

1. PROJECT MIC DROP TEXT TO SPEECH IN MICRO-LEARNING WITH THE DITA LT SPECIALIZATION

You probably know Nokia for their phones. However, Nokia is primarily a networking company. In fact, Nokia is in a top competitor in the communications service provider market, and is a leader in professional services to support ongoing transformation. Nokia is also driving new areas of software, applications, and analytics.

Nokia employs over 100,000 people across the world. Within the organization, NokiaEDU serves as a global training and learning partner, with a workforce of about 250 people in 16 countries. NokiaEDU specializes in a number of communication network training areas, including product and solutions training, general technology training, operations and maintenance training, and network planning and optimization training.

NokiaEDU's content development team creates training modules for instructor-led and on-demand training in DITA. The original driver for migrating DITA was to ensure that the team could dynamically deliver training content to PowerPoint presentations and PDF student/trainer guides.

DITA to Reveal.js HTML5 Presentation Framework

In recent years, there has been a steadily increasing demand for short, on-demand learning solutions, while instructor-led training has been declining. While PowerPoint functions well in instructor led training scenarios, it has some severe limitations in how content can be presented and accessed on-demand.

Nokia decided to move to Reveal.js, an HTML5 alternative to PowerPoint. Reveal.js provides a familiar slide layout, while avoiding PowerPoint's complexity and verbose feature set. Slide content is presented in a web browser and can be accessed from any device. Most importantly, Reveal.js allows the user to progress slides both horizontally and vertically.

With the assistance of Dakota, Nokia was able to take all of their existing DITA content that was being published to PowerPoint, and translate that content to Reveal.js in HTML5. Dakota developed the XSL transformation that uses attributes in oXygen to determine which elements are rendered to a slide and how they are arranged.

Nokia's existing DITA content was restructured into a hierarchy defined by course, module, objective, and individual topics. Every learning object within a module can be rendered as an HTML5 micro-learning object. This content hierarchy also maximized the potential for content reuse, as training content developers can easily add or remove modules and objectives to be reused in other contexts. The end-users of Nokia training material are able to easily access the topics that pertain to their specific environment without having to sift through entire PowerPoint presentations to find the topics they are looking for- and they can do it on-demand with any device from anywhere.

Speak to Me: DITA to Text-to-Speech

In the DITA content, narration text for each slide is captured in a special note that has the same attribute value as the slide it is intended for. The narration text is converted to MP3 files by Amazon Polly Web Service. For especially tricky words and terms, lexicon files uploaded to AWS control pronunciation. The tool provides users with a life-like learning experience that they might not otherwise get while accessing training courses on-demand.

