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# The „Quest“ Tool-Suite

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Assessment Methodology  
as  
Strategy Driver



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# Overview

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- Make assessments to
  - Learn about processes
  - Learn about best practice
  - Compare internal groups/divisions
  - Compare yourself among others
- Create a discussion culture
- Motivate employees
- Enable implementation of strategy

# The Quest Approach

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The „Quest“ Approach consists of two things:

- The „Quest“ Methodology  
(the theory, psychology and all the algorithms)
  
- The „Quest“ Tools  
(also named „The SynQuest Tool Suite“)

# The Quest Methodology

## (1/3)

- The questionnaires try to get honest answers (=real information) from the users
- We have overcome the traditional questionnaires, which always tried to irritate the user (where the obvious goals of each question are not the real goals!)
- Motto: Don't ask difficult and long questions – ask short questions with up to nine attributes instead!



# The Quest Methodology (2/3)

A photograph of the ancient stone monument Stonehenge in England, set against a warm, orange and yellow sunset sky.

Self assessment for employee participation and development

***Tell me and I will***

***- forget***

***Show me and I will***

***- remember***

***Involve me and I will***

***- understand***

Lao Tse, long before HM&S

# The Quest Methodology (3/3)

- Different Algorithms (based on averages, process categories, frequency distribution etc.) allow lots of evaluation
- Assessment are done in groups of 3 persons. Confrontation with the PC – and guidance with mentors (consultants) makes the success!
- Instead of writing 1000 words about the methodology: have a look at the tools! The methodology is „built-in“.



# Quest History

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- The Quest formerly was something like an electronic questionnaire, but with a special structure
- The scientific background was developed at Technical University Graz in co-operation with consulting firms having the EFQM, BOOTSTRAP and ISO 9000 background
- Since seven years the tools were enhanced and now are customizable and mature



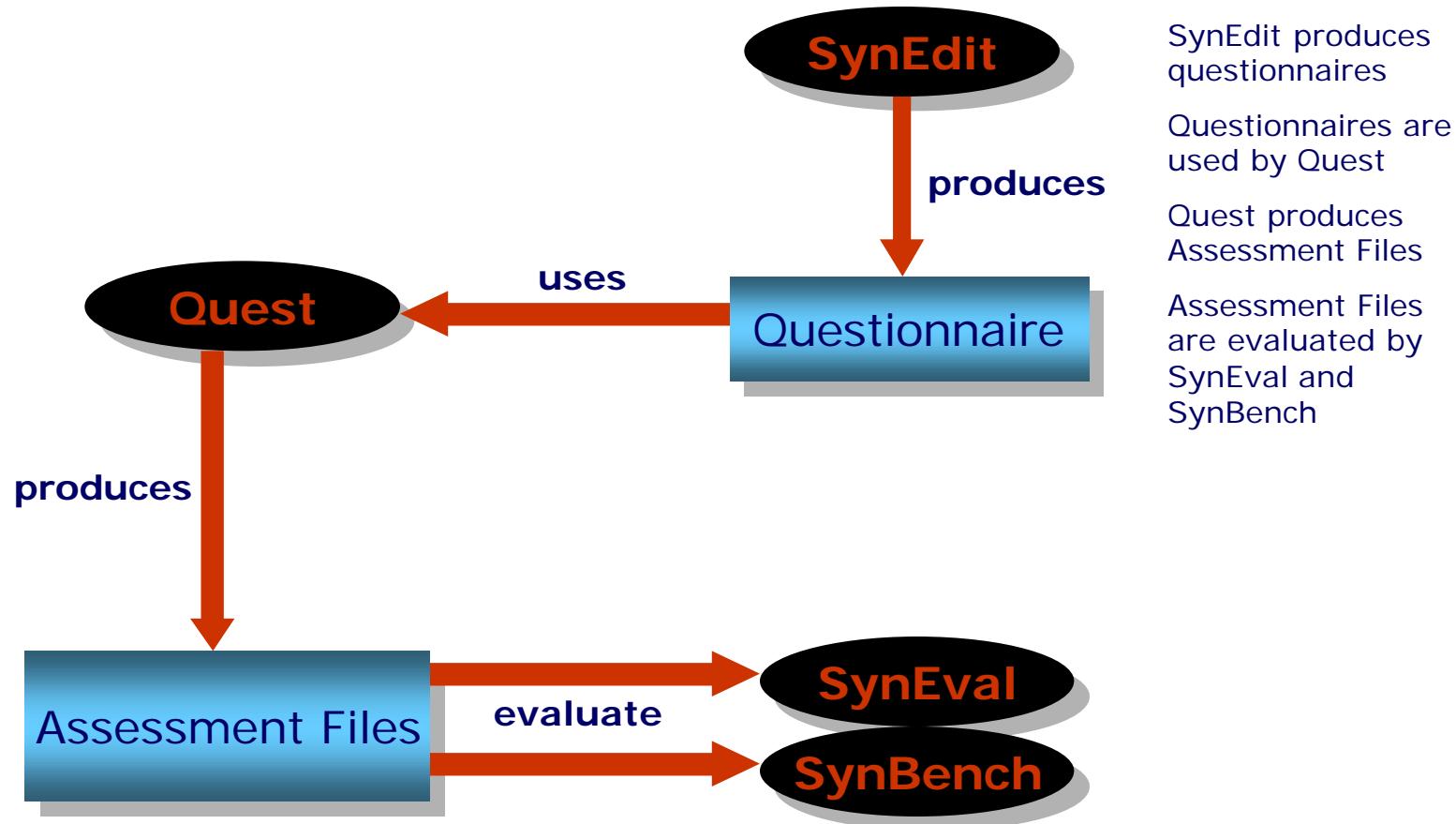
# The Tool-Suite: Overview

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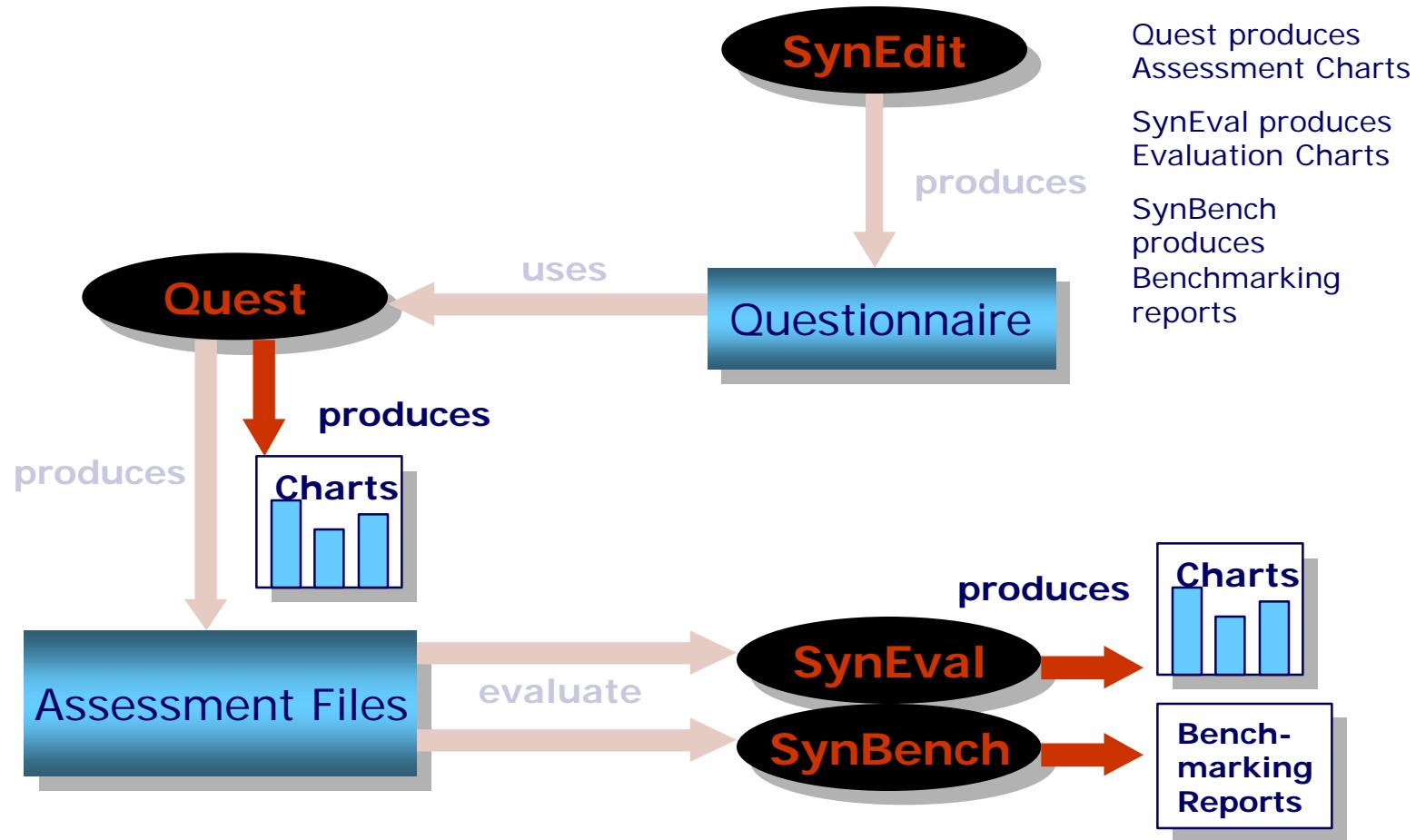
- **The Quest:** Tool to perform an assessment. Gathers data and can display charts
- **SynEdit:** Tool to create, modify or translate questionnaires used by SynQuest
- **SynEval:** Evaluation tool to analyze lots of assessment data
- **SynBench:** This Benchmarking server is used to compare lots of assessment data and to support the generation of benchmarking reports



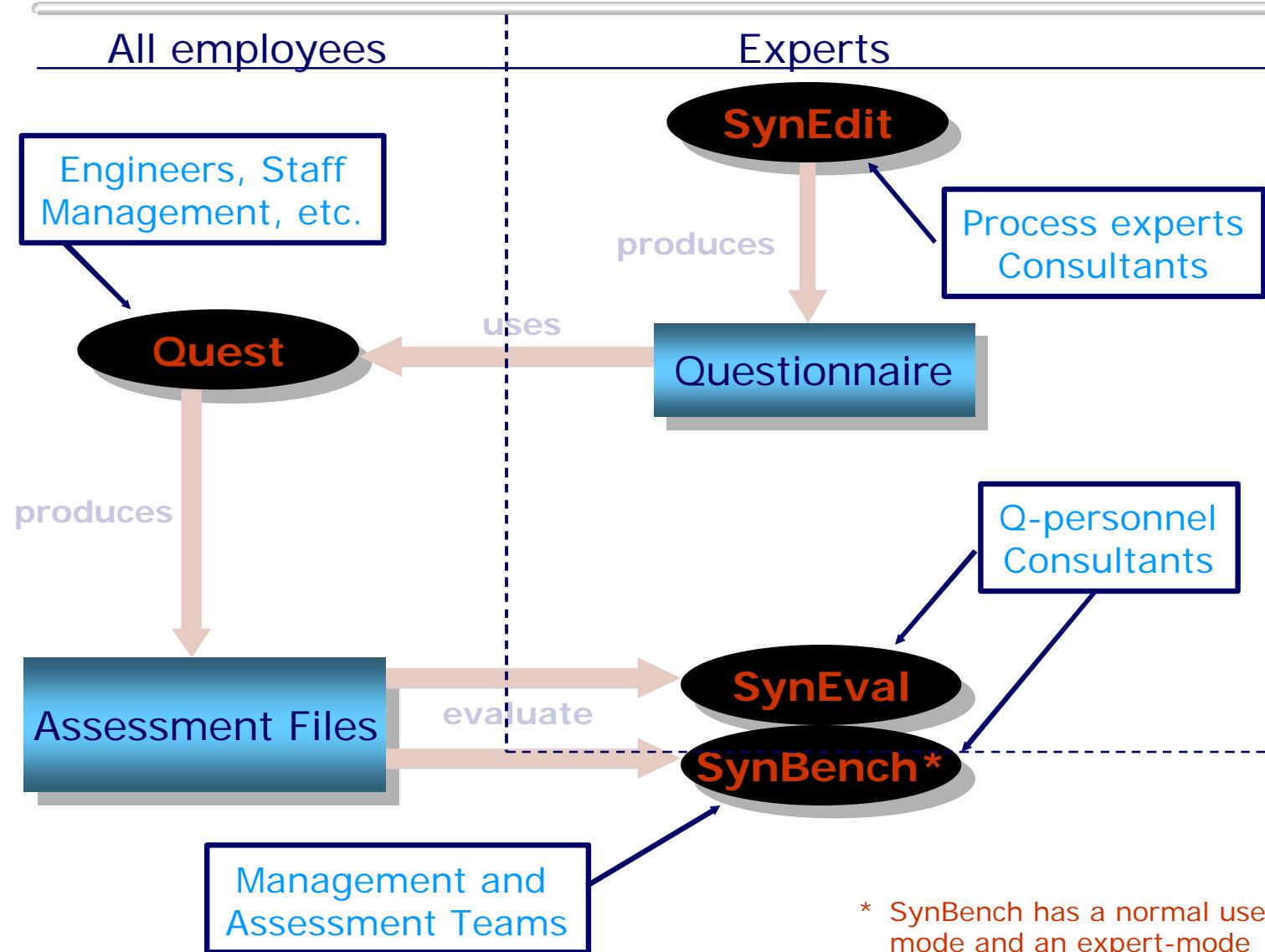
# Graphical Overview



# Charts and Reporting



# User of the Tools



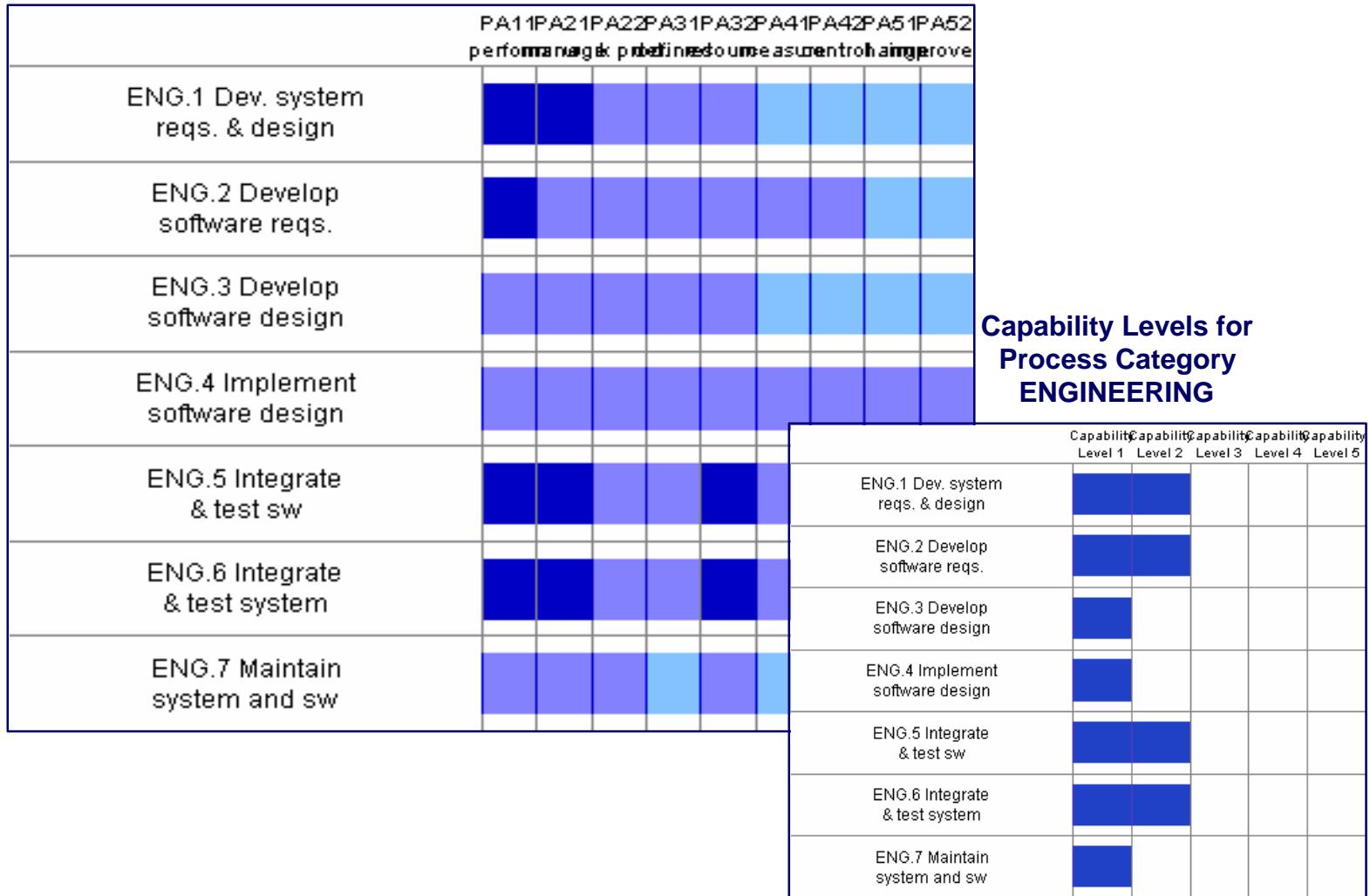
# Screenshots of The Quest, showing the SPiCE-Lite derivate

The screenshot displays the SPiCE Lite Version 3.0 software interface. The main window title is "SPiCE Lite Version 3.0". At the top, there is a banner with the text "The software tool for self-a software development on" and "Professional E". Below the banner, there is a "Project Management" section titled "Development Planning and Control". This section contains several icons representing different project management activities, each with a progress bar and a percentage value. The icons include: Existence (green checkmark, 100%), Defined (red X, 34%), Inspected (red X, 66%), Records (red X, 32%), Responsibility (red X, 97%), Training (red X, 10%), Usability (red X, 100%), Stability (red X, 33%), and Technical support (red X, 100%). To the right of the main window, there is a sidebar titled "Question 11" which includes tabs for "Personal Note", "About this attribute", and "Base Practices". The "About this attribute" tab is selected, showing a section titled "Existence" with a green checkmark. It asks "For each item below count 20%:" and lists several items with checkboxes. Most items have a checked checkbox, except for "Additional plans and applicable standards are referenced" which is unchecked. A note at the bottom of the sidebar says "For a detailed description of these five points, read the explanation."

# Quest Charts (1/2)



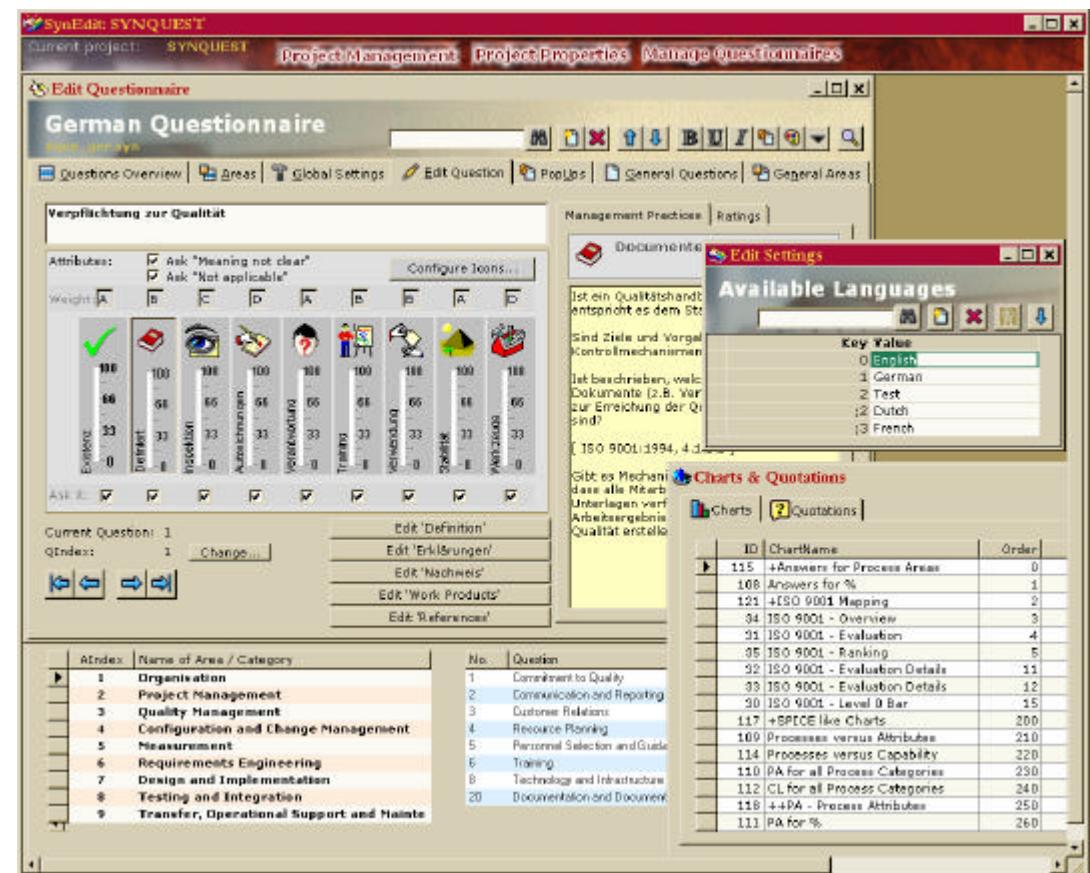
# Quest Charts (2/2)



# SynEdit Screenshot

SynEdit is used to create or modify assessment tools. It is the 'mother' of all the Quest tools

The process attributes, the structure of the assessment and all processes, descriptions and explanations can be altered

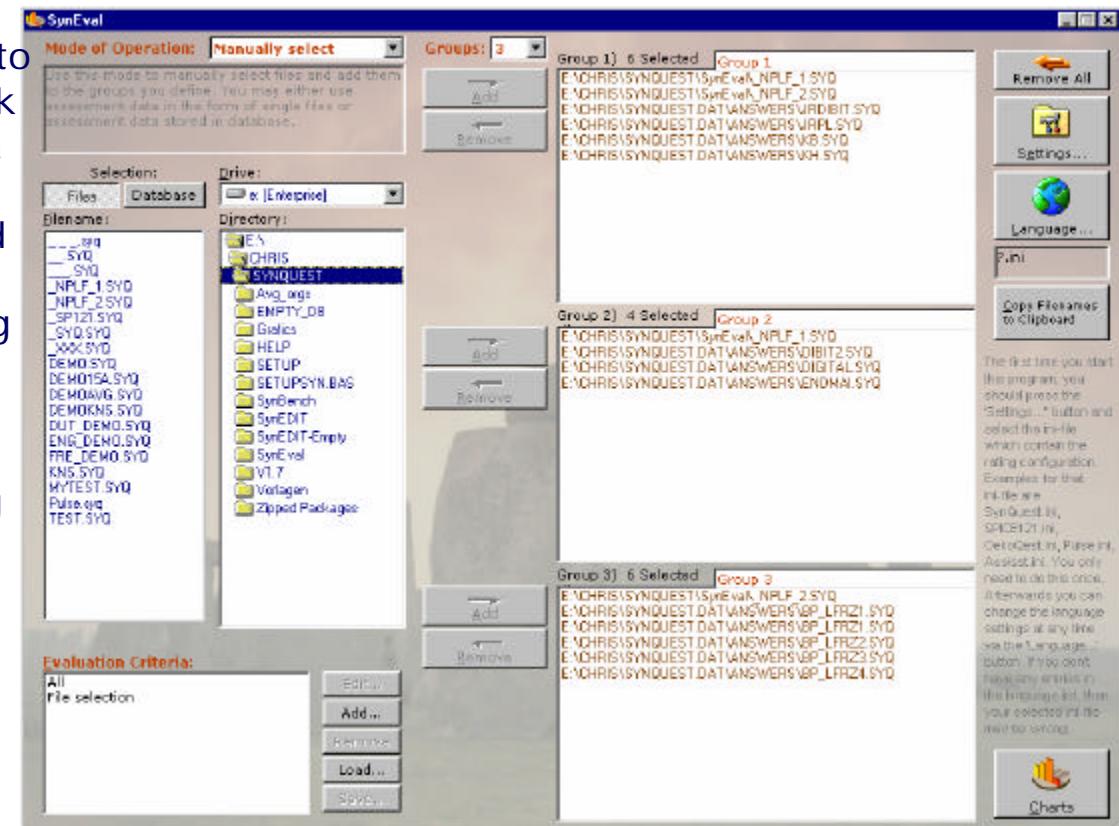


The questionnaire is based on a database. Editing is easy. Hyperlinks to Internet/Intranet are fully supported. Questionnaires and SynQuest interface can be translated to different languages.

# SynEval Start Screen

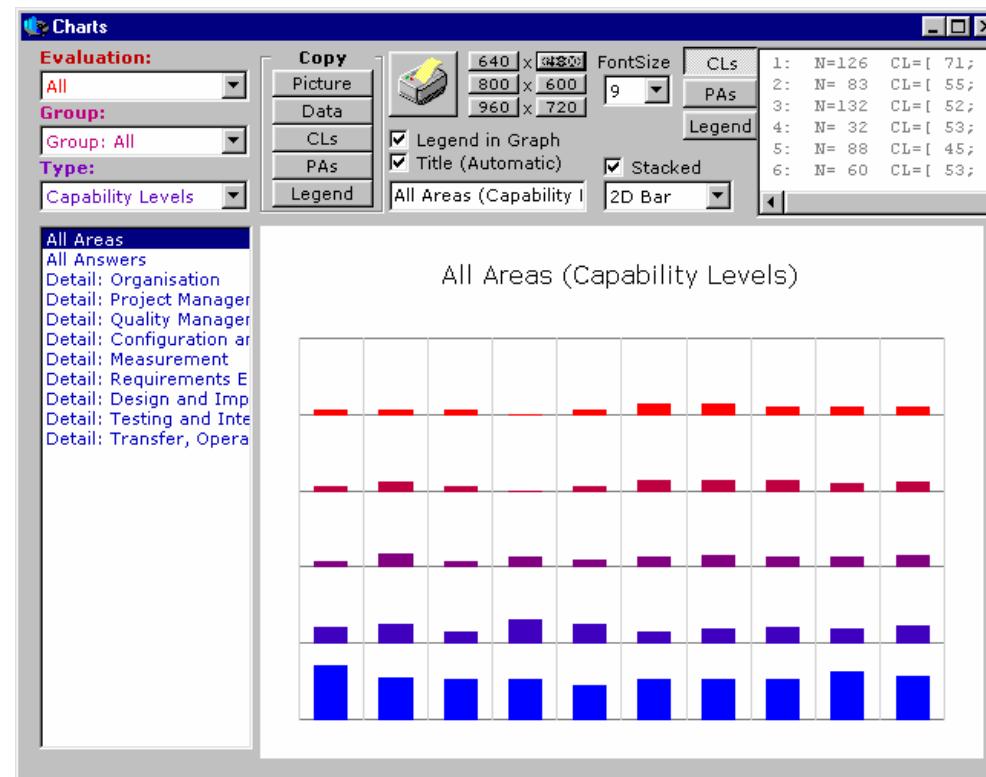
SynEval is used to interactively walk through the data of the assessments and have a look at similarities or big differences.

At this page you see the grouping facilities.



The aggregation and combination of the results will deliver the correct data which you need to base decisions on.

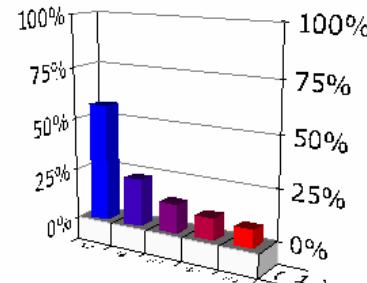
# SynEval Evaluation Screen



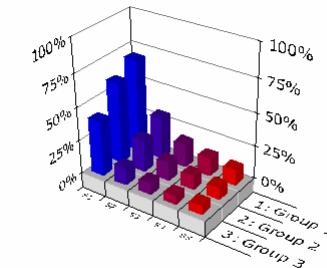
e.g. for the SPiCE-Lite Questionnaire,  
SynEval contains about 700 different charts.

# Some of the 700 SynEval Charts...

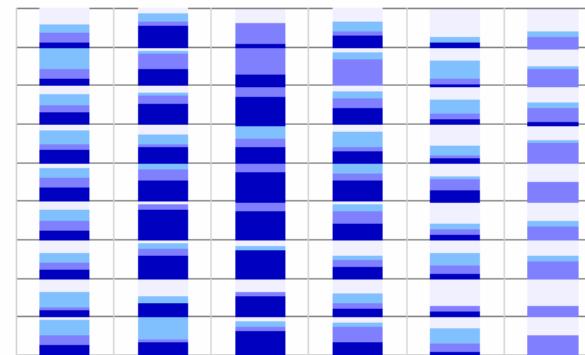
Total (Capability Levels)



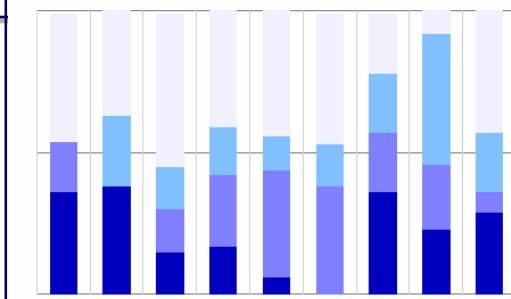
All Answers



Detail: Project Management (Process Attributes)



Detail: Quality Management (Attribute: Records)



# SynBench (1/3)

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- SynBench is capable of doing the same evaluations as SynEval can
  - Additionally SynBench can calculate rankings (e.g: you are No 4 of 20)
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- SynBench is a **Server Application** which runs on an Internet Server and can be accessed via the browser
  - User management, restricted access and secure connections are natural



## SynBench (2/3)

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- Experts can define some query templates and some report templates
  - Query templates define, how to query and sort the benchmarking data
  - Report templates define the graphical representation of the query result and contain additional descriptive information about the given chart
- Tools to manage the templates allow experts to design exactly the report the users want



## SynBench (3/3)

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- Users of the assessment tool can use their web browser to upload their assessment files to the benchmarking server
- Depending on one user's rights he/she is allowed to generate his/her own report based upon the expert's template.
- Reports can be as simple as a chart generator showing only the user's assessment data or can run complex queries for displaying a ranking within a defined group
- One benchmarking server can be set up using multiple languages and is able to do evaluations for different questionnaires at the same time

# Mappings: Yes, we do!

1. Verpflichtung zur Qualität
2. Kommunikation und Berichtswege
3. Aufbau und Pflege der Kundenbeziehungen
4. Ressourcenplanung
5. Stellenbesetzung und Mitarbeiterführung
6. Personalschulung und Weiterbildung
7. Erstellung und Pflege eines Qualitätshandbuchs
8. Technologie und Infrastruktur
9. Aufwand- und Kostenschätzung
10. Vertragsprüfung
11. Entwicklungsplanung
12. Risiko-Management
13. Beschaffung, Prüfung bzw. Integration extern Produkte
14. Strukturierung der Software-Entwicklung
15. Tailoring des Vorgehensmodells
16. Durchführen von Reviews
17. Erfassen und Analysieren von Fehlerursachen
18. Handhabung von Änderungen (Change Management)
19. Messen von Aufwand und Kosten
20. Dokumenterstellung und - verwaltung
21. Konfigurations- und Versionsverwaltung
22. Messen von Produktivität und Komplexität
23. Anforderungsanalyse und -spezifikation
24. Prototyping
25. Architekturentwurf
26. Feinentwurf und Implementierung
27. Programmierrichtlinien
28. Wiederverwendbarkeit
29. Modultest
30. Integration
31. Transfer und Abnahme
32. Lieferung, Installation und Schulung
33. Wartung und betriebliche Unterstützung
34. Systematischer Kundenservice
35. Überprüfung der Qualitätsmerkmale des Software-Produktes
36. Statistische Analyse von Fehlerdaten
37. Kundenzufriedenheit (Feedback)

Via “Base Practices” from SPICE Part 5

Process Category	Process
ID	Title
CUS	Customer Supplier process category
CUS.1	Acquire software
CUS.2	Manage customer needs
CUS.3	Supply software
CUS.4	Operate software
CUS.5	Provide customer service
ENG	Engineering process category
ENG.1	Develop system requirements and design
ENG.2	Develop software requirements
ENG.3	Develop software design
ENG.4	Implement software design
ENG.5	Integrate and test software
ENG.6	Integrate and test system
ENG.7	Maintain system and software
SUP	Support process category
SUP.1	Develop documentation
SUP.2	Perform configuration management
SUP.3	Perform quality assurance
SUP.4	Perform work product verification
SUP.5	Perform work product validation
SUP.6	Perform joint reviews
SUP.7	Perform audits
SUP.8	Perform problem resolution
MAN	Management process category
MAN.1	Manage the project
MAN.2	Manage quality
MAN.3	Manage risks
MAN.4	Manage subcontractors
ORG	Organization process category
ORG.1	Engineer the business
ORG.2	Define the process
ORG.3	Improve the process
ORG.4	Provide skilled human resources
ORG.5	Provide software engineering infrastructure

We are able to map e.g. SynQuest assessments to SPICE or ISO 9000  
New mappings can be implemented on demand.

# Samples for successful Quest Derivates

- SPiCE 121 (ISO 15504 for Software Processes)
- SPiCE-Lite (similar to SPiCE 121, but much easier to use)
- Assess & Act - ISO 9000:2000
- Y2K-Audit (Year 2000 compliance assessment tool)
- ÖkoQuest (ISO 14000) (environmental management)
- ControlQuest (to assess your financial controlling activities)
- Assist (IT purchasing, small starter kit)
- Pulse (IT purchasing, going for ISO publication)
- Probe (IT purchasing, easy to use)
- EQA-Quest (EFQM assessment tool)
- ESA-Quest (software process assessment tool for space agency)
- StudyQuest (assessment tools for evaluating your own studies)
- ECO-Flow (assessment tool for e-commerce)
- MyBusinessQuest (assessment tool for management)