

# System To System Communication

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## 1. Abstract

Save yourself time!

For the business questionnaire ‘Production Statistics,’ we have created a functionality that imports data into the Blaise questionnaire. The data is existing data in the general accountancy software (e.g., ‘exact Online’). This program can generate a ‘general calculating schema’ file (RCSFI file), which contains 40 to 60 percent of the information we are looking for.

Since April 2023, we have implemented a second method for importing data. More specifically, we use a third-party website, which can directly log in to several accountancy software packages. This implies that the manual import of an XML file is not needed anymore.

### 1.1 The Old Technique

- First, we use the ‘upload’ functionality of Blaise 5.8 and store the XML file in a ‘blob’ datatype.
- Second, we use a separate (WCF) service with use of the ‘alien’ function of Blaise to store that data on an ‘internal’ CBS server.
- Third, the service transforms the information into PS variables. The RGS data contains elements that have a 1:N relation to our information request. The service cumulates the information.
- Fourth, we use another (WCF) service to retrieve the information and convert it into a variable in the questionnaire.
- Finally, we present a recap of the imported data. In case the respondent thinks: “No! This isn’t correct,” he has the option to either clear the questionnaire and try again or choose not to utilize this functionality.

### 1.2 The New Technique

The respondent selects his accountancy package from the list, logs in to the package, gives permission to use the data, and finally ‘imports’ it into the questionnaire.

### 1.3 Presentation

In the presentation, I will provide a demo of the questionnaire. If someone is interested in the code, we can schedule an appointment to further discuss this.

## **2. Introduction**

### **2.1 The RCSFI Import into the Blaise Questionnaire/Response Burden**

The thought behind this is to simplify this process for the respondent. Due to the implementation of this functionality, respondents now have the capability to import data, thereby alleviating the need for manual data entry. This new approach is more based on the bookkeeping perspective.

### **2.2 Historical Background**

Several years ago, CBS considered the utilization of bookkeeping data in questionnaires. Since 2016, there has been and continues to be a national standard of business reporting (SBR). This, however, is not directly usable for questionnaires. Therefore, the Reference Classification System of Financial Information (RCSFI) was implemented.

- RCSFI, or Referentie GrootboekSchema (RGS) in Dutch
- Developed in a public-private partnership as a nonmandatory standard in order to integrate and automate administrative processes
- In the Netherlands, there is no legal prescribed format for bookkeeping—only specific reports
- RCSFI contains references for all ledgers for different reports of the Dutch government
- Furthermore, it can also be used for all kinds of reports, dashboards, KPIs, etc.
- RCSFI codes are (a part of) variables in the questionnaire
- A cross-table links all RCSFI codes to a variable in the questionnaire

In 2020, the RCSFI was implemented for the first time in the production statistics. The aim was to achieve a 75 percent prefilling rate. Unfortunately, the required and desired information for CBS was not available in the SBR/RGS standard. We, however, persevered and strongly believed that to ease the process for the respondent, everything that can be imported and used should be imported in the questionnaire.

## 2.3 2021

Figure 1. The Manual Import into The Questionnaire—Since PS20 (April 2021)

The screenshot shows a web interface for 'Annual statistics Trade brokerage 2022'. At the top, there are navigation links: 'Save', 'Save and close', 'Print', and 'Help'. Below this, the title 'Annual statistics Trade brokerage 2022' is displayed. A progress indicator shows 'Complete by: 1-7-2023'. On the right, user information is shown: 'gk = 2', 'A.B.C.D.E.F.', 'De Wiltier', and 'Correspondence number: 307'. The main content area is titled 'Importing accounting data from your administration' and 'Uploading of an RCSFI bridge statement'. It contains instructions: 'In order to enable the import of your data, you need a so-called RCSFI bridge statement. Ask your accountant to provide it or see how to export it yourself at [www.cbs.nl/brugstaat](http://www.cbs.nl/brugstaat). Please note: the survey questionnaire will close after approximately 15 minutes, after this you will need to log in again.' Below this, a section titled 'Now select your RCSFI Bridge' instructs the user to click on 'Select RCSFI Bridge' to select their file (xml) and then click on 'Open' to start importing. A link to the contact center is provided: [www.cbs.nl/contactcenter](http://www.cbs.nl/contactcenter). At the bottom, there are three buttons: 'Back', 'Next', and 'Agree and next'.

In the IBUD in April 2022, I presented this part.

1. Log in to the questionnaire and choose the option ‘import a RCSFI file.’
2. An instruction appears on the screen and tells you the steps that should be taken to complete the import.
3. In the bookkeeping software, you first have to export a file (RCSFI bridge) and save it on the desktop.
4. Go back to the questionnaire—if there was an automatic log off, log in again.
5. Push the button ‘select RCSFI Bridge.’
6. Select the file.
7. Import the file.
8. If successful, a summary appears.

## 2.4 2022

The manual import, more communication, and a video with instructions—Since PS21 (April 2022)

The same process as mentioned above, but with a video instruction included.

## 2.5 2023

The connected way—system to system—since PS22 (April 2023), a Dutch Transaction Ideal Method

The screenshot shows a web application interface for importing accounting data. The title bar reads "Annual statistics Trade brokerage 2022" and "Complete by: 1-7-2023". The main heading is "Importing accounting data from your administration". Below this, there is a section titled "Select your accounting package" with a list of radio buttons and labels for various software providers: Afas, Asperion, Boekhoud Gemak, Cash, Exact Online (two entries), iMuis Online, Informer (selected), Minox, Multivers Online, SnelStart, Visma eAccounti, and Yuki. At the bottom, there are two buttons: "Go to Informer" and "Back".

In this solution, the respondents can log in to their own bookkeeping software accounts and ‘donate’ their information to the questionnaire/Statistic Netherlands.

1. Choose your bookkeeping software. There are a few in the Netherlands. Almost all bookkeeping software businesses are supported.
2. Log in with your own credentials.
3. Select your bookkeeping (correct financial year, correct business in case of accountancy office).
4. Push the button—import.
5. If successful, you can go back to the questionnaire (close the tab) and refresh the questionnaire screen.
6. If successful, a summary appears.

## 3. Used Techniques

Videos: We have implemented an instruction video to show respondents how to correctly use the RCSFI. This video describes the way the data is exported from the bookkeeping software and imported into the questionnaire. Based on the results, we could conclude that none of the respondents watched the instruction video. Therefore, we do not use this anymore.

Alien Procedures: To send datafiles to a web service, to retrieve data from a web service.

Redirects: Redirect from web browser to the Speedbooks website. This includes some parameters for identification (e.g., respondent number, financial year, and the accountancy software package). This ensures that the Speedbook logs in to the right package.

WCF Services: This is the web service that processes the RCSFI data and converts the bookkeeping data into usable questionnaire data (key value pairs).

RESTAPI: A modern way of communication that is used between Speedbooks/bookkeeping and the RGS Service. In the future, this will also serve as a substitute technique for the WCF RGS Service.

#### **4. Next Steps/Future Goals**

Our aim is to use the shortened version of the PS for small businesses. This shortened version can be fully—or to be more precise, 100 percent—completed by the RGS import function.

The RCSFI file contains more information than we need in the questionnaire. This enables the statistician/analyst to use more specific and detailed information. However, this raises the following important question: Are we permitted to use all this specific information?

In the past, we also did other projects like this. One of them was the John Deere project. At that project, we connected to an external John Deere API (third party), did an 'OAuth Authentication' process within, and got farm data out of the cloud that directly came from the John Deere farm machines. This project was stopped because of the quality of the data. Nevertheless, the process was useful to us and to Blaise.