



SPICE for IT-Governance

CRP Henri Tudor - Banking SPICE - 09.April 2008

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SPICE/ISO 15504 as integration platform for the relevant regulations and standards to enable IT-Governance

**Return of experience
on multi-site
process harmonization & integration
(Gregor Gedlicka - WAVE Solutions for IT)**

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Andreas Nehfort



IT-Consultant & Trainer - since 1986 Nehfort IT-Consulting:

- Software Processes → Assessment Based Process Improvement:
 - Software Engineering: CMMI, SPiCE & Automotive SPICE
 - IT Service Management → ITIL and ISO 20000
- IT-Project Management, Quality Management, SW - Requirements

Formal Qualification / Certificates:

- iNTACS Certified Competent Assessor für SPICE / ISO 15504
- /tsmf certified ISO 20000 Consultant

Background:

- TU-Wien – Studying Technical Mathematics: 1975 - 1979
- Software Developer and Project Management since 1978

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Nehfort IT-Consulting



IT-Consulting Company focussed on:

- Software Processes & Software Process Improvement
- Based on well established reference models:
 - SPiCE - ISO15504 / Automotive SPiCE / CMMI
 - ITIL / ISO 20000 or ISO 27000ff
 - Agile Processes / RUP - Rational Unified Process
- Network of independent Consultants, Trainers & Assessors:
 - Software Engineering & Project Management
 - IT Service Management & IT Security Management

Nehfort IT-Consulting is representing KUGLER MAAG CIE in Austria!

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Agenda



- Some trends and challenges in the financial sector
 - Growth by mergers & acquisition
 - Standards & regulations
- Enablers for IT-Governance → base & advanced techniques
- Assessment Based Process Improvement – ABPI
 - SPICE as integration platform for the relevant regulations and standards
- Multi-site process harmonization & integration
Return of experience – WAVE Solutions for IT
- Multi-Standard Assessment Tool:
SPICE 1-2-1 for IT-Governance

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The Trends



Mergers & Acquisition → growing enterprises

A growing field of Standards & Regulations

The Challenges

Reconfiguration & integration of business & organisations

Reconfiguration & harmonisation of processes

Assuring compliance to the relevant standards

Demonstrating compliance to these relevant standards

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IT-related Standards



SW-Engineering:

- CMMI & ISO 15504 / SPICE

Systems Engineering:

- CMMI & SPICE4Systems (→ ISO 15504-6)

IT Service Management:

- ITIL & ISO 20000

Information Security:

- ISO 27000ff

IT-Controlling & IT-Governance:

- Cobit

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Standards & regulations for Financial Reporting



The Topic:

- Reliability of Financial Reporting
- Monitoring Internal Control Systems → Effectiveness

The Standards & Regulations:

- Sarbanes Oxley: SOX & SAS70
- COSO-Standards
- Cobit
- 8. EU-Directive (EuroSOX – coming soon ... June 2008)

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Base Techniques for IT-Management and IT Governance (enabler)



An Integrated Management System:

- The link from management to implementation → targets
- The link from implementation to management → results

Risk Management:

- Identifying risks and goal oriented action planning

Process-Controls and Process-Measurement:

- For governance → goals
- For monitoring → results

Project Management:

- To master the change processes → Project

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Advanced techniques for process management



Applying the Process Capability Approach **to all kinds of processes:**

- The Capability Level Model: from CL1 to CL5
- Process description via purpose and outcome
- Process Attributes and Generic Practices

Relevant Standards:

- CMMI – Capability Maturity Model Integration
- SPICE – ISO 15504: Process Assessments

Application-Specific Process Reference Model

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ISO 15504 - Scope

The scope of ISO/IEC 15504: **process assessments**

- for improvement and capability determination
- It is not limited to software & systems engineering!

Other best practice models for IT

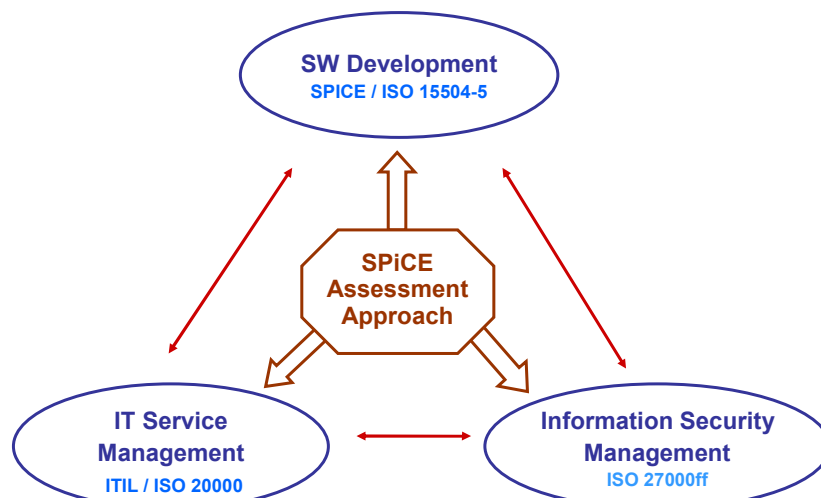
- like ITIL® and ISO 20000 for IT Service Management
- or ISO 27000ff for Information Security Management

do not provide such a concise approach for process improvement.

So ISO 15504 / SPICE can be used as a **universal model** for process assessment and process improvement.

Assessment Based Process Improvement

Our integrative Assessment Approach



Assessment Based Process Improvement

Assessment Based Process Improvement combines:

- 1.) The SPICE assessment approach as defined in ISO 15504-2
- 2.) International and industry standards for the different process domains:
 - **For Software Engineering:**
ISO/IEC 12207 as PRM and ISO/IEC 15504-5 as PAM
 - **For Systems Engineering:**
ISO/IEC 15288 as PRM and the new ISO/IEC 15504-6 as PAM
 - **For IT Service Management:**
ITIL (best practice) and ISO/IEC 20000-1 as standard for certification.
 - **For Information Security Management:**
ISO/IEC 27001:2005 as standard for certification and
ISO 17799 as standard for information security controls.
 - **For IT Governance:**
Cobit as accounting standard for IT governance and SOX

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A-B-P-I: Our Initiatives

ISO 20000 – PAM (developed in 2006):

- SPICE conformant **Process Assessment Model** for
IT Service Management Processes according to ISO/IEC 20000-1
- Combines state of the art know-how from two different angles:
 - The Reference Model for IT-Service Management: ISO 20000-1
 - The Process Assessment model based on ISO 15504 / SPICE
- Assessment Tool: **SPICE 1-2-1 for ISO 20000**

→ www.spice4ISO20000.com

ISO 27000 – PAM (developed in 2007 & 2008):

- SPICE conformant Process Assessment Model for
Information Security Management according to ISO 27001 & ISO 27002
- Assessment Tool: **SPICE 1-2-1 for ISO 27000**

→ www.spice4ISO27000.com

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From consultant`s theory to customer`s practice ...



**Return of experience
on multi-site
process harmonization & integration**

WAVE Solutions for IT

Gregor Gedlicka

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... and back to consultant`s support



“The **dancing master** will be our **Process Assessments!**”

**We support these Assessments with our
Assessment Tool
SPICE 1-2-1 for IT-Governance**

→ www.spice4IT-Governance.com

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SPICE 1-2-1: Available Standards

SPICE 1-2-1 for IT Governance provides the following models:

- ISO 155004-5: SW-Engineering
- ISO 20000: IT Service Management System
- ISO 27001: Information Security Management System
- ISO 27002: Information Security Controls
- A **customer-specific model**
 - First empty ... can be filled with SynEdit
 - or we fill it with predefined processes (as a service)

SPICE 1-2-1 is expandable → e.g. for COBIT controls

The use of SPICE 1-2-1 for IT-Governance

For fixing the position → initial Assessment:

- As starting point for process improvement

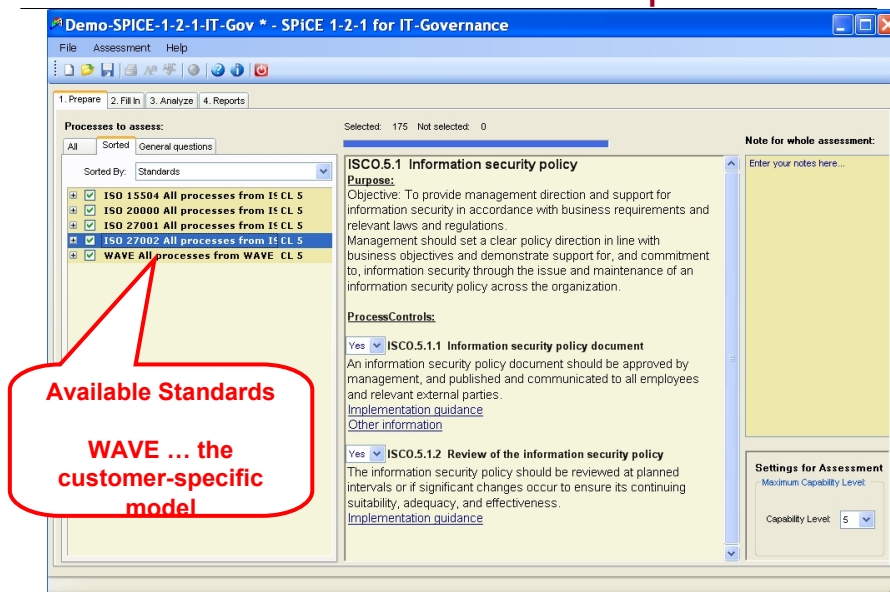
For monitoring success → evaluation assessment:

- As part of an improvement program

For compliance checks:

- Preparing for an ISO certification → ISO 20000 & ISO 27001
- In line with internal audits or supplier audits
- In line with the internal control system for SOX, SAS70, EuroSOX and other regulations

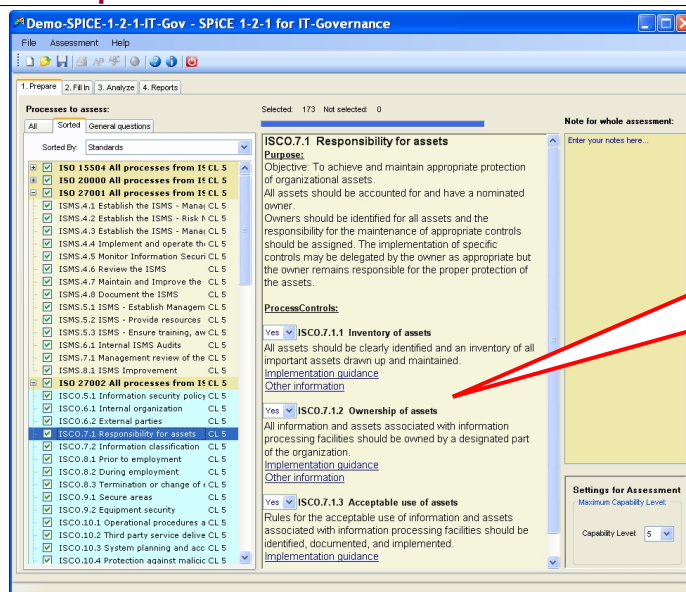
Assessment Tool - Prepare



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Prepare: ISO 270001 & ISO 27002



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SPICE 1-2-1: Fill-In

NewAssessment * - SPICE 1-2-1 for ISO15504 and ISO20000

File Assessment Help

1. Prepare 2. Fill In 3. Analyze 4. Reports

ITSM.6.1 Service Level Management
To define, agree, record and manage levels of service.

☐ Not Clear
☐ Not Applicable
☐ Not Rateable

ITSM.6.1 Service Level Management
Purpose:
To define, agree, record and manage levels of service.

Notes:
Enter your Notes here...
Enter your Notes here...
Enter your Notes here...

Strengths:
Enter your Notes here...

Weaknesses:
Enter your Notes here...

Base Practices:
N P L F ITSM.6.1.BP.1 Record and Agree Services
Record the full range of services to be provided together with the corresponding service level targets and workload characteristics and agree them by the parties. [Outcome 1]
Assessment Notes:
Enter your Notes here...

N P L F ITSM.6.1.BP.2 Define SLAs
Define and document each service provided in one or more service level agreements. [Outcome 2]
Assessment Notes:
Enter your Notes here...

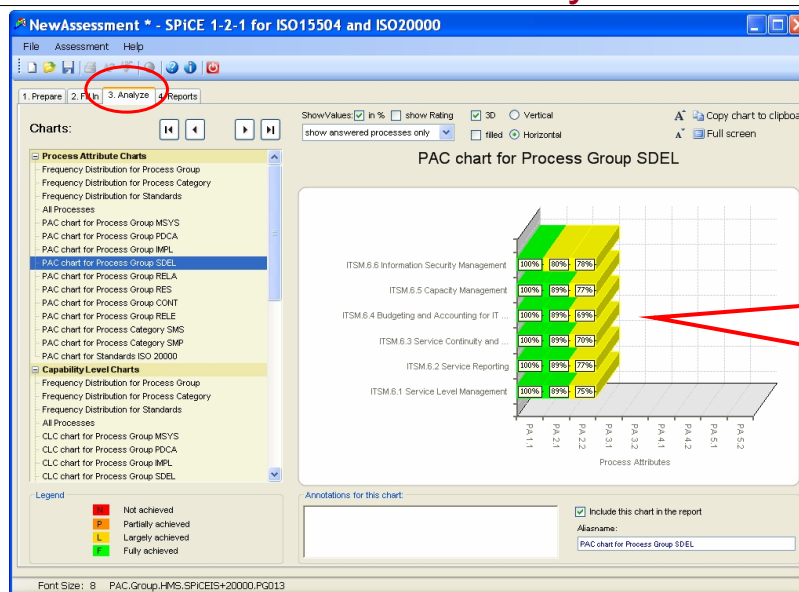
Spell checker language: EN

Fill In:
N ... Not
P ... Partially
L ... Largely
F ... Fully

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SPICE 1-2-1: Analyze



**ISO 20000:
Service
Delivery
Processes**

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Assessment Tool - Analyze

Frequency Distribution for Process Group

Standard	CL 1	CL 2	CL 3	CL 4	CL 5
ISO15504 - Supply Process Group (SPL)	0	0	0	0	0
ISO15504 - Engineering Process Group (ENG)	0	0	0	0	0
ISO 15504 - Process Improvement Process ...	0	0	0	0	0
ISO 15504 - Resource and Infrastructure ...	0	0	0	0	0
ISO 15504 - Operation Process Group (OPE)	0	0	0	0	0
ISO 15504 - Management Process group (MAN)	0	0	0	0	0
ISO 15504 - Support Process group (SUP)	0	0	0	0	0
ISO 20000 - Service Delivery Process ...	0	0	0	0	0
ISO 20000 - Relationship Process group (RELA)	0	0	0	0	0
ISO 20000 - Resolution Process group (RES)	0	0	0	0	0
ISO 20000 - Control Process group (CONT)	0	0	0	0	0
ISO 20000 - Release Process group (RELE)	0	0	0	0	0

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Charts - an example: All Standards - Overview

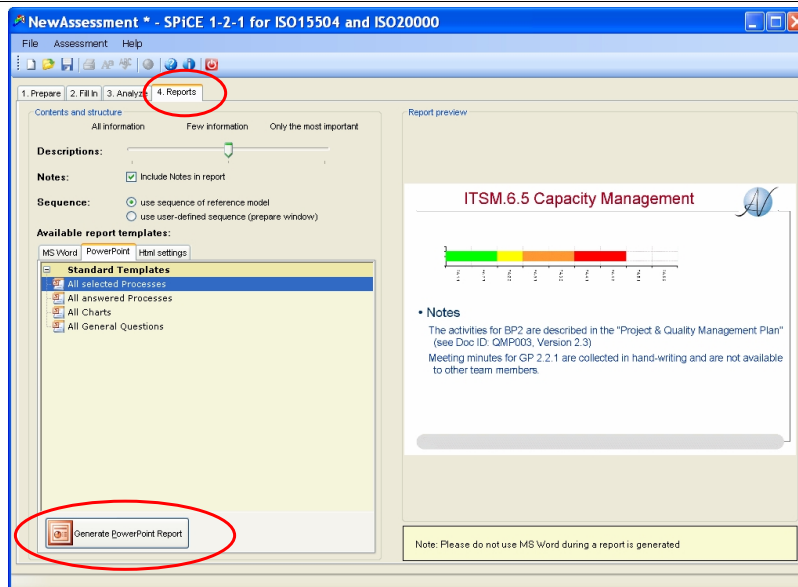
Frequency Distribution for Standards

Standard	CL 1	CL 2	CL 3	CL 4	CL 5
ISO 15504 All processes from ISO 15504	30%	73%	0%	0%	0%
ISO 20000 All processes from ISO 20000	31%	68%	0%	0%	0%
ISO 27001 All processes from ISO 27001	100%	93%	0%	0%	0%
ISO 27002 All processes from ISO 27002	95%	85%	0%	0%	0%

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SPICE 1-2-1: Reports



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Emerging Interest in the process capability approach

We notice a substantial interest to apply process capability approaches (CMMI and SPICE) to IT Service Management

- especially by companies which deal with CMMI or SPICE for software engineering processes anyway.
- For SW-Product companies:
 - ISO 15504-5 for SW-Product Development
 - ISO 20000 for the product related service organisation

We also notice a substantial interest to apply the SPICE capability approach to **organization wide process management** initiatives, which cover not only IT processes!

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ISO 20000 goes SPICE



An ISO working group has started in 2007:

- To develop **ISO 20000-4** as Process Reference Model (PRM) for IT Service Management
- To develop **ISO 15504-8** as corresponding Process Assessment Model (PAM)

ISO will need some years to publish these standards ...
(and SPICE for ISO 27000 will still be an open issue ...)

But you can benefit from our work right now ...

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Thank you for your attention!

Questions & Discussion ...

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