# Specialist Profile

Competencies, technologies, and development guidelines for NDPro specialists.

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## What a specialist needs to master.

The requirements in productive use, from code to server.

### Role

Reliably controls real media, AV and building technology through software: not apps or prototypes, but productive systems in continuous operation, mainly server-side with Node.js and often against incomplete interfaces.

### Software

Highly confident in Node.js and JavaScript/TypeScript: asynchronous programming, event-driven architectures (Pub/Sub, actions, callbacks), long-running processes. Read, understand and extend existing NDPro modules.

### Integration and networking

Connect external systems via REST APIs, WebSockets or proprietary protocols in a stable, traceable way. Confident with IP addressing, subnets, VLANs, routing, ports and firewalls. AV systems are almost always networked.

### Frontend and control logic

HTML5 interfaces with HTML, CSS (Bootstrap-oriented) and EJS templates, including includes and state-based UI logic. Clear, robust touch interfaces coupled directly to system states, no SPA frameworks.

### Linux and system operation

Debian Linux, SSH and web servers: processes, services, logs, permissions, environment variables; structured troubleshooting at system and network level.

### Working approach

Pragmatic and responsible: clean solutions, understandable code. The software controls real installations, errors have tangible consequences.

## Key skills and sources.

The following skills are required for working with NDPro in productive environments.

| SKILL | SOURCES |
|---|---|
| **Node.js / TypeScript** | nodejs.org/docs/latest/api · typescriptlang.org/docs · developer.mozilla.org |
| **API integration** | swagger.io/resources/open-api · developer.mozilla.org · github.com |
| **Networking** | cloudflare.com/learning · cisco.com/c/en/us/support/docs.html · ipaddressguide.com |
| **Linux / Debian** | debian.org/doc · openssh.com/manual.html · httpd.apache.org/docs |
| **HTML5 / CSS / EJS** | developer.mozilla.org · getbootstrap.com/docs · ejs.co |
| **AV and media technology** | avixa.org/training · audinate.com/learning · avnetwork.com |