



Hantering av  
utvecklingsprocesser på ett  
lätt och flexibelt sätt.



what makes you \*  
**special?**

# Hantering av utvecklingsprocesser på ett lätt och flexibelt sätt.

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SAS Group IT

# Agenda

- Introduction to SAS and SAS IT environment
- The SAS IT Development Process
  - Background
  - Problems in previous version
- Process upgrade using Rational Method Composer
- Current situation
- Planning for version 2
- Questions

# SAS Group



- 4th largest airline group in Europe
- 40+ million passengers/year
- Founding member of Star Alliance
- Includes several airlines
  - SAS Scandinavian Airlines
  - Spanair, Blue1, Widero, Air Baltic, Estonian Air
  - Other partly owned airlines
- Other airline supporting and related companies (Cargo, Ground Handling, Technical services etc.)

# SAS IT environment - history

- 40 years of IT development
- Unisys USAS based core systems
- A lot of different platforms (Unisys, IBM MF, Tandem, UNIX, Linux, Microsoft etc...)
- A significant part of systems based on newer technology
- New own development based on Microsoft .NET and J2EE (IBM Websphere as application server).
- Early adopters of new technology in the airline industry – web sites, mobile services, e-ticket, travel passes, biometrics, internet on board etc.

# SAS IT organization and outsourcing

- SAS Data department was incorporated as SAS Data Group, later on Scandinavian IT Group (SIG).
- SIG was sold to CSC in Feb. 2004 as a part of a major outsourcing agreement.
- Today CSC handles >90% of all production of SAS systems as well as a large part of IT development.
- Ownership of IT systems remain in SAS as well as all IT strategy functions.
- All common systems of SAS Group airlines are managed and developed by a central function.

# SAS IT Development Process - background

- RUP was introduced in (parts of) SAS in 2000.
- A configuration based on RUP v5.5 was established, mainly described in a large static document.
- Standard RUP website available, but no links from the actual process description.
- Only minor updates to the process until 2007.

# Problems in previous process versions

- "Waterfall-oriented development dressed up as RUP"
  - Iterative development, prototyping and risk driven development were not promoted.
  - Poor time to market (delivery precision).
- No business modelling discipline.
- Unsufficient support for many activities.
- "One size fits all" is not correct.
- Lack of support for change request development (maintenance).
- No links to further reading (static document).
- No new versions/updates from IBM/Rational were adopted.



# Process upgrade using Rational Method Composer

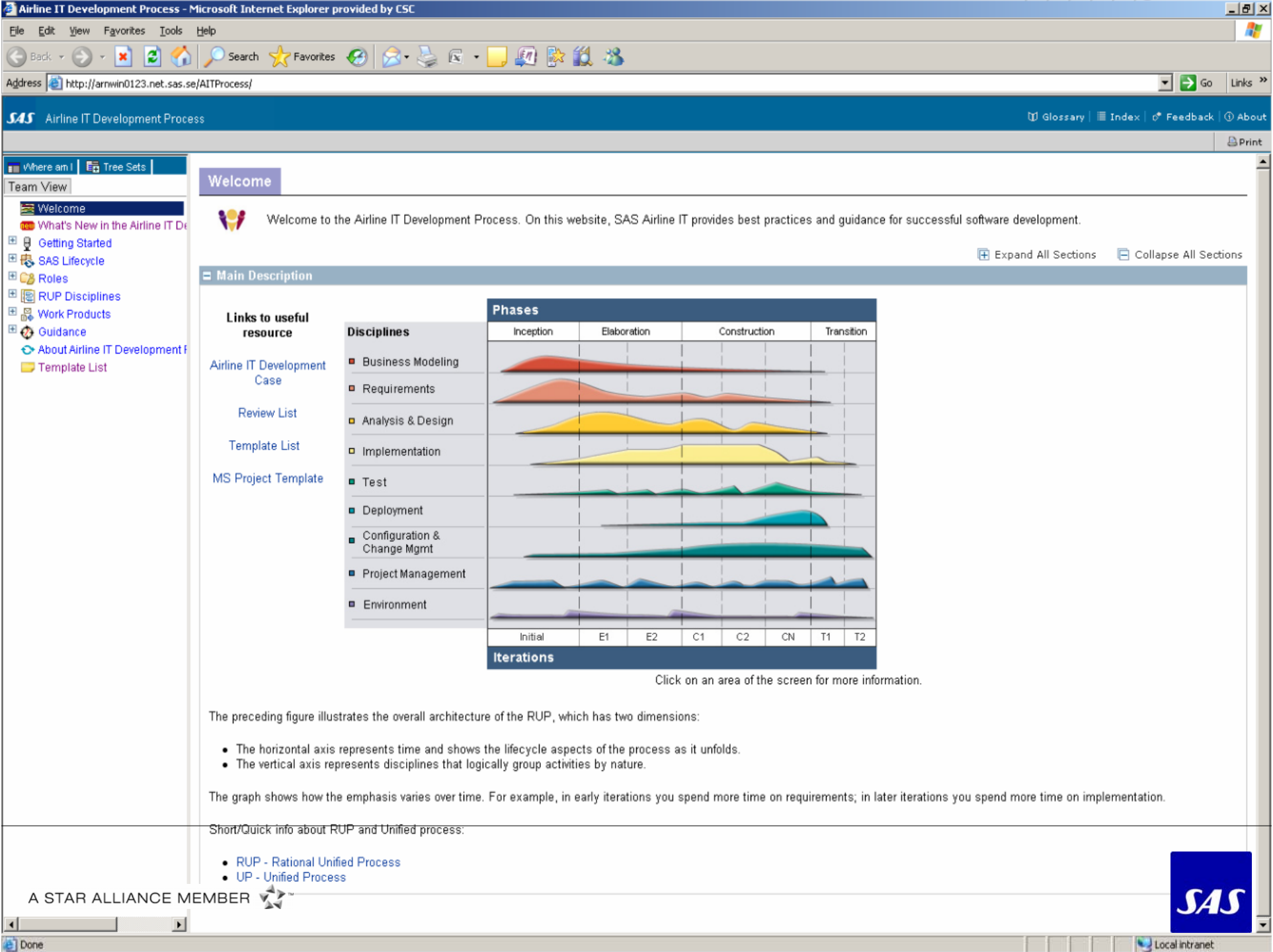
- Process web site creation using RMC.
- Adaptions to SAS specific requirements have been done and added to method content in one SAS plugin. This makes updates with new IBM material easy.
- As little changes to standard material as possible (a change from previous version) to lower unnecessary maintenance.
- Results were published in increments to a web server.
- Only one process web site (one size does have to fit all... for now).
- Project specific adaptions not realistic because of lack of process engineers and a need to control IT development.

# Process upgrade using Rational Method Composer

- All work done by SAS resources.
- IBM consultants provided education, advice and reviews.
- Small group (6 persons) doing the actual work.
- Collaboration/simultaneous editing of plugins a bit hard to handle in current RMC, without ClearCase/CVS.
- Larger reference group doing reviews and providing feedback. These persons are trained as RUP coaches.
- All work to go from previous document based version to the new RMC published website took only 3 months.

# Current situation

- One web site set into production – no document based process configuration.
- RMC available to projects – but not used.
- One SAS process – based on "Classic RUP (for large projects)".
- Development Case and all mandatory templates published within the web site.
- Microsoft Project template according to the process available. This provides an excellent steering mechanism.



- Where am I
- Tree Sets
- Team View
- Welcome
- What's New in the Airline IT D...
- Getting Started
- SAS Lifecycle
- Roles
- RUP Disciplines
- Work Products
- Guidance
- About Airline IT Development P...
- Template List

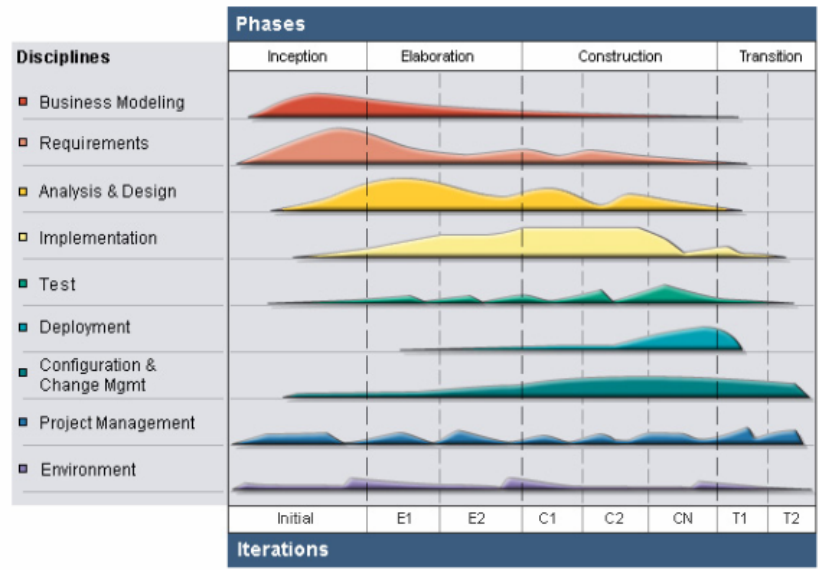
## Welcome

Welcome to the Airline IT Development Process. On this website, SAS Airline IT provides best practices and guidance for successful software development.

Expand All Sections Collapse All Sections

### Main Description

- Links to useful resource
- Airline IT Development Case
- Review List
- Template List
- MS Project Template



Click on an area of the screen for more information.

The preceding figure illustrates the overall architecture of the RUP, which has two dimensions:

- The horizontal axis represents time and shows the lifecycle aspects of the process as it unfolds.
- The vertical axis represents disciplines that logically group activities by nature.

The graph shows how the emphasis varies over time. For example, in early iterations you spend more time on requirements; in later iterations you spend more time on implementation.

Short/Quick info about RUP and Unified process:

- RUP - Rational Unified Process
- UP - Unified Process

# Planning for version 2

- Requirements capture and implementation of version 2 started.
- Time-boxed for publication before year end.
- Focus on "best practices", "guidelines" and variants of the process.
- Collection of feedback regarding version 1 from projects and system management.

# Planning for version 2

- Process variants will be included;
  - Change request development
  - COTS implementation
  - Small projects?
- Implementation design of variants not finalized. Several options exist;
  - Own web site
  - Own process
  - Best practices

# Planning for version 2

- Additional regulations on delivery set to be handed over to system management.
- Definitions of development case for CR-development (documents to be updated).
- Rich integration with Rational Portfolio Manager - evaluation ongoing in SAS.
- Reviews vs. Control gates in RUP/Project steering model.
- Identified problems in version 1.

# Questions?

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