

# Chapter 65 - Lessons For Your Own IE Ports

---

This part has used one large port as a case study. The point is not to copy its tree. The point is to learn how to make Intuition Engine the target machine.

## 65.1 Choose The Main CPU Deliberately

---

Pick the CPU that fits the programme's control flow, data layout, and available code. In the case study, M68K is the game CPU. That does not make M68K the right answer for every port.

IE64 is the natural choice for new native systems code. M68K may suit portable C with 68020 and FPU assumptions. 6502 and Z80 are best when the job is small, authentic, or tightly bound to their apertures. x86 is available when its instruction model is the useful contract.

## 65.2 Keep Contracts Small

---

A good platform contract says what the game needs, not how the machine does it. Time, input, save, asset, graphics, and audio contracts are enough to keep the game core clean.

Avoid contracts that expose every register. That only moves the device manual into the wrong file.

## 65.3 Use IE Hardware At The Right Level

---

Use Voodoo for triangles. Use VideoChip for 2D, blits, copper, and Mode 7. Use the audio engines for voices and mixing. Use the file device for records and packed data. Use coprocessors for coarse shared-memory work.

The port should look like it belongs to IE when it reaches the machine boundary.

## 65.4 Measure Before Rewriting

---

Before replacing a subsystem, count what it costs. A slow frame might be triangle submission, texture streaming, audio writes, file activity, matrix work, or something else entirely.

Use counters and frame groups to decide. Then change one contract at a time and measure again.

## 65.5 Keep The Legal Boundary Clean

---

Do not mix generated commercial data into the guide, the source contract, or the reader path. A clean port can still be a serious IE case study when it documents architecture, protocol, and engineering decisions rather than copied assets.

## 65.6 The General IE Lesson

---

Porting to IE is not preservation for its own sake. It is translation. Keep the behaviour that matters, choose the IE devices that express it well, measure the result, and leave the next programmer a clear machine contract.