

Best practices for upgrading to the latest version of SAS 9

Brian Kinnebrew, Global Technology Practice

November 19, 2020

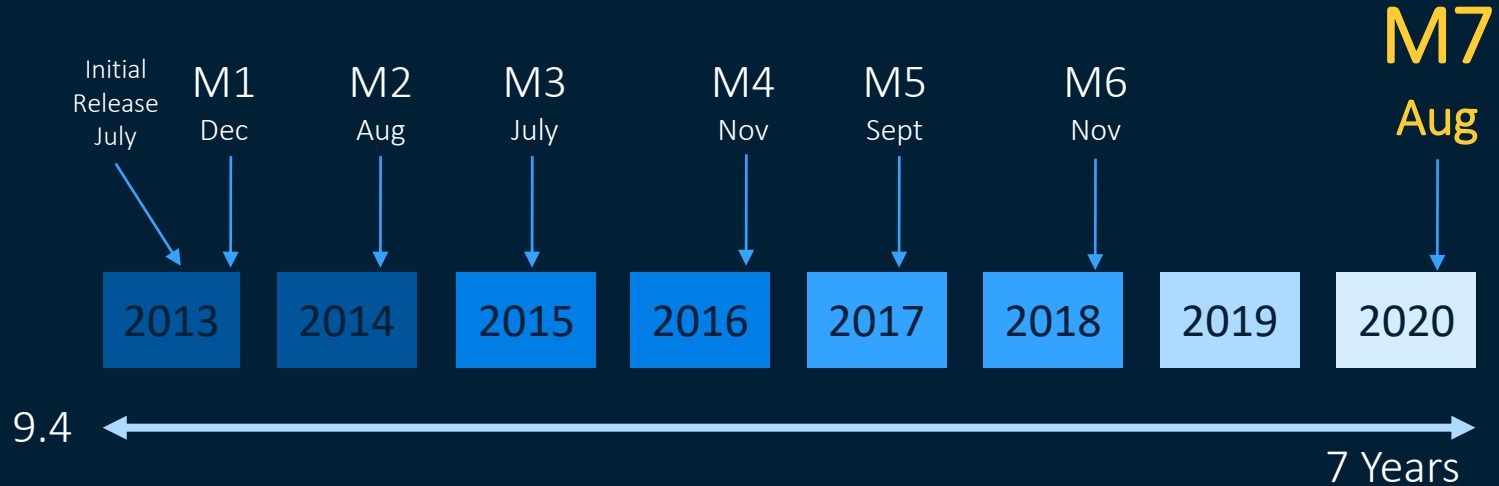


Today's Agenda

1. It's time to upgrade!
2. Tools and tips to make your upgrade easier
3. Q&A



9.4 Timeline



What you get with 9.4M7



Removal of Adobe
Flash



Upgrade in Place
Improvements



Security
Enhancements



Bug and Hot Fixes



Product
Enhancements



Expanded
Operating System
Support

Customers running SAS 9.4M5 or earlier need to upgrade, migrate or modernize their SAS Adobe Flash based products by December 31, 2020!!



1996-2020

Customers must **Modernize, Migrate, or Upgrade**
their SAS 9.4 Environments.

If you want to move to a Flash-free version of
SAS 9.4, you must **Migrate or Upgrade**.

When customers move to flash-free versions using the **Modernize** method, the software being modernized will entail the use of a new SAS platform.

Migrate

Migrate metadata and data

Use SAS Migration Utility for full system backup and recovery.

Use promotion to move selected objects.

New
SAS
Installation

Existing
Installation

Upgrade In Place*

Updates SAS software where it is installed and configured

No migration of metadata or data necessary

* AKA Update In Place

SAS Migration Utility (SMU) vs. Upgrade In Place (UIP)

Pros

SAS Migration Utility

- SAS processing is not disrupted
- New installation of SAS is created
- Allows for hardware and operating system version upgrades

Upgrade In Place

- No additional hardware cost
- Lower implementation cost
- Shorter time to complete upgrade

Cons

SAS Migration Utility

- Additional hardware costs
- Higher implementation cost
- Lengthier time to complete migration

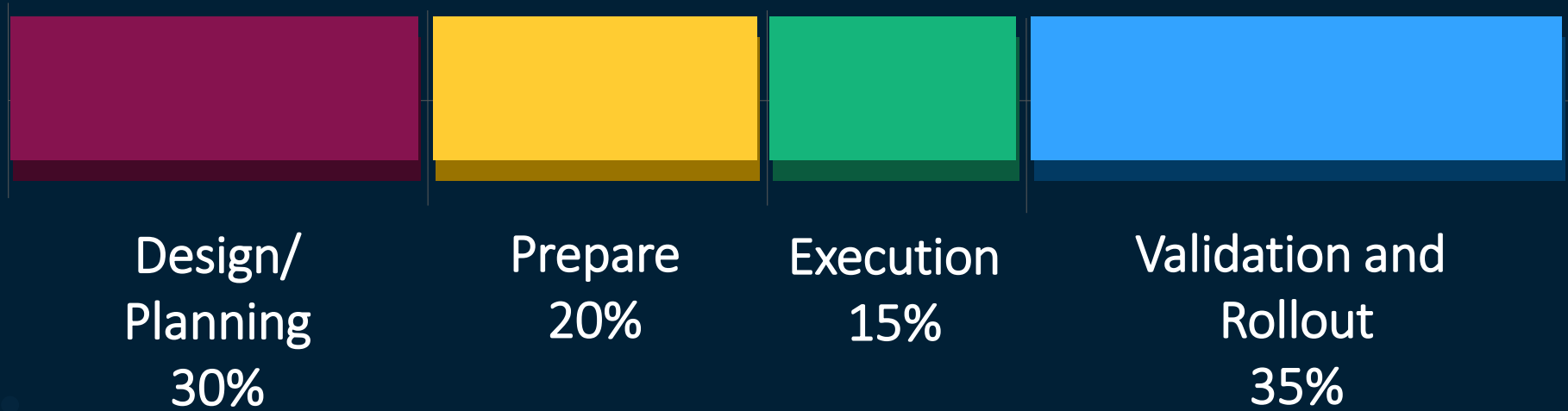
Upgrade In Place

- SAS processing is disrupted until the upgrade is complete (or a backup restored)

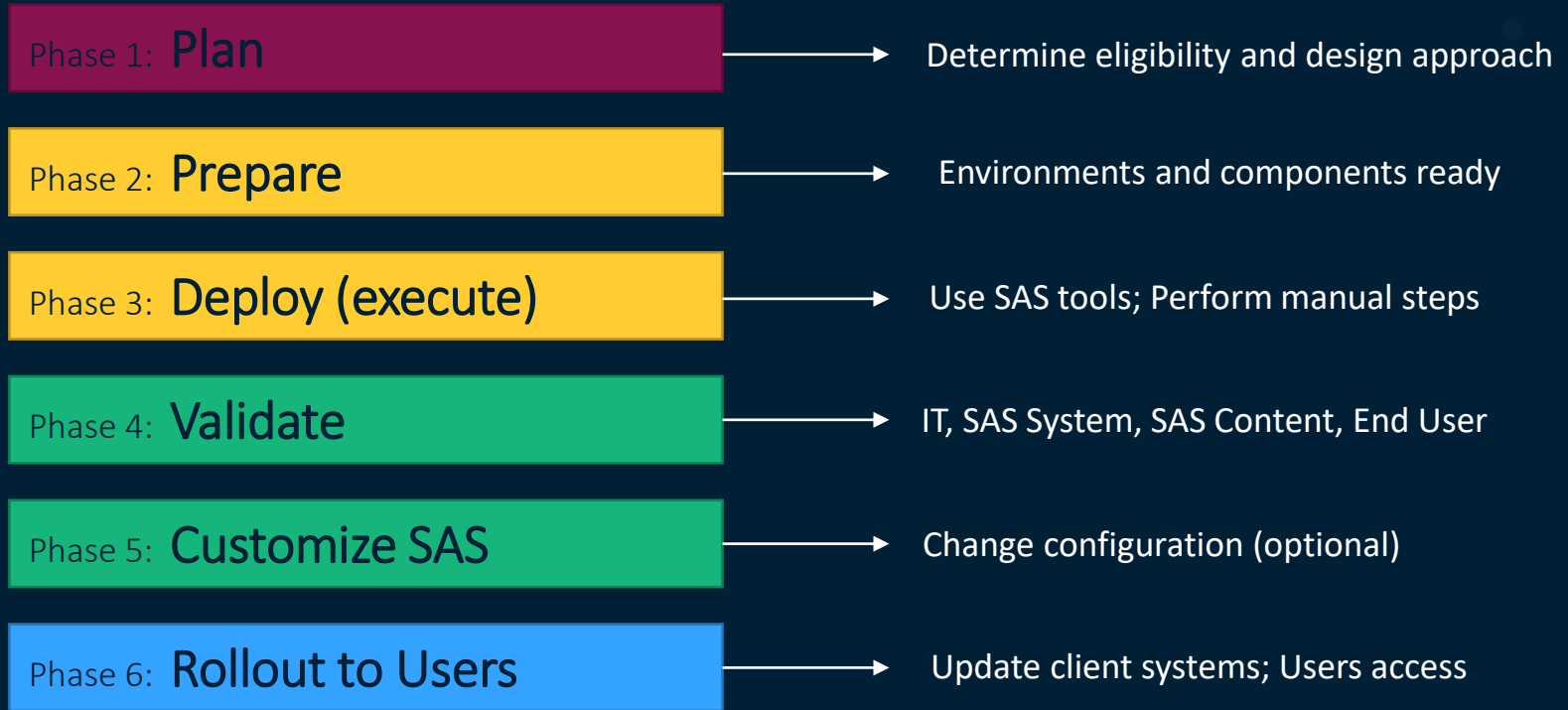


So let's talk about
Upgrade in Place.....

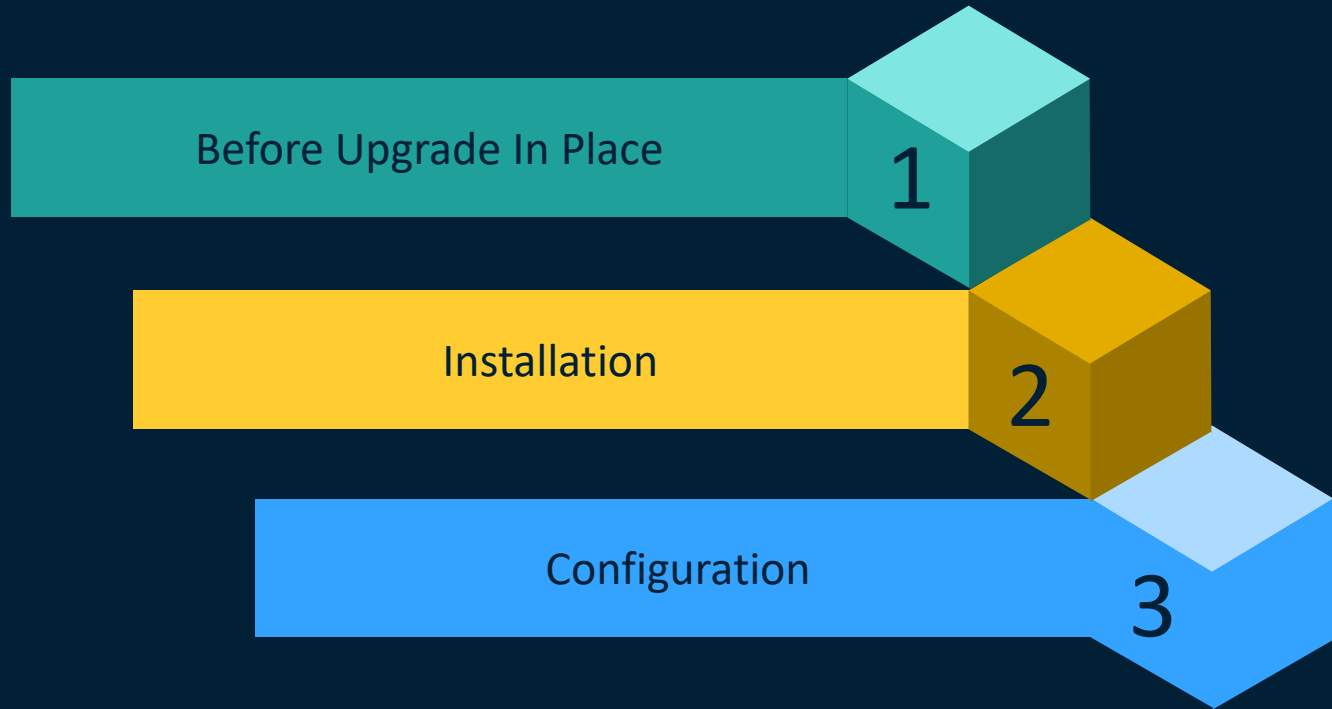
Upgrading is a Process



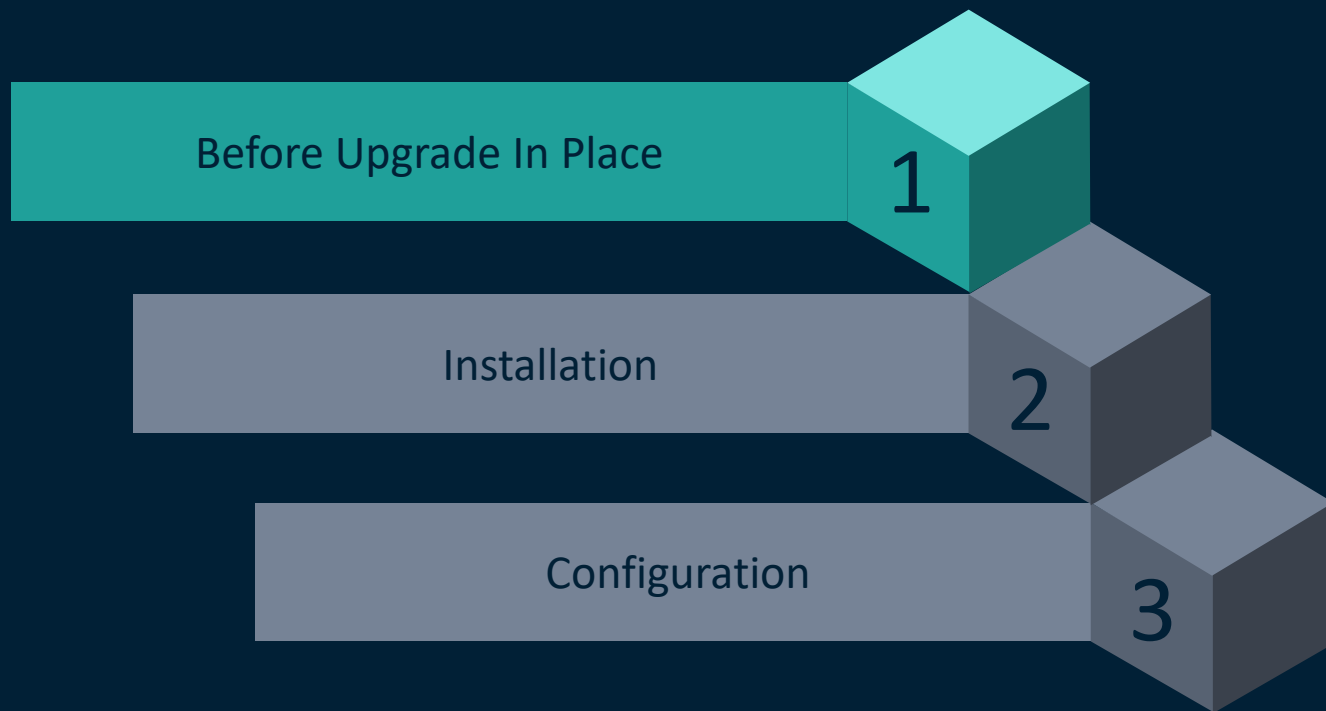
Upgrading SAS 9.4



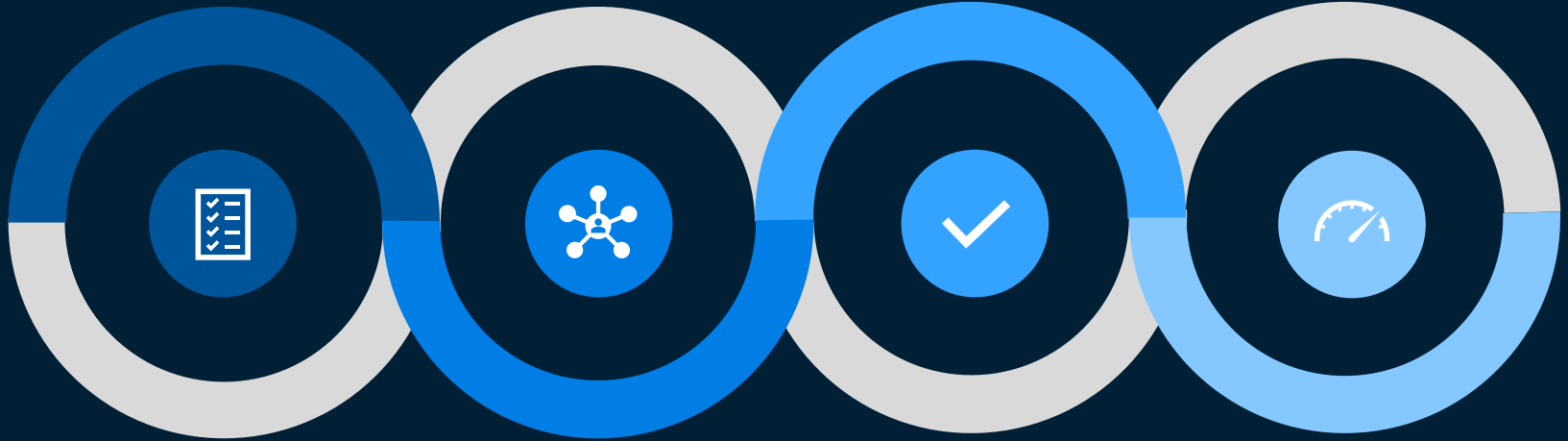
SAS is making it easier by improving Upgrade In Place



SAS is making it easier by improving Upgrade In Place



The SAS[®] 9 Content Assessment helps organizations understand their SAS[®] 9 systems.



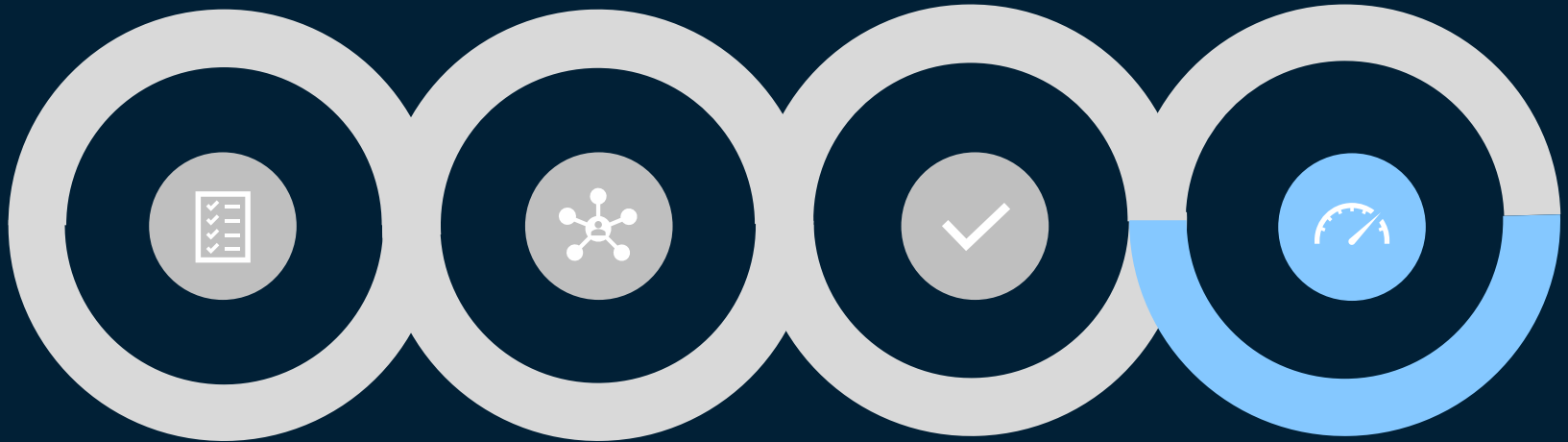
SAS 9 Inventory

SAS 9 Profile

SAS 9 Code Check

SAS 9 System Evaluation

The SAS® 9 System Evaluation analyzes SAS® 9.4 system and configuration details to identify known deployment issues



SAS 9 Inventory

SAS 9 Profile

SAS 9 Code Check

SAS 9 System Evaluation

So they may be remediated with Technical Support Deployment Specialists.

SAS® 9 Content Assessment Applications are available to customers from Downloads on support.sas.com

SUPPORT | DOWNLOADS & HOT FIXES

SUPPORT

- Management Tools
- SAS Administrator
- Security Databases
- License Assistance
- Manage My Software Account
- Downloads & Hot Fixes**
 - SAS System Software
 - SAS Data/Proc Software
 - IMP Software
 - Mobile Device Software
 - Third Party Products
 - Additional Products
 - Hot Fixes
- Knowledge Base

Downloads

The Downloads application contains updates for SAS products and solutions, SAS Data/Proc software, JMP software, and SAS/STAT software.

Product Category: **A-Z** Release Date: []

A-Z

- D**
 - 9.3 STANDARD DEPLOYMENT PLANS Updated AUG 2010
 - 9.3 Standard Deployment Plans Release 9.3 - JUL 2011
 - 9.4 Standard Deployment Plans Release 9.4 - MAY 2010
- A**
 - Accessible SAS/GRAPH Macros for iPad Release 9.3 - APR 2012
 - Add-In Tools for SAS/Warehouse Administrator 2.0 MAR 2000
 - Add-In Tools for SAS/Warehouse Administrator 2.1 OCT 2000
 - Add-In Tools for SAS/Warehouse Administrator 2.2 JUL 2007
 - Add-In Tools for SAS/Warehouse Administrator 2.3 OCT 2002
 - Apache Solr (tm) download
- C**
 - Canada Address Verification (Canada Post SERP Current Version 2 Release 2, V2R2)
 - CGI Tools for Release 9.2 SAS/InflNet Software Updated MAR 2001
 - CGI Tools for Release 9.1.3 SAS/InflNet Software for Service Pack 4 - Updated JUN 2008
 - CGI Tools for Release 9.21 SAS/InflNet Software 92.110.10a20 - MAY 2010
 - CGI Tools for Release 9.21 SAS/InflNet Software 92.110.09a40 - SEP 2009
 - CGI Tools for Release 9.21 SAS/InflNet Software 92.110.09a00 - FEB 2009
 - CGI Tools for Release 9.3 SAS/InflNet Software 92.1101.12a35 - AUG 2012
 - CGI Tools for Release 9.3 SAS/InflNet Software 93.710.11a28 - JUL 2011
 - CGI Tools for Release 9.4 SAS/InflNet Software Release 9.45 - NOV 2018
 - CGI Tools for Release 9.4 SAS/InflNet Software Release 9.44 - FEB 2018
 - CGI Tools for Release 9.4 SAS/InflNet Software Release 9.4.102 - AUG 2014
 - CGI Tools for Release 9.4 SAS/InflNet Software 94.1101.13a51 - DEC 2013
 - CGI Tools for Release 9.4 SAS/InflNet Software 94.110.13a28 - JULY 2013
 - Contact SAS Technical Support for the Java Platform Standard Edition Development Kit
 - Contact SAS Technical Support for the SAS Products JRE updates - SAS9 9.402 (13/10/12)

S

- Sample Data for SAS/ETS Interface Engines
- SAS/ACCESS to Google BigQuery Tools
- SAS/ACCESS to R/3 Download
- SAS/ACCESS to SAP ASE Tools
- SAS/C Cross-Platform Software Updates for UNIX Platforms Release 6.50.02 - MAR 1999
- SAS/C Cross-Platform Software Updates for Windows and UNIX Platforms Release 6.50.05 - AUG 1999
- SAS/C Cross-Platform Software Updates for Windows and UNIX Platforms Release 6.50.04 - MAR 1999
- SAS/GRAPH Control for ActiveX Release 9.46 - NOV 2016
- SAS/GRAPH Control for ActiveX Release 9.45 - SEP 2017
- SAS/GRAPH Control for ActiveX Release 9.44 - NOV 2016
- SAS/GRAPH Control for ActiveX Release 9.43 - MAR 2016
- SAS/GRAPH Control for ActiveX Release 9.43 - JUL 2015
- SAS/GRAPH Control for ActiveX Release 9.4 M2 - AUG 2014
- SAS/GRAPH Control for ActiveX Release 9.4 M1 - DEC 2013

- SAS/SECURE Site Add-in AUG 2005
- SAS/SHARE Data Provider Version 9.0 - OCT 2002
- SAS/SHARE Data Provider Release 3.1 - OCT 2001
- SAS 6.7 Qualification Tools Updated OCT 2003
- SAS 9 Content Assessment 1.3**
- SAS Administration CLI
- SAS AppDev Studio 2.0 and 3.0 Localized Server-side Data Sets (Spanish Only) for SAS9 9.1 - Updated NOV 2008
- SAS AppDev Studio Eclipse Plug-ins Update Release 3.2.1 - NOV 2008
- SAS AppDev Studio Eclipse Plug-ins Update Release 3.2.2 - JAN 2007
- SAS AppDev Studio Java Components 3.1.2 Update for SAS9 9.1.2 - JUN 2004
- SAS AppDev Studio Java Components 3.1.3 Update for SAS9 9.1.3 - AUG 2004

[Go to the SAS 9 Content Assessment download](#)

Evaluates the current system to identify known issues

SAS System Evaluation

System Evaluation Report

CTNSRVVM23

Total Issues:

5

System Details:

Machine: C:\Program Files\SAS\Home	Number of Cores: 1
SAS Config Directory: C:\SAS\AP\lib\Local	Number of Logical Processors: 1
File in SAS Config Directory: 178752	System Locale: en-us;English;United States
Operating System: Microsoft Windows Server ...	Total System Memory: 32,768 MB
Version: 4.2 R200 (SAS Build 9330)	Available System Memory: 16,470 MB
CPU(s): 2 Processor(s) installed.	

▼ **Helpful links**

Please contact [SAS Technical Support](#) about any issues requiring further assistance.

See [Turning the PRODSASG Data Server](#) for information on taking the SAS Web Infrastructure Platform Data Server.

Know what products are installed



Metadata

Metadata Topology:

rdcesx03470.race.sas.com (Compute, Metadata, Middle Tier - Primary on lax)

- ✓ SASApp
- ✓ SASMeta - Logical Metadata Server
- ✓ Decision Manager Com Data Svr Cfg 3.3
- ✓ Web Infrastructure Platform Data Server 9.4
- ✓ Object Spawner - rdcesx03470
- ✓ Operating System Services - rdcesx02005
- ✓ SASApp - Logical SAS DATA Step Batch Server
- ✓ SASApp - Logical OLAP Server
- ✓ SASApp - Logical Pooled Workspace Server
- ✓ SASApp - Logical Stored Process Server
- ✓ SASApp - Logical Workspace Server
- ✓ Connect Spawner - rdcesx03470
- ✓ Management Console 9.4
- ✓ Visual Analytics Cfg Data 7.5
- ✓ BI Lineage Sched Svr 4.4
- ✓ Web Infra Platf Sched Svcs 9.4
- ✓ BI Report Services 4.4
- ✓ BI Dashboard Config Data 4.3
- ✓ EnvMgr Enablement Kit 2.4
- ✓ DP-WebServer rdcesx03470.race.sas.com
- ✓ DP-SAS Web Application Server rdcesx03470.race.sas.com
- ✓ Foundation Services 9.4
- ✓ Web Infrastructure Platform 9.4
- ✓ Flex Application Themes
- ✓ Visual Analytics Services 7.5
- ✓ Web Report Studio 4.4
- ✓ Visual Analytics Admin 7.5
- ✓ Information Delivery Portal 4.4
- ✓ BI Dashboard 4.4
- ✓ BI Portlets 4.4
- ✓ Decision Manager Common Mid 3.3
- ✓ SAS Studio Mid-Tier 3.8
- ✓ Web Infra Platf Ext BI Dash 4.3
- ✓ Business Rules Manager Web 3.3
- ✓ Model Manager Mid-Tier 14.3
- ✓ DP-SAS-Environment-Manager rdcesx03470.race.sas.com

Technical Support has defined a process to respond to customer inquiries regarding their need to upgrade to SAS® 9.4M7.

Contact SAS Tech Support to resolve any Adobe Flash remediation issues.

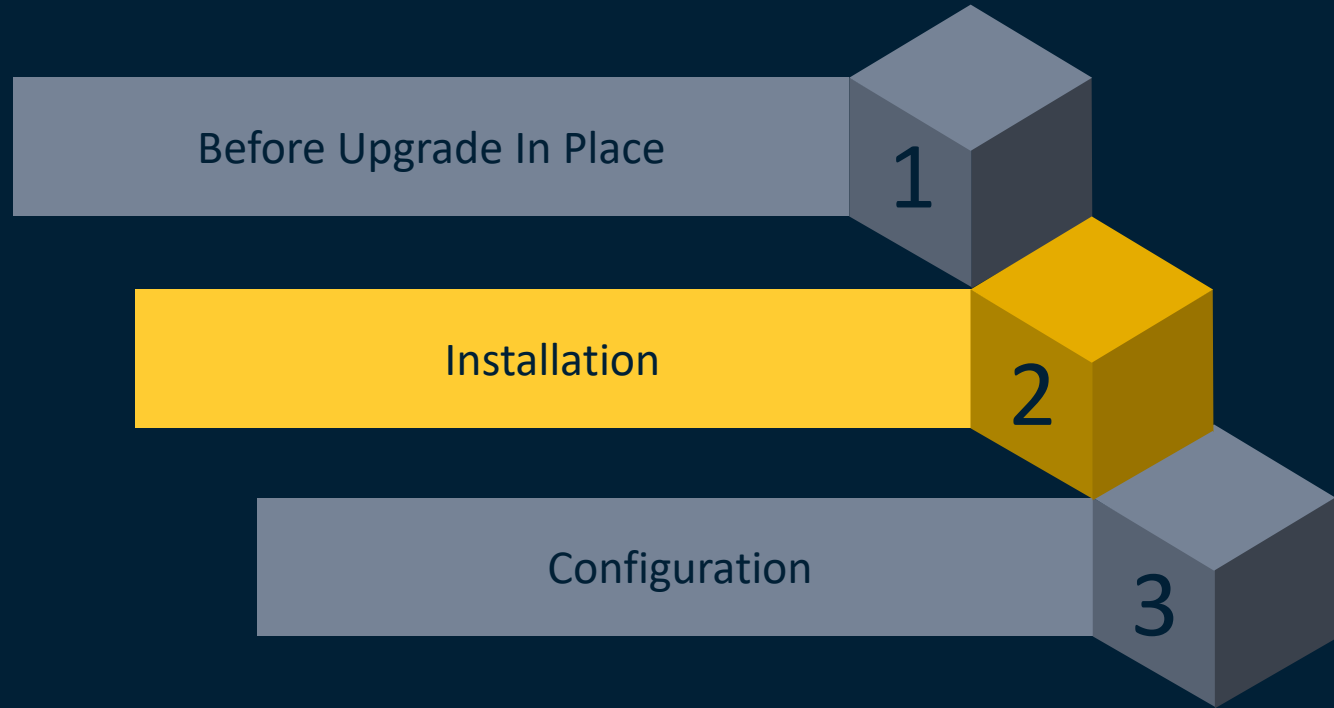
<https://support.sas.com/en/technical-support.html>



SAS 9.4 Upgrade in Place:
System-Level Backup and Recovery
Best Practice

Now available:
[SAS 9.4 Upgrade in Place:
System level Backup and
Recovery Best Practice](#)
documentation.

SAS is making it easier by improving Upgrade In Place

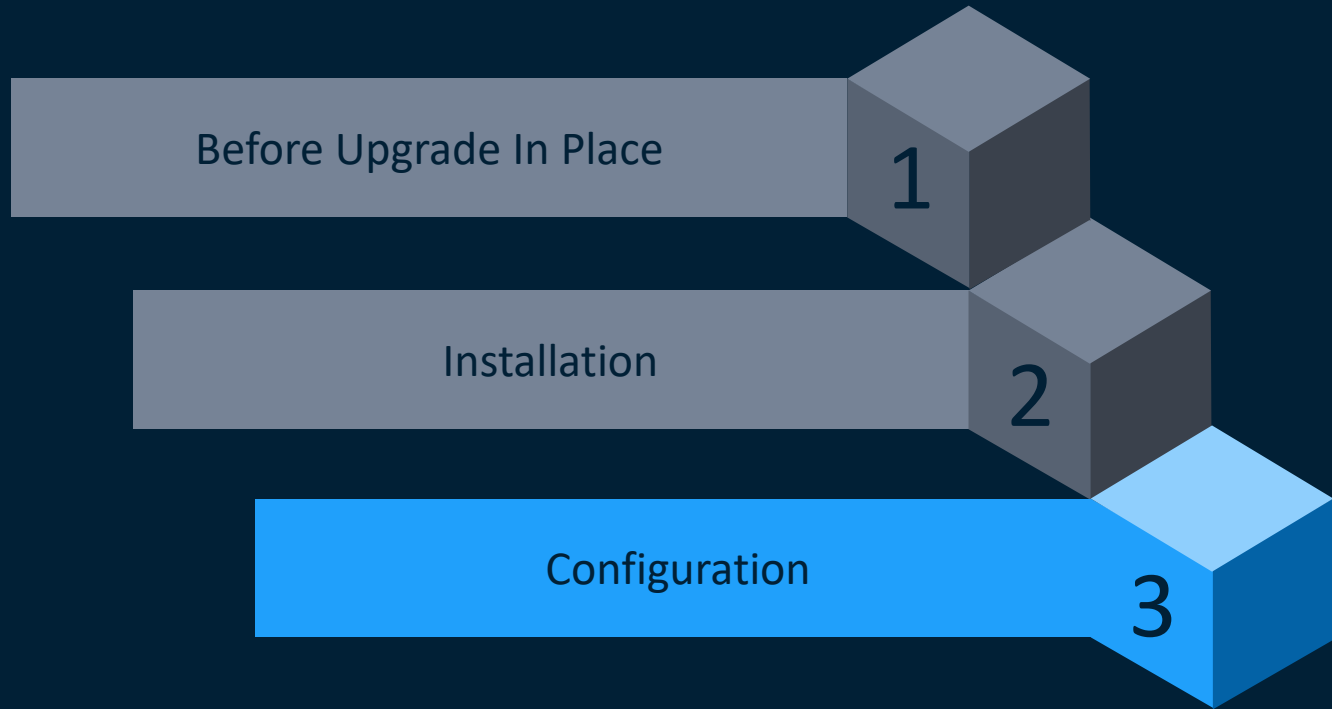


Easier Installation



- **Hotfix Integration**
 - All hot fixes are now flagged to be installed during the upgrade process.
 - Removes the need to stop an upgrade, install hot fixes and reapply security updates.
 - Post installation instructions, for hot fixes that have them, are provided at the end of the upgrade process.
- SAS Deployment Manager provides the option to uninstall older versions of SAS products.

SAS is making it easier by improving Upgrade In Place



Easier Configuration



Web Application Server Enhancements

- Backups removed during an upgrade.
- More intelligent scanning of WebApp folders during upgrade when performing change host name.
- Web application server logic now ensures the update configure task runs for every web application server instance if a user hits a failure and selects retry.
- Does not start SAS Web Application server instances that are empty or have no web applications.
- To the extent possible, preserve server.xml customizations, HTTPS settings and revert FIPS (remove FIPS settings).

Easier Configuration



- If the SAS Deployment Manager is interrupted in any Stage that follows the updateConfigure - Apply Update Stage, then when restarted, the **SAS Deployment Manager can resume processing from the point of interruption.**
- SAS Deployment Manager now verifies the **host name** stored in metadata matches the host name of the machine on which the update is running.

The time is now!
Move to SAS 9.4M7



Have Questions or Need Assistance?

- SAS Technical Support
- Visit [Support.sas.com](https://support.sas.com)
- Your SAS Account Rep
- Your internal SAS Representative
- Reach out to Ask the Expert at AsktheExpert@sas.com

- **SAS Communities Articles:**
 - [Preparing for promotion, migration, and modernization of your SAS platform](#)
 - [Reclaim Disk Space After a SAS 9.4 Upgrade-in-Place](#)
 - [System Evaluation Tool Helps with SAS 9.4 Upgrade-in-Place Planning](#)
- **YouTube:**
 - [SAS Demo: SAS 9 Content Assessment](#)
 - [SAS Demo: SAS 9.4 System Evaluation](#)

Questions?



Explore Helpful Resources

[Ask the Expert](#)

View other user webinars that provide insights into using SAS products to make your job easier.

[FREE Training](#)

Learn from home – free for 30 days. Get software labs to practice and online support if needed.

[SAS Support Communities](#)

Ask questions, get answers and share insights with SAS users.

[SAS Analytics Explorers](#)

An exclusive platform to collaborate, learn and share your expertise. Gain access to a diverse network to advance your career. Special rewards and recognition exclusively for SAS users.

[SAS Users YouTube Channel](#)

A plethora of videos on hundreds of topics, just for SAS users.

[Newsletters](#)

Get the latest SAS news plus tips, tricks and more.

[Users Groups](#)

Meet local SAS users, network and exchange ideas – virtually.

[SAS Profile](#)

If you haven't already done so, create your SAS Profile to access free training, SAS Support Communities, technical support, software downloads, newsletters and more.

Did you know?

SAS is the only vendor named a Leader in the top 4 analyst assessments focused on the AI and Analytics market in 2020.



Learn more at sas.com/leader

