

## RealObjects PDFreactor® in use at the Deutsche Bundesbank

The Deutsche Bundesbank provides users with PDF versions of their website content, generated on the server at the click of a mouse using PDFreactor®, which was integrated on the Bundesbank's website by the internet agency jinit[.

### Requirements

As the central bank of the Federal Republic of Germany, the Deutsche Bundesbank maintains one main website - [www.bundesbank.de](http://www.bundesbank.de) - as well as various subsites with extensive content. In order to offer its users additional service alongside the HTML print version the Bundesbank decided at the end of last year to integrate a PDF generator functionality on its websites.

By clicking on a corresponding PDF icon, users can prompt the server to convert texts published on the website into a printable PDF for download. In order to obtain an attractive and clear design, the existing print view can be used as layout. Integrating a PDF generator on the Bundesbank's website, the primary requirement was for the PDF document to include the Bundesbank logo and the text content area of the web pages, further adding page numbers.

The Bundesbank's objective was to implement an efficient, secure and functional product that met its requirements without requiring complex adjustments.



Figure 1: visible integration of PDF functionality into the user interface

## Potential solutions

First of all, various PDF tools (including both open source products and tools requiring the purchase of a license) were integrated into the Government Site Builder – the web content management system used by the Bundesbank – for testing purposes. PDFreactor® achieved the best out-of-the-box test results for the relevant document types.

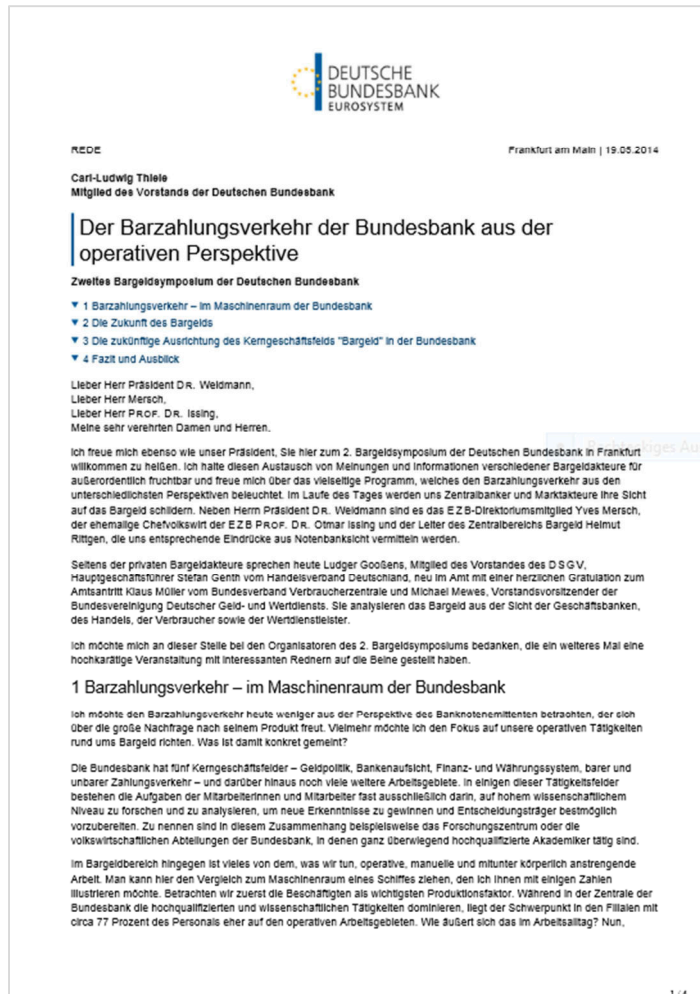


Figure 2: good results out of the box with PDFreactor®

PDFreactor® automatically provides the document with correct page numbering and also offers various setting options such as not allowing breaks in certain elements such as widows and orphans, hyphenation etc. PDFreactor® implements the CSS3 Paged Media standard which enables simple, document-specific access to a significantly larger number of configuration options for page size, margins, breaks, and so on. PDFreactor® has its own customizable layout engine and can be used without additional licensing fees in test stages. Given the Bundesbank's security requirements and deep system architecture, both of these factors played a role in the selection of a suitable tool.



Figure 3: PDF output in user's browser

## Implementation

PDFreactor® was initially integrated into the Bundesbank system as a web application. In addition, a button was placed within the Bundesbank's website application which would transfer the print view HTML to the PDFreactor® application, providing the relevant PDF in return following successful conversion. The PDF is then forwarded to the client browser and displayed as an output.

## Conclusion

The Bundesbank's objective was to integrate a lean application which would enable users to generate PDF versions of website content quickly and easily. PDFreactor®'s easily manageable integration and satisfactory layout results have been highlighted by Daniel Stephan, Managing Software Developer at Jinit: "We use PDFreactor® for various customer projects with both CoreMedia and Government Site Builder (GSB) based systems, and have had positive experiences. It enables the generation of well-designed PDF documents without requiring major adjustments."

Volker Post, Online Editor and Project Manager of the Bundesbank's internet presence, names further reasons for selecting the RealObjects PDFreactor®: "Easy maintenance and long-term applications are relevant factors for the Bundesbank. RealObjects offers comprehensive support and maintenance services and is also available at short notice for enquiries on procurement issues. This had a positive impact on our decision to choose PDFreactor®."

## Deutsche Bundesbank

The Deutsche Bundesbank performs a wide range of tasks relating to money. It shares responsibility for monetary policy in the euro area with the European Central Bank (ECB) and the other central banks in the Eurosystem. The Bundesbank's President helps to shape monetary policy as a member of the ECB Governing Council and the Bundesbank is tasked with implementing that policy in Germany. Furthermore, it informs and educates the general public about monetary policy, and produces in-depth analyses which serve as a basis for monetary policy decisions.

In addition to its monetary policy functions, the Bundesbank performs other key tasks at both the national and international level. One of these core tasks is banking supervision. The Bundesbank supervises credit institutions and financial services institutions in Germany so as to maintain investor confidence and prevent unsound developments in the banking industry. It also monitors the financial and monetary system as a whole to detect any risks arising from the complex interconnections within the system. The resulting analyses feed into the ongoing adjustment of the regulatory framework through international committees and institutions.

Cash and cashless payment operations are another of the Bundesbank's core areas of responsibility. Through its branch network, it continuously provides shops and banks in Germany with an adequate supply of fresh euro banknotes and coins. The Bundesbank also oversees electronic payment systems and plays an active role in developing a harmonized European payment network.

The Bundesbank provides comprehensive information about these areas of activity on its website [www.bundesbank.de](http://www.bundesbank.de).

## ]init[ AG for digital communication



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]init[ was founded in 1995 by chief executive Dirk Stocksmeier. Driven by the vision "Services for the eSociety," over 300 employees guarantee tailor-made solutions from a single source. In addition to its headquarters in Berlin, ]init[ has offices in Cologne, Mainz, Munich, Brussels, Abu Dhabi, and Delhi.