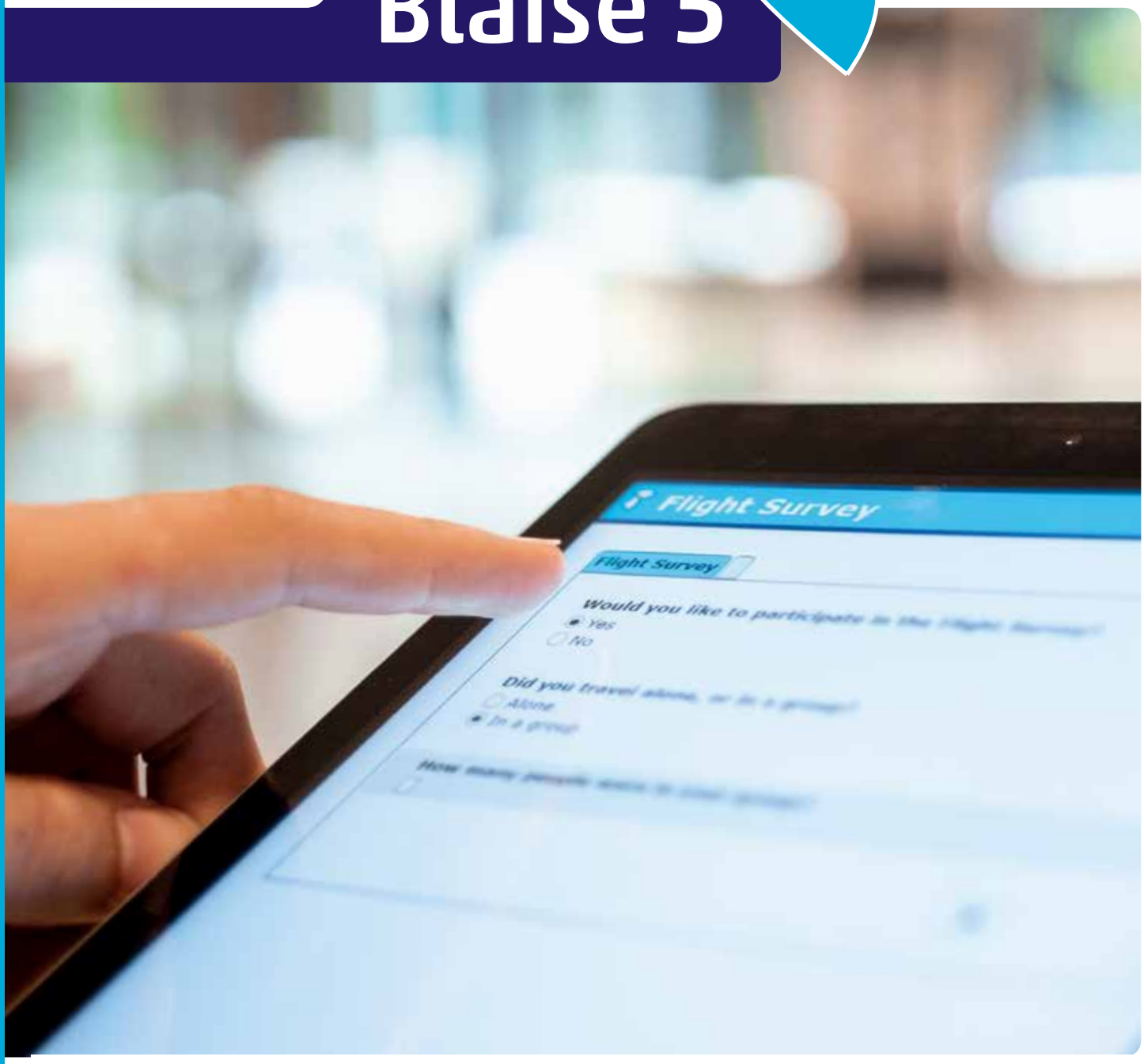
Blaise 5



Gaining **deeper** understanding

A data collection system that adapts to suit your needs.

In a fast changing survey world

Only paper and computer questionnaires existed until the mid-1990s, when web surveys were introduced. Researchers just started to get familiar with browser layout when mobile devices emerged. New questions arose: How do we deal with much smaller screen sizes and different input methods, and how do they affect data quality? Methodology research for mobile devices is well underway, but new challenges await with sensor measurement, GPS tracking, and voice recognition.

These new developments will open up new data collection possibilities. However, two questions persist: How do we make use of this potential, and what are the methodological challenges involved?

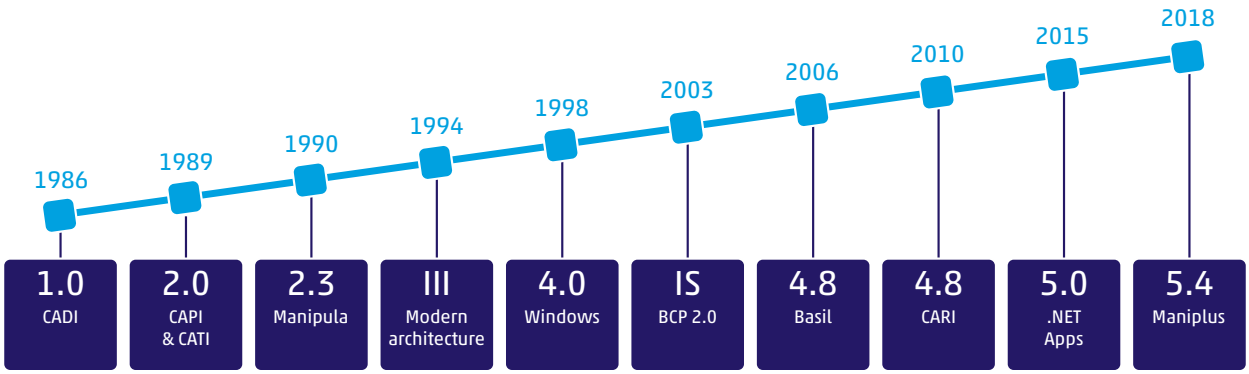
With Blaise methodology and technology go hand in hand

Meet Blaise 5

Blaise has long shown that technology and methodology work hand in hand to collect quality data in today's world. Blaise 5 sits at the heart of Statistic Netherland's own data collection program and has adapted to the differing requirements of other National Statistics Institutions (NSIs) for over 30 years. Furthermore, over the years Blaise development has proceeded side-by-side with researchers from Statistics Netherlands (CBS) and several universities.

Methodology and technology with Blaise

With all our partners we keep up with the changing demands of the survey world. Together, we react to technological and methodological changes by building prototypes, developing appropriate methods and systems, and refining existing approaches. No other system offers its users such an impressive list of features, based on such a broad user profile. Blaise embodies the expertise of major NSIs and renowned institutes thus connecting its users to a pool of knowledge. Our goal is to help you gain a deeper understanding.



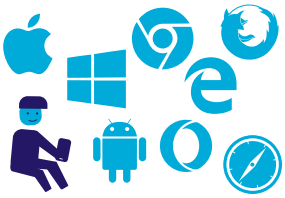
Blaise through the years

Built for diversity

With Blaise, you can create questionnaires that are multilingual, multicultural and multinational. Blaise supports all western, right-to-left, and Asian interviewing languages and can switch between them during an interview. Blaise meets accessibility standards for people with disabilities.

Multimode

Blaise enables you to deploy your questionnaires in single or mixed modes depending on your research design. You can decide the mode for each survey and also determine how you stage each mode in a mixed mode design.



Multiplatform

Blaise questionnaires can be filled in on all common platforms. No matter which browser or operating system your respondents and interviewers use, your questionnaires will always appear the way you specified them.

Multidevice

Blaise's powerful Layout Designer helps you create questionnaires that adapt to any device and screen size. This enables you to deploy your questionnaires for multiple devices and saves you the time of creating many custom designs.

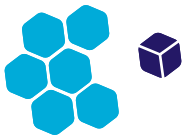
Apply Blaise your way

Integrated tools

Blaise offers integrated development tools that you can configure to support your organization's needs: Control Centre, Layout Designer, Manipula, and an Open architecture.

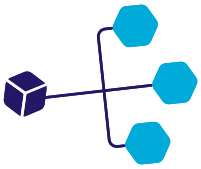
Invest in one survey platform

Blaise supports all aspects of survey production including data collection, data coding, data entry, and data editing. Investing in one system that handles all survey production tasks helps cut down your organization's costs, work time, and resources.



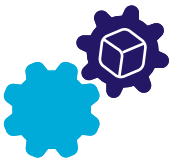
Questionnaires are modular and reusable

Blaise's proprietary language lets you design your questionnaires in blocks of code. This modular structure makes reusing parts of an instrument easy. Collaboration and comparability are streamlined as well, allowing different designers to work on one questionnaire simultaneously.



Design questionnaires once and use them everywhere

Blaise's layout and operational flexibility enable you to design a questionnaire once for different interview modes and devices. No matter where users complete questionnaires the details of your design adapt to the screen size and user input method.



Full control with Data Entry Programs

Blaise Data Entry Programs (DEP) give users the freedom to collect data while being connected to or disconnected from the internet and safeguard data when there are connectivity or power issues.

Questionnaires support all types of research designs

You can decide the mode for each survey and also determine how you stage each mode in a mixed mode design. For institutional surveys, different respondents can each handle part of a questionnaire. For a household survey, a screener can enumerate family members, note the characteristics of each, and spawn any number of instruments suitable for each member.

On the pulse of survey institutions

Blaise continually adapts to the changing requirements of the survey world. Statistics Netherlands has made Blaise development a priority for over 30 years to meet its own wide-ranging and high-volume research needs. Through these efforts and collaboration with users around the world during the same period, Blaise has been continually enhanced and renewed. There is a close association with methodologists, questionnaire designers, and other research experts within CBS and its sophisticated outside user base.

Blaise deepens its knowledge of the survey world by associating with relevant experts in the field. As a member of the Data Documentation Initiative (DDI Alliance) and a collaborator of Colectica, Blaise provides a rich integration of metadata. Its long-standing partnerships with Westat and the University of Michigan as well as the University of Utrecht focus on issues of multiplatform deployment, open architecture, accessibility, statistical data integrity, and layout design.

International Blaise User Group and User Conferences

The International Blaise User Group (IBUG)[1)] was founded at the first International Blaise User Conference (IBUC) in 1992. The IBUC brings together survey professionals and offers a forum for the exchange of ideas and experiences on Blaise, survey data collection, and data processing. The 18th IBUC held in 2018 continued the tradition of meeting every 18 months. During the course of four days, guests visit workshops and presentations from other Blaise users. Discussions, social events, and excursions offer an ideal platform for exchanging knowledge and networking. Between IBUC conferences there are frequent bilateral liaisons between IBUG members.

Blaise Corporate License User Board

The Blaise Corporate License User Board (BCLUB) is composed of survey managers, data analysts, methodologists and questionnaire designers from organizations using Blaise under a corporate license. The NSIs, research organizations, and universities frequently exchange their knowledge and experience with the Blaise Team. Together they test, discuss, and give feedback to the Blaise team on new functionalities and specify new product requirements.

BaseCamp Forum

The BaseCamp Forum is an online discussion board for Blaise users. Here users ask questions, share information and stay informed on community events and the latest software updates.

1) BlaiseUsers.org

Join the vibrant Blaise community and exchange ideas with research experts from over 30 countries.

Blaise supports your organization

Blaise has an outstanding track record. NSIs worldwide use it for personal, household and economic surveys covering a wide range of topics. International studies like PRISM[2)] and CIDI[3)] are developed and conducted with Blaise. Census surveys like the Census of Population in Cyprus have also been administered with Blaise, making it the leading software solution for governmental and scientific surveys worldwide.

Dedication to research institutions

Blaise stands for high-quality support and commitment to its users. Our team helps design hundreds of exceedingly complex questionnaires and supports users integrating Blaise within their organization's IT infrastructure. Blaise's highly advanced programming language, and its server and survey management tools offer full control over the survey process.

Call Scheduler for CATI

Specified calling schemes optimize your telephone interviews. Blaise delivers a powerful Call scheduler for CATI with which you can create specified calling plans based on interviewer groups, time zones, time slices, different types of appointments and respondent reactions. Customize any detail of case delivery with an easy-to-use CATI specification program.

Mixing modes made easy

A Blaise multimode questionnaire works on one data model streamlining the integration of interview modes. This lets you conduct each survey based on its requirements, population, modes you plan to employ, and the available sample. You can stage modes sequentially or simultaneously.

2) Psychiatric Research Interview for Substance and Mental Disorders
3) Composite International Diagnostic Interview

Blaise Data Entry Programs

When conducting a survey you want your respondents and interviewers to focus on the questions. Blaise provides intuitive, flexible, and fast interfaces that guarantee the desired appearance regardless of platform, browser or device. Switching between any language during an interview is easy. A questionnaire can also recognize the country of administration as well as the location of a respondent. For example, an interviewer in the Netherlands can collect data from a respondent in Great Britain and automatically enter financial information with the £ (pound) symbol. You decide how your interviewers or respondents see and interact with your questionnaires.

Testimonial

'Statistics Norway has been working with Blaise since 1991. We started with data editing, and in 2006 we used Blaise to produce our first internet questionnaire. We create complex questionnaires and Blaise's support team is a reliable help whenever problems arise. Our investment in Blaise has helped us enormously.'

Hilde Degerdal, Statistics Norway

Features at a glance

- Layout appropriate to all devices
- Works on leading client platforms (Windows, browsers, Android, iOS)
- Completely multimode, multi-lingual, multi-cultural, and multi-national
- Fast, intuitive interfaces including great navigation and error correction
- Automated Computer Assisted Self Interviewing (ACASI) for the confidential part of an interview
- Computer Audio Recorded Interviewing (CARI)
- Fully compliant with the latest accessibility and usability standards for people with disabilities
- On-the-fly coding using hierarchical or trigram coding frames, e.g., for foods or medicines or cars
- Survey processing on site or in a cloud

Methodologist obsessions

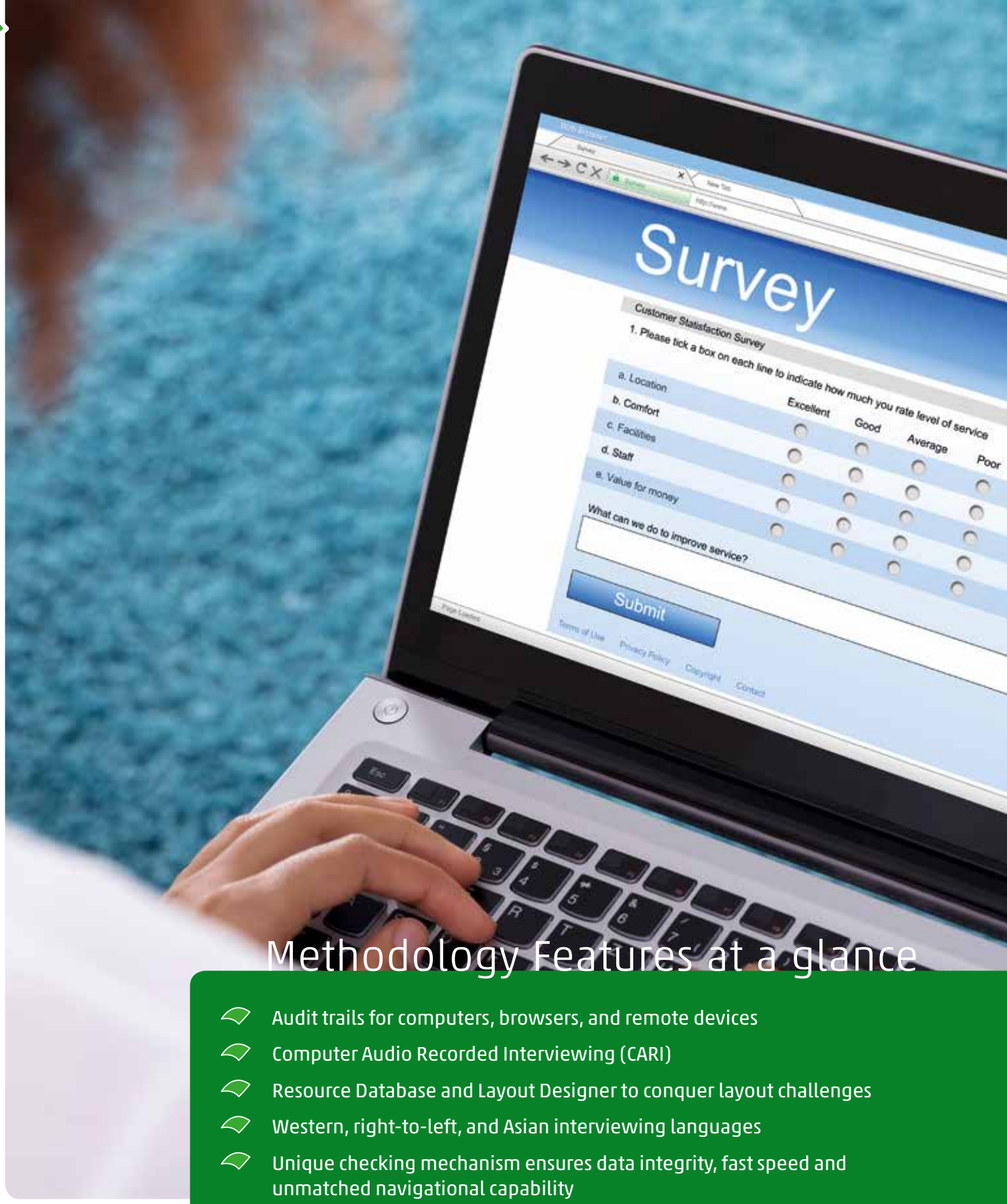
So, you are a methodologist, and you care deeply about how interviewers perform. You are even more concerned about how self-reporting respondents use the web questionnaire on a computer or a device. You may wonder how pace differs between interviewers. There may be an issue with break off for self-respondents, and you wonder if this occurs at a particular place in the interview.

Tools to Assess Instrument and User Performance

Blaise 5 offers methodologists ready-to-use tools that (almost) allow you to look over the user's shoulder while they fill in the questionnaire. Two of these tools are audit trails and Computer Audio Recorded Interviewing (CARI). The audit trail, for example, gives you timing data for each field. You can see any specific navigation movements such as backing up, or if an edit has been invoked and the respondent changed an answer or a path. CARI allows you to hear or view the conversation between an interviewer and the respondent, even in remote interviewing sites for CAPI. You may determine that there are parts of the questionnaire that need revision.

Conquering Layout across Devices

Then there is the question of how to design a questionnaire that works for both interviewers and self-respondents across a wide variety of devices. You would like to be able to specify once and have the system generate equivalent interfaces across devices. The Blaise 5 Resource Database is for you! It allows you to define templates for different screen sizes and orientations, then apply these automatically through the Layout Designer as the user fills in the questionnaire. You have considerable flexibility to adapt templates as you conduct your interface research.



Methodology Features at a glance

- Audit trails for computers, browsers, and remote devices
- Computer Audio Recorded Interviewing (CARI)
- Resource Database and Layout Designer to conquer layout challenges
- Western, right-to-left, and Asian interviewing languages
- Unique checking mechanism ensures data integrity, fast speed and unmatched navigational capability
- CATI history and other survey management log files enable Responsive and Adaptive Survey Design for efficient data collection

Dive deep into data

As a data analyst, you want to handle survey data as quickly and freely as possible. Blaise can render its descriptive metadata into data step statements in SAS®, SPSS®, or Stata®. Then Manipula transfers the Blaise data into the data analysis system of your choice.

Leveraging Blaise structure and metadata

Some of the world's largest and most complex government and scientific surveys use Blaise. Such studies contain thousands of variables that are easily managed using Blaise's structured language, relational data structures, and superior metadata capabilities. To give one example, you can set the mode of collection for each variable and establish whether an unanswered question was off-route, skipped, received a 'Don't know', 'Refusal' or any other self-defined attribute.

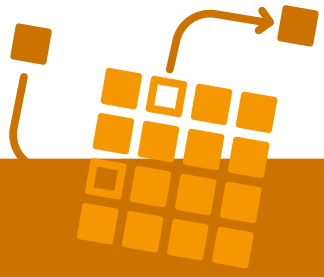
Data handling with Manipula

Blaise can work with both flat-file and relational databases. Manipula is a powerful scripting data processing language that complements the interactive Data Entry Program. With Manipula you can import, export, recode, extract or otherwise restructure your data and generate reports. Moreover, Manipula lets you edit the original questionnaire data file while in production. A Manipula extension– Maniplus brings an interactive capability to Manipula. You can use Maniplus to build survey management interfaces that are completely integrated with the Blaise system.

Testimonial

'For our organization, one of the most valuable aspects of using Blaise involves access to the survey data and the associated paradata. Blaise provides robust solutions to export data into many different formats using Manipula. The value of the associated paradata is critical to control the quality of our interviewer-administered surveys and for understanding the behavior of our web respondents as they navigate through our surveys. The Blaise paradata is rich, with the ability to capture all keystrokes and actions within the survey. We have not found any other data collection tool that provides this level of paradata capture, a crucial aspect for our researchers' analysis.'

Gina-Qian Cheung,
Chief Technology Officer at the Survey Research Center (SRC),
University of Michigan



Data Features at a glance

- Thousands of variables per case are possible.
- Blaise works with flat-file and relational databases.
- Metadata provide connections to SAS®, SPSS®, Stata® and other data analysis tools.
- Institute-defined special answers are possible, including off-route and other notations
- Powerful data manipulation
- All survey data types including string, numeric, code-one (enumerated), code-all (set), long-answer (OPEN), date, and time.
- All survey data structures including arrays, blocks, tables, hierarchical, and relational
- Specially coded answers from various coding frames such as make, model, and body style of cars, or kinds of food or medicine.

Blaise's Integrated Developer Environment

Handling multimode and multidevice questionnaires can seem daunting. However with Blaise, all the development and testing of your questionnaire happens in one place – the Control Centre. This IDE neatly combines all the tools you need during the development of a questionnaire.

Control Centre for all aspects of questionnaire development

Intelligent code completion, visual aids, error indicators and instant error messages help you concentrate on your questions, flow and edits. Continuous source code parsing immediately identifies syntactical mistakes. Blaise's modular structure uses blocks of code to ensure straightforward questionnaire development. You can reuse parts of a questionnaire; this simplifies the process of comparing and updating continuous surveys and makes collaborative work on an instrument possible. You can define and reuse types for many of your questions such as tYesNo (for Yes or No) or tMaritalStatus.

Full control over your layout

Blaise's IDE is even more powerful because it combines the programming interface for your source code with interfaces for metadata, settings and layout – all neatly sorted in tabs. With the Layout Designer, you can define every visual aspect of your questionnaire and immediately see your changes. If you want multiple layouts for different modes, the Layout Designer offers you easy maintenance and transferable designs for all interview methods. With the Resource Database, you can create templates according to your organization's design standards. You can then adapt the templates for specific questionnaires in the Layout Designer. These layout tools combined give you full control over your questionnaires' appearance to more efficiently handle differences in screen size and device operability across devices.

Multimode made easy

Blaise has unique capabilities that help you implement multimode surveys. Keywords used in the source code connect to layout and operational settings. For example, 'MODES' defined in the source code correspond to the equivalent Layout Set Groups. This allows a connection between mode and layout. Similarly, you can attach different operational settings for each platform and mode.

Developer Features at a glance

- Rich Integrated Developer Environment (IDE)
- Great text editor that includes Intellisense®, snippets, syntax highlighting, keyword and field name suggestions
- Source code parser is real-time or in batch according to your development style
- The ability to include source code from many files makes multi-programmer development easy, and also easy to migrate code from one survey to another
- Full training and support from Statistics Netherlands and Westat (the Americas)
- Three different metadata views are always available for your datamodel
- The Control Centre has views on the source code, metadata, settings, and layout all in one place
- Solution and project files help you manage the source code
- Easy integration with source code control systems

Blaise for IT and Security

As the IT-staff in your organization, you are always confronted with software and servers not running smoothly. Integrating new systems with the already implemented ones often results in headaches. Software packages built for integration are few and far apart.

Blaise likes to integrate

Blaise is different. Blaise wants to get along with other systems and comes with various API Kits. Instead of modifying your existing web hosting, time-keeping, data analysis and the many different systems your organization requires, Blaise fits in. With the help of Blaise APIs, you can seamlessly incorporate your existing IT infrastructure into Blaise and vice versa. Our support team dedicates itself to helping with any issues that arise during the creation and implementation of Blaise APIs or server problems.

Blaise likes security and data encryption

Data collection goes hand in hand with data security. Every NSI must fulfil the security and privacy standards of its country. Blaise's producer CBS needs to comply with EU data security and privacy laws, while other Blaise users have to follow equivalent regulations. For this reason, Blaise works within any secure environment and fulfils worldwide security standards. Blaise uses SSL for the connection between your servers and data transmission from the outside. Additionally, data are encrypted for the transfer from apps and other services, making sure your entire environment is safe.

With Blaise, you can also separate survey data from Personally Identifiable Information (PII), even during data collection. This way your analysts only see the data intended for statistical production. Blaise is examined by third-party security testers to ensure safety from breaches, therefore integrating Blaise with your systems will not compromise your IT infrastructure's security.

Blaise likes scaling

Performance is particularly important when you deploy web surveys and CBS began using this mode 15 years ago. Because of its producer's survey program, Blaise integrated a tool to administer server parks. With Blaise Server Manager you can intuitively set up your local machines, maintain your servers and manage users. With the role and user management, you can intuitively assign and modify users, user groups and their functions. The server setup lets you define server roles, set passwords, configure connections, and name storage locations of each survey. Through the maintenance component, you control the activation and deployment using server groups. This helps you manage your servers by tasks to scale performance and maximize concurrency – all with one tool.

Testimonial

'Blaise's support team helps us immensely. At the Northern Ireland Statistics and Research Agency (NISRA) we recently started migrating to Blaise 5. Whilst we were arranging our new server setup, we ran into some issues with getting our configuration right. The Blaise team supported us via emails and conference calls and even went so far as to add features to Blaise to help solve our problems.'

Andrew McCormick, Head of survey modernization, NISRA

IT Features at a glance

- APIs enable Blaise to integrate with your IT infrastructure
- Blaise works well in secure environments and has passed several security audits
- The native Blaise database is the SQLite
- Blaise writes to Oracle, MySQL, PostgreSQL, and MS SQL Server relational databases
- Data encryption during data collection
- A Blaise instrument can preload any number of variables
- Blaise Server Manager helps you administer your server parks
- Blaise works well on your LAN/WAN

Training and Support

As a Blaise user, you are supported in many ways.

- Formal training sessions at Westat for the Americas, at CBS for the rest of the world, or at your site
- Training sessions preceding the International Blaise Users Conferences
- Consultations at your workplace, at CBS or Westat
- Email support including inspection of your instrument's source code and configuration files
- Transition As A Service (TAAS) from Blaise 4 to Blaise 5
- Survey as a service (SAAS) or Layout as a Service (LAAS) for organisations that require help with their first survey
- In-depth, help facility within the Control Centre
- Many examples supplied with the Blaise system
- Proceedings from all the IBUCs[4] cover a wealth of information and topics.
- Question and answer to the Blaise BaseCamp forum, any Blaise user can pose a question and you never know who is going to respond.

4) ww.blaiseusers.org/page.php

About CBS' Blaise

Statistics Netherlands (CBS) is a highly regarded NSI and the producer of Blaise. CBS has long been a methodological leader in data collection, sampling and data analysis. In 1986 it became the first user of Blaise, a product it had developed to realize adaptability through computer-assisted methods.

Blaise®

Blaise is a software platform for survey data collection and survey processing and was designed to handle governmental and scientific surveys. Stationed at the CBS offices in Heerlen, Netherlands, a team of dedicated software engineers and survey specialists make up the heart of Team Blaise. The Team works in the same building as the data production teams and knows first-hand how their system is used. Together with CBS' methodologists, data analysts, questionnaire developers and survey managers they continuously work on innovating Blaise while supporting their user community.

Blaise Community

This user community consists of around 100 end-users in over 30 countries. Major NSIs and prestigious organizations use Blaise as their data collection platform. Each has its own way of working, so the list of requirements grows with each new user. Every time the system is expanded, everyone benefits.

Blaise is further embedded in the world of data collection through its association with Colectica, the Data Documentation Initiative (DDI Alliance), Westat, and major universities such as the University of Michigan, and Utrecht University in the Netherlands. These are major survey players in their own right. Westat, Blaise's distributor and supporter in North America and South America, is a preeminent survey research company in the United States and has been an innovator for many decades. The two universities are known for their pioneering methodological research and are often on the cutting edge of technology.

Together all of these experts create a diverse and demanding user base that has worked together for over 30 years continually searching and finding ways to discover the "why" behind the "what" – to gain a deeper understanding.

For more information on Blaise®

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