (Chapter 9)
7	Buildability and budget	Can it be built? What does it cost? (Chapter 10)
8	Open items and decision request	What is still missing? What do we need you to decide?

Page one is not a 3D render; it is the objective. This is not a polite preamble — it decides the standard the client uses to look at every page after it. Someone who sees the objective first will ask "can this approach achieve it"; someone who sees a 3D render first will only ask "do I like it."

11.3

Views Are Chosen by Question

Every 3D render has to answer a specific question. A view that cannot answer one comes out, however beautiful it is.

The question the client will ask	The view needed	Common mistake
Will people in the aisle notice it?	Aisle eye height, including neighbours and surroundings	Erasing the neighbours with a pure white background
What will people do once they come in?	A view with people in it, doing specific things	A perfect, empty scene
Where is my product?	The elevation or close-up where the hero sits	The product as a vague block
Where do meetings happen?	A section, a plan view or an interior view	Only the exterior, nothing of the inside
Does everything fit?	A dimensioned plan, not 3D	Using a 3D render to answer a question about dimensions
What about at night / when it's crowded?	A view of the peak situation	Only the ideal state

A list of four to six views is usually enough. Twelve 3D renders that repeat one another are no more persuasive than six that each answer one question — they only make it harder for the client to decide.

11.4

Persuasion Is Not Spectacle

The biggest risk with 3D renders is not that they are not beautiful enough but that they are so beautiful they are dishonest.

Common embellishment	What it quietly promises
A pure black or pure white background	A hall with no neighbouring booths and no ceiling lights
Exaggerated glow around lights	Lighting that cannot be achieved on site
A highly reflective floor	A floor that is not in the budget
Finished artwork on every graphic	Content that is ready (when in fact nobody has made it yet)
People scaled down	A booth that is bigger than it is

A rule you can check yourself:

Is everything in this image on the quotation?

Anything that is not has to be added to the quotation, removed from the image, or labelled in the caption "illustrative, not included in the quotation." **On opening day, what the client remembers is that image, not what you said alongside it.**

11.5

Captions: Every Image Has to Say What It Answers

This is the habit with the highest return on investment, and almost nobody does it:

Under every image, write one sentence saying what question this image answers.

- ✗ "Main perspective view"
- ✓ "Looking in from 10 metres down the main aisle: the verdict screen is at eye height, and nothing within 3 ft of the aisle is taller than 40 in."

In the same way, every drawing needs: **a title, scale, viewpoint position (marked on the plan), revision and date.** Without a marked viewpoint, the client cannot tell whether a perspective shows a view that will really exist.

11.6

Being Honest About Assumptions and Open Items

A mature proposal has a page called "what we know, what we are assuming, and what we are still waiting for." Three columns, kept apart:

Confirmed (with source)

Assumed (with basis and risk)

Pending (with owner and deadline)

Three disciplines:

1. **Do not hide open items in small print on the last page.** A hidden risk turns up on site at three times the price.
2. **Do not claim results that have not been measured.** "This design will increase foot traffic by 30%" — unless there is a method of measurement and a baseline, do not write it. AEDM Book 3 attaches evidence limits to every case, which is exactly this discipline in practice: **output, outcome and impact are stated separately**, and you say only what you can prove.
3. **Write assumptions so they can be overturned.** "Assumes the rigging point load limit can carry the lightbox; if the venue replies below 500 lb per point, switch to the lightweight fabric version" — written like this, the client knows you are controlling the risk rather than gambling on it.

11.7

Anticipating Questions and Requesting Decisions

The questions are predictable. Almost every presentation brings these five:

1. Can this be built? What does it cost?
2. Why this approach, and not the kind I saw last year?
3. Can this part be taken out / made smaller?
4. When do we have to decide?
5. (Asked by finance or senior management) What does this do for our objective?

The fifth is the one most often missed, and the person asking it usually took no part in the earlier discussions. The proposal's first section (the objective summary) is there for them.

A proposal does not end with "Thank You"; it ends with a **decision request**:

Decision needed	Who decides	Deadline	Consequence of not deciding
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Writing "the consequence of not deciding" is not pressure; it is information.

"Metalwork has a 5-week lead time; if this is not decided by 10 March, it cannot be finished before move-in" — that is a fact the client needs to know.

11.8

Consistency

Inconsistency makes clients doubt the parts they cannot see: if three drawings use different scales, the typeface changes twice and drawing numbers skip, they will reasonably suspect the drawings themselves are just as loose.

Standardize at least five things: **page template, typefaces and sizes, drawing numbers and naming, scale and units, annotation colours.**

11.9

Project Information Release 11-A

Fiction marker: AXIS-R is a fictional teaching company and has no connection to any real business of the same or a similar name. This case exists for practice; the meeting conditions and attendees in this chapter are practice data.

Source within the case: AXIS-R project contact

Date received: Project day 38

Facts supplied

Item	Data
Meeting length	45 minutes, including Q&A
Attending	6 people: marketing director (involved throughout), product manager, head of sales, VP of finance (first contact with this project) , two joining remotely
Format	Screen share; the deck will be forwarded after the meeting to the COO, who is not attending
Decision timing	A reply within 3 working days of the meeting
Client request	Wants to see "what it will actually look like on opening day"

Known limitations

- The screen size of remote attendees is unknown; small text may not be legible.
- The VP of finance has none of the background from the previous nine chapters.

Questions still unanswered

- Does the COO have a veto?
- Will the decision be made in the meeting, or pulled together afterwards — and by whom?

11.10

Worked Application: AXIS-R's Proposal

First, see what the meeting conditions change. A 45-minute meeting, a VP of finance seeing the project for the first time, and a file that will be forwarded — together these point to one conclusion: **this document has to stand on its own, and the "why" has to be finished within the first three pages.**

View list (five, each answering one question)

#	View	The question it answers
1	Main aisle at 10 m, including the booth opposite	With a video wall directly opposite, will we be noticed?
2	A demo in progress, with people behind the audience line	What does a demonstration actually look like?
3	Close-up of a hands-on station, with someone operating it	How does "you can do it yourself" actually happen?
4	Looking out from the conversation area	Will conversation be drowned out by the demo's sound?
5	A dimensioned plan + two elevations	Does everything fit? Do the heights comply?

Two things deliberately not done

- **No night scenes and no highly reflective floor.** The hall has no such lighting, and the floor is not in the quotation.
- **The neighbours are not erased.** The video wall opposite is one of this project's most important constraints (Release 05-A); deleting it from the image deletes the design's main argument.

Assumptions and open items (page 7 of the proposal, not small print on the last page)

Confirmed	Assumed	Pending
The 3 ft / 40 in rule (organizer, written)	The faceted backdrop needs rear bracing; allow 1 ft	Whether platform reinforcement needs a structural engineer's certification (day 37)
Rigging point load limit 500 lb per point	The rigged lightbox is close to the limit	The lightbox's actual weight (fabricator, day 36)
The verdict screen can be recorded as an offline backup	A 90-second version is enough to get through one failure	Who is responsible for producing that backup (not yet assigned)

Decision request (last page)

Decision	Who	Deadline	Consequence of not deciding
Which of the three VE options to adopt (they can be combined)	Marketing director + VP of finance	Day 41	The 5-week metalwork lead time eats the buffer
Whether to reshoot the product photographs	Marketing director	Day 41	The main vertical surface stays in its large- type version
Who produces the offline backup	Product / technical department	Day 43	No recovery if the demo fails

One thing this chapter exposed: putting "offline backup not yet assigned" into the proposal lets the client see a problem that has not been solved. **That is exactly where it belongs.** A gap seen in the proposal costs one discussion; a hidden gap costs the silence on the second day of the show when the demo stops.

11.11

Real Case: One Image, One Question

Neither of these is in **Book 3**; they have no written evidence record and appear only to show choices of view and approaches to presentation, with no performance claim.

Delta Electronics — NVIDIA GTC 2026

The same client as Book 3 Case 04 (Delta's 600 square feet at MODEX), at a completely different scale. What is worth learning here is **two views answering two different questions**: one from the aisle answers "will it be noticed"; one from the upper level answers "where do the meetings actually happen" — the second is something no main perspective view will ever give you.



from the aisle: the rigged brand form, illuminated panels, a band of screens, and only then the racks and touch tables. **This image can say what is read first from far away.**



meeting tables on the upper platform: the railing, planting, screens with cables still to be tidied, and the "maximum occupancy" notice on the railing. **This is what operations look like — not what an exterior render shows.**

Note: this project is not in Book 3 and has no written evidence record. It appears only to show a choice of views, and makes no performance claim.

EVA Air — CES 2026

A small booth at a show where the client is not the main act. The value of this pair is in the contrast: one is **an elevation**, the other is **what it looks like in its real context**.

Show only the first and the proposal oversells; add the second and the client sees the real scale. **The teaching point here is the proposal's trade-off:** if a project's objective was never to be "the biggest," then putting the real context into the proposal does not weaken it. **This project's actual objective is not in our records**, so that sentence is conditional — not a statement about what the client's objective was.



the elevation: six oval windows framing destinations, a livery stripe sweeping along the lower edge, identity hung above. This image says everything about what the design itself is.



the same booth, open, with people and neighbours: **this is the position the client will really be standing in.**

Note: this project is not in Book 3 and has no written evidence record. It appears only to show a trade-off in presentation, and makes no performance claim.
11.12

Common Mistakes

Mistake 1: Page one is a 3D render. Do this instead: page one is the objective, so the client judges by how well it is achieved, not by taste.

Mistake 2: Views chosen for the best-looking angle. Do this instead: write the list of questions first, then decide which images you need.

Mistake 3: Deleting the neighbours and surroundings from the images. Do this instead: the constraints are the argument; deleting them deletes your own reasons.

Mistake 4: Open items hidden in small print on the last page. Do this instead: give them their own page, in three columns, in the middle of the proposal.

Mistake 5: Ending with "Thank You." Do this instead: end with a decision request — what to decide, who decides, by when, and what happens if nobody does.

WB-11

A View Is Chosen by the Question It Answers.

Applies AEDM Book 1 RULE-03 Every Element Has a Job and RULE-06 Evidence, Not Adjectives.

An image that cannot answer a question does the same thing in a proposal as a wall with no job — it takes attention and pushes the judgement back to "do I like it." Every page of the proposal has to be able to answer "what is this page answering," and any image that gets the client to believe in something that is not on the quotation is not persuasion; it is a dispute written in advance.

Chapter Summary

A proposal's job is to let someone who was not in the room understand why this design exists. The order is fixed: objective, design problem, concept and key decisions, plan and circulation, views, material and graphic intent, buildability and budget, open items and decision request. Page one is not a 3D render, because someone who sees a render first only judges whether they like it. Views are chosen by question — will the aisle notice it, what do people do once inside, where is the product, where do meetings happen, does it fit — and four to six that each answer one question beat twelve that repeat one another. Embellishment has limits: everything in the image should be on the quotation, or be labelled. Under every image, write one sentence saying what question it answers, with the viewpoint position, scale and revision. Assumptions and open items get their own page, in three separate columns, and no unmeasured result is claimed. Finally, end with a decision request, including the consequence of not deciding.

Chapter Assignment

Client Presentation Deck

Using everything from Chapters 2 to 10 and **Project Information Release 11-A**, complete the following.

PART A Presentation Narrative

A one-page outline: each section's title, the question it answers, and its planned time. **The whole thing must be deliverable within 45 minutes.**

PART B Objective Summary

One page, written for someone encountering this project for the first time. It must include: why the company is exhibiting, the most important audience, the desired action, and the definition of success.

PART C Concept and Key Decisions

The concept proposition, the four principles, and **at least three key decisions**, each written as "we chose X rather than Y, because Z."

PART D Plan and Journey

A dimensioned plan + circulation diagram, marking the positions of the six stages.

PART E Required Render Views				
#	View	The question it answers	Viewpoint position on the plan	Includes surroundings / people?
1				
2				
3				
4				

PART F Material and Graphic Intent

One page: material sample direction, lighting intent, graphic hierarchy (four distances). Mark which items are intent and which are confirmed.

PART G Buildability and Budget Notes

One page: **the gap as an amount** (approved USD 80,000 / quoted USD 94,400 / gap USD 14,400), **the order of cost and basis for each** of the three VE options (Chapter 10: how much each saves waits for the itemized quotation), and the one you do not recommend, with the reason. **Do not claim in the deck that the gap has been closed.**

PART H Open Decisions and Next Steps			
Decision needed	Who decides	Deadline	Consequence of not deciding

Plus one page with the three-column table: confirmed / assumed / pending.

Evaluation Criteria

CRITERION	POINTS	WHAT A PASS LOOKS LIKE
Narrative consistent with the objective	20	Every section ties back to the objective; the first section can be read on its own
Completeness of the decisions explained	20	Key decisions all written as "chose X rather than Y, because Z"
Usefulness of the views	15	Every image answers a specific question and marks its viewpoint
Clarity of drawings and labelling	15	Title, scale, units and revision all present; captions say what each answers
Honesty about assumptions	10	The three-column table has its own page; no unmeasured result is claimed
Decision request and next steps	10	Decision, owner, deadline and consequence of not deciding are all written
Visual consistency	10	Template, typefaces, drawing numbers, scale and annotation colours standardized
Total	100	

Result: Pass (may proceed to Chapter 12) / Revise (named items need correcting) / Restart (the proposal opens with a 3D render, or the views cannot answer questions).

Instructor Checkpoint

Before Chapter 12, confirm:

A reviewer who took no part in this project can say, from reading this document alone, why this proposal exists. If it needs the presenter to fill in, the result is Revise.

Reflection

In no more than 150 words:

1. Which page of your proposal is **written for the VP of finance**?
2. Which image that you liked yourself did you cut? Why?
3. Which open item did you most want to hide? How do you intend to write it?

Submission Requirement

Submit a PDF (the full deck, including the outline page and the view list page), named:

AEDA_FBTB_C11_YourName_Deck.pdf

Until it passes review, do not move on to Chapter 12.

Chapter Source Note

- Every element must be able to state its job (applied in this chapter to every image): AEDM Book 1 **RULE-03**.
- Adjectives do not go on the wall, evidence does; do not claim unmeasured results: AEDM Book 1 **RULE-06**, and the way AEDM Book 3 v0.2 writes the **evidence limits** of each case.
- Output, outcome and impact stated separately: the consistent usage of AEDM Books 2 and 3.
- Delta Electronics (NVIDIA GTC 2026) and EVA Air (CES 2026) are **both not in Book 3**, and serve only as examples of views, with no performance claim; for Delta's MODEX case see Book 3 v0.2 **Case 04** (with its evidence limits).
- The meeting conditions, attendees and schedule all come from the fictional **Release 11-A**.

Chapter 12

Revision and Final Delivery

Revise without losing the objective, and record honestly what was learned

Interpret feedback, revise without losing the objective, assemble the final documents into one set, and record honestly what was learned.

CHAPTER DELIVERABLE

One Final Design Package and Project Reflection

This is the last document in the workbook. Once it passes, the work of all twelve chapters together makes up:

Learning Objective

By the end of this chapter you should be able to:

- ☐ **Classify** feedback as correction, requirement, preference, question, risk or scope change.
- ☐ **Identify** contradictions between pieces of feedback.
- ☐ Assess every piece of feedback against five tests: **objective, evidence, budget, schedule and buildability**.
- ☐ **Maintain** a decision log.
- ☐ Keep revisions coordinated **across every drawing and schedule**.
- ☐ **Record** risks that are still unresolved.
- ☐ **Distinguish** output, outcome and impact.
- ☐ Write a project reflection that **claims no unmeasured result**.

12.1

Introduction

After a presentation, feedback comes back as a string of sentences — usually mixed into one email, of uneven length, contradicting one another, and with nothing to say which is an instruction and which is only an impression.

Juniors have two common reactions, and both go wrong:

- **Do all of it.** The result is building contradictory requirements at the same time, producing something nobody asked for, while the objective quietly disappears along the way.
- **Do the ones you agree with.** The result is the same argument all over again at the next meeting, because nobody knows where the other feedback went.

There is only one professional order: **classify first, then judge, then revise, and finally record**. Do not touch a file before you have classified.

12.2

Six Kinds of Feedback

Kind	Definition	Example	Right response
Correction	A fact is wrong	"The model number is wrong"	Change it directly, and check whether other documents have the same error
Requirement	A condition that must be met	"We have to have a meeting room with a door that closes"	Into the space program; recalculate the area
Preference	Personal taste	"I don't like this grey"	Ask "what does it get in the way of," then decide
Question	Wants to know	"How tall is this wall?"	Answer it, and check why the document did not make it clear
Risk	Points out that something may go wrong	"Can we make this lead time?"	Into the risk register, with an owner assigned
Scope change	Adds something or changes a premise	"We've decided to bring one more machine"	Go back to Chapter 4 and recalculate , and report the effect on time and cost

Classification is itself a professional judgement. The commonest misjudgement is treating a **scope change** as a **preference** — "one more machine" sounds like a passing remark, but in fact it changes area, circulation, power, safety distance and the quotation.

The second commonest is treating a **preference** as a **requirement**. A preference is not something you cannot do, but it should be asked one question: **which decision that has already been agreed does this change get in the way of?** If the answer is "none," do it the way the client likes; if the answer is "it will make the verdict screen hard to read," the consequence has to be stated and the client left to decide again.

12.3

Name Contradictions; Do Not Average Them

A feedback email often contains two pieces of feedback in conflict, from different people:

"The entrance should feel more open." (Head of sales)
"We need more wall space for products." (Product manager)

Do not answer a contradiction with a compromise. Make the entrance half-open and add half the wall space, and what you get is a scheme that satisfies neither side and has a weaker objective.

The right move is: write the contradiction down, with the consequence of each approach, and let the client decide internally.

Conflict	Raised by	Consequence of option A	Consequence of option B	Our recommendation and reasoning
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Naming a conflict is not throwing the problem back. You still have to make a recommendation and give your reasoning; it is only that the decision about "whose view matters more" was never the designer's to make.

12.4

Five Tests

Every piece of feedback is measured by the same five questions:

Test	Question
Objective	Does doing it make the Primary Objective easier or harder to achieve?
Evidence	Is there evidence for what it asks the booth to claim? (Chapter 3)
Budget	Which cost driver does it touch? (Chapter 10)
Schedule	Does it touch the item with the longest lead time?
Buildability	Can it be made, delivered and installed?

The five tests are not equal, and they point in different directions. The objective is the only test that can still veto a piece of feedback when the other four all pass: feedback that is cheap, quick and easy to build but makes the Primary Objective harder to achieve has its consequences stated before it is carried out, and who decided is recorded. Buildability is a hard wall in the opposite direction: what cannot be made, delivered or installed will not happen however right the objective. The remaining three (evidence, budget, schedule) are costs, not vetoes — their job is to let the client know what a decision will cost.

12.5

The Decision Log

Every piece of feedback leaves one line in the log:

#	Feedback as written	Classification	Judgement against the five tests	Decision	Which documents it affects	Who decided	Date
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A revision that is not written into the log will be argued over again next time. This is not paperwork; it preserves "why it ended up like this" — three months later, when something goes wrong on site, being able to answer "who made this decision, and when" is where professional and unprofessional part ways.

Feedback that is **not acted on also gets a line**, with the reason written clearly. Rejected feedback with no record comes back next time in a stronger tone.

12.6

Revisions Have to Be Coordinated Across Documents

This is where final deliveries most easily lose marks: one drawing changed, and six other documents not.

Change	Always affects
Plan	Elevations, area schedule, circulation diagram, capacity, construction sequence
Area schedule	Plan, priorities, budget
Materials	Material schedule, budget, weight and transport, fire documentation
Lighting	Power, rigging weight, budget
Graphics	Graphic hierarchy, seam positions, output files, budget
AV	Power, network, content schedule, budget
Any of them	The presentation deck and the decision request

Run a consistency check before handing in: is the same dimension the same on the plan and the elevation? Does the area schedule's total agree with the plan? Is everything on the material schedule on the drawings? Do the items on the quotation match the number of elements on the drawings?

12.7

The Open-Risk Register

What still has no answer on the last day **has to be written down, not hidden.**

Unresolved risk	Current assumption	Who is responsible	Deadline	If the answer is "no"
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And the whole list has to be cleared from the beginning. From its first day to its last, a project raises dozens of unanswered questions and records dozens of known limitations; most of them are answered along the way by some new piece of information, a few are closed by a decision, and the rest are still open. What you do before handing in is not "think about what is still unresolved" but **close out every unanswered question and every known limitation one by one — two lists, the same standard:**

Disposition	What it means	What to write
Answered	Later information supplied an answer	Which piece of information, and which day
Closed by decision	No answer came, but a decision was made	Write the decision, and note that it was not confirmed in writing by the client
Still open	Neither an answer nor a decision	Into the final risk register, with an owner and a deadline; if the deadline has passed, mark it overdue and escalate
Does not affect this delivery	Genuinely needs no answer	Explain why; do not use it as an excuse to empty the list

A question that is not closed out does not go away; it just goes missing. A document that ends with three lines of risk, on a project that raised twenty-odd questions along the way, does not have few risks; it has a list with gaps — and what fell through the gaps will turn up on site by itself.

This chapter's review threshold is written firmly: **the final documents may not contain an undisclosed contradiction.** A contradiction that is written down is an acceptable state for a project to be in; a contradiction that is not written down is a delivery defect.

12.8

The Deliverable Index and File Discipline

A final delivery is not a folder; it is **an indexed set of documents.**

The index has to state at least: **what is included, what is not included, revision, date, format, and the purpose of each document.**

No.	Document	Revision	Date	Format	Purpose
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Four rules of file discipline:

1. **Put the revision in the file name;** never call anything `final_final`.
2. **One naming convention per project;** two kinds must not appear at handover.
3. **What goes out is PDF;** editable files are marked separately.
4. **Write down "what is not included."** For example: this set does not include construction drawings, structural calculations or AV content production.

12.9

Output, Outcome, Impact

This is the last distinction in the workbook, and the most important.

Level	Definition	How you can put it
Output	What you delivered	"A 600 square foot booth scheme, the approved functional layout, a full set of drawings and material / lighting / graphics / AV schedules" — every item can be found on the deliverable index
Outcome	What happened on site	"Sales reported better conversation quality than last year" — state the source, and say that it is qualitative
Impact	The long-term effect on the business	Unless there is a baseline and a method of measurement, do not claim it

The mistake juniors (and many seniors) make most is writing in a portfolio "this booth grew the client's sales by 30%." That sentence almost never has any basis: no baseline, no comparison, nothing separating the show from everything else.

AEDM Book 3 attaches an **evidence limit** to every case — stating what can be verified from documents, what is a qualitative report, and what was never measured. That is not modesty; it is **professional integrity**: a designer who exaggerates their results will also exaggerate their confidence about materials, lead times and safety.

Say what you can prove. That is what AEDM Book 1 RULE-06 Evidence, Not Adjectives looks like at the end of a project.

12.10

Project Information Release 12-A

Fiction marker: AXIS-R is a fictional teaching company and has no connection to any real business of the same or a similar name. This case exists for practice; the feedback below is practice data.

Source within the case: AXIS-R's post-presentation feedback email (compiled by the marketing director, with each department's original wording)

Date received: Project day 42

Facts supplied — the client's nine pieces of feedback (as written)

#	Feedback	Raised by
1	"The robot arm's model is written as AR-5 on page 12; it should be AR-7."	Product manager
2	"The entrance feels too closed; we'd like it more open."	Head of sales
3	"We need more wall space for product information."	Product manager
4	"The blue looks a bit dark — can it be brighter?"	Marketing director
5	"How big is the table in the conversation area?"	VP of finance
6	"Metalwork is five weeks and our purchasing process takes two — can we make it?"	Purchasing
7	"We've decided to bring an AR-3 compact unit to the show as well."	Product department
8	"For the VE options, go with A and C, not B for now."	Marketing director + VP of finance
9	"Our technical department will do the offline backup, but we can't confirm until people are back next week."	Product / technical department

Known limitations

- Item 7 came with no dimensions, weight or power data for the AR-3.

Questions still unanswered

- Is the AR-3 for display or for running? (This decides the safety distance.)
- Is item 9's "next week" in time for the graphics deadline?

12.11

Worked Application: AXIS-R's Nine Pieces of Feedback

Step one: classify, and do not touch the files.

#	Classification	Judgement
1	Correction	Change it directly; and check the other 5 documents for the same error
2	Preference / requirement (to be clarified)	Conflicts with item 3
3	Requirement	Conflicts with item 2
4	Preference	The brand colour may not be changed (Release 06-A); what can be adjusted is the lighting , not the colour reference
5	Question	Answer it directly; and check why the drawing did not mark it
6	Risk	Into the risk register, assigned to purchasing, deadline day 44
7	Scope change	Back to Chapter 4 to recalculate; the data is incomplete, so list the questions first
8	Requirement (decision)	Carry out A and C; update the budget and drawings
9	Risk	An owner but no date = still an open risk

Step two: name the contradiction (item 2 vs item 3)

Option	Consequence	Does the objective still hold?
A: a more open entrance, wall space unchanged	Approach becomes easier; product information stays on counters and tablets	Yes
B: more wall space, a narrower entrance	More product information; Notice and Approach both weaken	Weakens
C: entrance unchanged, product information moved to the side wall by the hands-on station	Each side gets part of what it wanted; the elevation has to be redrawn	Yes

Recommend C, with the reasoning written out: Chapter 2's Primary Objective is "complete a targeted demonstration," and Approach is the stage that comes before it; and at a distance of 2–4 m, product information never needed a whole wall in the first place (Chapter 9's graphic hierarchy). **The client makes the final decision; we supply only the consequences.**

Step three: item 4 — turning a preference into a question

"The blue looks a bit dark" is not a question about the colour reference. The brand guidelines forbid changing AXIS Blue (Release 06-A), and the blue in a presentation varies with the screen. There are three things that can be changed: **the light falling on that wall, the reflectance of the finish, and the contrast around it.** The reply should be written that way, not as "brand rules don't allow a change" — the second is a refusal; the first is a solution.

Step four: item 7 — the real cost of a scope change

One more AR-3 changes: the area schedule, the plan, power, safety distance (if it runs), the material schedule (possibly one more plinth), the quotation and the presentation deck. **Until the dimensions, weight and power data arrive, not one line gets drawn.** What goes back to the client is three questions and one sentence: "We will provide an impact assessment within 2 working days of receiving the data."

Step five: the decision log (excerpt)

#	Classification	Decision	Documents affected	Who decided	Date
1	Correction	Changed to AR-7 throughout	Deck p.12, material schedule, plan, AV schedule, quotation	Designer	Day 42
4	Preference	Colour reference not changed; wash light on that wall increased instead	Lighting schedule, power, budget	Marketing director (to be confirmed)	Day 43
7	Scope change	Not carried out for now; awaiting data	None (nothing drawn yet)	Client (awaiting reply)	—

Step six: clear the whole chain of questions

The list has two sources, not one. Besides its *Questions still unanswered*, every Release also has *Known limitations* — the things "we know we don't know," which turn into problems on site just the same. From 03-A to 12-A there are **45 items** in all: **23 unanswered questions + 22 known limitations**. Close them out one by one:

① Answered by later information (13 items, merged into 10 rows — three rows each close two items from the same source)

Item	Source	Answered by
Whether the auto parts plant's data can be shown as specific numbers	03-A question	06-A: the client has agreed to publish
Whether demos run as timed sessions or continuously	04-A question	05-A: timed sessions, one per hour
Weight limit of the rigged structure / rigging point load limit	07-A, 09-A questions	10-A: 500 lb per point
Whether the verdict screen can be recorded as an offline backup	09-A question	10-A: technically possible
Safety distance between people and a running robot	04-A, 05-A limitations	06-A: 1.5 ft to the side, audience line set back a further 3 ft
The organizer's rigging rules	04-A, 05-A limitations	07-A approval + 10-A load limit

(continued)

Item	Source	Answered by
Supplier and construction quotations	06-A limitation	10-A: all quotations received (18% over)
Move-in times and freight elevator limits	07-A limitation	10-A: two days, 12:00 on day two, door width 7 ft
Network quality in the hall	08-A limitation	09-A: Wi-Fi bandwidth not guaranteed, wired charged separately
Millwork supplier's capacity and lead time	09-A limitation	10-A: 4 weeks

② Closed by client approval (1 item)

Item	Source	Basis of approval
Whether the 16 ft LED wall is essential or "the bigger the better"	04-A question	06-A: the client agreed to Scheme A, and to reducing the LED wall to 10 ft

③ Closed by design decision, with no written confirmation from the client (1 item)
— the category most likely to go wrong

Item	Source	The decision we made
The VP of finance has none of the background from the previous nine chapters	11-A limitation	The proposal's first section written for them to read on its own (Chapter 11). Nobody went back to confirm they understood it

Fire access and minimum clear width had been placed in the "answered by later information" category — it has been taken out of it. What 06-A gave was a **height limit for fixed structures in a band around the perimeter**, plus the line "emergency routes may not be obstructed." That is not a **figure for clear width**. Chapter 7 still marks its 6 ft main aisle as "assumption, pending the venue's confirmation," yet the final register had written it up as closed — **honest earlier in the same document, dishonest later**. The part that was answered (the band height limit, no obstruction) stays in the narrative of that category; **the unanswered clear-width figure goes back to the open register below**.

Whether the six-person meeting space needs to be enclosed and sound-isolated had also been in this category — it has been taken out. We can decide our own approach (a semi-open conversation area), but **we cannot close the client's privacy requirement on the client's behalf**: 06-A states plainly that what was approved was the position and size of the zones, not this item. The design decision stays in the decision log, and **the requirement itself goes back to the open register below**. This is the overreach that is easiest to commit in this chapter, and the most expensive — writing "we decided to do it this way" as "this has been resolved."

④ **Permanent evidence limits: not pursued, but written into the reflection (2 items)**

Item	Source	Disposition
"Faster implementation" and "easier to learn" have no testing or third-party data	03-A limitation	Already entered in Chapter 3's evidence table as Not tested ; may not enter a claim position
No customer has yet gone live on AXIS Studio 3.0	03-A limitation	As above; the live demonstration is the only usable form of evidence

⑤ **Still open: all of it into the register (the remaining 28 items, merged into 21 rows)**

Today is **project day 42**. Look at the **deadline column first** — **four items are already overdue**, and the first thing to do with an overdue item is admit it is overdue, not quietly move the date back.

Unresolved risk (source)	Current assumption	Owner • deadline	If the answer is "no"
Whether the six-person conversation area must be enclosed / sound-isolated (04-A question)	Semi-open + the hands-on stations as a buffer (our working assumption , not approved by the client)	Client's marketing director Day 44	Has to become an enclosed, sound-isolated room → back to Chapter 4 to recalculate the area, and Chapter 7 to redraw the plan
Whether platform reinforcement needs a structural engineer's certification (10-A question / limitation)	Yes; already included in the budget	Venue + engineer ● Originally day 37, overdue → proposed recovery day 44 (not approved)	Budget and duration increase
Structural calculation and ballast for the faceted backdrop (10-A limitation (curved version cancelled by VE))	Needs rear bracing; allow 1 ft	Fabricator + engineer ● Originally day 37, overdue → proposed recovery day 44 (not approved)	The faceted scheme does not stand; VE option A is void

(continued)

Unresolved risk (source)	Current assumption	Owner • deadline	If the answer is "no"
Whether night labour can be used for graphics installation (10-A question)	No	Organizer ● Originally day 35, overdue → proposed recovery day 43 (not approved)	Graphics can only be scheduled for daytime on day two
Whether the COO has a veto; who approves, and in the meeting or afterwards (11-A question)	No veto	Client contact ● Originally day 41, overdue → proposed recovery day 43 (not approved)	The decision schedule has to be rearranged
Written rule on the minimum clear width for fire access (05-A limitation)	Chapter 7's 6 ft main aisle (our working assumption; 06-A gave only the perimeter band height limit and "may not be obstructed," not a clear width)	Venue fire authority / organizer Day 44	If the clear width must exceed 6 ft → back to Chapter 4 to recalculate the area, and Chapter 7 to redraw the plan; if there are further zoning rules, the demo audience line has to be repositioned
Metalwork lead time vs the purchasing process (12-A)	Purchase requisition completed before day 44	Client purchasing Day 44	Switch to the aluminium system version and quote
Whether the AR-3 is added, displayed or running, and its dimensions, weight and power (12-A question / limitation)	Not added	Client product department Day 45	Back to Chapter 4 to recalculate area and safety distance
Who produces the offline backup, and whether "next week" meets the graphics deadline (09-A / 12-A)	To be confirmed next week	Client technical department Day 47	No recovery if the demonstration fails (Chapter 8)
Whether amplification / a microphone will be used (05-A only answered the limit, not whether it would be used) (05-A / 08-A questions)	Not used	Client + organizer Day 44	Volume and seating distances have to be recalculated
Whether 65 dB is a continuous or a peak value (06-A question)	Continuous (the stricter reading)	Organizer Day 44	Affects the amplification and demo volume design
Whether the competitor opposite has any limit on AV volume (05-A question)	No limit (worst case)	Organizer Day 44	If there is a limit, our sound design can be relaxed
Whether the 40 in limit applies to movable displays (06-A question)	It applies (the stricter reading)	Organizer Day 44	If it does not, the aisle side can be used further

(continued)

Unresolved risk (source)	Current assumption	Owner • deadline	If the answer is "no"
Whether the corner allows an entrance on both sides (05-A question)	Allowed	Organizer Day 44	The plan has to be redrawn (Chapter 7)
Whether the floor level difference calls for a raised platform (07-A question)	No	Venue Day 44	A platform over the whole area, changing both cost and move-in time
Whether the column may be wrapped, or have things attached to it (07-A limitation)	May be wrapped	Venue Day 44	Chapter 7's decision to wrap the column as storage does not stand
Whether all 12 shipping cases have to stay inside the booth (04-A limitation)	Some can go to storage	Organizer Day 44	Not enough storage area; back to Chapter 4
Whether the organizer accepts the fabric's flame-retardancy certificate format (09-A limitation)	Accepted	Supplier + organizer Day 43	The conversation area back wall cannot use this fabric; sound absorption needs another method (back to Chapter 9)
The handoff movements have not been rehearsed (08-A limitation)	Rehearsed the day before opening	Client's on-site manager Move-in day two	The first time the handoff happens is on the show floor
AXIS Vision test conditions / AXIS Studio 3.0 network and hardware (03-A / 06-A)	No publishable data; a wired network is needed	Client product / technical department Day 44	The hands-on stations may not work; the evidence table has to be reassessed
Competitor information not verified for this year; remote attendees' screen sizes unknown (03-A / 11-A limitations)	Last year's information used; assumed legible	Design team Disclosed at handover	Affects Chapter 3's judgements and the legibility of the deck

Notice the length of this table. Three lines look professional and twenty-odd rows look unfinished — but **this length is the true one.**

A risk register that ends with only three lines usually does not have few risks; it has a list with gaps, and what fell through does not disappear — it turns up on site by itself.

There are two more things this table teaches:

1. **Known limitations matter as much as unanswered questions.** Of this project's 22 limitations, 8 were answered along the way, but **whether the column can be wrapped, whether the shipping cases will fit, and whether the flame-retardancy certificate format will be accepted** — those three survived all the way to handover, and each one would overturn a decision already made. Clear the questions and not the limitations, and you miss them.
2. **An overdue deadline is not a paperwork problem.** Four items are already past their deadline on day 42, which means nobody has been chasing them since days 35–41. **The moment you find something overdue, what you do is escalate, not change the date.** Every "proposed recovery" date in the table is marked **not approved** — until the other side replies, a new date is only our proposal, not a commitment; writing it as a fixed date is using layout to cover up the overdue item.

Step seven: how to write the project reflection

- ✓ Output: "Delivered a 600 square foot booth scheme, with plan, elevations and material / lighting / graphics / AV schedules; three justified VE options, of which the client adopted two." **Write only the quantities that can be counted on the deliverable index** — a number like "18 drawings" should not be written without an index.
- ✓ Outcome (qualitative, source stated): "The client's feedback considered the demonstration circulation clearer than the previous year's." — the source is the client's verbal feedback, not a measurement.
- ✗ Impact: **not written.** No baseline and no method of measurement means no claim.

12.12

Real Case: One Client, Three Years, Three Approaches

This group is **not in Book 3** and has no written evidence record; it appears only to show how a strategy evolved, and **does not claim that any year's approach was more effective than another's** — because no year was ever measured.

AUO — CES 2024 / 2025 / 2026

The same client three years in a row, with the hero handled differently every year: **a car on open floor, a car in an illuminated room, and then no car at all.**

This is exactly what this chapter teaches: **revision happens across years, and each time the reasons deserve to be recorded.** It is also a demonstration of honesty — we can see that the **approach** changed, and we cannot see the **effect**, because nobody measured the three years the same way. Any claim that "the third year was better" is making up a story without a baseline.



2024: a concept car parked on open floor, backed by a whole curved LED wall playing street scenes, with that year's CES Innovation Award badges on the wall. **The hero set off by content.**



2025: the same kind of hero, moved into a room — a timber floor, a deep blue ceiling with a light slot, a whole wall of underwater imagery behind it, and on the wall the line "Your Journey, Our Vision." **The hero wrapped inside a designed space.**



2026: **the car is gone.** A white room, product plinths you can touch, transparent displays, blue armchairs and ottomans — the booth changes from "look at a car" to "sit down and look at the components."

Note: none of the three years is in Book 3, and there is no written evidence record; this section compares changes in approach, not effectiveness — there is no common baseline across the three years.

12.13

Common Mistakes

Mistake 1: Opening the files as soon as feedback arrives.

Do this instead: classify into the six kinds first, then judge, and only then touch the drawings.

Mistake 2: Compromising a contradiction away.

Do this instead: name the conflict, list the two consequences, make a recommendation, and let the client decide.

Mistake 3: Treating a scope change as a small thing.

Do this instead: go back to the space program and recalculate, and report the effect on time and cost.

Mistake 4: Changing only the drawing that was pointed out.

Do this instead: coordinate across documents, and run a consistency check before handing in.

Mistake 5: Claiming unmeasured results in the reflection.

Do this instead: write output as it is, give outcomes a source and mark them qualitative, and make no claim about impact.

WB - 12

Claim What You Delivered, Not What You Hope It Did.

Applies AEDM Book 1 RULE-06 Evidence, Not Adjectives, and extends the way AEDM Book 3 v0.2 writes each case's evidence limits.

At the end of a project you have two kinds of thing in hand: **output that can be verified**, and **the effect you hope it had**. Writing the second as the first is the most widespread dishonesty in this trade — and it turns back on you, because a designer who exaggerates results will have their word on lead times, budget and safety discounted too. Say what you can prove; for anything that was not measured, write "not measured."

Chapter Summary

When feedback comes back, classify before you act: correction, requirement, preference, question, risk and scope change each have a different right response, and the one most often misjudged is treating a scope change as a passing remark. Contradictions are to be named, not compromised — a compromise produces something nobody asked for. Every piece of feedback is measured against five tests — objective, evidence, budget, schedule and buildability: the objective can veto feedback that passes the other four, buildability is a hard wall in the opposite direction, and the remaining three are costs. Every decision goes into the log, including the ones not acted on, because a decision with no record will be argued over again. Revisions have to be coordinated across documents: change the plan and you check the elevations, area schedule, materials, lighting, graphics, AV and budget. The final delivery is an indexed set of documents that states what it includes and what it does not; unresolved risks have to be written down, and only an undisclosed contradiction is a defect. Finally, keep output, outcome and impact apart in the reflection: say what you can prove.

Chapter Assignment

Final Design Package and Project Reflection

Using everything from Chapters 1 to 11 and **Project Information Release 12-A**, complete the following.

PART A

Feedback Classification Log

#	Feedback as written	Classification	Raised by	Conflicts with other feedback?

List all nine; not one may be skipped.

PART B

Revision Decision Log

#	Judgement against the five tests	Decision (do / don't / awaiting data)	Reasoning	Which documents it affects	Who decided	Date

PART C

Coordinated Final Drawings

The updated plan and elevations, with a one-page consistency checklist:

Check	Pass?	If not, what is done
Plan and elevation dimensions agree		
Area schedule total agrees with the plan		
Every item on the material schedule is on the drawings		
Quotation items match the number of elements on the drawings		
Drawing numbers, revisions and dates all present		

PART D

Final Schedules and Presentation

The updated material / lighting / graphics / AV schedules, and **the updated presentation deck** (including the adopted VE options and the new decision request).

PART E

Open-Risk Register

First clear the whole chain of questions. Go back through every *Questions still unanswered* and every *Known limitations* in Releases 03-A to 12-A, marking a disposition for each; **not one may be skipped**. Known limitations turn into problems on site just as unanswered questions do.

Question	Source Release	Disposition (answered / closed by decision / still open / does not affect delivery)	Basis

Then expand every "still open" item into the register:

Unresolved risk	Source	Current assumption	Owner	Deadline	If the answer is "no"

For items "closed by decision," mark separately whether the client has confirmed them in writing. A decision that has not been confirmed is a decision you made on the client's behalf.

PART F

Deliverable Index

No.	Document	Revision	Date	Format	Purpose
-----	----------	----------	------	--------	---------

And state explicitly what this set of documents does not include.

PART G Project Reflection

No more than 600 words, in three required sections:

1. **Output** — what you delivered (verifiable).
 2. **Outcome** — what was reported on site or by the client (source stated, marked as qualitative).
 3. **What you learned** — which decision you would change, and why.
- No unmeasured impact may be claimed.**

Evaluation Criteria

CRITERION	POINTS	WHAT A PASS LOOKS LIKE
Quality of feedback analysis	20	All nine correctly classified; conflicts named
Consistency of the revisions	20	Updated across documents; the consistency checklist passes
Protection of the objective	15	The objective not weakened to accommodate feedback; exceptions recorded
Completeness of the final documents	15	The index is complete; what is included and what is not are both stated
Disclosure of risk	10	Every unanswered question and every known limitation is closed out; open items have owners and deadlines, and overdue items are marked
Evidence discipline in the reflection	10	Output, outcome and impact kept apart; no unmeasured claims
Professionalism of the files	10	Naming, revisions and formats consistent
Total	100	

Result: Pass (completes this workbook) / Revise (named items need correcting) / Restart (the documents contradict one another without disclosure, or the reflection claims unmeasured results).

Instructor Checkpoint

Before completing this workbook, confirm:

The final documents are coordinated with one another, indexed, and contain no undisclosed contradiction. If any document conflicts with another without it being written down, the result is Revise.

And: every unanswered question and every known limitation in Releases 03-A to 12-A must be traceable to where it ended up in the delivered documents, and the deadline column may contain no item that is overdue but not escalated. If any item has vanished without trace, the result is Revise.

Reflection

In no more than 150 words:

1. Which piece of feedback did you very nearly act on? Why didn't you in the end?
2. Would the reasons for each "**not acted on**" in your log hold up if you were questioned about them three months from now?
3. If you could hand only one document to the person taking over, which would you keep?

Submission Requirement

Submit the complete document set (PDF), with the index page first, named:

AEDA_FBTB_C12_YourName_FinalPackage.pdf

Once all twelve chapters have passed, this complete set of documents is:

AXIS-R Exhibition Design Project — From Brief to Booth

Chapter Source Note

- Adjectives do not go on the wall, evidence does: AEDM Book 1 **RULE-06** (the source of this chapter's WB-12).
- What is uncertain belongs on the question list: AEDM Book 1 **RULE-04** (applied to the open-risk register).
- The layering of output, outcome and impact, and the practice of attaching evidence limits to each case: **AEDM Book 3 v0.2**.
- The definition of a qualified lead, and "claim no unmeasured result": AEDM Book 2 Chapter 5.
- AUO (CES 2024 / 2025 / 2026) is **not in Book 3** and has no written evidence record; the three-year comparison describes only **differences in approach** and claims no year's effectiveness.
- All AXIS-R feedback in this chapter comes from the fictional **Release 12-A**.

Closing

After Twelve Documents What the Twelve Chapters Were For

From the first page to the last, this workbook does one thing: **it makes every design decision able to point to its source.** The objective points back to the Brief, the area to the space program, the dimensions to the manufacturer's written reply, the claims to evidence that can be checked, and whatever is still uncertain to a list with an owner and a deadline.

So the twelve chapters are not twelve topics; they are **one chain of traceability.** Every line you drew in Chapter 7 should be able to answer "where does this dimension come from?"; every image you put into the Chapter 11 deck should be able to answer "what question is this page answering?" If they can, the project holds up under questioning. If they cannot, the good looks will not last.

The table in the last chapter is the one worth remembering: over the whole exercise, **45 unanswered questions and known limitations** were raised, and 28 were still open at delivery.

That is not poor work; that is what a real project looks like — the only difference is whether they were written down.

If you have worked this book from the first page to the last, you now hold a complete set of documents that agree with one another. **That set of documents is the deliverable — not the perspective rendering.**

※ AXIS-R, the practice project in this workbook, is a fictional teaching company and is unrelated to any real business with the same or a similar name. All numbers, regulations, quotations and feedback in the Releases are practice data and may not be used as a basis for quotation, regulatory compliance or safety.

Partners & Projects

Acknowledgements

Every photograph in this workbook comes from a real AMG project — 24 projects in all. Eleven of them were delivered with a partner, and **this page exists because their work is in these pages too.**

#	Partner	Projects
4	Creative Vision Ltd.	Animate Expo 2025 · JAXA — 41st Space Symposium 2026 · Japan Tech — CES 2026 Eureka Park · Sumitomo Metal Mining — SXSW 2025
2	Barcode Creation Co., Ltd	AUO Corporation — CES 2024 · AUO Corporation — CES 2025
1	Youngs Communication and Marketing Inc.	Alibaba — CoCreate 2025
1	Clandestine Events & Experiences	Gainbridge — F1 Miami Grand Prix (build + construction)
1	E2i Concepts Sdn Bhd	CAE — WATS
1	Namename Corp	Gigabyte — CES 2023
1	Niche Exhibit International Inc.	Aramco — F1 US Grand Prix 2021, Paddock Club

Every other project photographed here was delivered by AMG directly. **Our thanks to all of the clients who let their booths appear in a teaching book** — their photographs are here because they agreed to let other people learn from their projects.

※ Cases included in AEDM Book 3 carry that case's evidence limits in this book; projects not included are shown only as examples of a space or a method, and make no performance claim.

About the Author



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Calvin Yee is the founder of Artsolute Media Group (AMG), an exhibition and booth design company serving trade shows across the United States and Asia. He holds a Master's degree in Exhibition Design from California State University, Fullerton, and created the AEDM method to train the next generation of exhibition designers — teaching them how to think, not merely what to draw.

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No rendering can rescue a failed objective.



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