

OpenText™ Automated Output Accessibility, Large Print Module

Transform high-volume documents into large print format
for easier reading at all levels of vision

We live in a digital, information-driven era. Customers and constituents are increasingly engaging with content on a self-service basis, and expect on-demand, complete access to their information. Meanwhile, with the population aging, more people are reporting vision difficulties. As a result, the demand for documents in accessible formats has been steadily going up. Transform documents from different source formats to large print format, quickly and affordably, through the high-performance OpenText content transformation engine.

The Need for Large Print Documents

People with low vision (defined as poorer than 20/70 vision, which can't be corrected with glasses¹) have different needs from those who are totally blind. Documents in large print formats can be helpful for low-vision conditions, such as age-related macular degeneration, cataract, glaucoma, diabetic retinopathy, and any other condition where reading print is difficult, especially when central vision is affected. As the Baby Boom generation ages, the low-vision population is projected to increase.

Some facts and figures about visual impairment in the United States:

- By 2029, 20 percent of the US population will be age 65 and older.²
- There are at least three million Americans with low-vision-related impairments, expected to rise to more than five million by 2030 and almost nine million by 2050.³
- About 14 million Americans over age 12 have vision measured at 20/50 or worse.⁴

Meanwhile, users want more self-service, yet secure, access to system-generated documents, such as statements, invoices, bills, and explanation of benefits statements. Partly in response to this demand, many governments, including the U.S. and Canada, are strengthening legal requirements to make websites and documents more accessible to blind, low-vision, and other consumers with other disabilities. All of these trends are fueling demand for practical, cost-effective ways to make documents more accessible to low-vision audiences.

TECHNICAL BENEFITS

- *Cost-effectively create and deploy projects through built-in project flow components and seamless integration with existing systems and processes, such as OpenText Enterprise Content Management and archives, Web Presentation, Output Management, and others.*
- *Quickly and easily define the large print document layout with a rich graphical user interface using automatic detection algorithms for page layout features, including table row and column elements.*
- *Take advantage of seamless integration with the OpenText™ Automated Output Accessibility solution to automatically provide large print and accessible PDF/UA versions of content with a single pass of the input.*
- *Operate in multiple languages with full double-byte character support and field-level language specification.*
- *Optimize the reading order, typefaces, and font sizes of the document content with customizable headings and alternate text for images.*
- *Store source documents in PDF or print stream format and transform them to a large print format when required within milliseconds through APIs including SOAP, REST, and JSAPI.*

Current Options for Large Print Transformation

Creating large print documents that meet the needs of low-vision readers involves thoughtful design, not just increasing the type size. Expanding words and graphics within a fixed page size requires laying them out differently – for example, shortening line lengths so text isn't cut off at the margins and making sure that charts and images aren't split across pages. Other large print choices that help readability include streamlined (often sans-serif) typefaces, high-contrast color combinations, simpler layouts, and high-resolution images that don't degrade when blown up.

There are several approaches to making high volumes of official documents accessible in large print. Unfortunately, none meet all the criteria of readability, timeliness, security, scalability, and cost effectiveness.

The first is to manually enlarge the page. This approach is easy, but won't scale across thousands or millions of paper documents, PDFs, or web pages. More importantly, simple enlarging hurts readability because it doesn't include the design changes discussed above. And manually enlarged documents have no guarantee of remaining secure and private.

The second approach is to hire a specialized third party (or create an in-house department) to redesign documents into large print format. This approach yields readable, user-friendly documents, but is expensive and time-consuming.

Organizations need a way to efficiently generate large print output in a timely fashion.

OpenText Automated Output Accessibility Solution, Large Print Module

The OpenText approach to creating properly designed large print documents at high scale uses the unique, patented OpenText Automated Output Accessibility technology with advanced auto-detection capabilities.

The OpenText Automated Output Accessibility Large Print Module integrates smoothly with an organization's existing enterprise content management (ECM) and electronic document presentment infrastructure to capture high-volume transactional documents in the form of print streams and PDFs, then transform them into accessible, user-friendly large print documents for digital distribution.

The Automated Output Accessibility Large Print Module is ideal for financial institutions, healthcare providers, utilities, governments, and other organizations that routinely produce high-volume documents, such as invoices, monthly banking, credit card, or investment statements. It reduces dependence on costly, time-consuming manual conversion services and enables organizations to address the needs of an underserved and steadily increasing segment of the population – people with low vision.

BUSINESS BENEFITS

- Lower the cost of generating accessible content
- Reduce the time to market
- Comply with accessibility laws, such as Section 508, the Americans with Disabilities Act, and the Accessibility for Ontarians with Disabilities Act
- Reduce the risk of expensive lawsuits
- Increase engagement and self-service access for low-vision users
- Generate greater customer satisfaction and loyalty among a large and growing segment of the population
- Demonstrate social responsibility and competitive advantage over organizations slower to serve the low-vision population

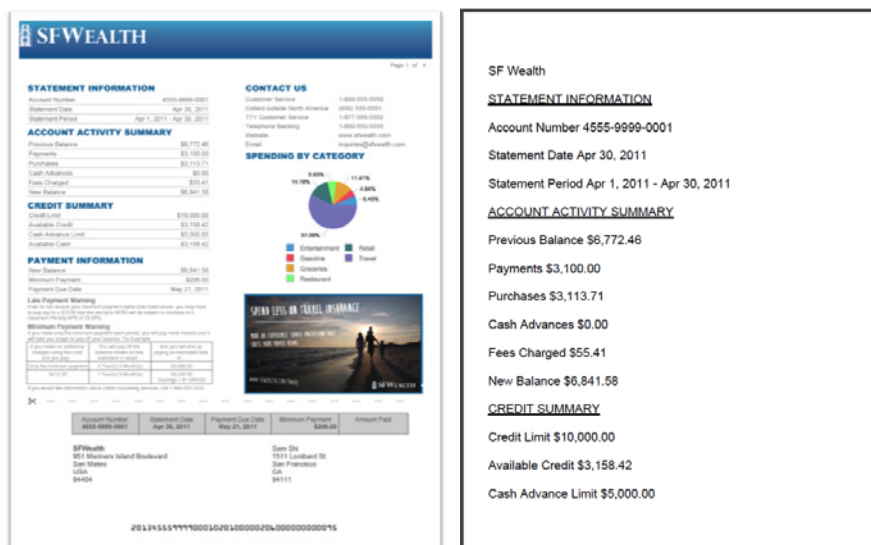


FIGURE 1

A typical bank statement (left) is easier for low-vision customers to read after conversion (right) with the OpenText Automated Output Accessibility Solution Large Print Module.

How it Works

Transforming existing PDFs and print streams into accessible, large print documents with Automated Output Accessibility, Large Print Module works like this:

- Create a project within the OpenText™ Output Transformation Designer
- Define a parser according to the input document format (e.g. PDF, AFP [Advanced Function Presentation], or PCL [Printer Command Language]) and a generator according to the target output format desired (e.g. PDF, Accessible PDF [PDF/US], AFP, or PCL).
- Define identification, which will automatically identify the vast majority of the document’s content. Certain complex constructs (i.e. very complicated tables) within the document may have to be manually identified if not fully handled by the automatic tagging.
 - Identify items such as headings, tables (including headers, rows, and columns), lists, images, and alternate text for images.
- Define the format of the large print document. Definable parameters include:
 - **Layout:** Page orientation, size, margins, and line spacing
 - **Fonts:** Typeface and point size for different types of content (paragraphs, headings, tables, list labels)
 - **Alternate text:** Define whether to use alternate text as a heading for selected types of content
 - **Figures:** Define the output resolution of images and whether images should be used, skipped, or replaced with the alternate text
 - **Colors:** For body text, headings, highlighting, table shading, and table borders
- Test the project in Output Transformation Designer to ensure that the output is correct and the document is laid out as intended.
- Deploy the project to OpenText™ Output Transformation Server for lights-out production for electronic presentment, physical print, or faxing. This can be handled in two main ways:
 - **Events** can be set up to listen for new content to convert. The Large Print Module includes out-of-the-box capabilities to monitor file systems, FTP servers, HTTP requests, message queues, email, and sockets.
 - **APIs** can be used to submit content for conversion, including JSAPI, SOAP web services, and REST web services, plus repository web services for searching ECM systems and archives, and retrieving and converting content.

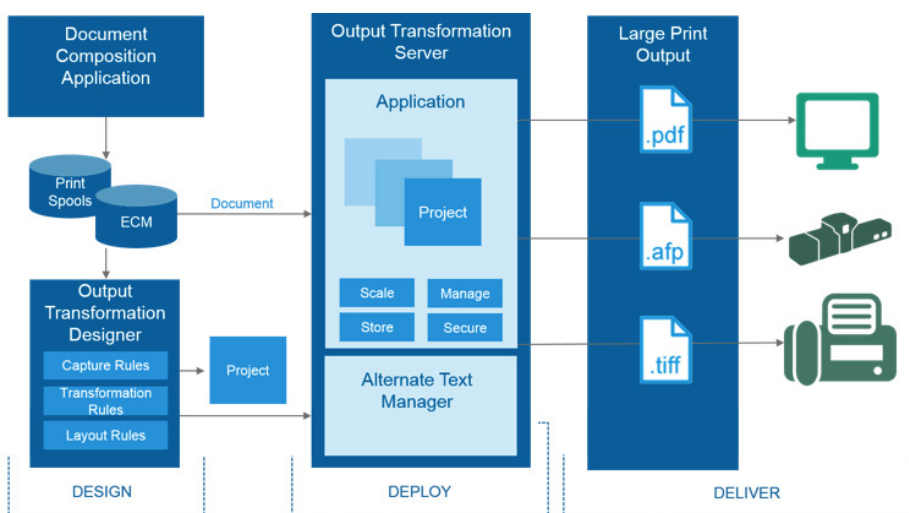


FIGURE 2

The OpenText Automated Output Accessibility, Large Print Module helps users conveniently capture content, transform it, and lay it out in large print format, in connection with OpenText Output Transformation Server.

1 Scheiman, Mitchell OD FCOVD FAAO, Scheiman, Maxine, Whittaker, Stephen G, PhD FAAO OTR/L CLVT. Low Vision Rehabilitation: A Practical Guide for Occupational Therapists. Thorofare, N.J., SLACK Incorporated, 2006.
 2 <http://www.prb.org/Publications/Articles/2002/JustHowManyBabyBoomersAreThere.aspx>
 3 <https://nei.nih.gov/news/pressreleases/020113>
 4 <http://www.cdc.gov/visionhealth/data/national.htm>