

# Introducing **SAS** Packages

A Modern Code Sharing Medium for **SAS**

sas innovate

sas innovate  
2026

**Bartosz Jabłoński**

✉ [yabwon@gmail.com](mailto:yabwon@gmail.com)  
[linkedin.com/in/yabwon](https://www.linkedin.com/in/yabwon)

April 28<sup>th</sup>, 2026  
Grapevine, TX

## Disclaimer

I'm not a native speaker but I'm doing my best.

If I say something that may be interpreted as either negative or positive (e.g. a joke vs. an offense) I always, always, mean the positive.





Bart Jabłoński, PhD  
**yabwon** (2022)  
SASing since 2009



Faculty of  
Mathematics  
and Information  
Science

Warsaw  
University  
of Technology

[www.mini.pw.edu.pl](http://www.mini.pw.edu.pl)



Takeda  
Pharmaceutical  
[www.takeda.com](http://www.takeda.com)



Polish SAS  
Users Group  
[www.polsug.com](http://www.polsug.com)



the plan

sas innovate  
2026

## conjecture

Introduction of a code-sharing culture based on packages can elevate SAS community to the next level.

## "a sketch of proof"

- explain the idea of SAS packages;
- introduce a tool that facilitates the idea, i.e., the SAS Packages Framework;
- advocate for using and developing SAS packages in the SAS programmers community.



# prologue

competitive advantage lost

sas innovate  
2026

show me the money!



source of inspiration: <https://film.org.pl/wp-content/uploads/2025/10/JERRY-MAGUIRE-Show-me-the-money.png>



developers, developers! developers!! developers!!!



source of inspiration: [https://generatestatic.netlify.app/uploads/ballmer\\_developers.png](https://generatestatic.netlify.app/uploads/ballmer_developers.png)



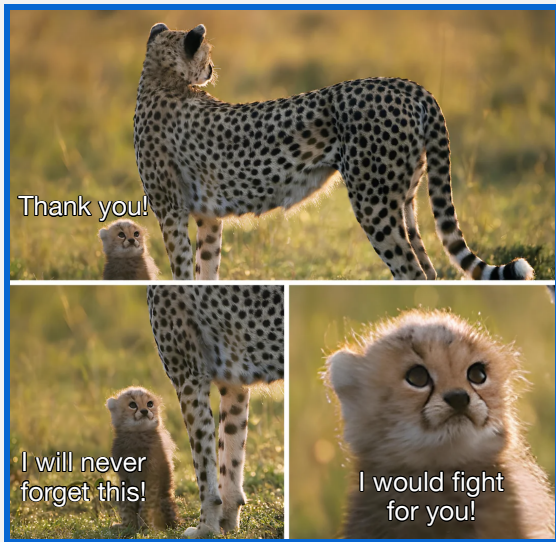
so little time, so much to do



source of inspiration: [https://www.imdb.com/title/tt0096895/mediaviewer/rm3418663681/?ref\\_=ttmi\\_mi\\_1\\_3](https://www.imdb.com/title/tt0096895/mediaviewer/rm3418663681/?ref_=ttmi_mi_1_3)



I will never forget this



source: <https://imgflip.com/memetemplate/219807408/Cheetah-Mom-with-Scared-Cub/>



historical note

sas innovate  
2026

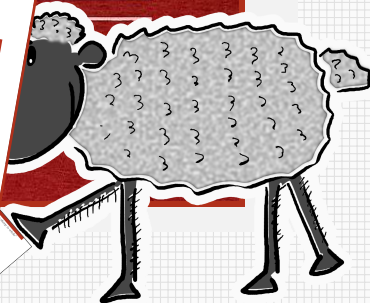








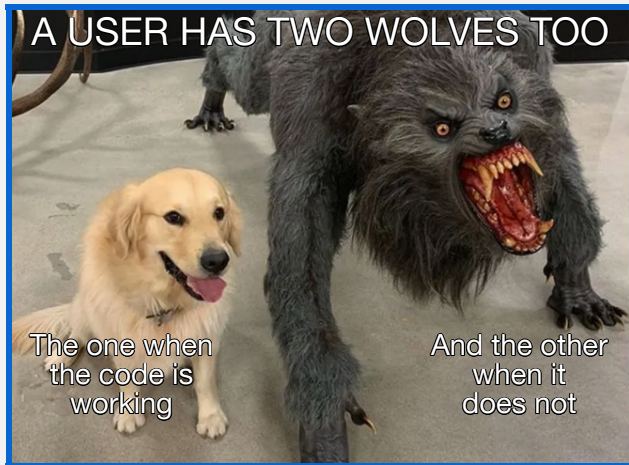
„The wolf is sated and the sheep is whole”





source: <https://imgflip.com/memetemplate/296370149/You-have-two-wolves>



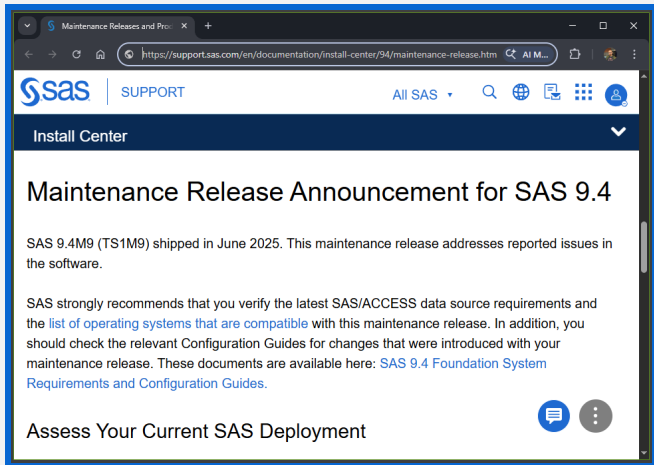


source: <https://imgflip.com/mememplate/179315205/dog-vs-werewolf>

Any resemblance to real persons or events is purely coincidental.



## a clarification note

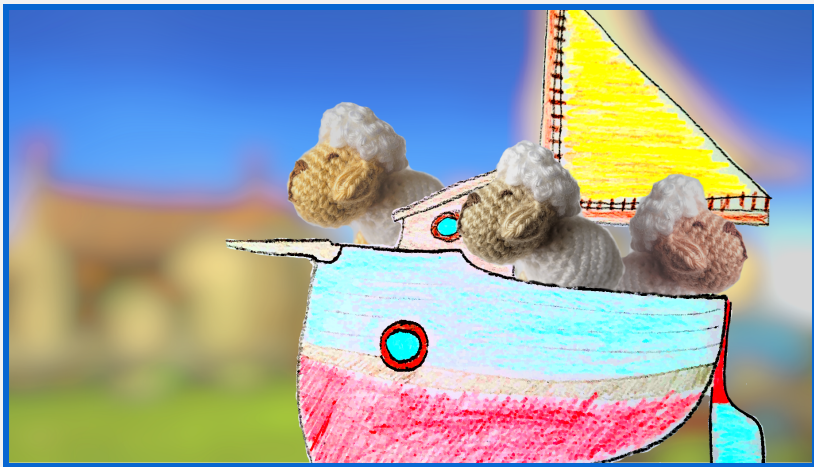


The screenshot shows a web browser window with the URL `https://support.sas.com/en/documentation/install-center/94/maintenance-release.htm`. The page header includes the SAS logo and the word "SUPPORT". Below the header, there is a navigation bar with "Install Center" and a dropdown arrow. The main content area features a large heading "Maintenance Release Announcement for SAS 9.4". The text below the heading states: "SAS 9.4M9 (TS1M9) shipped in June 2025. This maintenance release addresses reported issues in the software." It then continues: "SAS strongly recommends that you verify the latest SAS/ACCESS data source requirements and the [list of operating systems that are compatible](#) with this maintenance release. In addition, you should check the relevant Configuration Guides for changes that were introduced with your maintenance release. These documents are available here: [SAS 9.4 Foundation System Requirements and Configuration Guides](#)." At the bottom of the content area, there is a section titled "Assess Your Current SAS Deployment" with a comment icon and a menu icon.

SOURCE: <https://support.sas.com/en/documentation/install-center/94/maintenance-release.html>



## a clarification note



source of inspiration: [https://cdn.iview.abc.net.au/thumbs/i/zy/ZY9555A021S0055cd91144cc224.25712981\\_1280.jpg](https://cdn.iview.abc.net.au/thumbs/i/zy/ZY9555A021S0055cd91144cc224.25712981_1280.jpg)





# packages and the framework

**sas innovate**  
2026



**THE POWER TO KNOW®**





*the way to share*



## SAS package<sup>1</sup>

A **SAS package** is an automatically generated, single, stand alone zip file containing organised and ordered code structures, created by the developer and extended with additional automatically generated "driving" files (i.e. description, metadata, load, unload, and help files, etc.)

The purpose of a package is to be a simple, and easy to access, code sharing medium, which allows: on the one hand, to separate the code complex dependencies created by the developer from the user experience with the final product and, on the other hand, reduce developers and users unnecessary frustration related to a remote deployment process.

---

<sup>1</sup>The idea presented here should not be confused with other occurrences of "package" concept which can be found in the SAS ecosystem e.g., Proc DS2 packages, SAS/IML packages, SAS ODS packages, SAS Integration Technologies Publishing Framework packages, or event an Enterprise Guide \*.egp file.



## SAS Packages Framework

The **SAS Packages Framework** (SPF) is a "pack" of macros, which allows to *use* and to *develop* SAS packages.

- %installPackage(),
- %listPackages(),
- %verifyPackage(),
- %previewPackage(),
- %helpPackage(),
- %loadPackage(),
- %loadPackageS(),
- %loadPackageAddCnt(),
- %unloadPackage(),
- %generatePackage(),
- %splitCodeForPackage(),
- %extendPackagesFileref(),
- %relocatePackage(),
- %isPackagesFilerefOK(),
- %bundlePackages(),
- %unbundlePackages(),
- %SasPackagesFrameworkNotes(),



## SAS Packages Framework

The **SAS Packages Framework** (SPF) is a "pack" of macros, which allows to *use* and to *develop* SAS packages.

- %installPackage(),
- %listPackages(),
- %verifyPackage(),
- %previewPackage(),
- %helpPackage(),
- %loadPackage(),
- %loadPackageS(),
- %loadPackageAddCnt(),
- %unloadPackage(),
- %generatePackage(),
- %splitCodeForPackage(),
- %extendPackagesFileref(),
- %relocatePackage(),
- %isPackagesFilerefOK(),
- %bundlePackages(),
- %unbundlePackages(),
- %SasPackagesFrameworkNotes(),



## SAS Packages Framework

The **SAS Packages Framework** (SPF) is a "pack" of macros, which allows to *use* and to *develop* SAS packages.

- %installPackage(),
- %listPackages(),
- %verifyPackage(),
- %previewPackage(),
- %helpPackage(),
- %loadPackage(),
- %loadPackageS(),
- %loadPackageAddCnt(),
- %unloadPackage(),
- %generatePackage(),
- %splitCodeForPackage(),
- %extendPackagesFileref(),
- %relocatePackage(),
- %isPackagesFilerefOK(),
- %bundlePackages(),
- %unbundlePackages(),
- %SasPackagesFrameworkNotes(),



## SAS Packages Framework

The **SAS Packages Framework** (SPF) is a "pack" of macros, which allows to *use* and to *develop* SAS packages.

■ %installPackage(),                   ■ %generatePackage(),  
■ %listPackages(),                   ■ %splitCodeForPackage(),  
■ %generatePackage(),               ■ %extendPackagesFileRef(),  
■ %previewPackage(),               ■ %relocatePackage(),  
■ %helpPackage(),                   ■ %loadPackage(),  
■ %loadPackageS(),                 ■ %bundlePackages(),  
■ %loadPackage(),                   ■ %unloadPackage(),  
■ %unloadPackage(),                 ■ %SasPackagesFrameworkNotes(),

**100% SAS, open source,  
MIT licensed code!  
no third party to run**



why yet another tool?

sas innovate  
2026

## why?

- Both `sasautos` and compiled catalogs are mainly dedicated to macros (the latter also for formats); a package allows sharing macros, user-defined functions, formats, informats, IML modules, even data, or DS2 and CAS-L code, and much more!
- In contrary to compiled catalogs, packages can be shared among different operating systems, and they keep the source code at their fingertip, so it can be (easily!) previewed on demand and cannot be lost.
- In contrary to `sasautos`, a package combines all code needed for proper execution into one file, and that code is compiled and executed in proper designed-by-developer order.



## why?

- Both `sasautos` and compiled catalogs are mainly dedicated to macros (the latter also for formats); a package allows sharing macros, user-defined functions, formats, informats, IML modules, even data, or DS2 and CAS-L code, and much more!
- In contrary to compiled catalogs, packages can be shared among different operating systems, and they keep the source code at their fingertip, so it can be (easily!) previewed on demand and cannot be lost.
- In contrary to `sasautos`, a package combines all code needed for proper execution into one file, and that code is compiled and executed in proper designed-by-developer order.



## why?

- Both `sasautos` and compiled catalogs are mainly dedicated to macros (the latter also for formats); a package allows sharing macros, user-defined functions, formats, informats, IML modules, even data, or DS2 and CAS-L code, and much more!
- In contrary to compiled catalogs, packages can be shared among different operating systems, and they keep the source code at their fingertip, so it can be (easily!) previewed on demand and cannot be lost.
- In contrary to `sasautos`, a package combines all code needed for proper execution into one file, and that code is compiled and executed in proper designed-by-developer order.



## why?

- Both `sasautos` and compiled catalogs are mainly dedicated to macros (the latter also for formats); a package allows sharing macros, user-defined functions, formats, informats, IML modules, even data, or DS2 and CAS-L code, and much more!
- In contrary to compiled catalogs, packages can be shared among different operating systems, and they keep the source code at their fingertip, so it can be (easily!) previewed on demand and cannot be lost.
- In contrary to `sasautos`, a package combines all code needed for proper execution into one file, and that code is compiled and executed in proper designed-by-developer order.



## why? cont.

- In contrary to a plain file in `sasautos`, a package binds all its code under version number; it has a generation timestamp embedded in it; and it provides a unique SHA256 digest that facilitates easy verification of whether the package was modified by some "man in the middle" or not.
- Packages provide easily accessible documentation that can be printed in the SAS session LOG at a user's request. Everything is at your fingertips, with no need for Internet access to work.
- SAS packages, when designed properly, can be deployed and used on every SAS environment you desire: local Base SAS, remote SAS9 servers with Enterprise Guide, SAS Viya with SAS Studio, and even the latest SAS Workbench with VS-Code.



## why? cont.

- In contrary to a plain file in `sasautos`, a package binds all its code under version number; it has a generation timestamp embedded in it; and it provides a unique SHA256 digest that facilitates easy verification of whether the package was modified by some "man in the middle" or not.
- Packages provide easily accessible documentation that can be printed in the SAS session LOG at a user's request. Everything is at your fingertips, with no need for Internet access to work.
- SAS packages, when designed properly, can be deployed and used on every SAS environment you desire: local Base SAS, remote SAS9 servers with Enterprise Guide, SAS Viya with SAS Studio, and even the latest SAS Workbench with VS-Code.



## why? cont.

- In contrary to a plain file in `sasautos`, a package binds all its code under version number; it has a generation timestamp embedded in it; and it provides a unique SHA256 digest that facilitates easy verification of whether the package was modified by some "man in the middle" or not.
- Packages provide easily accessible documentation that can be printed in the SAS session LOG at a user's request. Everything is at your fingertips, with no need for Internet access to work.
- SAS packages, when designed properly, can be deployed and used on every SAS environment you desire: local Base SAS, remote SAS9 servers with Enterprise Guide, SAS Viya with SAS Studio, and even the latest SAS Workbench with VS-Code.



PharmaSUG 2025, Paper SD-116

## Use of SAS® Packages in the ~~Pharma~~Any Industry – Opportunities, Possibilities, and Benefits\*

Bartosz Jabłoński, - yabwon/Warsaw University of Technology

### ABSTRACT

When working with SAS® code, especially with a complex one, there is a moment when you decide to break it into small pieces. You create separate files for macros, formats/informats, for functions or data too. Eventually the code is ready and tested, and sooner or later you will want to share it with another SAS programmer. You have developed a program using local PC SAS, but the deployment is on a server with a different OS. Your code is complex (with dependencies such as multiple macros, formats, datasets, etc.) and is difficult to share. Often when you try to share code, the receiver will quickly encounter an error because of a missing macro, missing format, or whatever...small challenge, isn't it? In this article we discuss a solution to the problem - the idea of SAS Packages, what they are, how to use and develop them, and how to make code-sharing a piece of cake. And of course what opportunities, possibilities, and benefits SAS Packages bring to the pharmaceutical (among others) industry are also discussed.

link: <https://www.lexjansen.com/pharmasug/2025/SD/PharmaSUG-2025-SD-116.pdf>



why? cont.

SUG 2025, Paper SD-116

Any Industry  
etc\*

SAS ユーザー総会 2025, 9月25日

SAS Packages Project - #19

# SAS Packages

その共有、もっとスマートに



Jabłoński  
Bartosz

ヤブウォンスキー  
バートシュ

✉ yabwon@gmail.com  
linkedin.com/in/yabwon

idea of SAS Packages  
cake. And of course what opportunities  
(among others) industry are also discussed.

link: <https://www.youtube.com/watch?v=4QRx7sUh09E>

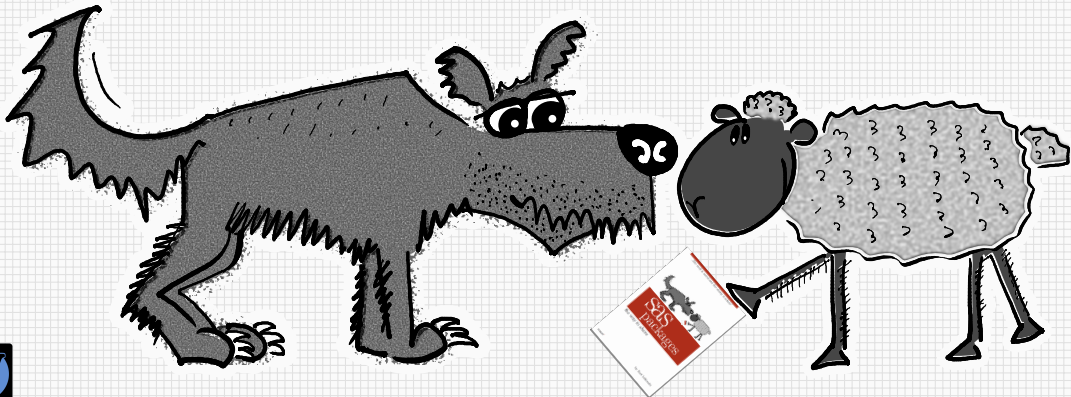


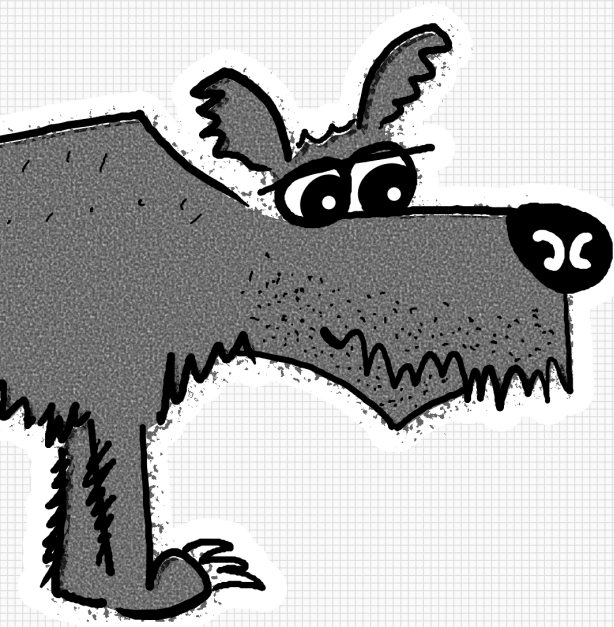


# the user and the developer

**sas innovate**  
2026

# the User & the Developer





## Files and folders

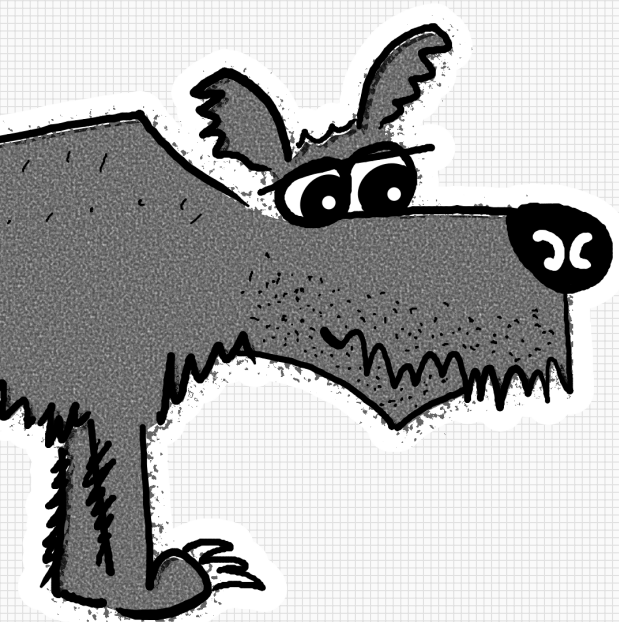
- Create a folder for packages, e.g. C:/PCKG
- Install the framework: SPFinit.sas\*

## Code

```
filename packages "C:/PCKG";  
%include packages(SPFinit.sas);  
  
%installPackage(packageName)  
%<help/verify/preview>Package(packageName)  
  
%loadPackage(packageName)
```

## What next?

- Read the log
- Enjoy the package ;-)



## Files and folders

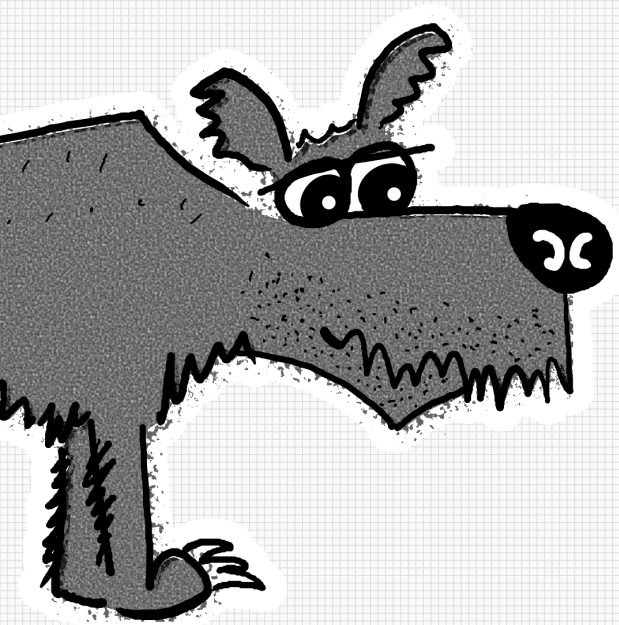
- Create a folder for packages, e.g. C:/PCKG
- Install the framework: SPFinit.sas\*

## Code

```
filename packages "C:/PCKG";  
%include packages(SPFinit.sas);  
  
%installPackage(packageName)  
%<help/verify/preview>Package(packageName)  
  
%loadPackage(packageName)
```

## What next?

- Read the log
- Enjoy the package ;-)



## Files and folders

- Create a folder for packages, e.g. C:/PCKG
- Install the framework: SPFinit.sas\*

## Code

```
filename packages "C:/PCKG";  
%include packages(SPFinit.sas);  
  
%installPackage(packageName)  
%<help/verify/preview>Package(packageName)  
  
%loadPackage(packageName)
```

## What next?

- Read the log
- Enjoy the package ;-)

## Files and folders

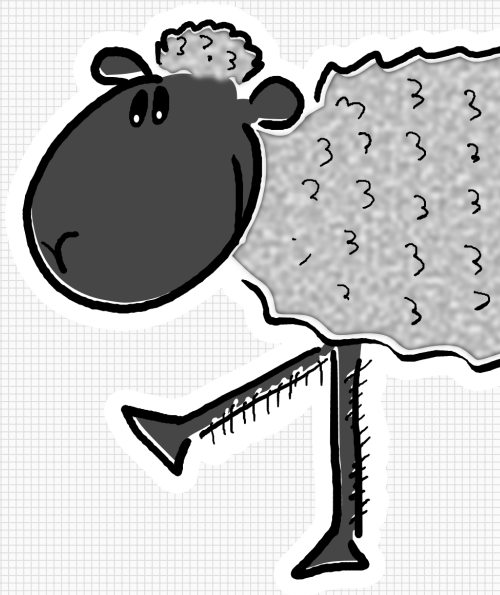
- Install SPFinit.sas\* file, e.g. into /home/pckg
- Create package folder, e.g. /home/pckg/myPackage
- Prepare package files and the description file.

## The Code

```
filename packages "/home/pckg";  
%include packages(SPFinit.sas);  
  
%generatePackage(filesLocation=/home/pckg/myPackage)
```

## The Result

- Read the summary and the log
- Check tests results
- Share the package ;-)



## Files and folders

- Install SPFinit.sas\* file, e.g. into /home/pckg
- Create package folder, e.g. /home/pckg/myPackage
- Prepare package files and the description file.

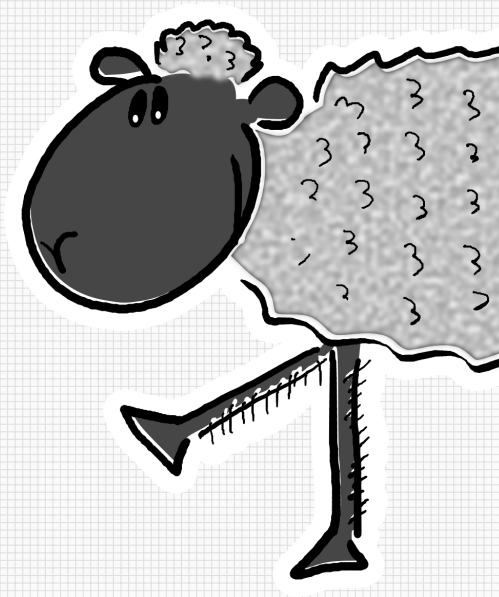
## The Code

```
filename packages "/home/pckg";  
%include packages(SPFinit.sas);
```

```
%generatePackage(filesLocation=/home/pckg/myPackage)
```

## The Result

- Read the summary and the log
- Check tests results
- Share the package ;-)



## Files and folders

- Install SPFinit.sas\* file, e.g. into /home/pckg
- Create package folder, e.g. /home/pckg/myPackage
- Prepare package files and the description file.

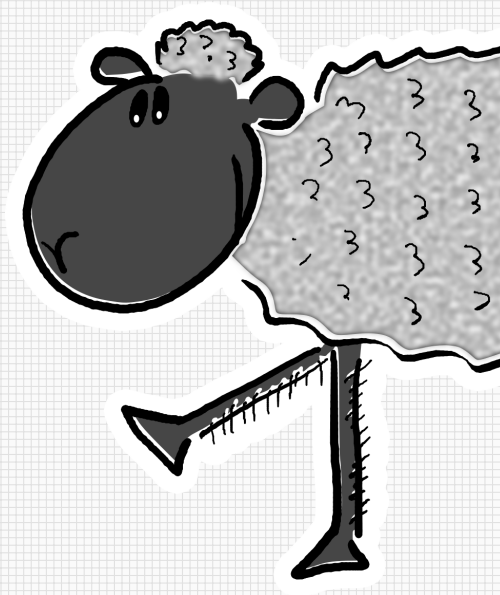
## The Code

```
filename packages "/home/pckg";  
%include packages(SPFinit.sas);
```

```
%generatePackage(filesLocation=/home/pckg/myPackage)
```

## The Result

- Read the summary and the log
- Check tests results
- Share the package ;-)



locations

sas innovate  
2026

# SAS Packages Framework

*„The wolf is sated and the sheep is whole”*



sas  
packages

*the way to share*

[github.com/yabwon/SAS\\_PACKAGES](https://github.com/yabwon/SAS_PACKAGES)

ORLY<sup>®</sup>

*by Bart Jablonski*



# Workshop Materials

*„The wolf is sated and the sheep is whole”*



**sas**  
packages

*the way to share*

[github.com/yabwon/How-SASPackages](https://github.com/yabwon/How-SASPackages)

ORLY<sup>®</sup>

by Bart Jablonski



# SAS Packages Archive

*„The wolf is sated and the sheep is whole”*



sas  
packages

*the way to share*

[github.com/SASPAC](https://github.com/SASPAC)

ORLY<sup>®</sup>

*by Bart Jablonski*



*„The wolf is sated and the sheep is whole”*

# PharmaForest



**sas**  
packages

*the way to share*

ORLY<sup>®</sup>

*by Bart Jablonski*



by PHUSE Japan  
OST working group

Hiroki Yamanobe  
Yutaka Morioka  
Ryo Nakaya

[github.com/PharmaForest](https://github.com/PharmaForest)





SAS Packages Archive



Tutorial & Workshop



SAS Packages Framework



epilogue  
be a stargazer

sas innovate  
2026

how is it going? where are we?



how is it going? where are we?



I'm not that good painter, these are (partially) AI generated.



how is it going? where are we?



BE HONEST

I'm not that good painter, these are (partially) AI generated.

SOURCE: <https://imgflip.com/memegenerator/497281194/Victoria-David-Beckham-Be-Honest>



how is it going? where are we?



I'm not that good painter, these are (partially) AI generated.



how is it going? where are we? what need to be done?



I'm not that good painter, these are (partially) AI generated.



how is it going? where are we? what need to be done?

***To grow, the SAS packages idea needs  
your endorsement, support, and promotion!***



I'm not that good painter, these are (partially) AI generated.



## rules of engagement

the 1<sup>st</sup> rule - you talk about SAS packages,

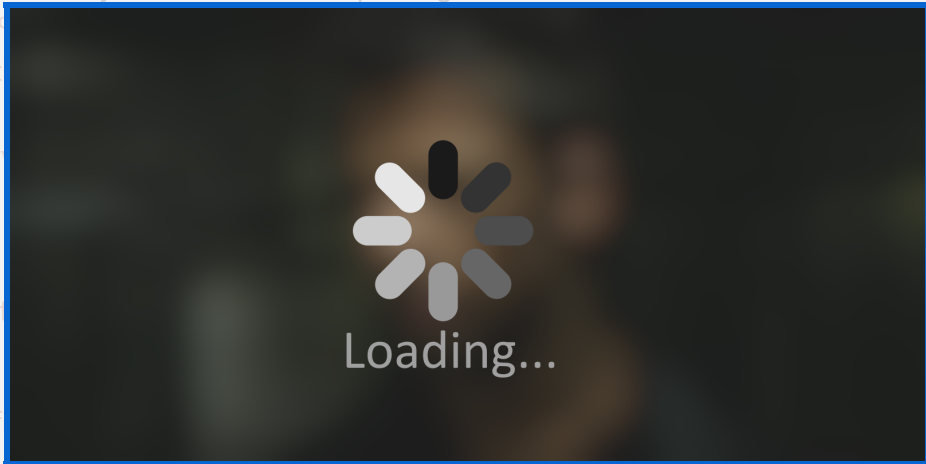
the 2<sup>nd</sup>

have t

don't

any

event



unloaded source: <https://www.youtube.com/watch?v=dC1yHLp9bWA>



## rules of engagement

**the 1<sup>st</sup> rule** - you talk about SAS packages,

the 2<sup>nd</sup> rule - you talk about SAS packages,

have time? - learn how to build packages and share your work with the community,

don't have - visit SASPAC (or PharmaForest) and play with existing packages,

anyways - visit SAS Packages Framework's repo:

[https://github.com/yabwon/SAS\\_PACKAGES](https://github.com/yabwon/SAS_PACKAGES)

and give it (and any other SPF relatives) a star (★),

join - the *SAS Packages Users & Developers group* (SPUDs) LinkedIn group,

eventually - if you find the SAS packages idea beneficial, visit `communities.sas.com` and up-vote the SAS Product Suggestions Ballot Idea asking to add SAS Packages Framework to SAS,

finally - if this is your first time hearing about SAS packages - **you have to build one!**



## rules of engagement

**the 1<sup>st</sup> rule** - you talk about SAS packages,

**the 2<sup>nd</sup> rule** - you **talk** about SAS packages,

**have time?** - learn how to build packages and share your work with the community,

**don't have** - visit SASPAC (or PharmaForest) and play with existing packages,

**anyways** - visit SAS Packages Framework's repo:

[https://github.com/yabwon/SAS\\_PACKAGES](https://github.com/yabwon/SAS_PACKAGES)

and give it (and any other SPF relatives) a star (★),

**join** - the *SAS Packages Users & Developers group* (SPUDs) LinkedIn group,

**eventually** - if you find the SAS packages idea beneficial, visit [communities.sas.com](https://communities.sas.com) and up-vote the SAS Product Suggestions Ballot Idea asking to add SAS Packages Framework to SAS,

**finally** - if this is your first time hearing about SAS packages - **you have to build one!**



## rules of engagement

**the 1<sup>st</sup> rule** - you talk about SAS packages,

**the 2<sup>nd</sup> rule** - you **talk** about SAS packages,

**have time?** - learn how to build packages and share your work with the community,

**don't have** - visit SASPAC (or PharmaForest) and play with existing packages,

**anyways** - visit SAS Packages Framework's repo:

[https://github.com/yabwon/SAS\\_PACKAGES](https://github.com/yabwon/SAS_PACKAGES)

and give it (and any other SPF relatives) a star (★),

**join** - the *SAS Packages Users & Developers group* (SPUDs) LinkedIn group,

**eventually** - if you find the SAS packages idea beneficial, visit [communities.sas.com](http://communities.sas.com) and up-vote the SAS Product Suggestions Ballot Idea asking to add SAS Packages Framework to SAS,

**finally** - if this is your first time hearing about SAS packages - **you have to build one!**



## rules of engagement

the 1<sup>st</sup> rule - you talk about SAS packages,

the 2<sup>nd</sup> rule - you **talk** about SAS packages,

have time? - learn how to build packages and share your work with the community,

don't have - visit SASPAC (or PharmaForest) and play with existing packages,

anyways - visit SAS Packages Framework's repo:

[https://github.com/yabwon/SAS\\_PACKAGES](https://github.com/yabwon/SAS_PACKAGES)

and give it (and any other SPF relatives) a star (★),

join - the *SAS Packages Users & Developers group* (SPUDs) LinkedIn group,

eventually - if you find the SAS packages idea beneficial, visit [communities.sas.com](https://communities.sas.com) and up-vote the SAS Product Suggestions Ballot Idea asking to add SAS Packages Framework to SAS,

finally - if this is your first time hearing about SAS packages - **you have to build one!**



## rules of engagement

the 1<sup>st</sup> rule - you talk about SAS packages,

the 2<sup>nd</sup> rule - you **talk** about SAS packages,

have time? - learn how to build packages and share your work with the community,

don't have - visit SASPAC (or PharmaForest) and play with existing packages,

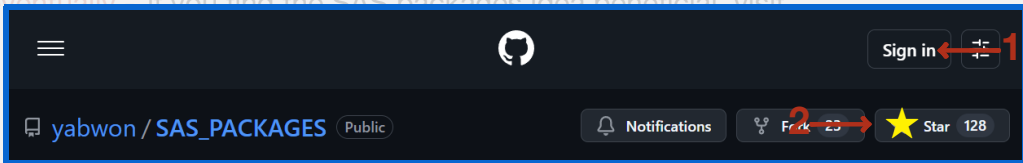
anyways - visit SAS Packages Framework's repo:

[https://github.com/yabwon/SAS\\_PACKAGES](https://github.com/yabwon/SAS_PACKAGES)

and give it (and any other SPF relatives) a star (★),

join - the *SAS Packages Users & Developers group* (SPUDs) LinkedIn group,

eventually - if you find the SAS packages idea beneficial, visit



## rules of engagement

**the 1<sup>st</sup> rule** - you talk about SAS packages,

**the 2<sup>nd</sup> rule** - you **talk** about SAS packages,

**have time?** - learn how to build packages and share your work with the community,

**don't have** - visit SASPAC (or PharmaForest) and play with existing packages,

**anyways** - visit SAS Packages Framework's repo:

[https://github.com/yabwon/SAS\\_PACKAGES](https://github.com/yabwon/SAS_PACKAGES)

and give it (and any other SPF relatives) a star (★),

**join** - the *SAS Packages Users & Developers group* (SPUDs) LinkedIn group,

**eventually** - if you find the SAS packages idea beneficial, visit `communities.sas.com` and up-vote the SAS Product Suggestions Ballot Idea asking to add SAS Packages Framework to SAS,

**finally** - if this is your first time hearing about SAS packages - **you have to build one!**




## rules of engagement

the 1<sup>st</sup> rule - you talk about SAS packages,

the 2<sup>nd</sup> rule - you **talk** about SAS packages,

have time? - learn how to build packages and share your work with the community,

don't have - visit SAS ing packages,

anyways - visit SAS  **2** Add SAS Packages Framework to the SAS Base/Viya

PACKAGES

and gi

Status: [New Suggestion](#)

Submitted by  yabwon on 05-27-2022 05:54 PM

join - the *SAS Packages Users & Developers group* (SPUDs) LinkedIn group,

eventually - if you find the SAS packages idea beneficial, visit [communities.sas.com](https://communities.sas.com) and up-vote the SAS Product Suggestions Ballot Idea asking to add SAS Packages Framework to SAS,

finally - if this is your first time hearing about SAS packages - **you have to build one!**



## rules of engagement

the 1<sup>st</sup> rule - you talk about SAS packages,

the 2<sup>nd</sup> rule - you **talk** about SAS packages,

have time? - learn how to build packages and share your work with the community,

don't have - visit SASPAC (or PharmaForest) and play with existing packages,

anyways - visit SAS Packages Framework's repo:

[https://github.com/yabwon/SAS\\_PACKAGES](https://github.com/yabwon/SAS_PACKAGES)

and give it (and any other SPF relatives) a star (★),

join - the *SAS Packages Users & Developers group* (SPUDs) LinkedIn group,

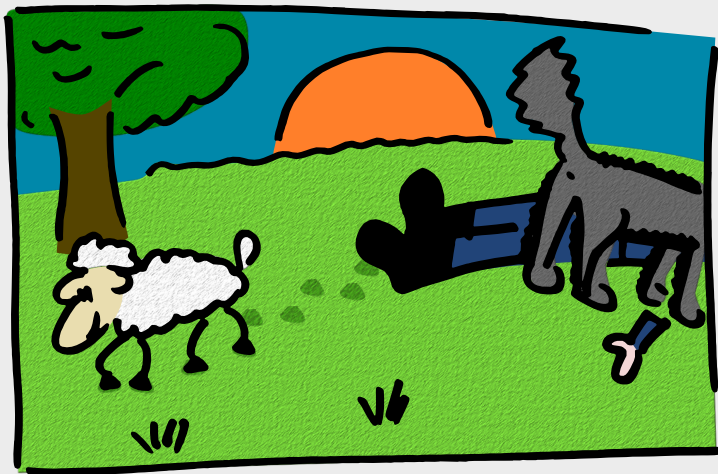
eventually - if you find the SAS packages idea beneficial, visit [communities.sas.com](https://communities.sas.com) and up-vote the SAS Product Suggestions Ballot Idea asking to add SAS Packages Framework to SAS,

finally - if this is your first time hearing about SAS packages - **you have to build one!**





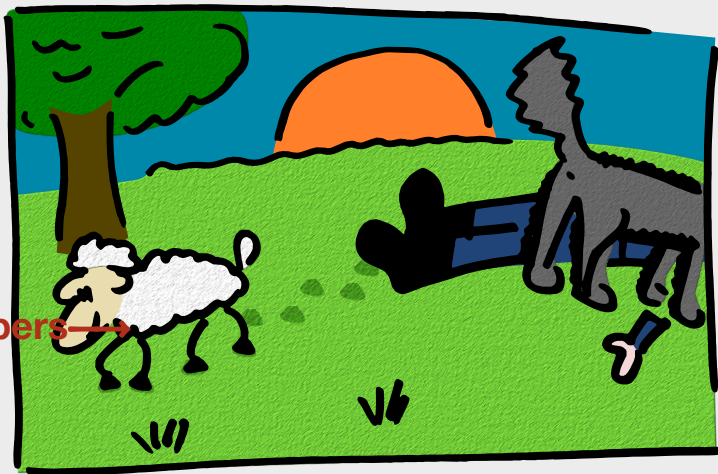
SAY "**SAS PACKAGE**" AGAIN!  
SAY "**SAS PACKAGE**" AGAIN!  
I DARE YOU!  
**I DOUBLE-DARE YOU,**  
NAUGHTY-RASCAL!!  
SAY "**SAS PACKAGE**" ONE  
MORE DARN TIME!



the wolf is sated & the sheep is whole

source of inspiration: <https://artinfo.pl/dzielo/wilk-syty-i-owca-cala-ilustracja-satyryczna>

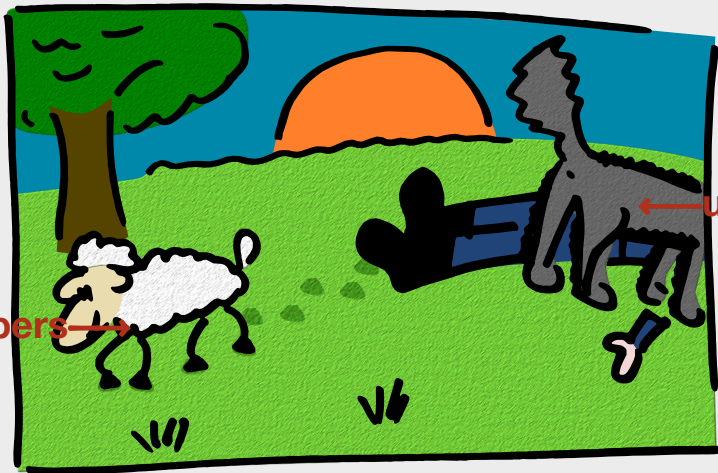
developers →



the wolf is sated & the sheep is whole

source of inspiration: <https://artinfo.pl/dzielo/wilk-syty-i-owca-cala-ilustracja-satyryczna>

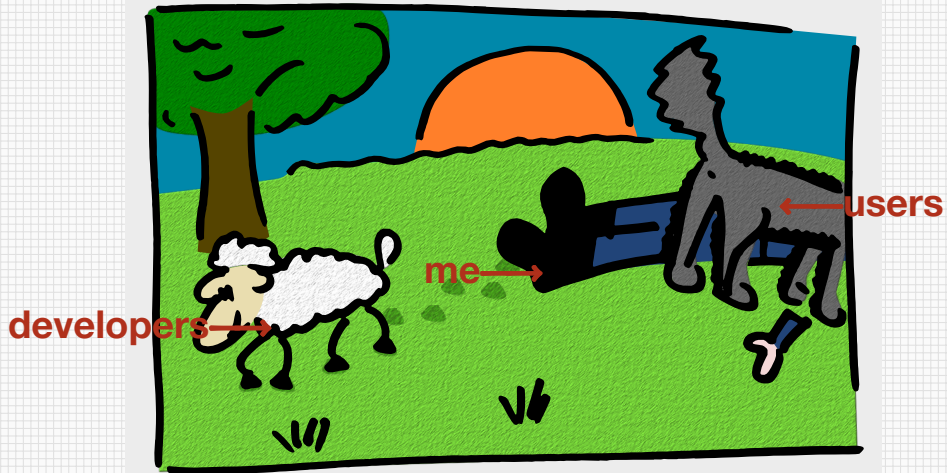
developers →



← users

the wolf is sated & the sheep is whole

source of inspiration: <https://artinfo.pl/dzielo/wilk-syty-i-owca-cala-ilustracja-satyryczna>



the wolf is sated & the sheep is whole

source of inspiration: <https://artinfo.pl/dzielo/wilk-syty-i-owca-cala-ilustracja-satyryczna>



# TIMESTAMP

**BREAKING NEWS**  
anonymous  
SAS employee  
reveals:

**SAS packages is  
the way to share!**



*Any resemblance to real persons or events is purely coincidental.*

the wol  
source of inspiratio

whole  
atyryczna

dziękuję bardzo



GitHub

Bartosz Jabłoński

✉ [yabwon@gmail.com](mailto:yabwon@gmail.com)  
[linkedin.com/in/yabwon](https://linkedin.com/in/yabwon)  
[github.com/yabwon](https://github.com/yabwon)



LinkedIn