



PG FAQs

User Manual

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Table of Contents

Chapter 1: Welcome	1
Chapter 2: What is ProtoGenie & Why Use It?	2
Chapter 3: Research Design Assistance	3
Chapter 4: Security Questions	4
Chapter 5: Browser & Platform Support & System Requirements	6
Chapter 6: Ethics & Compliance Guidelines	7
Chapter 7: Definitions & Terminology	8
Chapter 8: Screen Formats	9
Chapter 9: Image Production & Handling	10
Chapter 10: Automatic & Manual Case Management	11
Chapter 11: Index	12

Welcome to PG Frequently Asked Questions

January 12, 2013



Home > What is ProtoGenie & Why Use It?

[What is ProtoGenie & Why Use It?]

 Q.  **What is ProtoGenie?**

A. ProtoGenie is a Web-based authoring environment that revolutionizes the way research data collection software is created by programmers and non-programmers to design, manage, and execute experiments, clinical trials, laboratory research, observational research, survey research, and other kinds of research and evaluation.

 Q.  **More Details On What ProtoGenie Is?**

A. ProtoGenie dramatically cuts the costs of research support software by eliminating highly specialized coding and rigid one-shot programs. ProtoGenie's friendly and intuitive interface is grounded in the logic of scientific method and the familiar look and feel of the traditional desktop and Web browser interfaces. All of this enables programmers and non-programmers alike to build powerful, configurable, and recyclable research support applications at radically lower costs than traditional development software. Among ProtoGenie's powerful features are:

- Expandable to most research methods
- Supports on-line and off-line studies
- Provides high-level security and confidentiality
- Facilitates coordination and sharing
- Platform independence
- Menu-based authoring
- Configurable protocols
- Recyclable protocols
- Interchangeable parts - ability to import events
- Multiple stimuli and measurements on the same page
- Case Management for all methods and designs
- Full-featured Help
- Large library of protocols
- Outputs results in popular formats

 Q.  **Why Should I Use ProtoGenie?**

A. ProtoGenie was designed FOR researchers BY researchers and it costs very little to carry out big projects and small projects. It is menu-based for non-technical users and it is easy to use. It provides expert system assistance on research design. It is easily accessible from remote locations and it is uniquely designed for hands-on instruction in the classroom.

 Q.  **More on Why I Should Use ProtoGenie?**

A. There is a fundamental disconnect between the process by which research is designed and the process by which software is "programmed." Developing software for research is fundamentally an iterative process. The typical instruction to a software engineer is "Please do X, Y, and Z." Weeks later, researchers receive the program only to discover that Z was not correctly understood or is not right for what they want to do. So, the researchers say, "Please change Z to W." Weeks later, they try it again and it crashes or does something bizarre because the engineers did not anticipate the effect of the change on other parts of the code. Back to the engineers it goes and so on and so forth until deadlines and budgets have been trashed and the researchers are angry with the programmers and programmers are angry with the researchers.

The ideal solution is for software engineers to be researchers or for researchers to be software engineers. Obviously, neither is realistic. But, what if researchers could create their own software without becoming software engineers? This is exactly what ProtoGenie makes possible by reusing existing protocols, by making protocols configurable, and by making all composing operations menu-based and easy to do

Another big reason for ProtoGenie is that for the first time tools were developed and packaged online for researchers and teachers who do not have mega-grants, as in "Big Science," that tends to monopolize research and push out "Small Science," where diversity and creativity reside. In effect, diversity and creativity is often lost because of the excessive costs of software engineers and traditional software development. In current lingo, small science is about "massively parallel" or "distributed" research.

Of special importance is that ProtoGenie is affordable and readily available to educators and students in research related courses of study and offers a storehouse of tutorials and illustrative protocols to support classroom and research projects.

 Q.  **What do I need to use ProtoGenie?**

A. Basically, all that is needed to use ProtoGenie is a computer and an Internet connection. Specific requirements include a desktop, laptop, tablet, or smart phone. Equipment and system requirements include Windows XP or later and Mac OS X; Windows Explorer 6 or later, Firefox 2.0 or higher, Google Chrome, and Safari; Flash 10 or higher Plug-In (free). The Java plug-in (also free) is necessary to use all of the ProtoGenie applications. A high-speed internet connection is recommended. All in all, what is needed is eminently affordable.

Home > Research Design Assistance

[Research Design Assistance]

+ Q.  [How does ProtoGenie assist users on matters of research design \(Methods\)?](#)

A. ProtoGenie is unique among research tools because it provides direct online research design assistance through a special wizard created by ProtoGenie research design specialists called the Design Genie. This wizard leads researchers step-by-step to the identification of "best" research designs for their studies. For example, input might indicate that the best design for a study is a two-group time series design.

+ Q.  [How does ProtoGenie assist users on Implementation plans?](#)

A. Implementation plan assistance is provided by the **ProtoGenie Implementation Genie**. The Implementation wizard addresses who will administer the protocol, to whom, when, where, and how. If you would like to visit the Implementation Genie, click below.

Home > Security Questions

[Security Questions]

 Q.  **Who has access to the protocols that I create and execute on ProtoGenie?**

A. The Principal Authors of ProtoGenie protocols determine who can access their protocols and who cannot. Authors of protocols have a choice to make their protocols public or private. If they set the protocol status to Private, then they are the only ones who can access the protocol, except to the extent that they specifically designate others who will have access. If they set protocol status of a protocol to Public, then anyone with access to a ProtoGenie account, and who knows the protocol number, title, or other identifying information, can access the protocol in ProtoGenie's public library of protocols. However, authors of the public protocols have the ability to limit the availability of certain operations otherwise available as to that protocol. For example, an author may limit access to the RUN command only, or to RUN and EDIT COPY only. Access to operations are set by authors in the User Actions Page under "Users."

 Q.  **More on Who has access to the protocols that I create.**

A. All protocols are designated either Public or Private by the Principle Author and only the principal author can change the security status of a protocol. Private means that no one but the principal author and people on their designated user lists (see below) can access the protocol. The default security status of every new protocol that is authored from scratch, that is created using the "Blank" Startup Option in the composer, is Private. However, if a protocol is created by modifying a copy of a Public protocol, then the status for that protocol will remain Public. Authors who wish these protocols to be Private must manually change the security status to Private. When the authors make copies of protocols that have been designated Private, by them as the authors or by them as persons given special access by the original author, then the status of these protocols will remain Private.

As indicated earlier, protocols having Public status are readily retrieved from the public library of ProtoGenie protocols by anyone with ProtoGenie access and information that identifies the protocol. "Public" security status also means that the protocol will appear in protocol searches by other ProtoGenie users. Public protocols can be copied and copies can be opened in the Composer/Editor, run, and edited, except as the operations associated with the protocol have been restricted.

When copies of public protocols are used as templates, they will be given new titles and security status will be tied by log in to the new Principal Author. However, only copies of public protocols can be opened and edited. The originals even Public originals cannot be opened or modified in any way. Consequently, only the principal author or users designated by the principal author(see below) can view the original protocol and any data collected using that protocol.

There will be times when principal authors need to provide special access to others to develop, test, and run them. These individuals are given access when they are added to the principle author's designated list of users. As earlier noted, the principal author can provide special access adding them to the principal author's designated list of users. The scope of special access is expressly delineated. If designated users are permitted to "Edit Copy," then they are authorized to make a copy of the protocol and modify it according to the needs of the principal author (or at will if the access is given for the benefit of the person designated rather than the author. If designated users are permitted to "Run" the protocol, they are authorized to execute the original. If designated users are permitted to "Edit" the protocol, they are authorized to make changes in the original. The "Delete" command is available to the principal author and only the principal author to delete an original protocol. Users other than the principal author, including those given special access by the principal author, cannot add other users to the designated user list unless they have been given the Edit permission.

In certain cases, individuals only need enough access to RUN a protocol. For example, participants in on-line surveys and experiments only need sufficient access to allow them to RUN the protocol. Conferring this limited access can be done through the creation of a special URL that can be opened on-line by the participant and that will take them directly to the first screen of a run.

 Q.  **How do I make my protocol accessible to my colleagues and the public?**

A. The default security status is public. To change the status of a protocol that has been made private accessible to the public, you must change the public/private status of the protocol. To do this, log on to ProtoGenie. In the User Options Page, select "My Protocols." In your list of protocols, click on the title of the protocol in which you wish to change the public/private status. In the "User Actions Menu," click on "Users." On the Permissions Page under Protocol Options, click on Private.

 Q.  **What is the effect of changing my protocol security status from Private to Public?**

A. When a protocol is made public, it becomes part of a searchable and copy-editable protocol database hosted on the ProtoGenie servers. Original copies of protocols are not in any way affected because users of public-status protocols can only invoke the "Edit Copy" user action and never the "Edit" action which allows changes to the original.

 Q.  **More about the effect of changing protocol security status from Private to Public**

A. An example is in order. I have several research assistants, graduate students, co-investigators, etc. working on a protocol with me. How can we all effectively collaborate on creating this protocol? There are two options. The first option is to make the existing protocol public and share the protocol ID with the other members of the research team. When you choose this option, you are giving the other users permission to copy their personal computers and edit the copy of the protocol as your work arrangement intends. The second option is to share the user name and password associated with your ProtoGenie account with members of the research team. The second option gives each user access to only one existing copy of the protocol.

One advantage to making the protocol public is that users can freely work on their respective parts of the protocol simultaneously on their own schedules. Should one member of the team need to see someone else's work, they can find it by using the author's name. The research team can also agree ahead of time to consolidate all edits onto one protocol that will be opened for research. A disadvantage of making your protocol public is that your current work will be searchable by other users on the ProtoGenie site whether it is ready to be viewed by others or not.

If you wish to maintain maximal confidentiality in your research, you should choose the private option. The private security status keeps the protocol and all work done on it confidential. Access and the ability to edit is available only to those who have access to the Author's ProtoGenie user name and password. Furthermore, users may have separate accounts (so long as they are opened with different email addresses) for their own personal use and also for research team work.

An important downside to a private shared account is that only one user can access the protocol at any given time. If confidentiality is less of a concern than simultaneous access, this option may not be desirable.

Home > Browser & Platform Support & System Requirements

[Browser & Platform Support & System Requirements]

+ Q.  **What are the ProtoGenie System Requirements?**

A. You will need desktop, laptop, or tablet for your basic development work. ProtoGenie can now be used on a smart phones and other handheld devices to facilitate work in the field. The minimum software and operating system (OS) requirements are Windows XP or Mac OS 10.5.1; Windows Explorer 6 or later, Mozilla Firefox 4.0 or higher, Google Chrome, Safari; Flash 10 or higher Plug-In. JavaScript must be enabled in your browser settings. The Java Plug-In is necessary to use all the ProtoGenie features. A high speed internet connection is recommended. Android 2.3 is needed for touch screen tablets and smart phones: Android 2.3.

+ Q.  **Are ProtoGenie results compatible with commercial data analysis packages?**

A. Yes. ProtoGenie offers the option to format your results in data tables in which variables may be separated by commas or a delimiter of your choice to format the data for input into popular statistical packages. If a delimiter other than a comma is used, then you must be sure that the delimiter does not appear in the data as normal alpha-numeric characters or if it does, to eliminate the possible conflicts. Thus, the ProtoGenie results formats are universally acceptable for use with popular analysis programs and packages. ProtoGenie also allows you to easily connect with an online data analysis program like StatCrunch that accepts the ProtoGenie data formats.

+ Q.  **Does ProtoGenie work on all standard Web browsers?**

A. Yes. ProtoGenie performs with all modern browsers. It functions with Microsoft Internet Explorer version 6.0 and later and Mozilla Firefox version 4.0 and later. ProtoGenie has also been tested and works on Apple's Safari and Opera browser, current version 11.5, and Google Chrome version 12.0. For best results, download the most recent versions of your web browser of choice. If you encounter any bugs while using ProtoGenie, please inform the authors as soon as possible so that the problem can be remedied. The authors are currently working on making ProtoGenie operational on smart phone devices, tablet PCs, and mobile web browsers. PG community will be alerted as this capability becomes available.

+ Q.  **Is ProtoGenie accessible on touch tablets & smart phones?**

A. ProtoGenie now may be used on Google's Android touch tablets with 2.3 or higher operating system. It is also accessible on smart phones with Android 2.3. The ability to use ProtoGenie on handheld devices will produce a veritable revolution in remote data collection for observational research and experiments in the field, clinical trial input by participants, and input for experiments in natural settings. However, performance has not been fully tested and Beta testers are welcome.

Home > Ethics & Compliance Guidelines

[Ethics & Compliance Guidelines]

+ Q. What should guide the ethics of ProtoGenie research protocol construction?

A. Ethics of ProtoGenie research protocol construction should conform to the rules and guidelines established by local Institutional Review Boards (IRBs), Department of Health and Human Services, the Federal Drug Administration, other relevant institutional rules and guidelines, the principle of good practice, and personal ethics of the principle investigators.

+ Q. More details on the ethics of ProtoGenie research protocol construction?

A. It is paramount that researchers grant written, informed consent to all prospective subjects. This consent can be delivered via personal contact with subjects prior to administration of the survey or secured electronically through a ProtoGenie protocol (e.g., having subjects initial and check an introductory question ensuring that they have read and understood the research being requested of them) so long as the procedure in acquiring it is presented as part of IRB approval. In addition, determine if additional security measures or protections are necessary for your subject pool. Additional provisions are often in place for doing research with children or vulnerable populations. Finally, researchers should always observe principles like respecting research participants, doing no harm, minimizing risks where appropriate, maximizing benefits to research participants, avoiding undue coercion, and promoting justice in allocating benefits.

Researchers should also practice common-sense to ensure maximal protection of research materials. Researchers should control access and exposure to sensitive data by restricting all work-related computer access to personal, private computers. Case-sensitive, complex passwords should be utilized on any and all computer stations. Hard copy files should be protected in cabinetry or office space that can be locked to prevent unauthorized access. Electronic files should be housed and/or backed-up on secure media, transmitted only through encrypted programming or through virtual private networks. Finally, hardware should be protected with up-to-date anti-virus, anti-spyware, and firewall software to minimize unwanted third-party access.

+ Q. What does ProtoGenie do to enhance participant compliance?

A. When a scheduled session does not take place when it should, the participant and the principal investigator (or staff) involved are automatically notified of this fact by email. Participants then may be contacted by research staff by email until the missed or incomplete session is completed.

+ Q. Does ProtoGenie use cookie technology?

A. Yes. ProtoGenie uses cookies to save your user name and password to your web browser. Clearing your browser's cache and cookies will delete this information. To disable this functionality, consult your web browser's help guide.

+ Q. Is web-based software considered acceptable for scientific research?

A. Yes, Internet-based research is considered fundamentally safe and can meet IRB compliance requirements. It is developing and spreading rapidly. Growing opportunities to create, develop, and disseminate research across the Internet requires the development of new means to protect human participants and secure research protocols and study results.

Home > Definitions & Terminology

[Definitions & Terminology]

+ Q.



What is a ProtoGenie Protocol?

A. A ProtoGenie protocol is a detailed map of the steps that a researcher must take to carry out a study. PG protocols are based on the logic of research involving events, groups, timelines, and case controls.

+ Q.



What is a ProtoGenie Protocol Event?

A. A ProtoGenie Event is something that is expected to happen or made to happen during a study. There are five categories of Events. They are Measurement Events, Treatment (intervention) Events, Support Events, Compound Events, and Complex Interaction Events.

+ Q.



What is a ProtoGenie "Measurement Event?"

A. A ProtoGenie Measurement Event is an action taken to determine whether something happened or changed in an experiment in response to a treatment (intervention or stimulus) or an action taken to determine attitudes, beliefs, knowledge, skills, memory, dispositions, and feelings. Measurement events generally involve things you want to learn about in your study and are usually referred to as "dependent variables" or "response variables" because they depend on or are responses to other factors that you want to explore, evaluate, or use to produce a change. Examples of dependent variables are "jury verdicts," "reading performance," and "reaction time."

+ Q.



What are "Measurements Types?"

A. "Measurement Types" are sometimes referred to as measurement "instruments" because they measure knowledge, attitudes, and beliefs in a survey, observations in observational research, or the effects of a treatment in an experiment or clinical trial. "Multiple Choice" is a popular type of measurement. There are thirteen familiar types of measurements available in ProtoGenie including "Checkbox," "List Box," "Matching," "Multiple Choice," "Ranking," "Rating Scale," "Short Answer," "Slider Bar," "True-False," and "Unspecified Measurement."

+ Q.



What is a ProtoGenie "Treatment?"

A. A ProtoGenie "Treatment" (stimulus or intervention) event is an action taken to manipulate something in an experiment to study its effects on a dependent variable. For example, you might be interested in studying the effects of drinking coffee on reading performance. Treatment events are called "treatments," "interventions," "change variables," and "stimuli," depending on the nature and field setting of the study. The statistical term for these variables is generally "Independent variable."

Home > Screen Formats

[Screen Formats]

  **Q. Can you present more than one event (such as a question or an image) on a single web page rather than presenting them in sequence?**

A. Yes. You can present more than one of the same type of event on a page. For example, you can present many questions on a page, as with a questionnaire, or you can present them one at a time sequentially. You also can present different types of events on one page. For example, you can present a stimulus image, such as a picture, and some text or a question, on the same page. Setting how events are presented is done under the "Events" menu on the Edit Protocol Page, under the "Compound (event) option and under "Form" (multiple events on one page).

Home > Image Production & Handling

[Image Production & Handling]

 **Q.**  **How are images, audio clips, and other sensory stimuli handled by ProtoGenie?**

A. Presenting images on the display as visual stimuli is accomplished indirectly. To incorporate a JPEG image, you insert in your protocol a standard hyperlink (URL) that links your protocol to the images. The same applies to auditory stimuli files. ProtoGenie provides instructions in the ProtoGenie Composer inserting the URLs and space for storing the files is provided on the ProtoGenie host. All that is necessary is to input the file name for which you want a URL

Home > Automatic & Manual Case Management

[Automatic & Manual Case Management]

+ Q.  **What is Automatic Case Management?**

A. Automatic Case Management automatically performs the major tasks of case management including the creation of initiation Web links (URLs) and the notification of scheduled sessions, overdue sessions, completed sessions, and sessions not completed. Its purpose is to facilitate the scheduling of research events, to increase the regularity and punctuality of scheduled events, to minimize the need for tedious micro-management, to lower the costs of case management, and to increase session completion and compliance rates.

+ Q.  **Can participants be assigned to groups randomly at runtime even if they are anonymous?**

A. Yes, simply create one URL in which you select the option to "Generate URL for Random Groups" and post the URL wherever you wish to draw anonymous participants.

+ Q.  **Can you open a protocol, complete a session and close it and then open it again for another session while keeping the results on one case record?**

A. Yes, simply select "By-Data" under the Timelines menu and then specify a specific (or relative) date for each session in your study. Under these dates the events that are scheduled to take place on each of these dates are displayed.

Index