



TestLab Plus

A System to Support and Manage
Processes in Test Labs

easy • **innovative** • **individual**

TestLab Plus

Objectives and Principles

The Objectives:

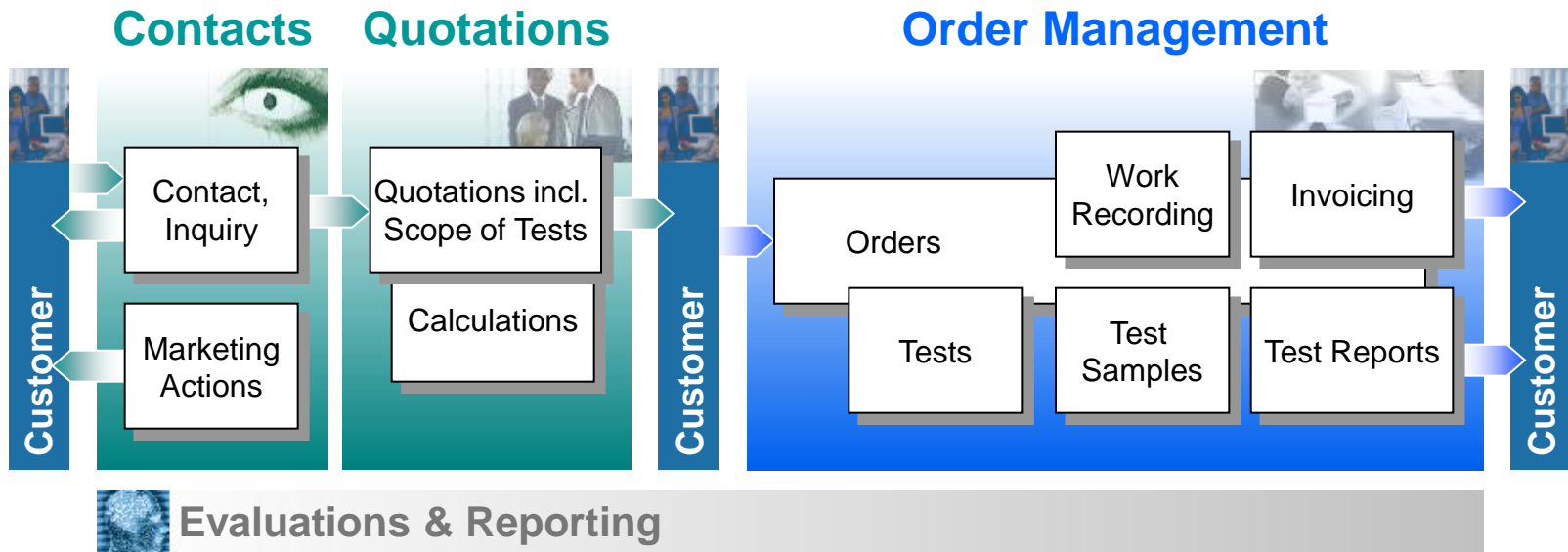
- Efficient and Controlled Processes
- Comprehensible Activities
- Transparent Expenditures

The Principles:

- The basic system is designed to cover all processes in a test laboratory
- The functions can easily be compiled based on the modular structure
- Additional functions or requirements can be realized quickly to fulfill your individual needs and integrate the system in your processes
- The open architecture offers a variety of possible interfaces to other systems or applications (e.g. SAP, Outlook, Word, Excel, Access, etc.)
- The usage of standard software avoids additional license costs

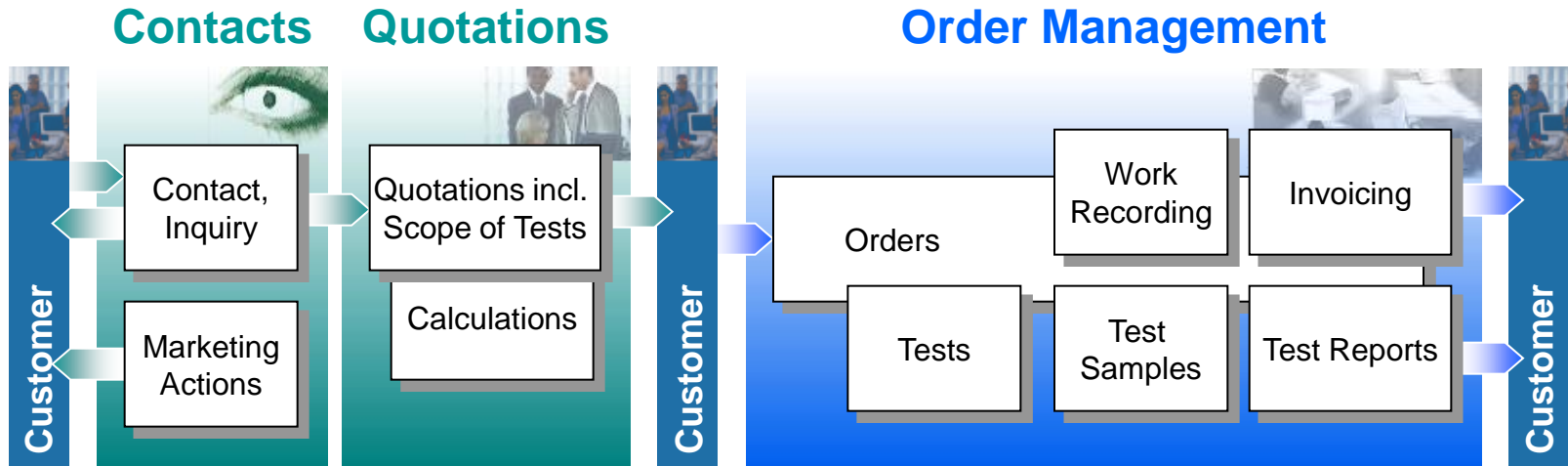
TestLab Plus

Process Overview



TestLab Plus

Process Overview

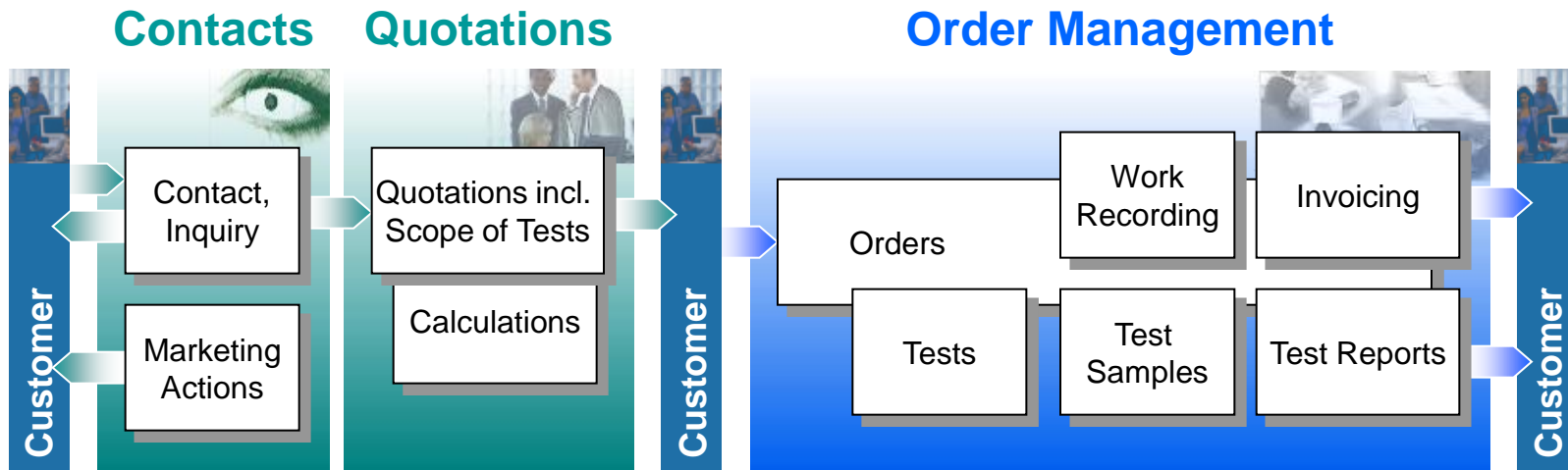


Evaluations & Reporting

Data needed			
<ul style="list-style-type: none"> Companies Personnel Company-categories Personnel-circles 	<ul style="list-style-type: none"> Companies Personnel Prices Calculation- or Test Templates Employees (Planning) 	<ul style="list-style-type: none"> Companies Personnel Prices Employees Resources Test Templates 	<ul style="list-style-type: none"> Laboratory Fields Equipment under Test Measuring Equipment Standards Services

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Process Overview

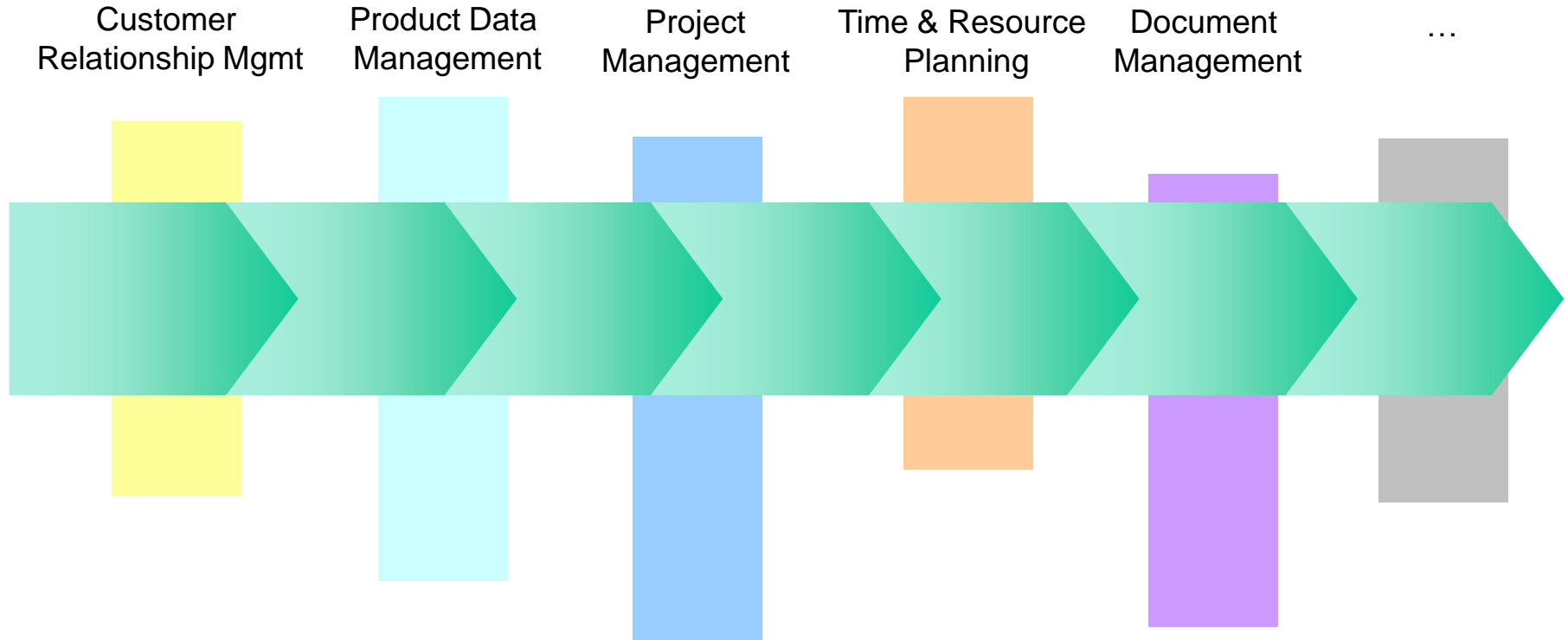


Evaluations & Reporting

Interfaces			
<ul style="list-style-type: none"> Outlook, Lotus Notes, Groupwise Word 	<ul style="list-style-type: none"> Outlook, Lotus Notes, Groupwise Word Project SAP 	<ul style="list-style-type: none"> Outlook, Lotus Notes, Groupwise Word Excel Powerpoint Project 	<ul style="list-style-type: none"> Intranet/Internet SAP PDMS DMS <p>DMS = Document Management System PDMS = Product Data Management System</p>

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Focused on the Process of a Test Lab

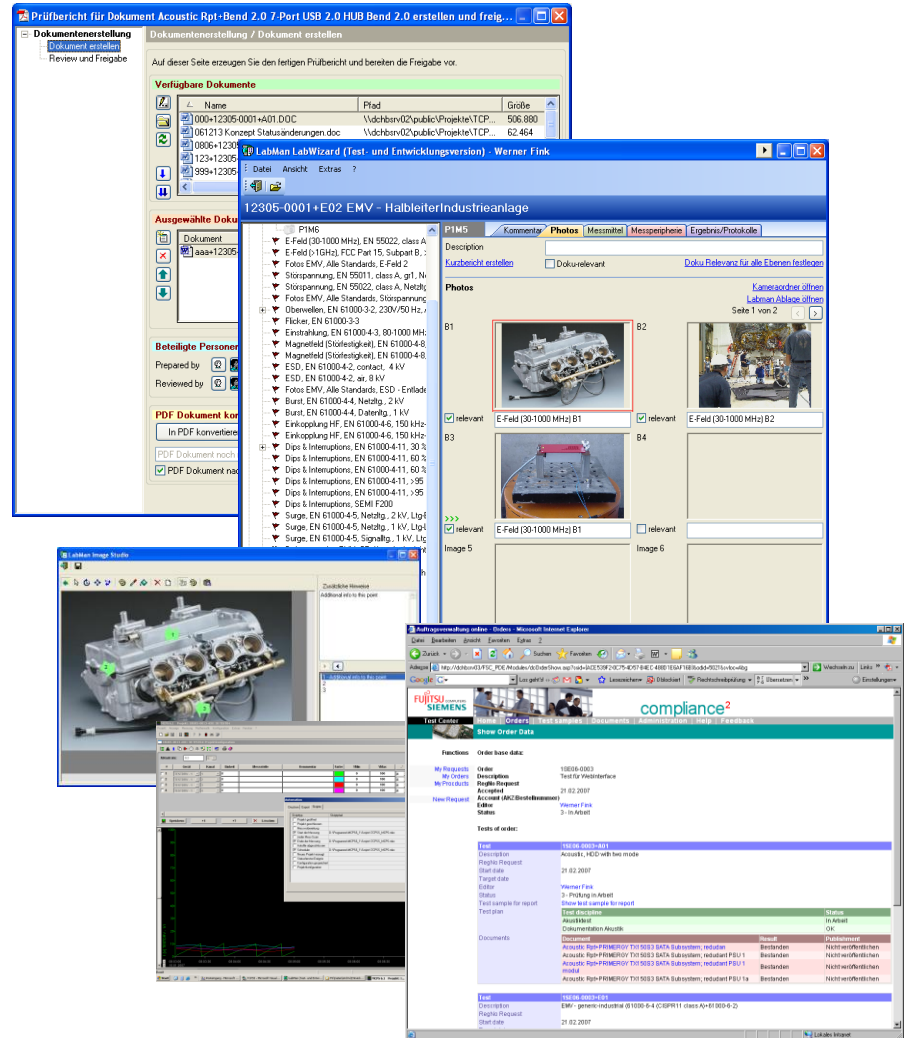


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Functional Overview II

The Integrated Modules:

- Creation and Management of Test Reports and other Documents
- Integrated Image Processing Tools
- Document Management System (incl. PDF Generation and Electronic Signatures)
- Multi-Client System
- Multilingual User Interface
- Extensive Analyzing and Report Functions
- Intelligent Query Functions
- Integrated Messaging System
- Web interfaces for external Users
- Administrative Tools
- Customer Complaint Management

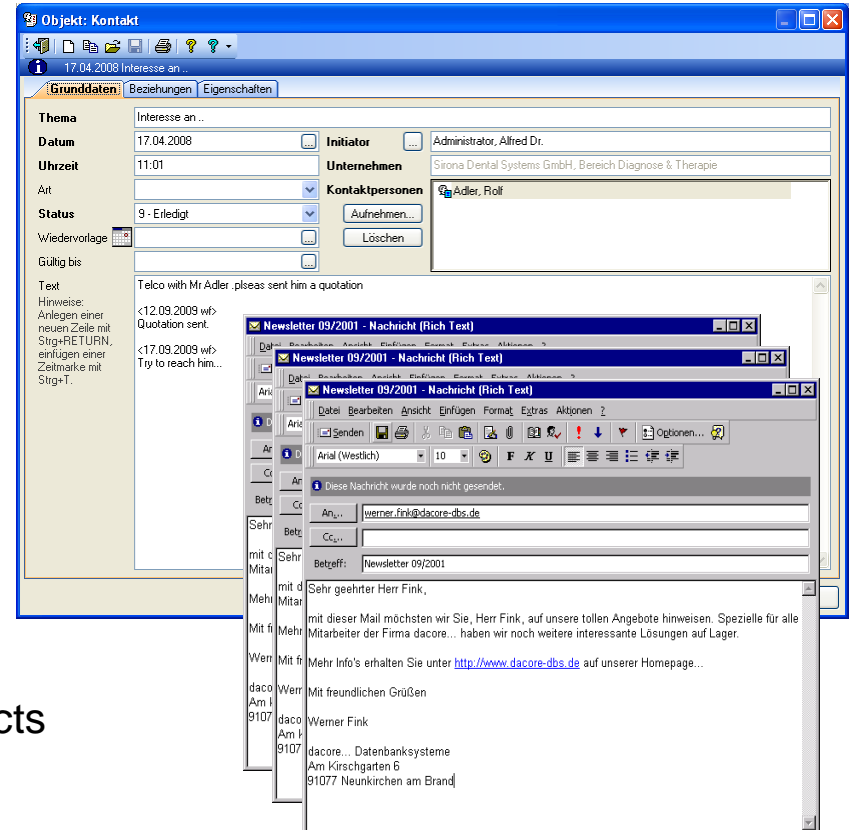


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Contact Management - Overview

Basic Functions:

- Easy and structured registration and maintenance of customer data
- Wizard to quickly register business cards
- Management of company categories and personnel circles
- Create series letters and individualized series e-mails
- Export of address data
- Registration and follow up of customer contacts
- Export relevant dates to Outlook
- Assigning “Customer Care Managers”
- Automatic notification if customer data were changed



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Cost Calculation and Quotation - Overview

Basic Functions:

- Define scope of work and the test plan for calculations already
- Creation of tenders based on calculations
- Creation of documents based on Word or Outlook templates
- Automatic creation of folder and file structures
- Controlling of due dates using Outlook or the internal messaging functions
- Assign employees in different roles for tenders, orders, tests (technical responsible, project manager, ...)

The screenshot displays the 'Objekt: Kalkulation' window in the TestLab Plus software. The main window shows a table with columns for 'Disziplin', 'Standard/Level/Testmode', 'Bemerkung', 'Angebot €', 'Ges €', 'Pers €', and 'Pers Std'. The table lists various test disciplines and their associated costs and resources.

Disziplin	Standard/Level/Testmode	Bemerkung	Angebot €	Ges €	Pers €	Pers Std
EMV - MED-neu			3.697,50 €	3.697,50 €	2.302,50 €	29,5
E-Feld (30-1000 MHz)	EN 55022, class B, mains		330,00 €	330,00 €	75,00 €	1,0
Fotos EMV	Alle Standards, E-Feld		37,50 €	37,50 €	37,50 €	0,5
Störspannung	EN 55022, class B		105,00 €	105,00 €	75,00 €	1,0
Störspannung	EN 55022, class B, LAN	nicht relevant für Monitor				
Fotos EMV	Alle Standards		37,50 €	37,50 €	37,50 €	0,5
Oberwellen	EN 61000-3-2, 200V/50V		50,00 €	50,00 €	37,50 €	0,5
Flicker	EN 61000-					0,5
ESD	EN 61000-					0,5
ESD	EN 61000-					0,5
Fotos EMV	Alle Standards					0,5
Einstrahlung	EN 61000-					4,5
Einstrahlung	EN 61000-					4,5
Burst	EN 61000-					1,0
Burst	EN 61000-					1,0
Surge	EN 61000-					1,0
Surge	EN 61000-					1,0

An inset window titled 'Objekt: Angebot' shows a detailed list of components for a 'Server' category. The components include:

Category	Type	Product/Model	Model (Cert. na...)	Del...
Server		PRIMERGY TX150	PS190-D1501	Cor
PSU	PSU	NPS-330CBJ		
CPU	CPU	PIV 3.06GHz		
CPU	CPU-Fan	GL0BE COOLER		
Board	Systemboard	S26361-01501		
Board	RAM	SAMSUNG 512MB DDR266 M312L642...		
Board	RAM	SAMSUNG 512MB DDR266 M312L642...		
Board	RAM	SAMSUNG 512MB DDR266 M312L642...		
Board	RAM	SAMSUNG 512MB DDR266 M312L642...		
Board	LAN-Controller	INTEL Fast Ethernet Pro100+		
Board	LAN-Controller	INTEL Server Adapter Pro1000XT		
Board	RAID-Controll...	ADAPTEC Raid 2200S U320		
Board	RAID-Controll...	MYLEX1-Channel Raid U160		
Board	Backplane	SCSI-Backplane A3C400120516		
Drive	HDD	Atlas 10k III-320 18.4S		
Drive	HDD	Atlas 10k III-320 36.4S		
Drive	CD-ROM	Mitsumi FX4830T-AN		
Drive	FDD	D353M3		
Drive	Tape Drive	TANDBERG SLR60		

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Order Management - Overview

Basic Functions:

- Creation and follow up of different type of orders (single orders, standing orders, internal, external, ...)
- Define scope of order and tests (test plan, services, subject areas, standards, ...)
- Plan and check confirmed dates
- Transparent planning of work on order or test level
- Easy and instant overview of accumulated costs
- History of date shifts (or full history function)
- Creation of status reports to the customer
- Wizards to split orders or re-assign an order to another customer

The screenshot displays the 'Objekt: Auftrag' window for order '1SE06-0003 Test für Webinterface'. The order details include the number '1SE06-0003', description 'Test für Webinterface', and start date '21.02.2007'. The customer is 'Werner, Jürgen' from 'Fujitsu Siemens Computers GmbH'. The project manager is 'Fink, Werner'. Below the details is a 'Buchungsübersicht - Kalkulationsansicht (Planweite)' table.

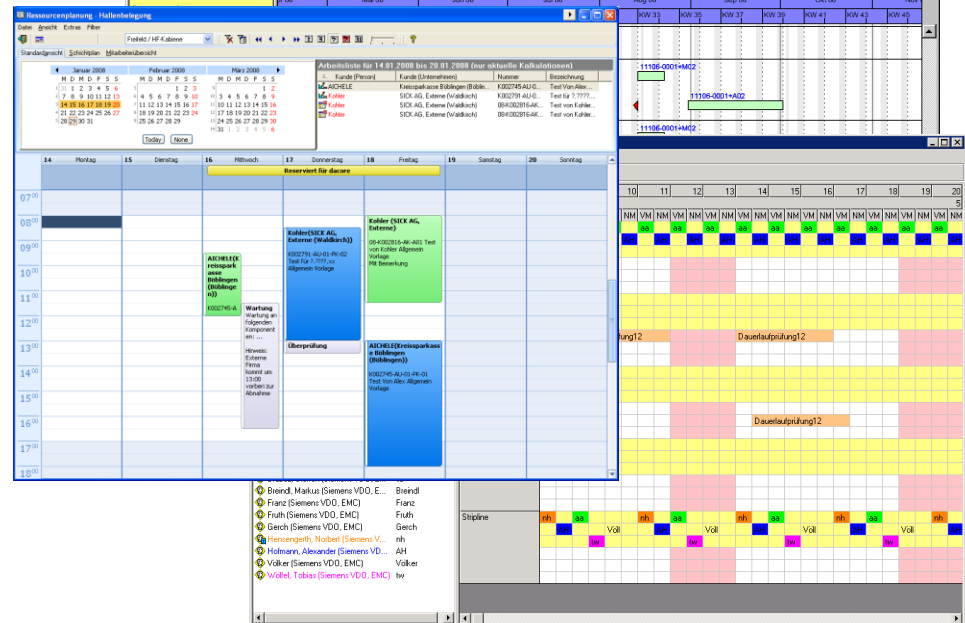
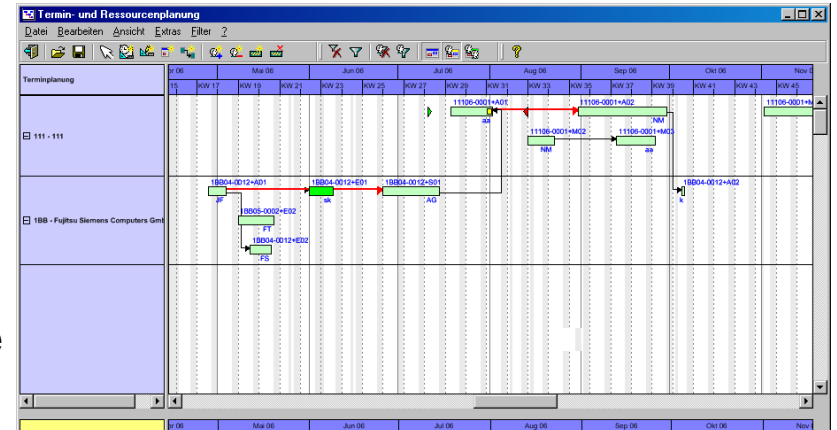
Disziplin	Ges. Plan Std	Per Plan Std	Anl Plan Std	Plan Std	Plan Std	Plan Std	Plan
				E 385 Experte	P 385 Prüfer	H 385 10m-Halle	
E-Feld (30-1000 MHz)	2,5	1,0					1,0
Dokumentation EMV	5,0	5,0			1,0		4,0
Fotos EMV							
Störspannung	2,0	1,0		1,0			1,0
Oberwellen	1,0	0,5		0,5			0,5
Flicker	1,0	0,5		0,5			0,5
Einstrahlung	6,0	3,0		3,0			3,0
Magnetfeld (Störfestigkeit)	2,0	1,0		1,0			1,0
ESD	3,0	1,5		1,5			1,5
Burst	3,0	1,5		1,5			1,5
Einkopplung HF	5,0	2,5		2,5			2,5
Dips & Interruptions	2,0	1,0		1,0			1,0
Surge	12,0	6,0		6,0			6,0

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Time and Resource Planning

Basic Functions:

- Integrated Time and Resource Planning Module
- Graphical planning in different levels
- Assign tests, orders or calculations to resources (employees or equipment)
- Dynamic time scales (past, now, future)
- Optimized project view
- Individual resource calendars
- Individual grouping and selection levels
- Define and manage timely relations
- Extended print and export functions
- Planning of stand by duties, holidays and shift work
- Different tools for different requirements



TestLab Plus

Test Management - Overview

Basic Functions:

- Create and maintain test plan templates
- Define a test plan for a test based on these templates (or create an individual test plan)
- Print out of check lists
- Define and maintain EUT configuration (or import it from other sources)
- Print out of bar code labels
- Recording of work load based on the defined steps of the test plan
- Quick overview about the progress and the accumulated costs at any time
- Assignment of resources to test disciplines
- Wizards to generate new tests or test templates

The screenshot displays the 'Objekt: Prüfung' window in TestLab Plus. The main window shows a table with columns for 'Zielen', 'Photos', 'Disziplin', 'Standard/Level/Testmode', 'Bemerkung', and 'Ergebnis'. The table lists various test disciplines such as 'EMV - E-Feld (30-1000 MHz)', 'Störspannung', 'Oberwellen', 'Flicker', 'Einstrahlung', 'Magnetfeld (Storfestigkeit)', 'ESD', 'Burst', 'Einkopplung HF', and 'Drops/Intermittions'. A secondary window titled 'Assistent zur Erstellung einer neuen Prüfung' is open, showing 'Schritt 2 - Prüflplanvorlage und Bezeichnung festlegen'. This wizard window includes a checkbox for 'Neue Prüfung auf Basis einer Prüflplanvorlage erstellen', a dropdown for 'Prüflplanvorlage' (currently set to 'EMV - Medizinprodukt - CE / class B (EN 60601-1-2)'), and a 'Bezeichnung' field with the same text. The wizard also features a list of available test plan templates and navigation buttons like 'Abbrechen', '< Zurück', 'Weiter >', and 'Fertigstellen'.

TestLab Plus

Document Management System

Basic Functions:

- Automatic or semi-automatic generation of test reports (all existing data can be used)
- Numbering system and version management
- Document review process with PDF conversion
- Release of test reports incl. work flow system (with electronic signatures if needed)
- Archive functions (database or file structure)
- Export functions to other document management systems
- Controlling of due dates (e.g. send back from UL or other authorities...)

The screenshot displays the TestLab Plus Document Management System interface, showing the document creation and review process for document T0050016.

Document (T0050016) - Grunddaten / Auftrag und Kunde

Grunddaten / Auftrag und Kunde Externes Dokument in Bearbeitung

Dokumentenart: Test Report

Auftrag: T005

Kunde: Talk-Tochter

Adresse: Qualitätssicherung
In der Tiefe 1

Document (T0050016) - Dokument

Dokument Externes Dokument in Bearbeitung

In diesem Bereich erzeugen und bearbeiten Sie das fertige Dokument.

Word Dokument erstellen und bearbeiten

[Dokument neu erstellen](#)

[Grunddaten im Dokument aktualisieren](#)

Aktuelles Word Dokument: T0050016.DOC

[Aktuelles Dokument weiter bearbeiten](#) Dokument auschecken

[Bearbeitung des Word-Dokuments abschließen](#)

[Aktuelles Dokument als Kopie öffnen](#)

Document (T0010009) - Dokument / Review und Freigabe

Dokument / Review und Freigabe

In diesem Bereich wird die Freigabe des Dokuments erteilt.

Aktueller Status: Review Phase. Die Freigabe zur Unterschrift ist erteilt. Die Approver unterschreiben.

Vorbereitung zur Freigabe

Die Unterschrift der Teilnehmer (Tester und beteiligte Personen) ist nötig.

Name	Rolle	Unterschrieben am
Allfons Administrator	Tester, Beteiligte Person	

Reviewphase

Dokument in Review-Phase

Unterschriftsphase

Editor mit den Unterschriftsblock im Dokument aufnehmen

Freigabe für Unterschrift

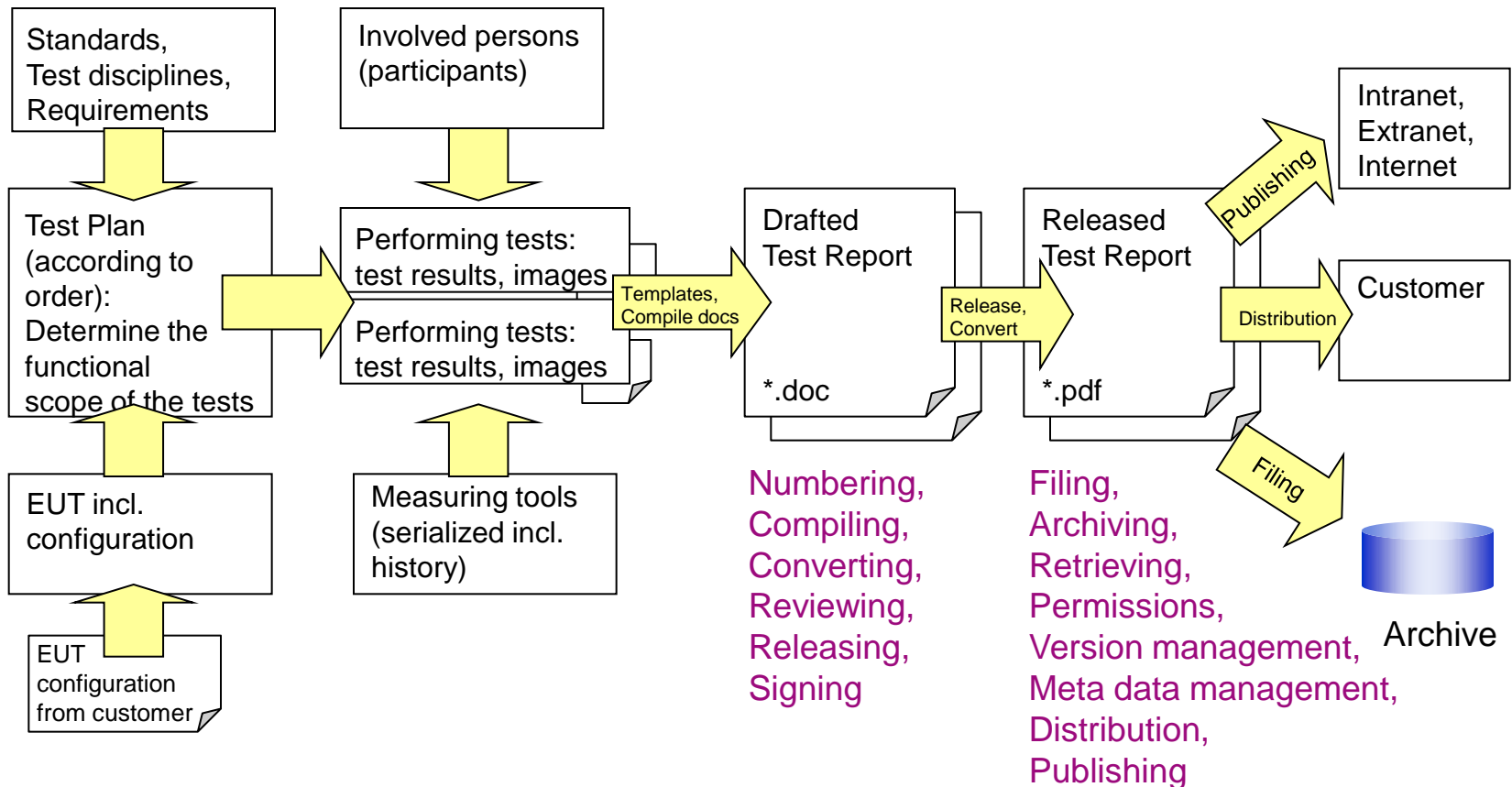
Freigabe zum Review erfolgt von Allfons Administrator am 28.04.2006 13:52:51.

Approver

Name	Rolle	Unterschrieben am
Dipl.-Ing. Joachim Meyer	Approver	
Rainer Hack	Approver	
Werner Fink	Approver	28.04.2006 14:02:05

TestLab Plus

Scope of a Document Management System for Test Labs

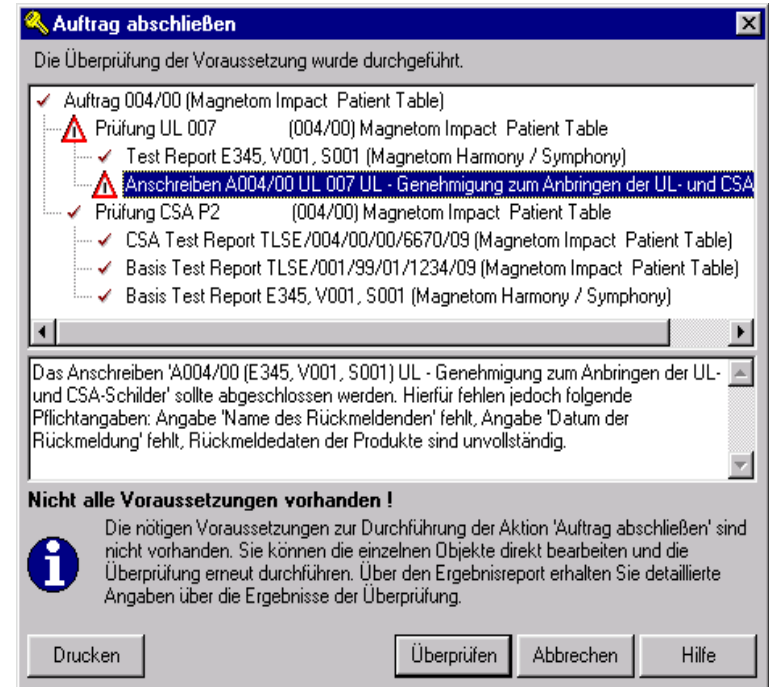


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Order Management - Closing

Closing of Orders and Tests:

- Separate technical closing and commercial closing possible
- Work flow can be implemented (e.g. inform the commercial department after technical closing)
- Closing in different levels possible (single tests or all objects regarding to an order)
- A wizard guides the user through the closing process
- A detailed list of missing information is generated automatically
- Direct access to all objects, where data are missing
- Improvement of data quality (semi-automatic maintenance of EUT configuration, ...)

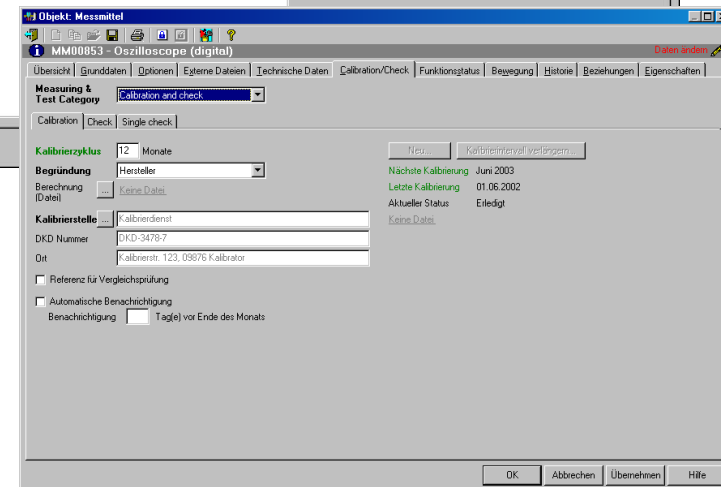
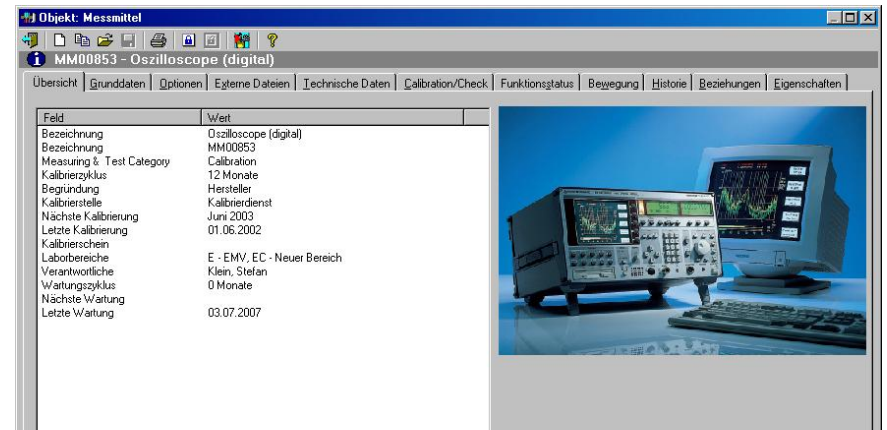


TestLab Plus

Management of Measuring Equipment

Basic Functions:

- Recording base data of measuring tools and equipments (technical data, commercial data, additional documents, ...)
- Management of different calibration intervals
- Management of all other dynamic tasks (e.g. functional limitations, rentals, tests, ...)
- Full history function
- Assignment to employees, standards, etc possible
- Integrated evaluation functions (what measuring tool has to be calibrated next month, ...)

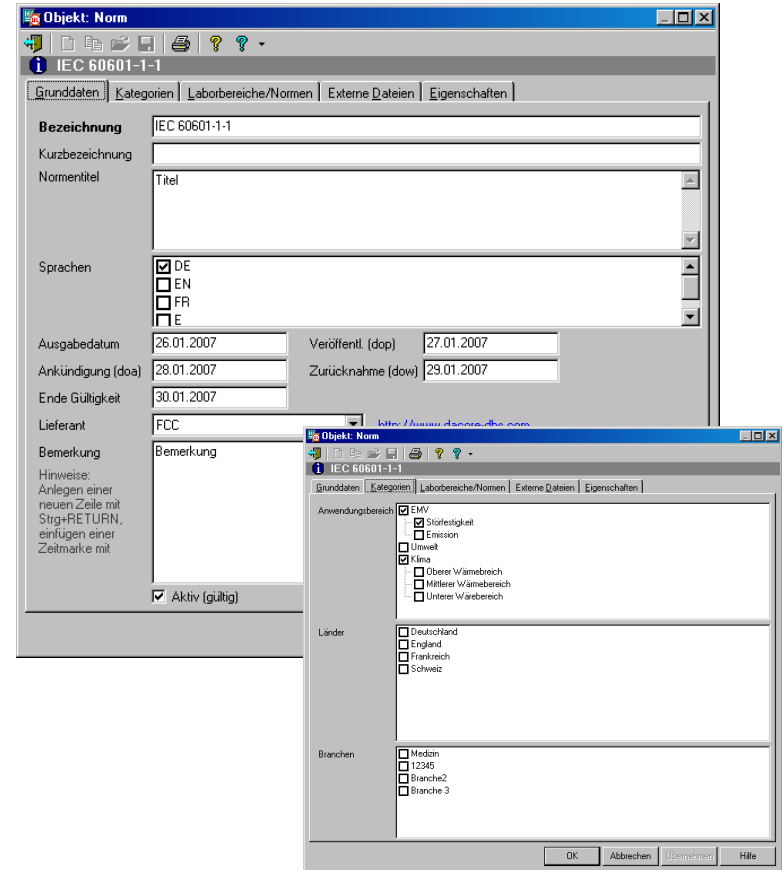


TestLab Plus

Standards and Certificates

Basic Functions:

- Archive of standards and external certificates (links to external documents or other storage locations)
- Create links and dependencies between standards and all other objects
- Assign standards to measuring tools or employees (e.g. responsible person for updating)
- Create dependencies of standards and test templates or test plans

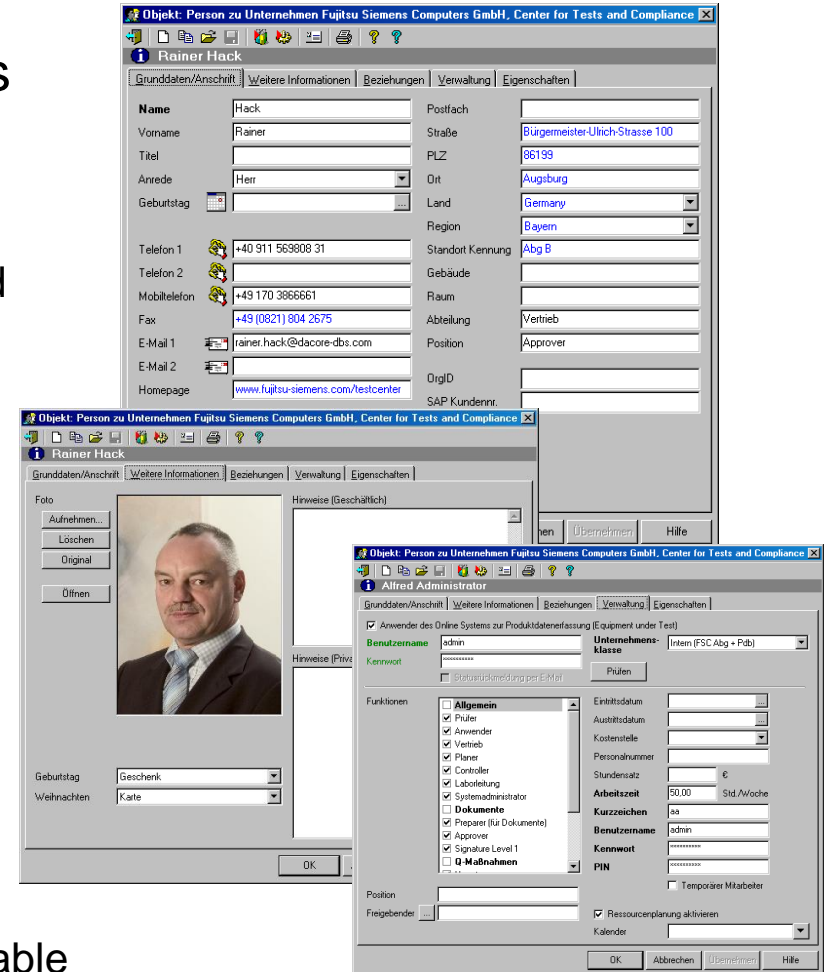


TestLab Plus

Master Data – Personnel and Companies

Basic Functions:

- Structured recording of company, customer and employee data
- Easy data update after organizational changes
- Dial function integrated (TAPI protocol)
- Direct sending of e-mails possible
- Define roles and functions for users
- User profile definable (controls the permissions on object or even field level for a user)
- Assign a resource calendar to an user
- Export of contact data to Outlook possible
- Interface to SAP to update company data available



TestLab Plus

Master Data – EUT and Resources :

Basic Functions:

- Record EUT (test sample) configuration in different hierarchy levels
- Assignment to product families possible
- Import configuration lists from Intranet or Internet or from Excel sheets
- Different types of resources available (employees, equipment, test tools, ...)
- Different prices systems possible incl. price history
- Assignment to individual resource calendars possible

The screenshot displays the TestLab Plus software interface, which is used for managing test equipment and resources. It features several windows and panels:

- Objekt: Prüfung (Object: Test):** A main window showing details for a test object. It includes tabs for 'Grunddaten' (Basic Data), 'Beziehungen' (Relationships), 'Bezeichnung' (Label), and 'Eigenschaften' (Properties). The 'Grunddaten' tab is active, showing fields for 'Product' (SCENIC C620, I915GV), 'Model (Cert. name)' (DTS, I91544), 'Details' (Akustik-Messung für das Datenblatt mit P4 3,0GHz), 'Unternehmensklasse' (Intern FSC Abg + Pdb), 'Category' (Personal Computer), and 'Manufacturer' (Fujitsu Siemens Computers GmbH). A table lists components like PSU, CPU, Board, RAM, Board, Board, Board, and Drive with their respective types, models, remarks, manufacturers, and part numbers.
- 3D T.O.P. - Stativ (m...):** A tree view showing a hierarchy of products, including '3D T.O.P. - Stativ (mit ...)', '3D-TOP Stativ (Decke ...)', '3D-TOP Stativ (Planeg ...)', '3D-Virtuoso/WS', '3DIII-Stativ für Digiscar ...', '3DIII-Thorax', '3DM Deckenstaiv', 'Bildrechner-Steuerschrank Digic ...', 'Bildverstärker RVB 23-3 HDR-DI ...', 'Bildverstärker, div.', 'Bildverstärkereinheiten', 'Blende (Uniblende)', 'Blende Collimators', 'Blende Collimators (Herzkontur ...)', 'Blende Collimators (Tiefenblende ...)', 'Fluorospot Compact', 'Fluorospot H', 'Fluorospot H (in Verbindung mit ...)', 'Fluorospot Lite', 'Fluorospot T.O.P.', 'Fluorospot TOP', 'Magnetom Harmony / Symphony', and 'Magnetom Harmony / Sumphonn...
- TestCenter PSS [Test- und Entwicklungssystem - SQL Server] - Testanwender/Windows NT:** A window showing a tree view of test equipment and resources. It includes a search bar and a list of items such as 'Scenic D, VAP266 SDG-D1239 (SB-D12 ...)', 'Scenic D, VAP266 SDG-D1239 (SB-D12 ...)', 'Scenic D, VAP266 SDG-D1239 (SB-D12 ...)', 'Scenic L, MTR8-D1219 (Mechaniktest St ...)', 'AA21850', 'SCENIC L, MTR8-D1219 (Mechaniktest St ...)', 'E447-V50', 'ST310211A', 'D1219', 'SCENIC L, I815E MTR8-D1219 (Iverschie ...)', 'D1219 (SQLAND II)', 'Pentium III, 1000MHz (FSB 133MHz)', 'ST320413A (20GB, IDE, 5400rpm)', 'ST320414A (20GB, IDE, 7200rpm, ...)', 'ST318436LW (18GB, SCSI, 7200pr ...)', 'SCENIC L, I850 MTR8 (with P4/1,7GHz)', 'SCENIC L, I815E MTR8-D1192 (CPU-P4 1,7 ...)', 'Scenic S, I815E DT2-D1215 (IP3 (Tualat ...)', 'SCENIC T, MM (E447-V50)', 'SCENIC T, MM (E447-V50)', 'SCENIC T, MM (E447-V50)', 'Scenic T, I810e MM-D1170 (IP3 1000 V ...)', 'Scenic T, I810e MM-D1170 (IP3 1000 V ...)', 'Scenic T, I815e MM-D1214 (IP3 Comm ...)
- Properties Panel:** A panel on the right showing details for the selected object, including 'Model' (SCENIC L, MTR8-D1219), 'Cert. name' (Mechaniktest Scenic L - Stufe 2), 'Manufacturer' (Fujitsu Siemens Computers GmbH, Profe...), 'Part No.' (S26361-K637-), 'Serial No.' (Prototyp), 'Revision' (Prototyp), 'System' (Ja), 'Objektklasse' (Produkt), 'Angelegt' (29.03.01 Stefan Klein), and 'Geändert' (29.03.01 Stefan Klein). It also shows a list of relationships and a section for 'Zusatzangaben' (Additional Information).

TestLab Plus

Expenditure Recording and Tracking

Record working hours and other expenditures:

- Independent applications to record performed working hours and used resource hours (personal view, order view)
- Immediate overview about the own performance
- Immediate check of planned and actual values (personnel hours, resource hours, revenue)
- Automatic alarm or notification system if actual values deviate from the planned values
- Common tasks can be selected as well
- Recording of external or additional expenditures (e.g. invoices, travel expenses, ...)
- possible
- SAP Interface available

TestLab Plus XP - Alfons Administrator

November 2000

Mo	Di	Mi	Do	Fr	Sa	So
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

Donnerstag, 16. November 2000

Aktuelle Werte

Arbeitszeitauswertung	Soll	Ist	Abweichung
Tag	8,0 Std	8,0 Std	0,0 Std
Monat	176,0 Std	90,5 Std	-85,5 Std

Prüfung/Auftrag	Tätigkeit	Status	Bemerkung	Stunden
003/00 (3D-TOP Staliv (Pla	Beratung	Fertig		1,5 Std
003/00 EN 794 Teil 2 (3D-T	Detaillklärung	Fertig		3,0 Std
002/00 CSA P1 (3D T.O.P.	Prüfung/Dokumentation	Normale Unterbrechung		2,0 Std
Sonstige Zeiten (Arb.-Sicher				1,5 Std

TestCenter PSS XpA (Test- und Entwicklungssystem - SQL Server) - P5-350/FinkWe

Auftrag (gesamt)	Beginn	Zieltermin	Kosten geplant	Kosten Ist	Differenz	Status
Auftrag (gesamt)	23.08.01	19.10.01	1.500,00 €	2.494,50 €	994,50 €	3 - In Ar
Auftrag (direkt)				1.731,00 €		

Tätigkeit	Status	Datum	Bearbeiter	Pers.Std	Si
Beratung	In Arbeit	05.09.01	Windows NT	2,0 Std	E:
	Erliegt	05.09.01	Windows NT	3,0 Std	Pr

Monatsübersicht - Alfons Administrator

Monat	Soll Stunden	Ist Stunden	Differenz
Dezember 2000	176,0 Std	90,5 Std	85,5 Std
November 2000	17,0 Std	2,0 Std	15,0 Std

Prüfungs- und Auftragsübersicht

Auftrag	Beginn	Zieltermin	Aufwand geplant	Aufwand Ist	Differenz
003/00 (3D-TOP Staliv	24.08.200	18.09.200	30,0 Std	21,5 Std	-8,5 Std
003/00 EN 60601-1	16.11.2000	20.11.2000	15,0 Std	17,0 Std	2,0 Std

Tätigkeit	Status	Datum	Aufwand	Bemes
Prüfung/Dokumentation				
Fehlende Dokumente		15.11.00	1,0 Std	
Prüfmuster nicht verfi...		01.11.00	2,0 Std	
Terminverschiebung		06.11.00	3,5 Std	
Umgebungsbedingun...		09.11.00	3,5 Std	
Normale Unterbrechung		17.11.00	3,0 Std	
Normale Unterbrechung		17.11.00	4,0 Std	

TestLab Plus

Invoicing - Overview

Basic Functions:

- Different type of invoices possible (internal, external, groups)
- Easy understandable view of open and already settled work
- Unplanned work can be listed separately
- Shared invoices possible (different accounts or customers for one order)
- Create documents based on Word or Outlook templates
- Single bills, partial bills, final bills possible
- Interface to SAP available

The screenshot displays the 'Abrechnung extern' (External Invoicing) window. The main window shows a table with columns: Auftrag/Prüfung/Kosten, Status/Datum, Art, Summe berechnet, Summe verrechnet, Offen berechnet, and Rechnungsbetrag. The table lists various items including 'Auftrag' (00701-0003) and 'Prüfungen' (00701-0003+ST01) with their respective costs and calculated amounts. A 'Gesamtübersicht' (Summary) row is highlighted in green, showing a total of 464,50 €. Below the table, there are buttons for 'Neu berechnen...' and 'Buchungen...'. A smaller window titled 'Abrechnung intern' (Internal Invoicing) is overlaid, showing details for 'FSC+20010906b' with a date of '06.09.2001'. This window includes a table for 'AKZ/Bestellnr.' and 'Wert', a section for 'Abgerechneter Wert' (6.594,50 €) with a breakdown by 'Laborbereich', and a table for 'Leistungart' (Service Type) and 'Ressource' (Resource) with associated hours and values.

TestLab Plus

Evaluation and Query Functions

Integrated Analyzing Tools:

- The best: the assignment structure makes a lot of “standard” queries needless
- Extensive query and evaluation functions answers even complex questions
- The “what’s new” function shows all actual activities
- Individual or system wide available filters
- Export of result lists to Excel, Word, Access or in HTML format
- Script based export routines (can easily be adjusted)
- All objects can be opened wherever they are shown

The screenshot displays the 'Auswertungen' (Evaluations) window in TestLab Plus. It features a tree view on the left for navigation and a main data table. Below the table, there is a query editor with 'Entwurfsansicht' (Design View) and 'SQL-Ansicht' (SQL View) tabs. The design view shows a table with columns for 'Objekt', 'Feld', 'Alias', 'Anzeige', 'Sort', 'Index', 'Bedingung', and 'Dauer'. The SQL view shows a table with columns for 'Angebotsnummer (Formatiert)', 'Angebots Summe', 'Nachname', 'Kostenstelle', 'Telefon 1', 'Telefon 2', and 'Systemfunktion'.

Kammertyp	Strahler	Standort	Letzte KM	Nächste KM
60004.0188/60005	Sr 90 8921-088	Rudolstadt		Nov 99
69252	Cs 137 Nr.55998	Erlangen		Nov 99
1789051	Cs 137 A 534	Rudolstadt		Nov 99
1443 gr. 889 kl.	C14 WK 29	Fo. 2		Nov 99
1548 gr. 2015 kl.	C14 DH 388	Forchheim		Nov 99

Objekt	Feld	Alias	Anzeige	Sort	Index	Bedingung	Dauer
Objekt	Angebotsnummer (Formatiert)		<input checked="" type="checkbox"/>				
Objekt	Angebots Summe		<input checked="" type="checkbox"/>			ist mehr als 1000	
Mitarbeiter	Nachname		<input checked="" type="checkbox"/>				
Mitarbeiter	Kostenstelle		<input checked="" type="checkbox"/>				
Mitarbeiter	Telefon 1		<input checked="" type="checkbox"/>	↑	1	erhält 0821	
Mitarbeiter	Telefon 2		<input checked="" type="checkbox"/>				
Mitarbeiter	Systemfunktion		<input checked="" type="checkbox"/>			erhält Labofestung	
Mitarbeiter	Stundenlohn		<input checked="" type="checkbox"/>				
Mitarbeiter	Berufsname		<input checked="" type="checkbox"/>				

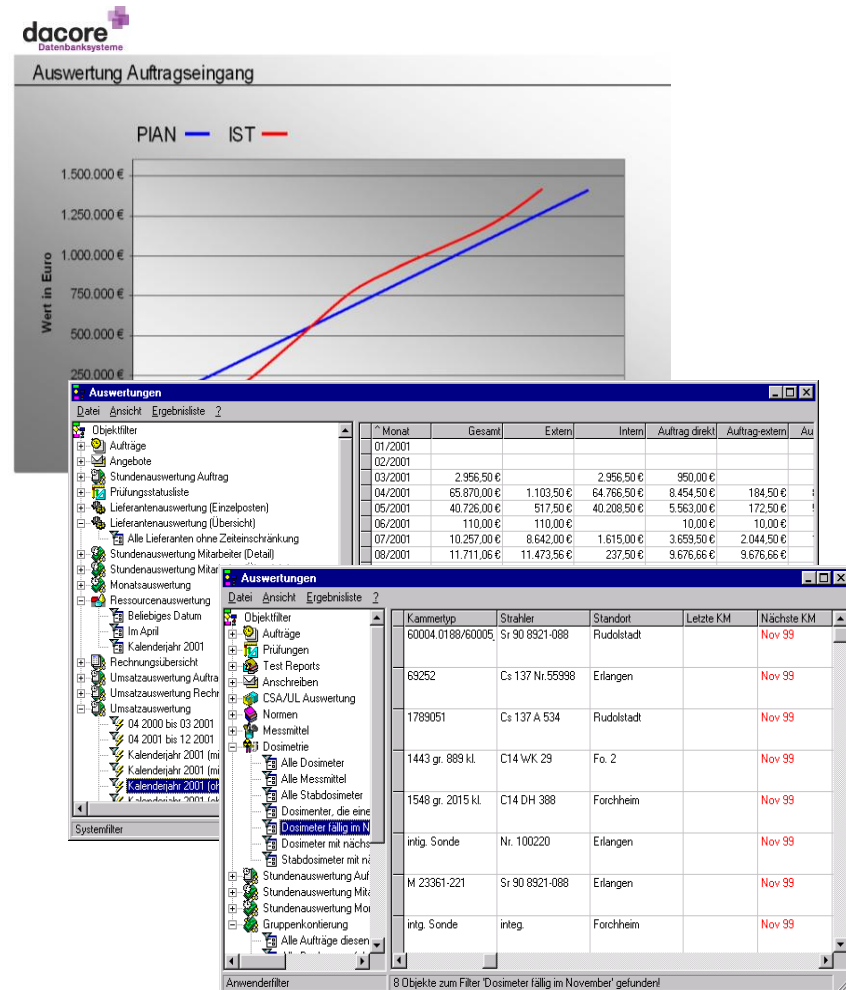
Angebotsnummer (Formatiert)	Angebots Summe	Nachname	Kostenstelle	Telefon 1	Telefon 2	Systemfunktion
12386629 Test für Filter (By Admin - Alex)	4.745,00	Administrator	Center	+49 (0821) 804 0		Prüfer, Anwender, Vertrieb, Planer, Controller, L...
CB1010419a EMV CE Prüfung Monitor	3.000,00	Wollner	Center	+49 (0821) 804 2160		Prüfer, Anwender, Vertrieb, Planer, Controller, L...
EX1010807 Medien PC	8.950,00	Wollner	Center	+49 (0821) 804 2160		Prüfer, Anwender, Vertrieb, Planer, Controller, L...
CTE101826 EMV Erprobung von Messgeräten (Portable Serie)	2.990,00	Wollner	Center	+49 (0821) 804 2160		Prüfer, Anwender, Vertrieb, Planer, Controller, L...
IND010626 CE Prüfung für Schaltschrank KR3 mit Roboter KR3	4.900,00	Wollner	Center	+49 (0821) 804 2160		Prüfer, Anwender, Vertrieb, Planer, Controller, L...
B0002016 Industrie-Überwachungsgerät GLCD	2.220,00	Wollner	Center	+49 (0821) 804 2160		Prüfer, Anwender, Vertrieb, Planer, Controller, L...
EIC00603 EMV (CE, FCC) für Drive Server ISDN PPH Varianten	4.940,00	Wollner	Center	+49 (0821) 804 2160		Prüfer, Anwender, Vertrieb, Planer, Controller, L...
BMF030708 Antriebsleistungsmodul für Lumineszenzröhren	3.990,00	Wollner	Center	+49 (0821) 804 2160		Prüfer, Anwender, Vertrieb, Planer, Controller, L...
KJK030714 Handbedingegerät für Roboter	2.100,00	Wollner	Center	+49 (0821) 804 2160		Prüfer, Anwender, Vertrieb, Planer, Controller, L...
PSI020303 BSMI Prüfung für Drucker PP405	1.390,00	Wollner	Center	+49 (0821) 804 2160		Prüfer, Anwender, Vertrieb, Planer, Controller, L...
AD1040405 EMV Messung für Programmiergerät Field PG4	2.655,00	Wollner	Center	+49 (0821) 804 2160		Prüfer, Anwender, Vertrieb, Planer, Controller, L...

TestLab Plus

Evaluation Functions (Examples)

Some examples:

- Order overview including comparison of planned and actual values (hours, revenue)
- Test status list for project meetings
- Evaluation of revenues in different levels (total, per customer, per organizational unit, ...)
- Evaluation of suppliers
- Monthly based reports (effort and revenue per order, per customer, ...)
- Controlling of invoices
- Management of measuring equipment data (calibration cycles, ...)
- And much more...

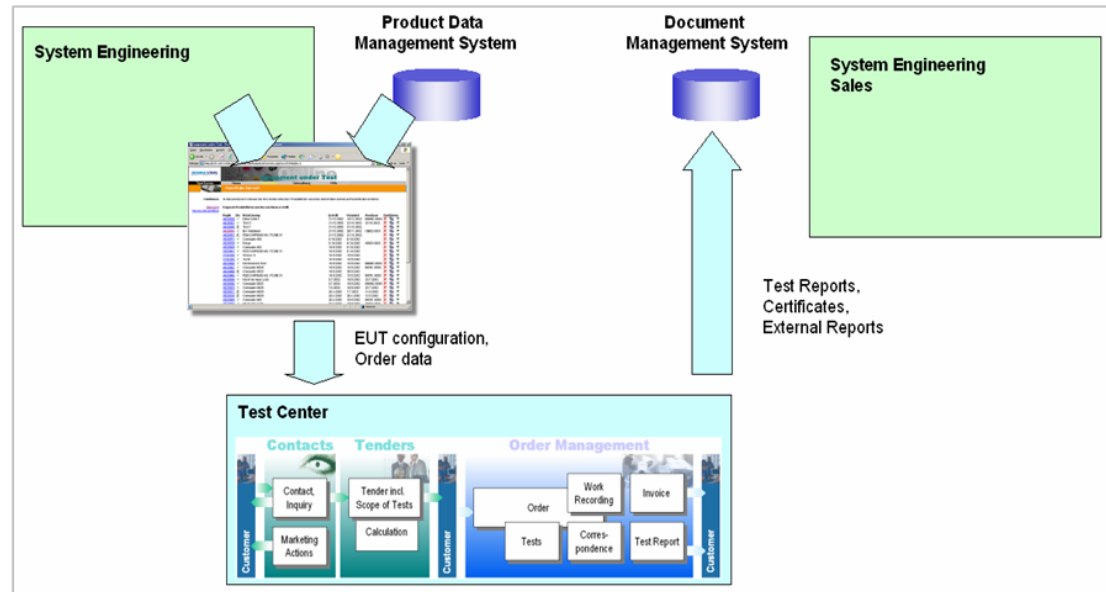


TestLab Plus

Integrate Your Customers !

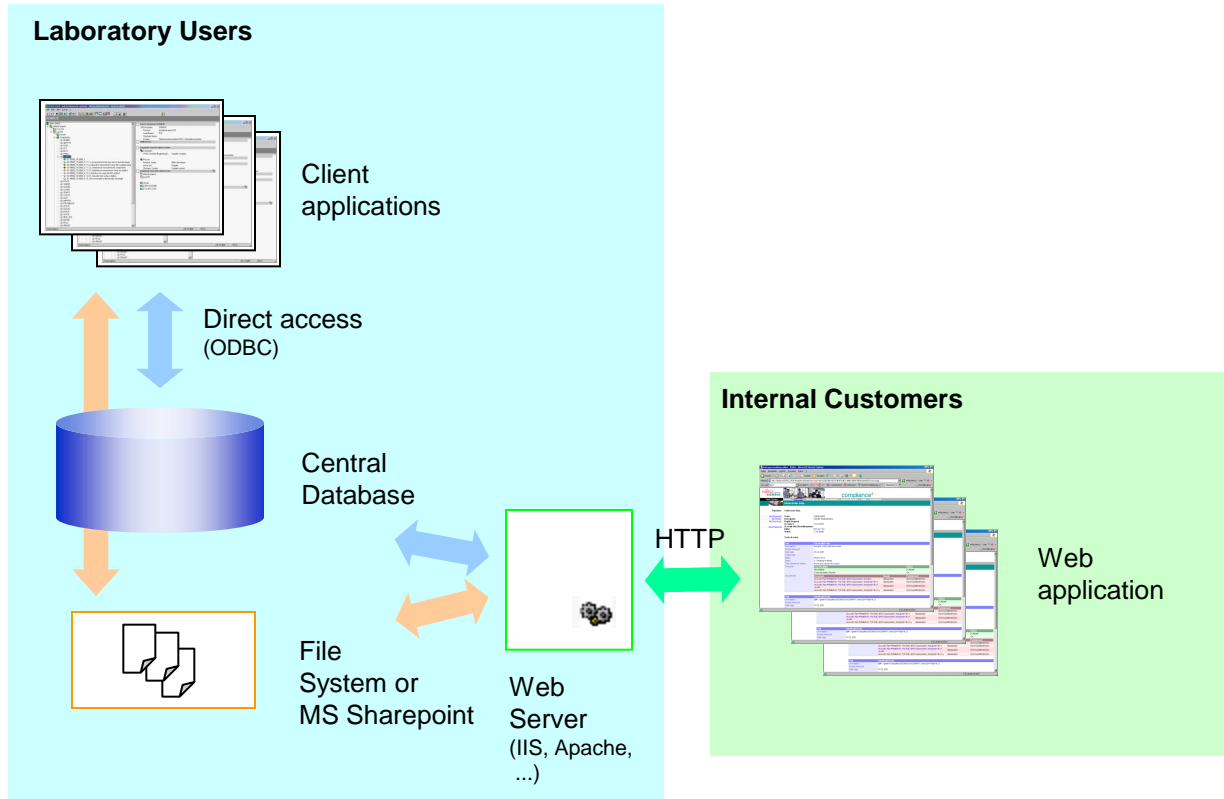
Generate added values for your customers. Examples:

- Order definition and compiling the EUT configuration by system engineering – advantage for them: direct access to existing PDM system, easy maintenance of EUT lists, no misunderstandings
- Export of test reports and other documents direct to the existing document management system – advantage for sales and engineering: “hand work” to check in the documents is not longer necessary, direct assignment to product data (enhancement of data quality).



System Architecture Examples (1)

Specialized applications for laboratory and customers

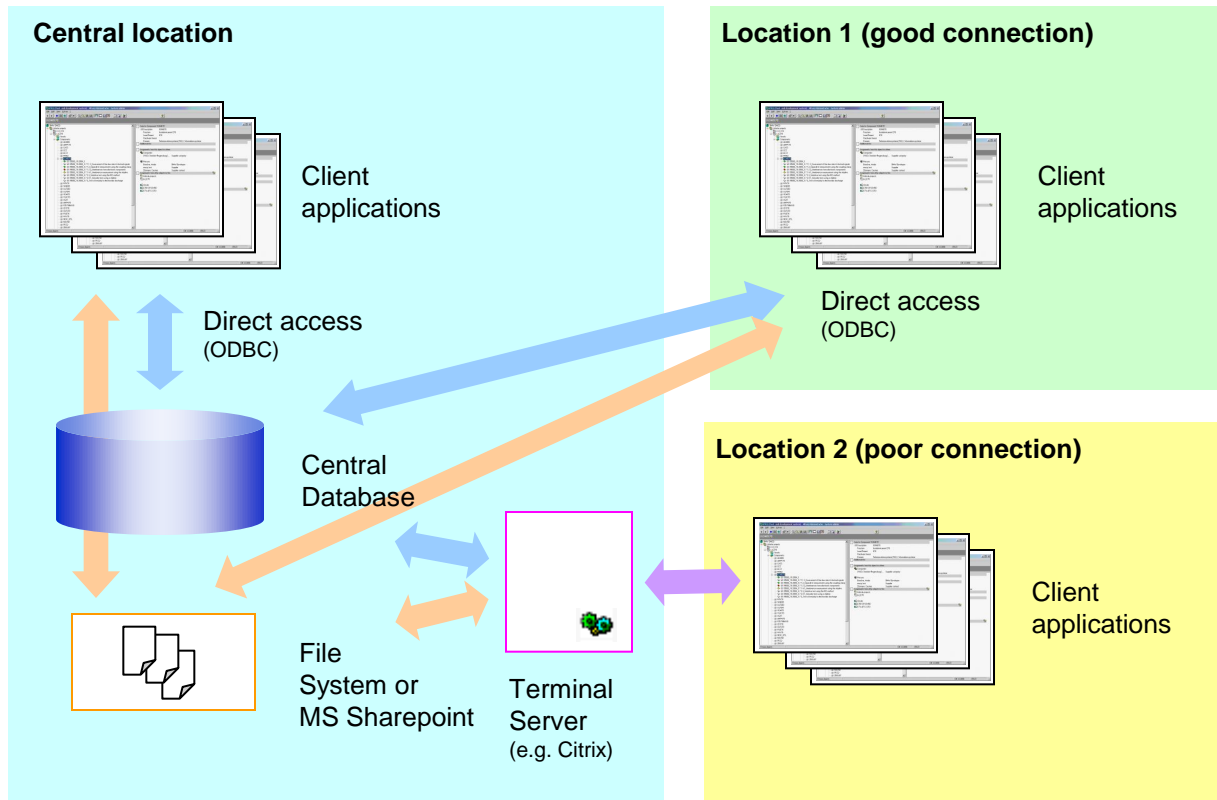


Characteristics

- The laboratory application is a rich client with full Office and Windows interoperability.
- Customers are using a web based client (no installation required).
- Possible for all kind of database scenarios.
- Possible for external users as well (with some additional security enhancements)

System Architecture Examples (2)

One central database, one central file system

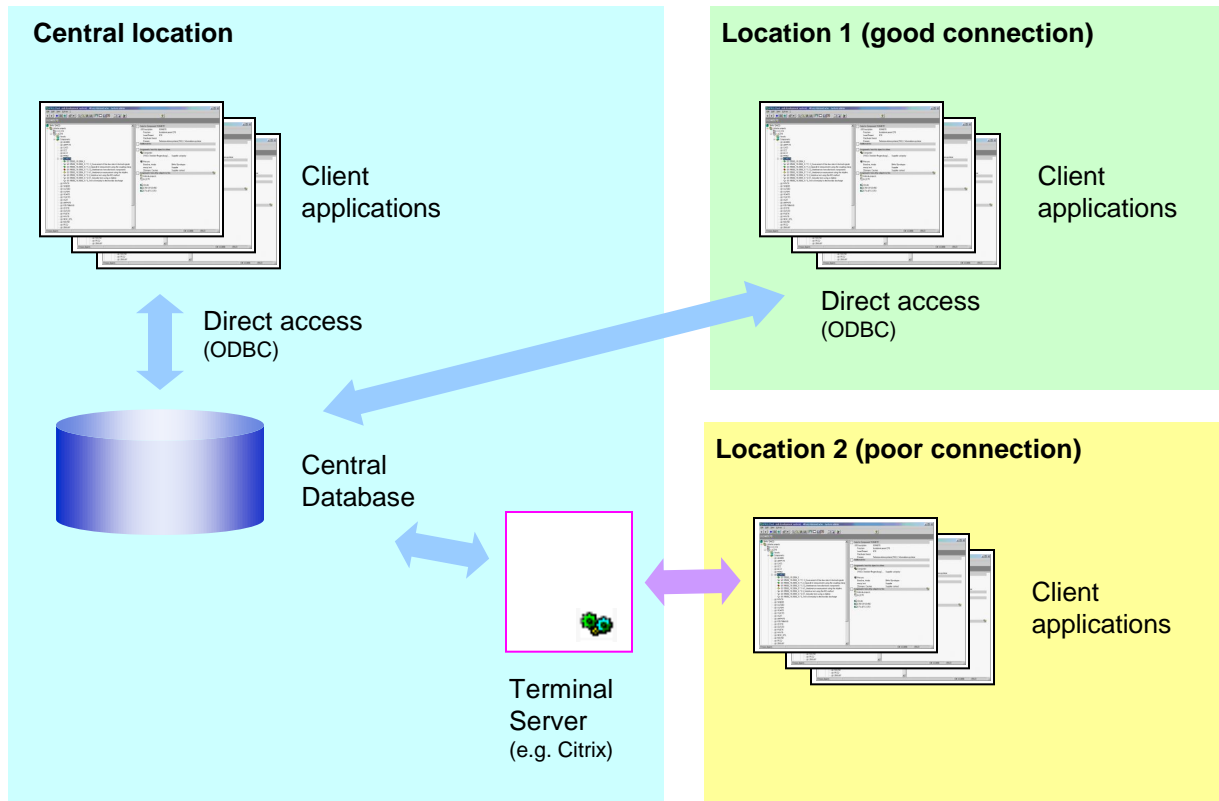


Characteristics

- One database.
- Files are stored a central file system.
- Easy administration at one location.
- Fast access via terminal server.
- Mixed operation possible (some location with direct access, some with terminal server).

System Architecture Examples (3)

One central database (including file storage)

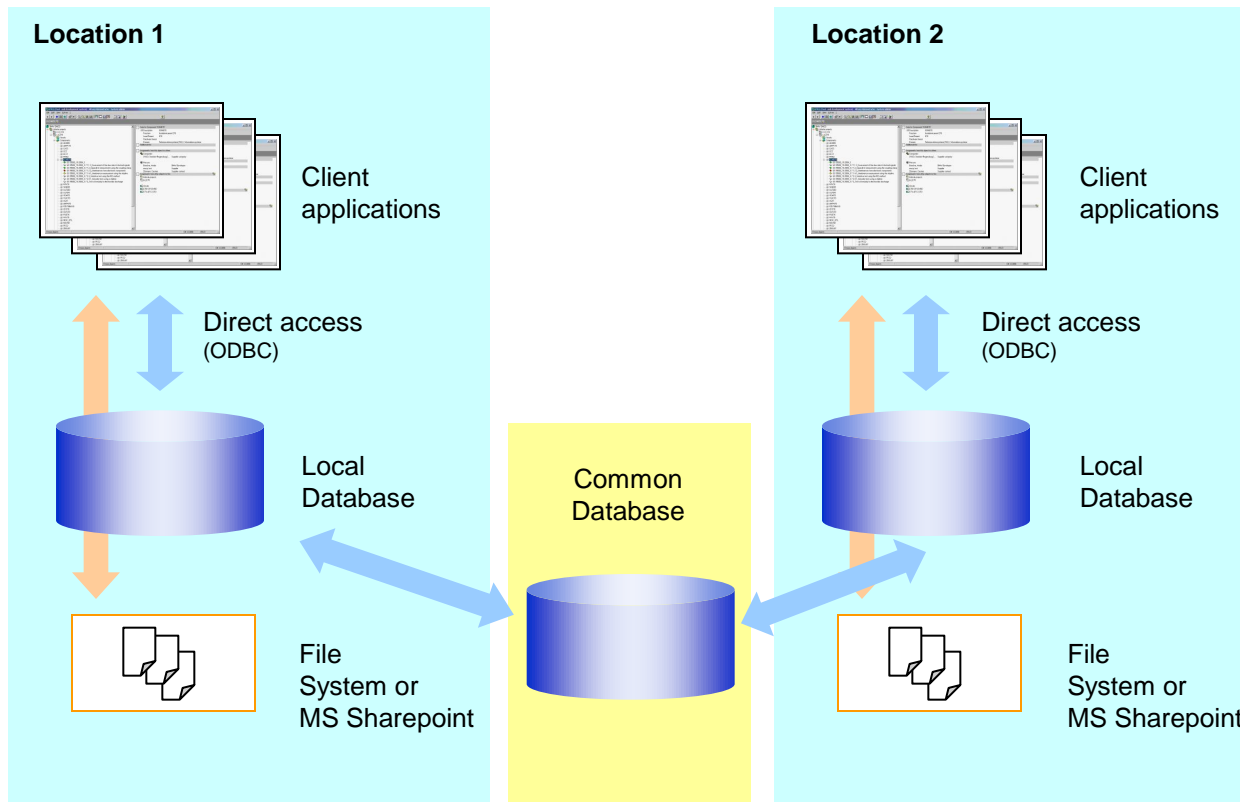


Characteristics

- One database.
- Files are stored in the database as well.
- Easy administration at one location.
- Fast access via terminal server.
- Mixed operation possible (some location with direct access, some with terminal server).

System Architecture Examples (4)

Location specific databases and one central database



Characteristics

- Independent local systems but one central database for common issues.
- Administration per location required.
- High performance.
- Perfect if different regional requirements must be fulfilled but common data are needed (such as customers, products, ...)
- Test requests can be transferred.

TestLab Plus

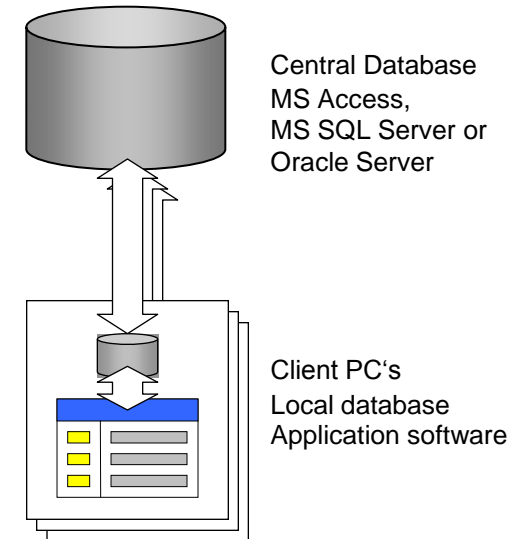
The technical point of view

Server and Database:

- Windows NT 4.0, 2000, XP or 2003
- Access, SQL Server or Oracle
- Single user or multi user / multi server concepts possible
- The open architecture allows additional queries and evaluations or access over intranet/internet

Clients:

- Windows 95, 98, NT, 2000, XP, Vista
- No additional licenses necessary
- Export functions to Excel, Word, Access, Project or in HTML format integrated
- Close link to Microsoft Outlook, Lotus Notes or Groupwise (dates, contacts, ...)
- Access to database over ODBC or intranet (HTTP or HTTPS protocol)



TestLab Plus

General Issues (1)

Language Support

- What ever is needed. Implemented so far:
- Single language systems (English, German)
- Multi language systems (English, German, Spain, ...) can be maintained and enhanced by the customer

Time Zone Management

- Independent client based time (local time)
- Central server time (GMT) additionally for over regional process key figures or work flow

Quality Guidelines

- DIN EN ISO 9001, DIN EN ISO/IEC 17025, DIN EN ISO 10012, ISO/TS 16949, EN ISO 14915, FDA 21 CFR Part 11, GLP

9001: Quality management systems, 17025: Accreditation for test labs, 10012: Management of measuring equipment, 16949: Quality management (Automotive industry), 14915: Software ergonomics, 21CFR11: Electronic records and electronic signatures (Medical industry), GLP: Good laboratory practices (Chemical industry)

TestLab Plus

General Issues (2)

Permissions and Authorization

- Role based permission system
- Adjustable permission matrix
- Basic authorization against group directory (LDAP)

Objects and system functions

	User	Tester	Sales	Commercials	Lab manager	Admin	...
Orders	R---	RE--	REN-	R---	REND	R---	
Tests	R---	REND	R---	R---	REND	R---	
Documents							
Tenders							
...							
Closing	-	x	-	-	x	-	
Release of ...	-	x	x	-	x	-	
Sign ...							
...							

User groups (Roles) →
Defined by customer, no limits

Permissions

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General Issues (3)

Licensing model

- One project – One prize !
- Use it within your company (worldwide) where and how often you want
- No additional License fees

Costs

- Project specific price on a fixed price basis
- Depending on the needed functionality and effort
- 1st step: writing a requirement specification

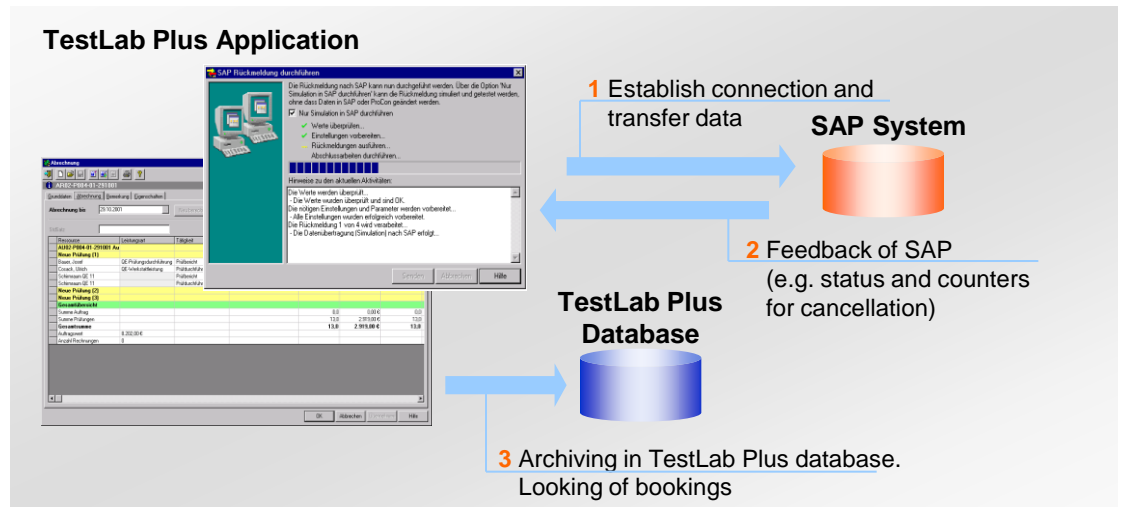
Support

- Full remote support capabilities using WebEx Remote Support Platform
- 3rd level support normally is sufficient (standard IT infrastructure is needed)

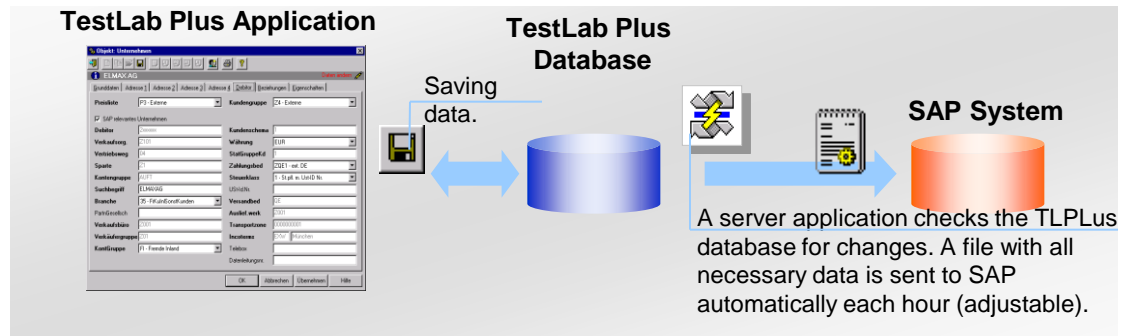
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Interfaces – Example of an SAP Environment

- Real existing example of an online data exchange to SAP. The data of performed work are transferred to SAP in this case. Additional advantage: Although each user has this function, only one SAP account is needed.



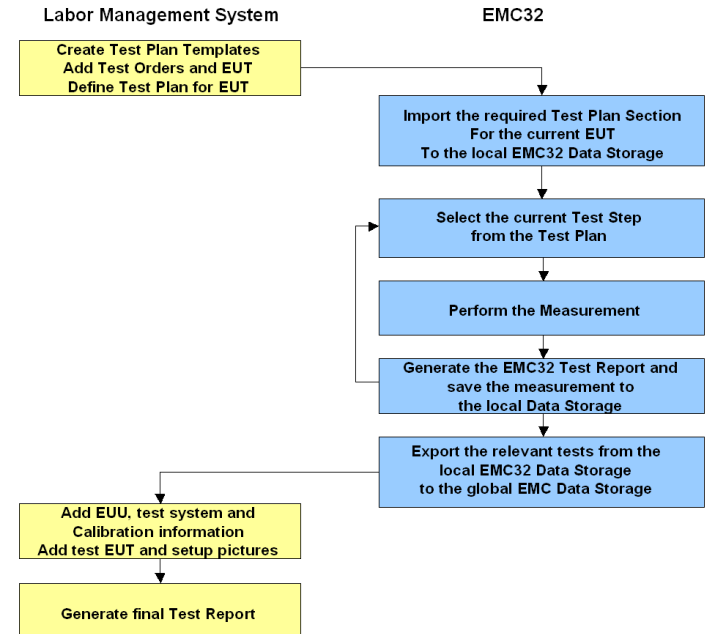
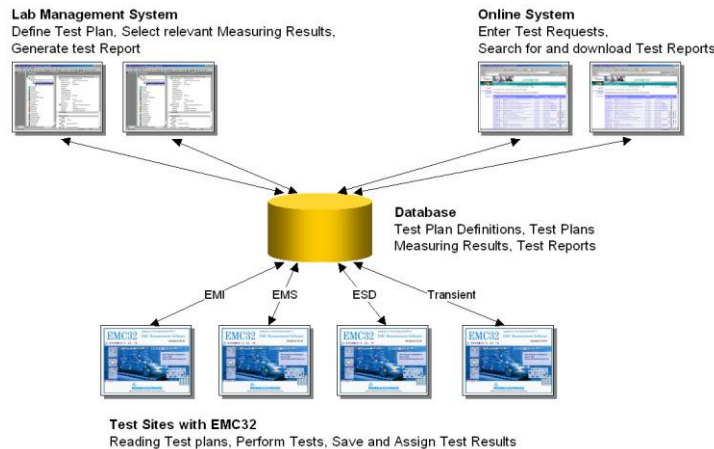
- Real existing example of an file transfer based data exchange mechanism to update customer and company data in SAP.



EMC 32 Integration

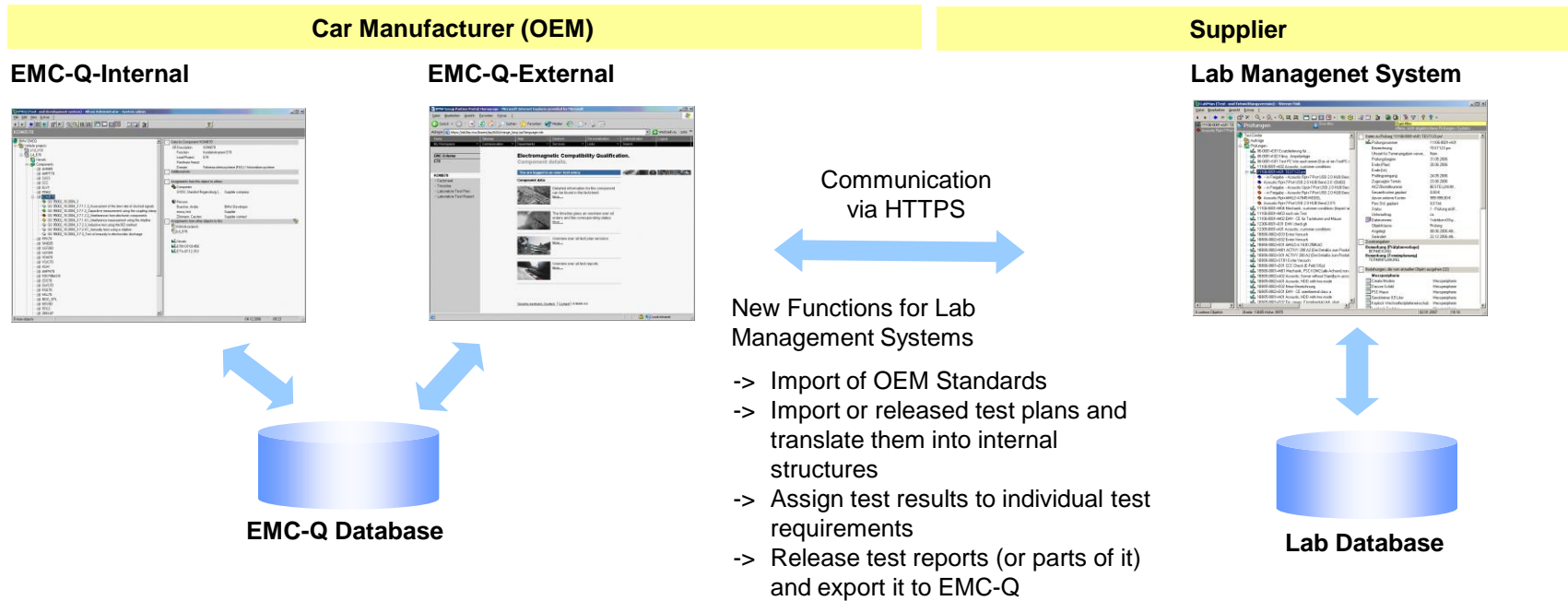
Direct Integration of Measuring Equipment (EMC32 Rohde & Schwarz)

- Integration of all relevant steps to prepare a test, perform a test and generate the test report including test results
- Available for Rohde & Schwarz EMC32 at the moment



TestLab Plus - Upcoming Topics (1)

Full Support of Data Exchange between OEMs and Suppliers



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Clients I (Test Labs only)

	<p><u>Siemens AG, Sector Healthcare</u> Erlangen Productive since 10/2000</p>		<p><u>BMW Group</u> Forschungs- und Innovationszentrum Munich Productive since 01/2007</p>
	<p><u>Fujitsu Technology Solutions GmbH</u> Zentrum fuer Tests und Zulassungen Augsburg Productive since 04/2001</p>		<p><u>Dräger Medical GmbH</u> Prüf- und Kalibrierlabor Lübeck Productive since 09/2005</p>
	<p><u>SGS (Germany) GmbH</u> Munich Productive since 10/2001</p>		<p><u>Schüco International KG</u> Technologie Zentrum Bielefeld Productive since 01/2006</p>
	<p><u>Fujitsu Technology Solutions GmbH</u> Beratungs-, Loesungs- & Pruefzentrum Paderborn Productive since 06/2002</p>		<p><u>Employers' liability insurance association for precision engineering and electronics</u> Cologne, Dresden, Wiesbaden Project start: 04/2006</p>
	<p><u>Phoenix Testlab GmbH</u> Prüflabore und Zertifizierung Blomberg Productive since 01/2004</p>		<p><u>Continental Automotive GmbH</u> Regensburg, Schwalbach, Toulouse (France), Auburn Hills (USA) Productive since 09/2007</p>

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Clients II (Test Labs only)



Robert Bosch GmbH
Automotive
Schwieberdingen
Productive since 10/2007



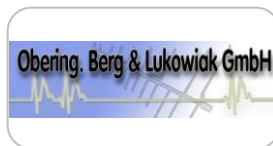
Siemens AG, Sector Industry
EMV-Zentrum
Erlangen
Productive since 02/2007



Siemens AG, Sector Industry
Typpruefzentrum
Karlsruhe
Productive since 03/2007



Dynamic Test Center AG
Vauffelin/Biel (Switzerland)
Productive since 01/2008



Obering. Berg & Lukowiak GmbH
Huellhorst
Project start: 02/2007



Audi AG
Ingolstadt
Productive since: 09/2008



Institut fuer Fenstertechnik
Rosenheim
Project start: 09/2007



Volkswagen AG
Wolfsburg
Productive since: 07/2009



Porsche Engineering Group GmbH
Weissach
Productive since: 03/2010



VdS Schadenverhuetung GmbH
Cologne
Project start: 11/2008

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Clients III (Test Labs only)



EMCCert DR. RAŠEK
CERTIFICATION INSTITUTE
Ebermannstadt
Productive since 07/2009



EMV Testhaus
Straubing
Productive since 01/2009



Center for occupational safety and safety technology
Haan
Productive since 04/2010



Robert Bosch LCC
Automotive
Plymouth (USA)
Productive since 05/2010



KRIWAN Testzentrum
Forchtenberg
Project start: 05/2009



IFT Ingenieurgesellschaft für Triebwerkstechnik mbH
Clausthal-Zellerfeld
Project start: 07/2009



Behr GmbH
Stuttgart
Requirement Definition Phase



Valeo Schalter und Sensoren GmbH
Bietigheim-Bissingen
Requirement Definition Phase



Hella KGaA Hueck & Co
Lippstadt
Requirement Definition Phase



Siemens AG, Sector Energy
Berlin
Requirement Definition Phase

Standard Software or Individual Software

A Comparison

	Advantages	Disadvantages
Standard Software (e.g. SAP)	<ul style="list-style-type: none"> ■ Easy data exchange company wide (same systems, same formats) ■ Support available from big players and well situated companies ■ Company wide Know-How available 	<ul style="list-style-type: none"> ■ No individual processes possible ■ Inflexible regards to change requests ■ Often the software designs the processes
Individual Software (e.g. TestLab Plus)	<ul style="list-style-type: none"> ■ Fulfills the individual needs of all users ■ Fits exact to the processes of a company ■ The process designs the software ■ Functional cover rate very high 	<ul style="list-style-type: none"> ■ Often proprietary formats ■ Development company needed to make changes

Standard Software or Individual Software

What to do now?

Standard Software or Individual Software:

that's the question !

Standard Software or Individual Software

What to do now?

Standard Software or Individual Software

Is this really the question ?

Why not using the advantages of both system and minimizing the risks !

- Request fix prices
- Monitor the development process and have direct influence
- Request the source code – just to be independent
- Request that individual software is based on well known standards
- Request well defines interfaces and open database connectivity

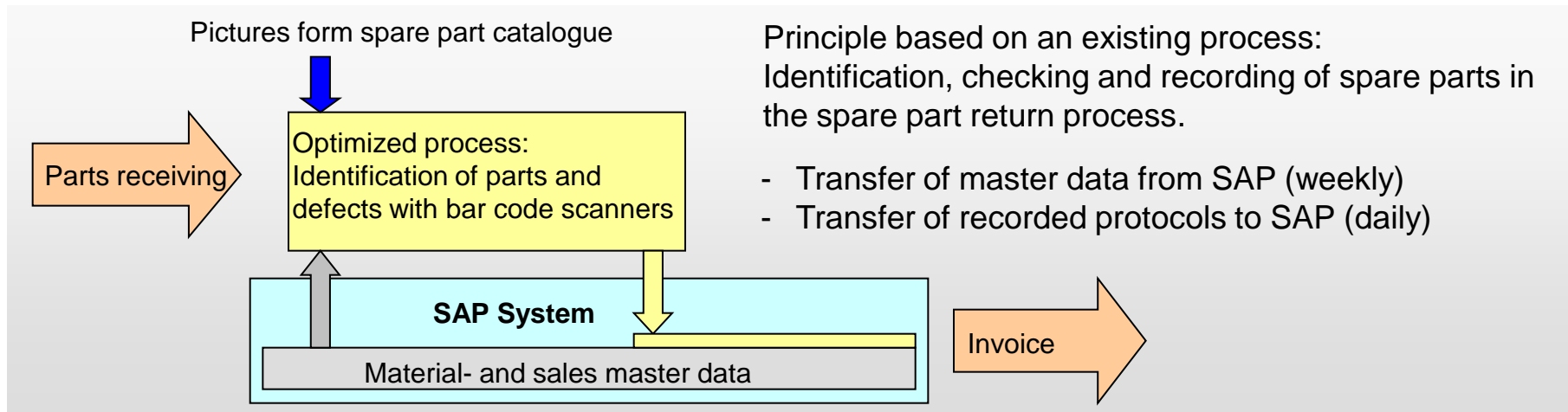
It's up to you – you know your business best !

Integrated Solutions

Integration of individual Software in Standard Platforms

Individual Software and Standard is no Contradiction – just close the gaps !

- Use the standards of already implemented platforms. But optimize the process steps where standard software cannot be accurate and individual enough.
- Different possibilities of data transfer and data exchange (depending on the needed timely intervals) guarantee a consistent data base.





dacore Datenbanksysteme AG

Hauptstr. 106b
90562 Heroldsberg

Germany

info@dacore-dbs.com
www.dacore-dbs.com

easy ■ **innovative** ■ **individual**