

Upgrading your SAS Software

Project Management Details

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Company Overview :

Brady Corporation is a \$1.12 billion international manufacturer and marketer of complete solutions that identify and protect: premises, products and people.

Brady has been in business for over 100 years and is headquartered in Milwaukee, WI.

Agenda :

- Deciding to Upgrade
- Project Plan - one working document
- Gotchas
- PreInstall - Old and New Environments
- Installing the SAS Software
- Migration and Testing
- Go Live Planning
- Post Go Live and Support



Deciding to Upgrade

Layout exactly what you currently own, list options and costs before making your decision.

- What is the business requirement?
- Are you utilizing all the software you own?
- Do you need something you don't have?

Once a decision is made:

- Complete a Sizing Document – SAS ECC will provide architecture and hardware recommendation
- Contract negotiation

Once Contract is signed prepare your timeline for Upgrade

Timeline of High Level Tasks

- October
 - Contract Negotiated, Sizing document completed
- November
 - Hardware Planning with System Engineers
 - Identify all Existing Assets (SAS Metadata)
- December
 - Hardware Configuration and Prep
 - Current Environment Purge Unused Data/Objects
- January
 - SAS Install
 - Migration of Assets (Libraries, Users, etc..)
- February
 - Testing
 - Go Live

Project Planning Document

One Working Document shared with everyone on the team

SAS Upgrade	WHO	Start Date	End Date	Status	Notes
High-Level Tasks					
Changes to Environment					
Infrastructure Details					
Pre-Migration activities					
Installation					
Migration					
Go Live Tasks					
Post Go Live Tasks					

Project Planning Document

Additional Tabs contain Details as needed

SAS Upgrade Detail Information	WHO	Start Date	End Date	Status	Notes
Scheduling Jobs					
Change Plan, including Backout and Recovery					
Migration Details - specific					
Testing Details - specific					
Performance Statistics					
RoboCopy Details - Sync Machines					
Remember To Do List					
Hardware Details					
License Keys					
Running Meeting Minutes					

Gotchas

Include a section for ALL the differences between old and new environments. For example:

- Server Hardware - New IP Addresses, Server Names
- OS - from Windows Server 2008 R2 to 2012 R2
- Citrix Clients 32 bit to 64 bit
- Newer version of Microsoft Office
- OLEDB to ODBC Connection

Also, include a list of pain points from past installs.

- Windows Task Scheduler Priority - defaults to Low!!!
- Define Shared Drives/Folders
- Set Drive Quotas limiting user space
- ALLOWXCMD

These are all potential “Gotchas”

Pre-Install - Preparing Old Environment

- Search Automated SAS Code, using SAS tool SASGREP
 - Identify connection strings in code that use OLEDB
 - Run a Where-Used on Hardcoded Server names
 - Any other potential “Gotchas” in code
 - Purge/Archive unneeded data
- Document all Metadata Inventory
 - SAS provided a Migration Assessment Questionnaire
 - List every type of Object you have in SMC
 - Export Metadata packages needed for Import later
 - Libraries, Users, Groups, Roles, Tables, Cubes, Stored Processes, Job Flows, Information Maps, Web Reports, Custom Access Control Templates

Pre-Install - Preparing New Environment

- Engineering Team setup of NEW servers
 - Setup and Configure on Network
 - Install additional software - WinZip, etc.
 - Setup EMAIL and FTP capability
 - Define the File Shares, Security on folders
 - Load proper drivers for connections
 - Complete SAS Pre-Install Checklist
 - Download software from SAS, Create Depot, Create SSL Keystore files, Ports, Internal User Accounts (sasadm@saspw), External User Accounts (sasdemo, sassrv), etc.

Install of SAS Software

I highly recommend SAS Customer Care handle the Install of SAS Software.

- The SAS Installation Representative is invaluable, saving time and effort of having to reinstall...
- They have access to SAS Technical Resources and the ability to Escalate any issues immediately
- Can perform the install Remotely
 - We used GoTo Meeting, watched and recorded the entire thing!
- Provides complete Documentation

Migration and Testing

- Migration of Users, Libraries, other metadata
 - Import the packages exported from the old environment
- Compare files, old and new, make changes if required
 - Autoexec.sas
 - Appserver_autoexec_usermods.sas
 - sasv9.cfg and sasv9_usermods.cfg
- Test
 - Functionality - Login as an End User - test EG, AMO, etc.
 - Performance - have at least one Benchmark job, set all the options, run it over and over, tweak config if needed
 - Connections - Test FTP, ODBC, Email, WinZip, etc.
 - End User testing - recruit a few good people

TEST, TEST, TEST!

Go Live Planning

- Have a Backout Plan (if you have one, you won't need it)
- Communication Plan
 - Multiple times - months prior, weeks prior, daily status
 - All levels - End Users, Help Desk and Support Staff, Management
- GO LIVE - Coordinate a Timeline
 - Take a complete backup of Old and New Environments
 - Last Sync RoboCopy of folders from old to new
 - Update Automated jobs with new paths, hardcoded server names, last minute switches from Old to New
 - Stop Scheduled Jobs on Old and Start on the New
 - Disable Services on OLD box
 - Send out instructions for access the new Clients

Post Go Live and Support

- Keep Communicating with End Users
 - Make sure everything is working as planned
 - Send “What’s New and Cool” with the new software
 - Share links to SAS videos on new features
 - Create a Google Form for Issues or Questions
 - Be Responsive
- On the Admin side
 - Become familiar with the New Features (Auto Update of Client Hotfixes, EVM)
 - Update Documentation, prepare for next Upgrade!
 - Decommission old servers

Thank you!

QUESTIONS?

What options were used in the Benchmark Job in Performance Testing?

A. Include these at the top of your SAS Program before running on both the Old and the New server:

```
options nosyntaxcheck ;  
OPTIONS FULLSTIMER SOURCE SOURCE2 MSGLEVEL=I MPRINT NOTES;  
OPTIONS SASTRACE=',,,d' SASTRACELOC=saslog NOSTSUFFIX;  
PROC OPTIONS OPTION=(UTILLOC WORK NOPRNGETLIST);  
PROC OPTIONS GROUP=(MEMORY PERFORMANCE) value;  
RUN;
```