

Case Study:
Spread for ASP.NET



Complex Analysis in Web-Based Survey
Required Robust Spreadsheet Capability

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FarPoint

Enterprise Spreadsheet Solutions
www.FarPointSpread.com

Introduction

“We deliver end-user flexibility with our Web-based survey tool **QA**. FarPoint Spread for ASP.NET is not just a component; it’s the engine behind the Web experience we design for our customers.”

Michael Lindholm,
Board of Directors,
Analystica Group

Web-based applications are becoming more robust and Analystica leads the way with online surveys and research applications that push the requirements both for back-end calculation power and for interface ease and flexibility. At Analystica, we provide users with a Web experience unrivaled in the industry, allowing users to create their own analysis reporting.

At the heart of the complex analysis that our products perform is the Microsoft Excel compatibility and the innovative calculation engine provided by FarPoint Technologies in their Web Forms product, Spread for ASP.NET. The complex analysis made possible by Spread gives Analystica the edge in delivering the end-user flexibility in our application development. While there are a lot of other Web survey companies, Analystica prides itself in delivering this end-user flexibility. The engine behind much of the power of the Web survey data analysis is the spreadsheet capability of Spread for ASP.NET. While there are other grid and spreadsheet components on the market, none has the perfect combination of analytical power, ease of use, and flexibility for end users that are provided by Spread.

Background



Analystica is a full-service research company that pioneered the creation of Web-based surveys with a focus on online research tools. Analystica, founded in 2003, is based in Finland with operations in Sweden and the United Kingdom. Our premier product, a questionnaire tool that provides a range of functionality to customers, is called **QA**. **QA** is the most powerful questionnaire tool on the market. The latest version extends the use to new dimensions enabling efficient and powerful features that meet the needs of our customers to generate online surveys for internal and external use. In addition to common questionnaires, projects for continuous quality follow up, competence tests, face-to-face interviews, and non-conformity reporting can be accomplished.

Robust Spreadsheet Capability in Web-Based Survey Application

Analystica has about 200 customer companies that have been using our Web-based research tools for many years. The wide variety of customers includes hotels and restaurants, trade shows and events, schools, research companies, public sector organizations, and more. The real partnership is the relationship that we have with our customers by delivering the flexibility and analytical power they need to work with the results of online surveys.

	E	F	G
	Total	Business	Tourist
	Average index	Average index	Average index
N=	657	348	197
15 Prior to and upon arrival	89.2	77.28	94.38
16 The person taking your reservation	83	80.96	85.43
17 The receptionist at the hotel make	85.94	83.06	89.22
18 The staff in the reception are kno	71.26	67.17	78.16
19 Your room	69.43	68.71	70.23
20 The cleaner has been thorough w	89.47	88.72	90.21
21 The bed is comfortable to sleep in	61.09	60.29	61.93
22 The bathroom has the right fittings	58.08	57.43	58.83

We have designed **QA** so that no code is run in the respondent's browser – not even JavaScript – which is a major difference from our competitors. So the risk is lower of missing an answer because of the respondent browser settings. Customers can run **QA** on our servers or can install **QA** on their own server. To provide much of the calculation and spreadsheet capability, we looked for plug-and-play components that could easily match our development requirements and meet the demanding needs of our customers. FarPoint Spread met all our requirements. Spread is a very important part of the analysis that we provide to our customers.

Spread integrated with our software logic and provided the features we needed. Users do not need to worry about editing and using formulas because we are able to provide these automatically for them so they can easily access them on the Web. With Spread we found we could handle multiple sheets of data with cross references and Excel-like formulas and were also able to generate results we could display in Web pages served up to the client. Simply put, Spread provided the extraordinary combination we could not have achieved with other components. The winning combination included these three categories of features that are the key to our successful application development:

- Excel compatibility
- Ease of use complex analysis
- User flexibility

First, we found Spread has unsurpassed Excel compatibility and support. The import and export functionality between Spread and Excel is one powerful feature that is used in various parts of **QA**. Respondent lists and large lists of alternatives in answers are some of the places in the application where Excel interoperability is critical.

Second, Spread can handle complex analysis where users can add their own calculations and variables. At the heart of Spread is a great calculation engine giving you real spreadsheet capability when you need it in a multiple-sheet workbook with up to billions of columns and rows.

Third, while we do not use Spread to provide the user interface of surveys, it could be used for that, with different cell types and ways to customize the Spread for interactivity. Spread allows for a vast array of interface design and prototypes using Spread helped our team. But mainly Spread allowed us to deliver the capability of a robust spreadsheet directly to our customers without a lot of additional custom coding.

In the next few sections, we discuss each of these major features in more detail.

Excel Compatibility is a Must Have

The most important category of features that FarPoint Spread provides is Excel compatibility. In our **QA** product, we allow users to post their own respondent and alternative lists as Excel tables with background variables. It is very easy to use with a new Excel style interface. Users can copy an Excel sheet to **QA**, paste the names, and they are ready. They can save the **QA** sheet to a local Excel file to be used as a template. All this copying and pasting of Excel data and of saving to Excel files is possible because of FarPoint Spread.

One of the most important features we have in **QA** is the possibility to create and edit cross tabulations. A cross tabulation is a way of comparing results for one or several so called background variables. A background variable could be gender, age, outlet, country, or any other variable.

Even though **QA** includes a large amount of standard reports we knew that we could not create “standard” reports for every situation. That is why we needed a tool flexible enough to offer:

- Basic Excel compatibility including formulas, formatting, etc.
- Compatibility with different Excel versions to be able to handle report templates locally and then upload them to **QA**

An example of cross tabulations created as a result of Excel compatibility is shown in **Figure 1**.

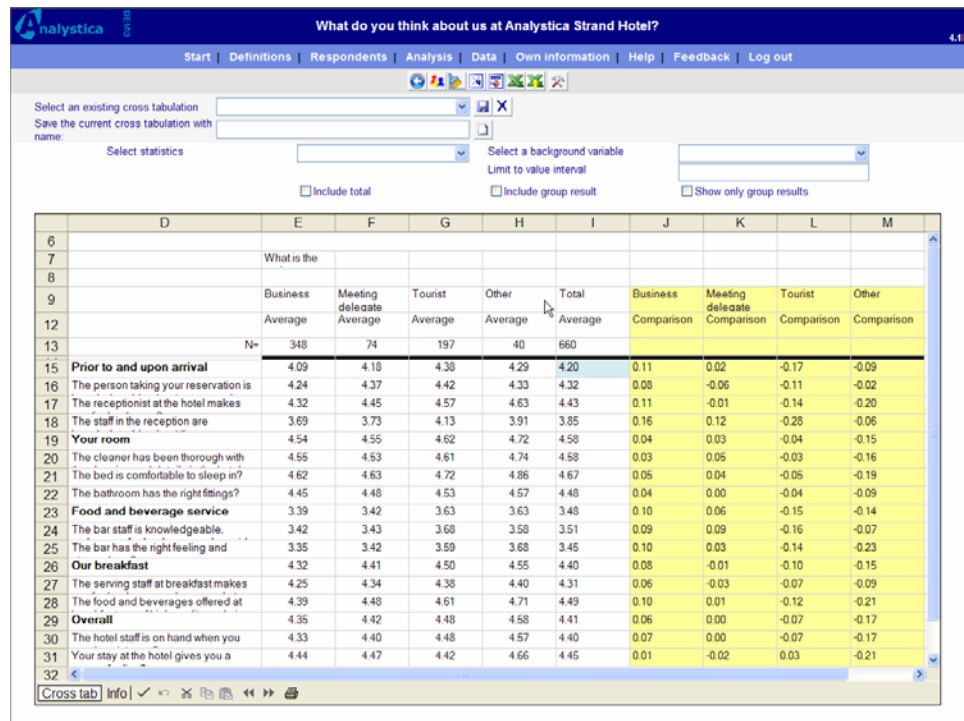


Figure 1. Flexible Cross Tabulations

Another example of a feature we provide to our users is the way we use a familiar Excel type interface for definitions. In **QA** one example is the ability of weighting the opinion or survey results. Weighting means that users can redefine a rating (typically an opinion) scale when they run the analysis. For example, you can define a scale of 1 to 5 to be shown on a scale of 0 to 100 by defining the weight values as shown in **Figure 2**. Users accomplish this by defining a weight value for each alternative in the analysis settings in the Scales tab.

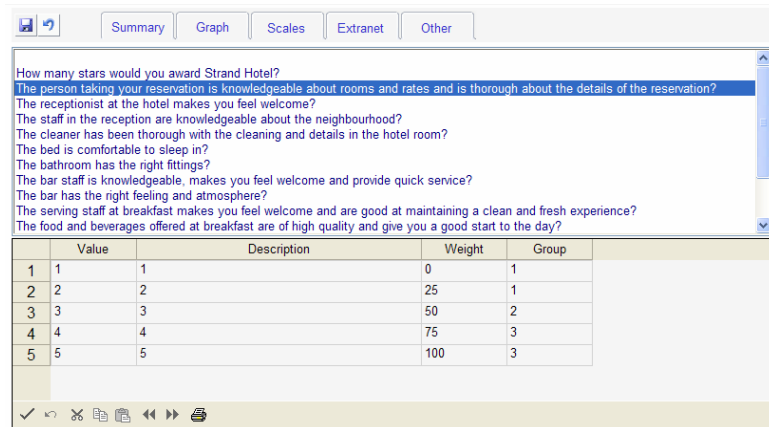


Figure 2. Weighting the Opinion Results.

Complex Analysis Made Easy

Our customers design their own surveys and customize the display of results. So we need to provide a range of calculations and design in the flexibility for Web page presentation of both questions and results. At Analystica, a major part of the service we provide is analysis and number crunching. Many of the calculations are handled by SQL Server transactions combined with FarPoint Spread and the logic around it.

Multiple sheets are also supported by Spread and used for various functions in **QA**. An example of one of the very powerful features in **QA** that Spread makes possible is GAP analysis. With GAP analysis, you can get a complete analysis of the whole survey with just a few mouse clicks. Different views of the results can be shown in the same Spread on different sheets. For example, the results of analysis can be summarized with 10 development areas and the 10 best results. This way of presenting results is shown in the example in **Figure 3**.

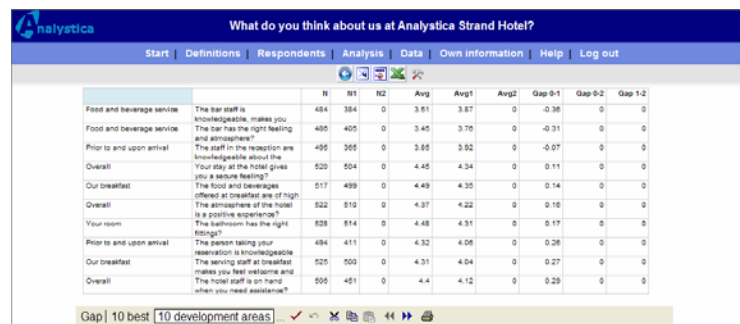


Figure 3. GAP Analysis Using Multiple Sheets

The Customer is Always in Control

With FarPoint Spread, we can provide the flexibility and analytical power to the user. Our customers can interact with the Web application and are justified in feeling in control. For us, it is not a matter of whether the customer is always right; it is that the customer always feels in control.

Another user friendly Excel-like function **QA** includes is the presentation of results as graphs linked to a sheet with data. Graphs in **QA** are presented with an Excel table containing different types of analysis of the same results presented on separate sheets. Users can click any of the sheets and the graph is updated accordingly.

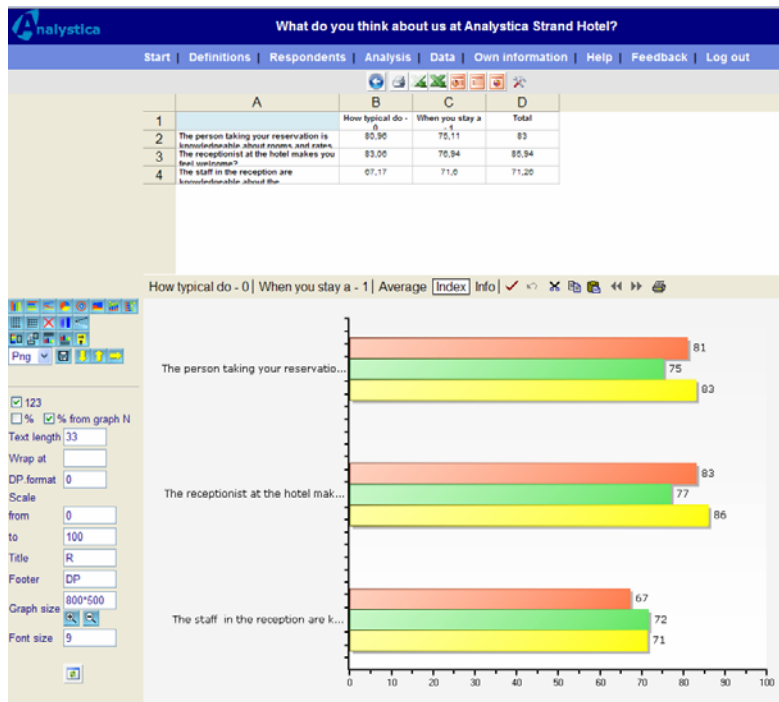


Figure 4. Excel Tables Used for Graphs

Among the products we considered, Spread was the only tool on the market that could handle our requirements. We need many simultaneous sheets, formatting ability, formulas with cross references between sheets, and several other features. Since we started using Spread, FarPoint has continued to improve the product and throughout our development, we found the support of the product to be great.

The Critical Component

“Other online survey and research company offerings cannot compete with our QA tool using Spread.”

Bo Andér,
Manager,
Analystica Finland

The **QA** product software includes functionality for defining various surveys such as traditional Web surveys as well as more specialized competence tests, non-conformity reporting, and other reports. When developing **QA**, the goals were to create Web-based software that could handle complex analysis in which the users can add their own calculations and variables. This was the main reason for finding a product such as Spread for ASP.NET. The Spread component made our project possible. We now have various types of analysis where users can:

- Run cross tabulations which can be edited and saved for later use in the database as well as Excel files locally
- Get several different Excel sheets of results with different variations of the analysis in the same file
- Find Excel compatibility in all their reports because of Spread for ASP.NET
- Generate reports in any language

If we had not found Spread, it is likely we would have gone for a bespoke solution which would have been a mistake now that it has made us explore and develop. Spread for ASP.NET is the core technology on which our project is built on, and it came to the market exactly when our company needed the technology! One of the critical components of the solution was Spread.

Beyond the functionality of the component itself, we found FarPoint a great company to work with. We want to extend thanks to FarPoint for excellent customer service. They added extra functionality to Spread for ASP.NET when requested by us and have been great with answering our questions about the product's operation and use. It already was a good product; but the changes have saved us even more coding time, for which we are very grateful!

The ease of use, speed, and reliability of Spread for ASP.NET have proven that this is one dependable product that is supported by a dependable company. We want others to know that we found a workable solution with ASP.NET that would not have been possible without Spread.

More Information



For more information about FarPoint Technologies and their Spread for ASP.NET solutions, visit them online at www.FarPointSpread.com or call them at their North American office at 919-460-4551 (or email them at FPSales@FarPointSpread.com). You can reach them at their European office at +44 (0) 1798 812 372 (or email them at SalesEurope@FarPointSpread.com).

FarPoint Technologies, Inc. is a leading provider of professional solutions for enterprise-wide development in Microsoft Visual Studio .NET, Microsoft SharePoint, Microsoft BizTalk, and other enterprise platforms. FarPoint set the standard for spreadsheet components with the world's best selling spreadsheet component, Spread, and continues to set high standards in component architecture, offering products across a range of platforms.

Analystica is a full-service research company. Our online Web survey products and services have been proven to be both cost effective and easy to implement in all sizes of organizations around the world. We are looking for partners in the US and in other countries. For more information about Analystica products and services, visit us online at www.analystica.fi or phone their head office in Finland at +358 2 284 0550 or email us at info@analystica.fi.