IBM SPSS Statistics Developer

Build customized functionality and procedures in R or Python

Highlights

- "Wrap" R and Python procedures in IBM SPSS Statistics syntax.
- Deploy to users of any SPSS Statistics module.
- Users work in SPSS Statistics' familiar graphical interface.
- Shields users from the complexities of R.

IBM® SPSS® Statistics Developer allows R and Python programmers to "wrap" procedures in IBM SPSS Statistics syntax so that they can be accessible to a wider range of users.

SPSS Statistics Developer includes all of the core functionality found in every SPSS Statistics module—crucially, the data access and management capabilities, programmability options, Custom Dialog Builder feature, and report creation, charting and deployment functionality—except for the analytical procedures that the modules contain.

It provides a low-cost option for programmers who need the power of SPSS Statistics to support the functionality they create with R and Python.

R is increasingly popular for advanced statistics. It is very flexible, and provides fine control over the way functions are executed. However, it is complex and can be difficult to learn, and, because it requires data to be held in memory, it cannot easily be used with large datasets. Python programmers face similar challenges.

SPSS Statistics Developer allows R and Python users to overcome the limitations of these languages in an environment that also features robust data access, management, preparation and reporting tools.

Wrap and deploy customized functionality

SPSS Statistics provides a complete framework into which users can place customized features and algorithms built using R and/or Python — either for their own use or for deployment to users of any SPSS Statistics module.

With SPSS Statistics Developer, any R package can be easily wrapped in SPSS Statistics syntax so that it takes on the appearance of a standard SPSS Statistics procedure — which can then easily be invoked through SPSS Statistics. And it can be given a dialog box interface that makes it indistinguishable from SPSS Statistics' built-in dialogs. Furthermore, R packages can produce standard pivot tables in the style of SPSS Statistics.

Through the Custom Dialog feature, advanced users can quickly share highly customized work with any user of any SPSS Statistics module, complete with a user interface that can be as complex or simple as they like.

This shields users from the complexities of R, and instead lets them work in SPSS Statistics' familiar graphical interface. They can also take advantage of the superior data management, graphical and output functionality built into SPSS Statistics.

IBM SPSS Statistics Developer and R

IBM SPSS Statistics Developer is not a commercial implementation of the R language, which remains free and can be downloaded without charge from www.r-project.org. Rather, it is a modestly priced program for wrapping R functions and packages in a format that allows them to run cleanly and efficiently in SPSS Statistics.

Available in 10 languages, SPSS Statistics Developer has been specially created for people who wish to create particular analytical functionality using the R and/or Python programming languages – but in an easy-to-use format that can be distributed for use by a wider audience.

There is a simple, effective upgrade path to the full version of SPSS Statistics. For more information about programmability, please visit **ibm.com**/spss/devcentral.

A perfect platform for unique solutions

SPSS Statistics Developer is a perfect solution for users who wish to integrate R packages into a mature, highly functional GUI-based environment. It also simplifies teaching advanced statistics to students — eliminating the need for them to grapple with the complexities of R.

IBM SPSS Statistics Developer offers a number of important advantages for R programmers:

- Simple and easy to learn how to wrap R packages and algorithms – an excellent tutorial is included
- Easy to distribute via eeb download or, even more easily, by email
- Custom Dialog Builder allows programmers to create specific interfaces that simplify users' access to the functionality they have provided
- They can make their skills and expertise available to a far wider range of users in both academic and commercial worlds.

Over time, R programmers will increasingly choose to wrap R packages for SPSS Statistics so that a wider range of users will be able to take advantage of those specialized functions.

The benefits to SPSS Statistics users include:

- Access to thousands of advanced algorithms and R packages
- Easy to install – just point SPSS Statistics at the wrapped package and it installs automatically
- Easy to use – packages are invoked through the standard SPSS Statistics interface or, for more advanced users, through SPSS Statistics syntax
- Runs in the familiar SPSS Statistics environment, which provides:
  - Full access to SPSS Statistics data handling functions
  - The ability to work with larger datasets–no in-memory limitations
  - Efficient production of more graphs and other forms of output.

With SPSS Statistics Developer, students, analysts, researchers and non-statisticians can avoid the language's weaknesses while retaining its many strengths, and R experts can benefit from disseminating their work more widely.

Gain greater value with collaboration

To share and efficiently distribute assets, protect them in ways that meet internal and external compliance requirements and publish results so that a greater number of business users can view and interact with them, consider augmenting SPSS Statistics Developer with IBM SPSS Collaboration and Deployment services. More information about these valuable capabilities can be found at **ibm.com**/spss/cds.

System requirements

Requirements vary according to platform. For details, see **ibm.com**/spss/requirements.

About IBM Business Analytics

IBM Business Analytics software delivers actionable insights decision-makers need to achieve better business performance. IBM offers a comprehensive, unified portfolio of business intelligence, predictive and advanced analytics, financial performance and strategy management, governance, risk and compliance and analytic applications.

With IBM software, companies can spot trends, patterns and anomalies, compare "what if" scenarios, predict potential threats and opportunities, identify and manage key business risks and plan, budget and forecast resources. With these deep analytic capabilities our customers around the world can better understand, anticipate and shape business outcomes.

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