



# Bringing accessibility to the rich web with Silverlight



“It shows that not only can we build an application that is accessible, we can build an application whose key purpose in life is to provide an accessible experience.”

## THE SITUATION

Accessibility is a pretty hot topic in the world of website creation. The need for assisted technology that helps people with visual impairment, dexterity, hearing and language difficulties is growing rapidly. Intergen has always championed any thinking that raises the bar sky high for web accessibility. Microsoft invited Intergen to showcase the capabilities of Silverlight 2.0 by designing and building a web based application which enables the blind and partially sighted people to read, listen to and navigate through DAISY (digital talking books).



## THE PAIN

There was no web based DAISY player available on the market. The onus was on users to have desk-top applications, at a cost, hard to find, and often fragile to use. Microsoft Silverlight was about to open up a whole new world of possibilities.

### A new chapter in accessibility opens

Once upon a time there were traditional, HTML based web applications. Now Microsoft and Intergen have broken new ground by designing a rich internet application that is fully accessible. The ButtercupReader reference application is designed to showcase the accessibility features in Silverlight. It does this by providing an application to read DAISY talking books that outrivals the interactivity and usability of desktop applications, and is accessible to a potentially

enormous audience running right inside a web browser. Introducing ButtercupReader ... an online Digital Talking Book Reader that helps visually impaired people open and read a DAISY talking book in a way that had been almost unthinkable.

ButtercupReader is a quantum leap in accessibility. Many of us take it for granted that we can pick up a book and flick through its pages. By employing many of Silverlight's accessibility features, ButtercupReader gives visually impaired people a unique way of reading DAISY books. Some of the breakthroughs include the concept of self-voicing (in Internet Explorer), touch screen gestures, keyboard short cuts, word search, resizing and contrast capabilities. For partially sighted people it's a story about rich visual elements; extra clarity and "zoomability" are outstanding thanks to the vector-based UI technology found in Silverlight. One of

the first comments made by The Royal Foundation for the Blind, who had been consulted throughout, was that Buttercup was "unbelievably smooth." Buttercup makes any colour variations possible. Navigation is easy and intuitive, achieved by Silverlight's out-of-the box User Interface Automation capabilities (UIA). ButtercupReader can also be a touch screen experience, overcoming the need to be able to see a mouse on screen and making the application available to individuals with limited motor skills.

Significantly, ButtercupReader is available as a cross-platform offering, whether the user has a Mac or PC. The only thing needed is Microsoft Silverlight, which is free and just takes a few seconds to download.

### This story has a happy ending.

ButtercupReader took just eight weeks to build from concept to showcase. It's a technology story that's really stretched the boundaries of what Silverlight can do. Chris Auld, as Intergen's new Technology and Strategy guru, puts it this way: "It shows that not only can we build an application that is accessible, we can build an application whose key purpose in life is to provide an accessible experience. For Government agencies and commercial customers who insist

## THE GAIN

The ButtercupReader has delivered a visually rich, interactive, and intuitive web-based experience for visually impaired people to play and enjoy DAISY talking books. Read all about it on [www.ButtercupReader.net](http://www.ButtercupReader.net)

### ENGINE ROOM:

>> Silverlight 2.0  
>> C#