Low-Level Technical Spec Example

The software engineering team (Randy, Jenny, Eswar, Jim, and Marietta) should read this spec, which details how we will implement the 4500.

Synopsis

As you already know, the 4500 adds virtual reality (VR) features to the 3500. To implement VR, the 4500 adds a laptop (minus keyboard and screen) that wirelessly transmits images to a pair of VR goggles. As a customer climbs, the images change with their virtual height. Our team must develop all the software to enable this marvelous act of digital deception.

This is our first VR product, but if we get it right, it won't be our last. If we can sell enough of these, the company will let us do even cooler products next year.

Hardware

The hardware implementation is much more complex than anything we've done in the past. Instead of using PROMs and a tiny bit of RAM, we're now working with all the hardware power of a laptop. All hardware components fit inside a standard laptop (minus keyboard and monitor), which will be mounted at the top of the Y-bar. Table 14-1 lists the laptop's components.

TABLE 14-1   Laptop Components

Component	Spec
CPU	Motonel 5 Series at 3.2 GHz
RAM	256 MB SIMMS running at 400 MHz
Disk drive	10 GB
DVD player	A 12X read-only player
Networking	Ethernet board + Goggleplex wireless card (signal is robust for ~2.5 m)

We'll be fighting over who gets to use the Goggleplex Omega 20 virtual reality goggles. The actual resolution of the Omega 20 goggles is 1024 × 800, but because the images are less than an inch away from the customer's eyes, the effective resolution is ludicrously good. We've already taken delivery of two units that our team can use for development and QA.

Software Requirements

Our group will develop the software for the 4500. However, we will buy the Empire State Building images from another firm. Note that we will rely on our usual source-code control