= JMP (statistical software) =

JMP (pronounced " jump ") is a computer program for statistics developed by the JMP business unit of SAS Institute . It was launched in 1989 to take advantage of the graphical user interface introduced by the Macintosh . It has since been improved and made available for the Windows operating system . JMP is used in applications such as Six Sigma , quality control and engineering , design of experiments and scientific research .

The software consists of five products : JMP , JMP Pro , JMP Clinical , JMP Genomics and the JMP Graph Builder App for the iPad . A scripting language is also available . The software is focused on exploratory analytics , whereby users investigate and explore data , rather than testing a hypothesis .

= = History = =

JMP was developed in the 1980s by John Sall and a team of developers to make use of the graphical user interface introduced by the 1984 Apple Macintosh . It originally stood for " John 's Macintosh Project " or ? John ? s Macintosh Product ? and was first released in October 1989 . It was used mostly by scientists and engineers for design of experiments (DOE) , quality and productivity support (Six Sigma) , and reliability modeling . Semiconductor manufacturers were also among JMP ? s early adopters .

Interactive graphics and other features were added in 1991 with version 2 @.@ 0 . Version 2 was twice the size as the original , though it was still delivered on a floppy disk . It required 2 MB of memory and came with 700 pages of documentation . Support for Microsoft Windows was added in 1994 . JMP was re @-@ written with version 3 in 1999 . Version 4 , released in 2002 , could import data from a wider variety of data sources and added support for surface plots . Version 4 also added time series forecasting and new smoothing models , such as the seasonal smoothing method , called Winter 's Method , and ARIMA (Autoregressive Integrated Moving Average) . It was also the first version to support JSL , JMP Scripting Language .

In 2005 , data mining tools like a decision tree and neural net were added with version 5 as well as Linux support , which was later withdrawn in JMP 9 . Later in 2005 , JMP 6 was introduced . JMP began integrating with SAS in version 7 @.@ 0 in 2007 and has strengthened this integration ever since . Users can write SAS code in JMP , connect to SAS servers , and retrieve and use data from SAS . Support for bubble plots was added in version 7 . JMP 7 also improved data visualization and diagnostics .

JMP 8 was released in 2009 with new drag @-@ and @-@ drop features and a 64 @-@ bit version to take advantage of advances in the Mac operating system . It also added a new user interface for building graphs , tools for choice experiments and support for Life Distributions . According to Scientific Computing , the software had improvements in " graphics , QA , ease @-@ of @-@ use , SAS integration and data management areas . " JMP 9 in 2010 added a new interface for using the R programming language from JMP and an add @-@ in for Excel . The main screen was rebuilt and enhancements were made to simulations , graphics and a new Degradation platform . In March 2012 , version 10 made improvements in data mining , predictive analytics , and automated model building .

= = Software = =

JMP consists of JMP , JMP Pro , JMP Clinical and JMP Genomics , as well as the Graph Builder iPad App . JMP Clinical and JMP Genomics combine JMP with SAS software .

JMP software is partly focused on exploratory data analysis and visualization . It is designed for users to investigate data to learn something unexpected , as opposed to confirming a hypothesis . JMP links statistical data to graphics representing them , so users can drill down or up to explore the data and various visual representations of it . Its primary applications are for designed experiments and analyzing statistical data from industrial processes .

JMP is a desktop application with a wizard @-@ based user interface , while SAS can be installed on servers . It runs in @-@ memory , instead of on disk storage . According to a review in Pharmaceutical Statistics , JMP is often used as a graphical front @-@ end for a SAS system , which performs the statistical analysis and tabulations . JMP Genomics , used for analyzing and visualizing genomics data , requires a SAS component to operate and can access SAS / Genetics and SAS / STAT procedures or invoke SAS macros . JMP Clinical , used for analyzing clinical trial data , can package SAS code within the JSL scripting language and convert SAS code to JMP .

JMP is also the name of the SAS Institute business unit that develops JMP . As of 2011 it had 180 employees and 250 @,@ 000 users .

= = JMP Scripting Language (JSL) = =

The JMP Scripting Language (JSL) is an interpreted language for recreating analytic results and for automating or extending the functionality of JMP software . JSL was first introduced in JMP version 4 in 2000 . JSL has a LISP @-@ like syntax , structured as a series of expressions . All programming elements , including if @-@ then statemenst and loops , are implemented as JSL functions . Data tables , display elements and analyses are represented by objects in JSL that are manipulated with named messages . Users may write JSL scripts to perform analyses and visualizations not available in the point @-@ and @-@ click interface or to automate a series of commands , such as weekly reports . SAS , R , and Matlab code can also be executed using JSL .

= = Notable applications = =

In 2007 , a wildlife monitoring organization , WildTrack , started using JMP with the Footprint Identification Technology (FIT) system to identify individual endangered animals by their footprints . In 2009 , the Chicago Botanic Garden used JMP to analyze DNA data from tropical breadfruit . Researchers determined that the seedless , starchy fruit was created by the deliberate hybridization of two fruits , the breadnut and the dugdug . The Herzenberg Laboratory at Stanford has integrated JMP with the Fluorescence Activated Cell Sorter (FACS) . The FACS system is used to study HIV , cancer , stem @-@ cells and oceanography .