# TQMS

### **Training and Qualifications Management**



**eControl** 

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**Publisher:** Arconda Systems AG Sportallee 6

22335 Hamburg

Date: 06 / 2014

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### **Foreword**

"TQMS Training and Qualifications Management - the key success factor for process management"

The demands on process-oriented management systems are constantly rising as a result of competition, compliance requirements, and safety, security, environmental and economic targets.

In a management cycle processes are defined, discrepancies in their implementation are identified, and preventative and corrective measures are put into effect. TQMS eControl focuses on the personnel entrusted with process implementation – "Who does what, when, how and by what means?"

Staff must be suitably trained or qualified for process and activity chains. TQMS eControl supports the entire training structure, from personnel planning to deployment and implementation, to the legally robust proof of a fully functional training operation.

eControl Training and Qualifications Management need not only be used as a standalone software product; it can also radically improve the efficiency of the training operation through links to process management and data fed in from the operational field.

This product catalogue illustrates the possibilities integrated training and qualifications management can offer, irrespective of sector and company organisation.

Whether with 10 or 10,000 people, 80 or 8,000 processes, central or decentralised organisation – eControl will support you in the fulfilment of your management tasks. And whether you use eControl step by step, software module by software module or department by department, the synergy will kick in automatically.

I hope you will enjoy reading through this catalogue.

Frank Espenhain

CEO

### **Human Resources Management**

#### **Every aspect**

#### Personnel, Process, Audit, Compliance and Incident Management

TQMS eControl offers integrated software solutions for company-wide training and qualifications management.

#### **Qualifications management - Process management**

Qualified and well-trained staff are a prerequisite if processes are to be implemented in line with procedural guidelines. eControl TQMS offers the synergy effect gained by combining training and qualifications management with process management, with reporting of incidents and with various other software modules.

By linking TQMS with process management a record is kept of which versions of processes or documents have been trained for, using particular qualification events. When process descriptions and linked documents are updated, the system can determine whose qualifications have been affected by these changes. In eControl, acknowledgement of version changes is signed off in a legally robust way. eControl thus delivers proof that amended process and document versions have been put into practice in a timely manner.

#### **Qualifications management - Compliance management**

eControl compliance management makes it possible to prove that the trained-for processes satisfy legal and company standards over a period of time. Compliance management forms part of eControl's process management and thereby also part of its training and qualifications management.

#### **Qualifications management - Incident management**

The freely adaptable electronic forms used in eControl incident management can be used to record incidents (e.g. traffic violations), accidents, etc. The persons and actions involved in these occurrences act as a springboard for an active formulation and optimisation of training and qualifications programmes. The eControl eForms are thus an important building block for the optimisation of training and qualifications management from the operational point of view.

#### **Qualifications management - Risk management**

Risk management justifies its decision processes systematically with risk analyses and is a pre-requisite for the effective formulation and implementation of risk reduction measures. A variety of risk reduction measures can be realised through training and qualifications management and thus deliver targeted support for risk mitigation, or the process of risk reduction.

#### **Qualifications management - Audit management**

The organisation and effectiveness of the training and qualifications programme forms a regular part of adherence to compliance standards, which is assessed in the normal course of auditing. eControl has been shown to embrace a global view of this. Frequently, training and qualifications management plays an important role in putting into effect corrective measures to overcome deficiencies shown at audit. The links between audit and qualifications management are also effective when alterations or additions to process documentation are required – here, the eControl Read & Sign mechanisms are relevant, keeping the qualifications of the staff up to scratch.

#### **Synergy effects**

eControl integrates human resources, process, compliance, audit and incident management. The modules, tailored to the relevant field of activity, are linked together through the process and systems hierarchies, in order to ensure the greatest possible synergy of management functions.

### **Features**

#### What TQMS can achieve



#### **HR** management

### Managing company staff and third parties

eControl offers the ability to manage personal data related to qualifications, both for inhouse employees and for personnel from any outside company.

The storage of these data takes particular account of the data protection requirements for qualifying staff, trainers/teachers, debtors, etc.



#### Hierarchies and group formation

Free modelling of staff hierarchies

Configurable modelling of staff hierarchies and employee groups is a prerequisite for the illustration of any organisational structure. Additional individual requirements for qualifications management can be added to at any point - for example the training level of people responsible for dangerous goods in a number of branches can be comprehensively documented and centrally managed.



Qualifications and training content can be modelled with total freedom – existing training schemes can be converted 1:1 to function using eControl. eControl TQMS follows the requirements of the individual company, not the other way round. Staff members and groups can be specifically authorised to manage individual qualifications – specialist departments are integrated into the training programme in this way.

For each qualification, prerequisites, qualification terms, documents, certificates and numerous other factors that are important for the training programme can be undertaken.

# Qualification profiles Brick by brick

Several different qualifications can be bundled together into qualifications profiles. These are set up for a range of uses, such as job descriptions.

eControl makes staff planning simpler by linking people to qualifications profiles. TQMS can independently identify any missing 'bricks' and give timely warning of when qualifications profiles are about to expire and with them the loss of their possible uses.

In addition, eControl offers the possibility of nesting qualifications profiles, thus enabling a flexible, reusable modular system which offers the user a variety of possible uses.



eControl process management is used for the systematic documentation and structuring of descriptions of process, procedural and work instructions, and the applicable documentation. Training and qualifications management assures training in and knowledge of up-to-date versions of these documents. Numerous automatic features make this organisationally onerous task easier in daily practice.



With eControl any number of qualification events can be planned and brought together in a training programme – independently of whether these are individual training courses, inhouse events or seminars run by an outside provider.

The correct allocation of teachers and rooms is worked out centrally by the training department, or non-centrally by the specialist department involved. If required, each teaching unit can be specifically tailored to needs, and attendance implemented per participant. eControl makes available attendance lists and signed registers so that the teachers can concentrate on the actual content to be conveyed to students and are freed as far as possible from organising the event.



Colleagues are invited to qualification events, provided with the necessary information and if necessary informed of any changes. Participation in events, as well as the outcomes of such participation, must be documented. eControl provides batch control functions, so that attendance, participation status, results of final testing, etc., can be processed as a whole. Invitations, confirmations of acceptance or non-acceptance on the part of participants can be processed completely automatically by the system, without any need for manual input.



The mail centre is available to create and send personalised notifications. eControl creates reusable texts which can be individualised using a variety of database placeholders and de-livered via email or PDF/post to a group of appropriate recipients.

The notifications are sent by request in tabular short form to managers at the relevant level of seniority to keep them informed of training activities and training needs. The archiving of communication metadata is fully automatic.

# Qualification status All information at a glance

eControl provides a qualifications cockpit which shows at a glance who needs to be qualified or re-qualified in order to continue to comply with a particular qualification profile or to meet the requirements for a particular task. eControl knows the lead times for renewing qualifications, whether qualifications for current staff planning will still be needed in the future, and which qualifications for obtaining assigned profiles are still missing. Details of invitations already issued and confirmations for future events are also used to build up a comprehensive picture of the current qualification status.

This information is made available centrally to the HR department, managers at the relevant level of seniority, and of course each logged-in user.



#### No process management without process versions

Staff are trained to attain a variety of different qualifications. These qualifications can include training courses for business procedures which are represented in one or more process descriptions, process systems, forms etc. In the currently applicable version these documents are binding - if this version should change, the content of participants' previous training may become obsolete!

eControl lets the current process supervisor decide whether the will remain unaffected by this or whether something needs to be done. Should there be a need for action, a decision is then required on whether the qualified participants can use their own time to acquaint themselves with the change and then confirm it (Read & Sign), or whether the change is so far-reaching that further training is required. Naturally all procedures are automatically documented in a legally robust manner.

#### **ERP-Interface**

#### Cost accounting and accounts receivable

Participation in training courses is processed into invoice items and supplied as an individual or collective invoice for each debtor. These invoice data are automatically made available by an eControl service as open items in XML format for downstream ERP systems.

Training costs for external training or trainers can also be automatically processed after technical approval by the training department.

eControl provides differentiated raw data for cost accounting in which materials and cost centres can be assigned right down to participant level - this is the basis of consumption-related cost accounting.

# Certificates and invoices For business and pleasure

eControl supports the batch creation of certificates, personalised and on individualised stationery - Wizards minimise the amount of effort required for this standard operation. eControl offers functions for creating invoices for outside companies or for cost allocations for company employees. Activity types, materials, cost centres are available to fulfil all accounting requirements and customer-specific agreements.

### Managing documents Everybody receives the

Everybody receives the current document version

eControl document management is standardised across the system and satisfies the most exacting requirements for the versioning and control of documents. With automatic release management, functions for checking documents in and out and other software features, eControl document management follows the complete life cycle. Find out at the press of a key who has sought out which document version and when.

# Read & Sign Acknowledge for continuing qualification

Updates to processes and other related documents mean that training content can become obsolete and qualifications expire. In many instances the process supervisor will decide that the qualifications can stand as they are as long as the employees with the previous training have made themselves aware of and understood the changes. The Read & Sign system implemented in eControl makes available user-friendly functions for signing off knowledge of these changes in a legally robust manner.

Before the changes come into effect, the employees with the earlier training must be informed of the changes - eControl sends personalised emails or PDF documents at the press of a key to all affected employees and their managers. Depending on the circumstances in that particular case, the recipient can confirm by email that he has duly noted the changes. A fully automatic service subsequently ensures in real-time that the expired qualification is renewed. Alternatively, process sheets and process documents can be viewed in eControl, the changes traced and then confirmed in the dialog. The Read & Sign confirmation can then also be recorded centrally by a manager - changes can be communicated, clarified and subsequently signed off centrally for n people throughout the group with a mouse click at the start of the work or shift - only currently qualified employees will be able to start work.

#### Application and shift planning systems No action without appropriate qualification

eControl has a special system which regularly downloads all the training opportunities for particular staff groups, qualifications or qualification profiles. Different key fields are available for pairing downstream systems - freely configurable and with no expensive system changes.

This system-pairing procedure guarantees that no employee carries out their work without appropriate qualification.

Reports and statistics
Report generators à la carte

The information contained within Training and Qualifications Management is exceptionally extensive. eControl makes easy-to-use report generators available to help everyone from company management down to the trainer who wants to prepare for a particular event to answer a variety of different operating questions.

The output follows the eControl system standard as a formatted report or as an MS Excel download.



#### **Data protection and security**

Particular protection for personal data

eControl satisfies all data protection requirements - particularly with regard to personal data. The staff groups involved, such as the training department, trainers, managers, and training participants, have exclusive access to data required for the performance of their function or for their seniority level. eControl implements a system-wide directive for data economy.

Above and beyond training and qualifications management, all eControl software modules offer best practice methods to avoid the misuse of information - a range of requirements has been included in our software product based on earlier joint working with operational co-determination committees.



eControl's application server can operate on all known virtualisation platforms. The core component is an Oracle database server which can grow with or be scaled to suit the company - irrespective of whether eControl is used in a few or several thousand workstations.

The software itself utilises the widely employed Microsoft .NET framework and the IIS-Web or Microsoft application server technology - future-proofing using the standard products of world market leaders Microsoft.

# Web application No software installation required

As an eControl building block the software module TQMS is fully web-based. Each user needs only to have a web browser in the intranet to be able to use eControl for his own particular data and function. To this end, eControl works with every operating system and browser. As a fully web-based system eControl is also suitable for Internet connections with lower transmission bandwidth such as terminal server sessions.

# Operational readiness For sure!

The product life cycle of eControl is - irrespective of the currently implemented modules - generally very long. Comprehensive release and version management together with support management offered by the manufacturers themselves, ensure smooth running and the ability to update and upgrade over the life-cycle of the software.

# **TQMS** - as flexible as your business

Central training department and the involvement of specialist departments

#### **Central training department**

Every business needs a central department to maintain all personal data and retrieve detailed information about all past, current and future training. This global perspective is the basis for forward-looking staff planning by the Controlling department and is needed for company-wide TQMS-specific communication.

#### The potential of specialist departments

Often it is not the responsibility of the training department, but the specialist departments, to implement training - for example, occupational safety, equipment pool or driving licence office. eControl enables these specialist departments to plan and carry out their own qualification events and qualify employees who have successfully participated.

With increasingly high levels of specialisation in training, the transfer of responsibility to specialist departments is becoming inevitable and allows the employees of those departments a certain degree of flexibility which will make them more likely to respond positively to the company's training programme. General aspects for specialist departments to consider such as the duration of training, links with processes and their versions or the need to fulfil external preconditions can still be predetermined centrally as framework parameters by the training department.

#### **Manager involvement**

Senior employees want well-trained staff who can implement processes and process chains with as few mistakes as possible. At the same time procedures must fulfil the compliance requirements for their business as well as those of strict external auditors. eControl gives every manager an overview of the training status of their employees in real-time. Managers of every seniority level can actively plan their employees' training so that it does not interfere unnecessarily with service and shift scheduling.

eControl offers intuitive program functions, overviews of training levels and email notifications: these provide senior employees with opportunities for active organisation and means that the training programme will be efficient and well-regarded.

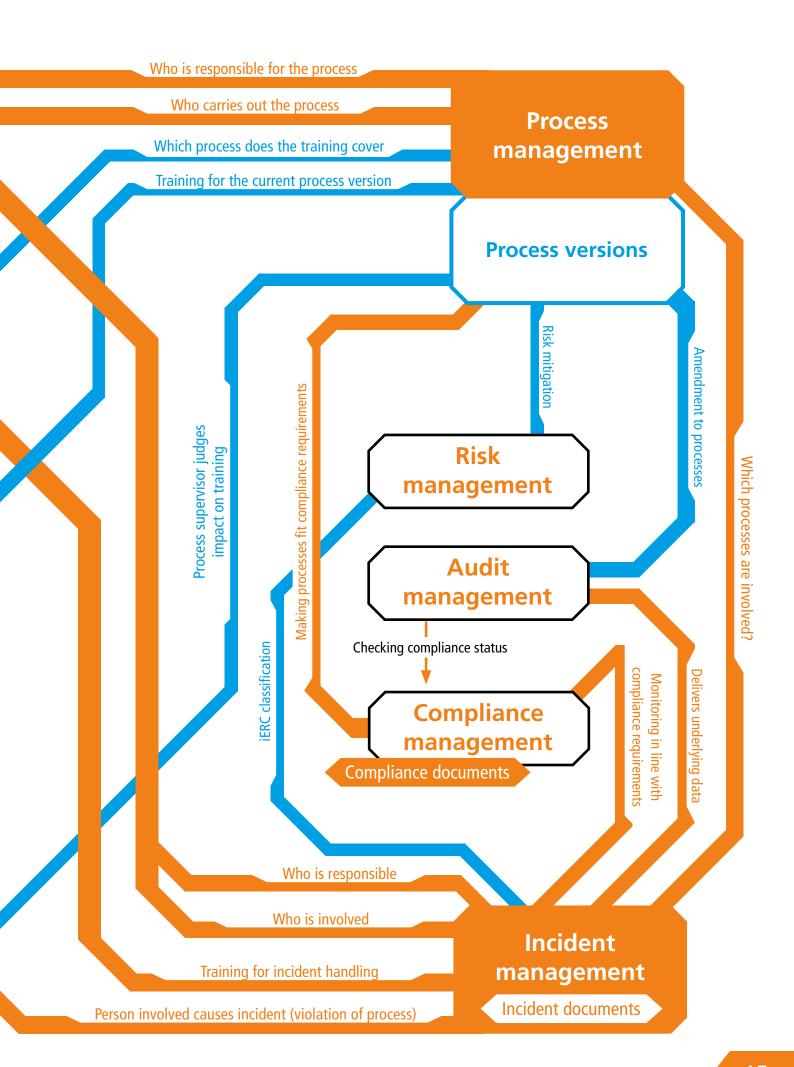
#### My eControl - individual initiative

When do which of my qualifications expire? What is missing for a specific vacancy? When, at which place, by whom instructor and with which event duration something will be trained? Does the event take place once again this year? May I view documents related to the event? May I qualify myself by my own accord? Am I able to prepare myself targeted?

My eControl is provided to every single eControl user. All individual issues are responded in dialogues, that are intuitively used. Without any discussion with the personnel department or the supervisor - simply autonomously - everytime, if there is any interest.

The active and positive participation of all employees is the declared goal at teaching operations. My eControl is the information- and communication-platform, that encourages and makes use of the employees' engagement.



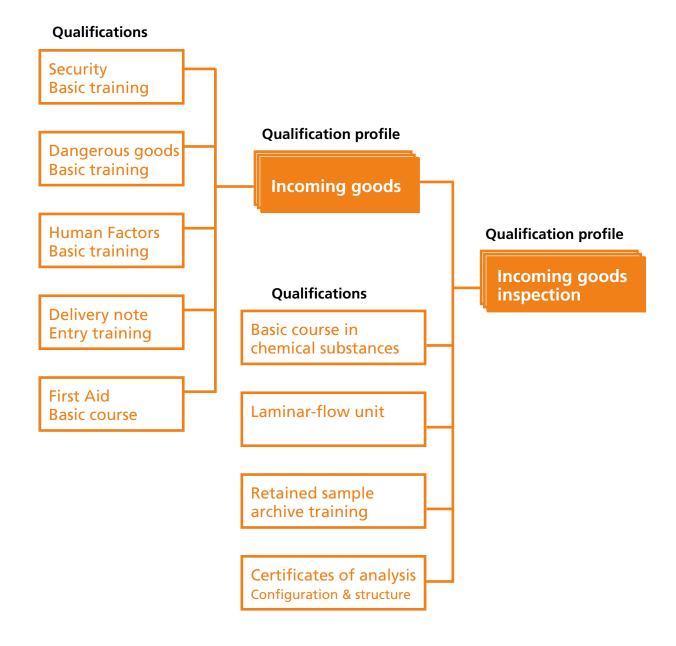


### Qualifications and qualification profiles

#### Cornerstones of success

Training content is packaged according to functional criteria for qualifications - irrespective of whether training for these qualifications takes place over 20 minutes or several days.

- For every qualification, framework data such as qualification validity periods and timeframes to warn of expiry can be defined; these notify staff before their qualifications expire in order to ensure timely re-qualification. Target participation numbers for qualification events can be stored in the same way as billing information and other data to do with internal cost accounting. External prerequisites for example a sight test or good conduct certificate are defined. Any prerequisites that have been noted are lodged centrally and can be used for all qualifications.
- For every qualification, documents related to training can be stored and are available for download anytime by event participants, trainers or relevant employees.
- Linking qualifications and processes ensures that new process versions or documents reliably reach qualified employees and that these updates can be completely verified. For every qualification, definitions can be made of functional and organisational criteria that govern which departments or responsible employees are al-lowed to amend these data. eControl offers technical facilities for delegating certain responsibilities to specialist departments.
- Function- or job descriptions normally include several qualifications required for the performance of that post. Similar job descriptions often have a significant overlap of requisite qualifications. The summary of qualifications in qualification profiles provides the training department with cornerstones which make planning much easier. The fact that qualification profiles make life easier for planning training programmes is also beneficial for staff and managers.
- eControl qualification profiles can be included within other qualification profiles - this results in a modular system which is able to meet the needs of even the most ambitious training programme.
- Assigning staff to qualification profiles allows the training department to control staff development in a systematic way. The question of which qualifications are needed to fulfil a particular profile or job description can be answered by being able to link staff and profiles. This guideline for participation in future qualification events is a valuable aid to employees, helping them to requalify and maintain their access.



### **Hierarchies**

#### As level as possible, as complex as necessary

TQMS hierarchies determine which manager is responsible for which employee's personal development.

Hierarchies are analysed in real-time by eControl and, to ensure forward-looking and tailor-made staff development, managers are also supplied with all the information necessary on the training status of their employees.

Individual training levels are as unique and personal as a fingerprint - eControl supplies managers only with data about 'their' employees - nothing less, but also nothing more.

Communication with training participants - invitations, confirmations of acceptance, event alterations, participants' results etc. - is an onerous task. eControl includes each respective manager in the communication and coordination. eControl also uses these hierarchies to send news in tabular short form to managers at different seniority levels. The recipient will receive news even if the operational process does not schedule regular email or post.

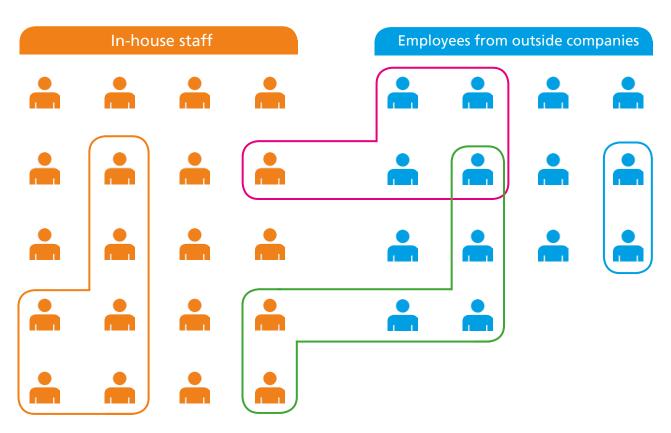
eControl supports hierarchies which are based on individual personnel, personnel groups or freely definable staff attributes. Maximum freedom of design is one of the aims of this hierarchical structure. It is equally important that hierarchies are automatically updated when employees join or leave.

Training and qualifications management additionally helps to establish hierarchies specifically for qualifications or qualification profiles; this enables groups to be formed according to individual and functional criteria - the company's dangerous goods advisor is able to coordinate in a targeted way the qualifications of the sub-contractors within individual areas and of any subsidiaries.

Outsourcing and company-wide quality standards (for example, the supply chain) make it increasingly important that not only the in-house staff, but also employees from external companies should be trained and qualified. eControl does not in general differentiate between in-house and external staff. In order to be able to use the structures of outside companies to the full, here too eControl offers the possibility to administrate and integrate their hierarchies in the same way as those of one's own company.

In summary, employees from outside companies are able to access the same training and qualifications management functions as in-house employees.

The most robust security standards mean that outside company employees, such as trainers or training officers, can also be provided with a system-user's login where necessary, but without being allowed access to internal company information.



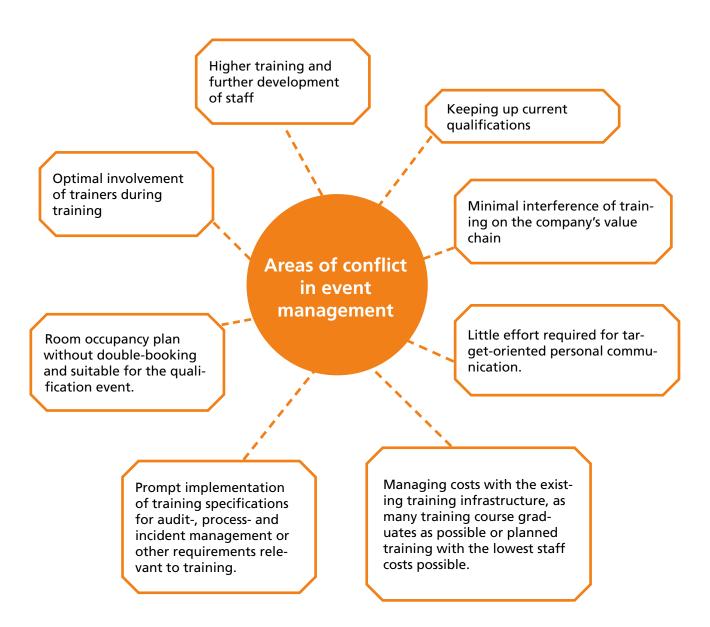
With group formation, in-house and external employees can be grouped together according to qualification.

### **Event management**

#### Efficient organisation of qualification events

Event management is caught between a number of organisational and economic demands. The best training is that which minimises its impact on the company and which takes into account cost targets.

eControl supports optimal event management through a variety of planning, booking, evaluation and communication tools.



#### Events à la Carte

Event management for training and specialist departments must ensure that training is offered which provides scope for qualifications to be continuously maintained as well as targets for staff to attain.

eControl provides statistics on residual terms and analysis of qualification profiles - what, and how much, qualifications training is needed, and when, to ensure that staff are deployed to the best advantage for the company?

eControl automatically publishes the training programme and invites the active and independent involvement of training participants and managers in the participation process.

#### **Training and Service**

With eControl, delegating the organisation of qualification events can be targeted on specialist departments. Using specialist expertise is a factor for successful outcomes in training and qualifications management. If specialist departments are able to qualify their own staff they can then deploy them where they will be most useful. This is valuable for shift operations and in all other operating areas where staff allocation is complex.

#### Capacity management - cost-efficiency and learning outcomes

The maximum number of participants at an event is capped for practical and educational reasons, whereas the minimum number is determined by the desired average cost per training participant.

Capacity management means that the seminars should hold roughly equal numbers; this is worked out by calculating average costs to ensure learning outcomes while also observing the upper limits for participation.

Using eControl, capacities can be defined down to qualification level and can then act as benchmark values for qualification events. Schedulers can make use of allocation overviews, allocation blocks and other tools to manage capacity.

#### Corrective action

Instructions for training and employees often form part of timely emergency measures.

eControl shows the current level of training for the staff involved and gives information about what outcomes are to be expected from implementing the emergency measures. Apart from a cost-optimised implementation strategy, emergency measures can also be monitored and documented.

#### Minimal unit cost per training attendance

eControl provides batch processing functionality and automated systems for the training department and the participating specialist departments. These serve to support and motivate staff on a personal level at the lowest possible unit cost.

An intuitive software product facilitates the involvement of participants, managers and specialist departments and also contributes towards reducing management overheads. An efficient database model and numerous best-practice solutions enable reliable and quick responses to operational queries and contribute to maintaining the cost-effectiveness of training and qualifications management.

#### Communication - automation in the mail centre

Communication between event attendees and event organisers needs automation in order to minimise the work involved in creating invitations, attendance confirmations, Read & Sign requests, and in following up missing attendance requirements. eControl has a standardised mail centre for the automation of outgoing covering letters and is also able to process different incoming email replies fully automatically.

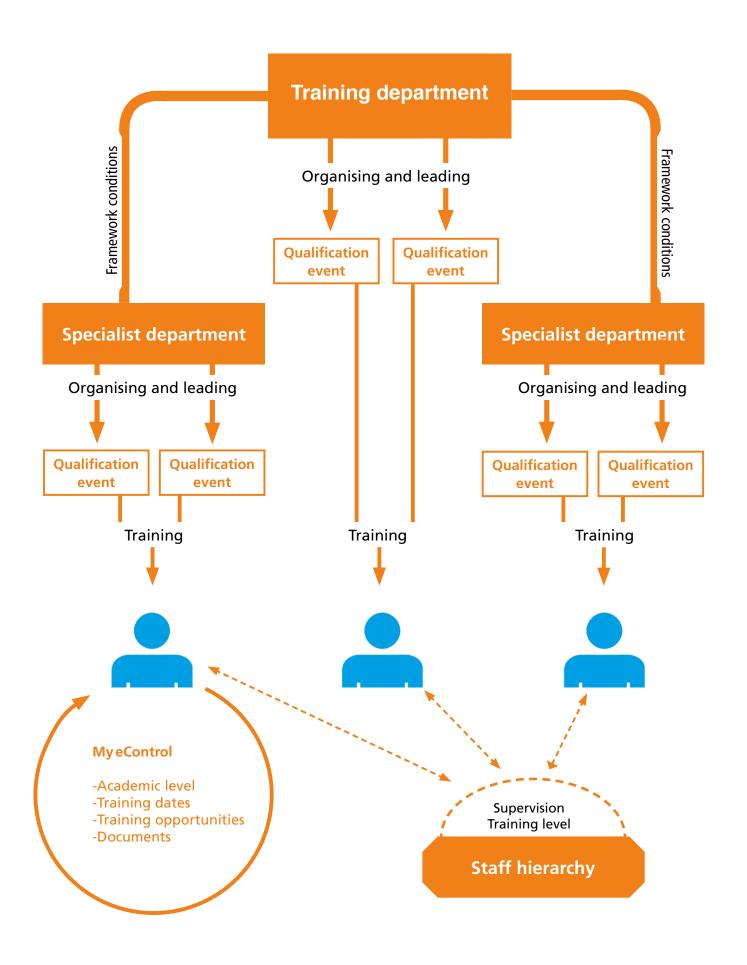
Motivated event attendees justifiably expect communication to be individualised as well as to be valued for what they will contribute in their own way to the training event - eControl's mail centre has been designed for that very purpose. The level of automation for covering letters is of course crucial when it comes to letting people know of changes, cancellations etc. at the last minute.

#### The trainer - success factor and partner

eControl makes it easier to keep the workload for trainers even, offers an overview of their expertise, qualifications, process skills etc.; all this in turn helps with resource planning. Motivated trainers are an essential success factor in training.

eControl provides a variety of resources to help with the practical aspects of carrying out high quality training events. At the press of a key trainers receive detailed information about events, and attendees; registers and results lists are available if required. This standardisation reduces the workload and simplifies further integrated processing of attendance data etc.

eControl's sophisticated authorisation system allows the trainer specific access to their particular events. Alternatively, the training or specialist department can supply the documents to external trainers via an email with PDF attachment.



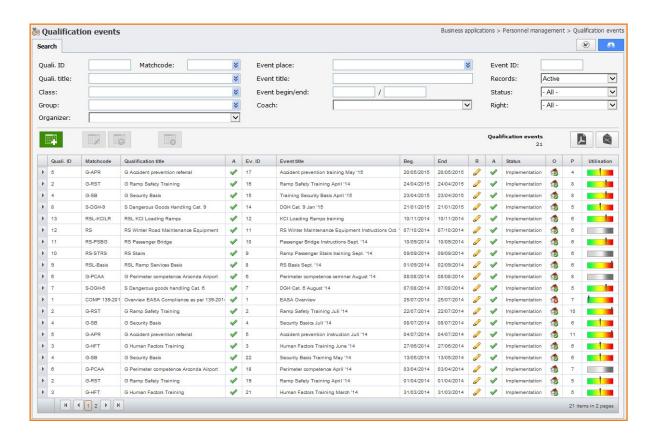
#### Room scheduling - in the right place, at the right time

With eControl, scheduling can be refined to arrange which part of a qualification will be taking place where and at what time.

This facilitates the systematic management of rooms and venues. Depending on the amount of training going on and the range of suitable rooms, the availability of venues can quickly become a limiting factor - particularly if different specialist departments all have access to the same premises.

#### **Event cockpit**

The structured user interface makes intuitive management of qualification events easier for the training and specialist departments.



### **Communication**

#### The mail and communication centre

Communication between staff and the training department is complex and re-quires optimal system support.

The mail centre offers the human resources department and specialist department involved a standardized tool for integrated communication.

As far as personal data and qualification events are concerned, the mail centre is also available for communication throughout the company, not just within the training setup or person-to-person.

# 1

### **Recipient (-groups)**

You first select the recipients in the communication dialog. eControl offers context-related and efficient filter dialogs to enable the user-friendly and targeted formation of recipient groups.

In principle, if they can receive personalised correspondence via email or in paper form, they can be chosen as a recipient.

# 2

#### Personalised merge documents

Once the recipients have been selected a personalised merge letter is downloaded from the archive. There are placeholders available for every data object such as person, qualification, qualification event etc., just as during word processing, which can be inserted into the merge letter. eControl offers more than 200 placeholders for a level of individualisation and automation which goes far beyond simply personalising the name. Once the merge documents have been created and personalised they can then be archived and reused.

The letterhead can also be stored in the personalised merge documents which can be used to standardise emails and PDF printouts.

# 3

### Combining recipient lists and merge documents

The third and last step involves combining the staff on the recipient list with the merge document. Each separately created document is displayed in a WYSIWYG-"What you see is what you get" preview.

To send the document via email requires only one further mouse click, to send the document in the post the merged document needs to be printed out.

The system for sending emails in eControl can fit flexibly into any existing communication infrastructure and works with a variety of different gateways and email systems.



#### Hand in hand with- the hierarchy

To be able to offer active support for their employees' training, managers can, if they wish, be informed about the correspondence in compact short form.

This helps with planning and unites everyone who is directly or indirectly associated with training activity.

Notification of managers within the hierarchy is sent in a group email as a tabular over-view. For example, if 19 employees with the same manager receive a notification from the training department that they are due some re-training, the manager will receive only one email which contains a list of recipients alongside the subject reference.

#### **Fully automatic archiving**

eControl archives the connection information for each personalised cover letter rather than the exact wording. This means that it will always be clear when a particular cover letter was sent and to whom. The delivery status is additionally stored for every email sent.

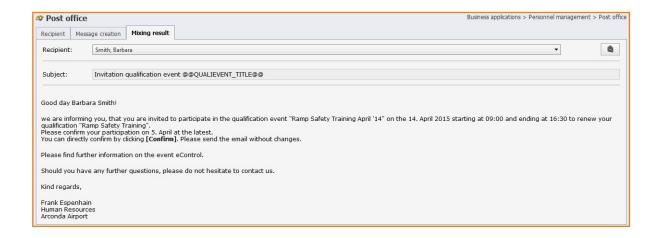
The training- or specialist department, managers and the training participants all have access to the archive data.

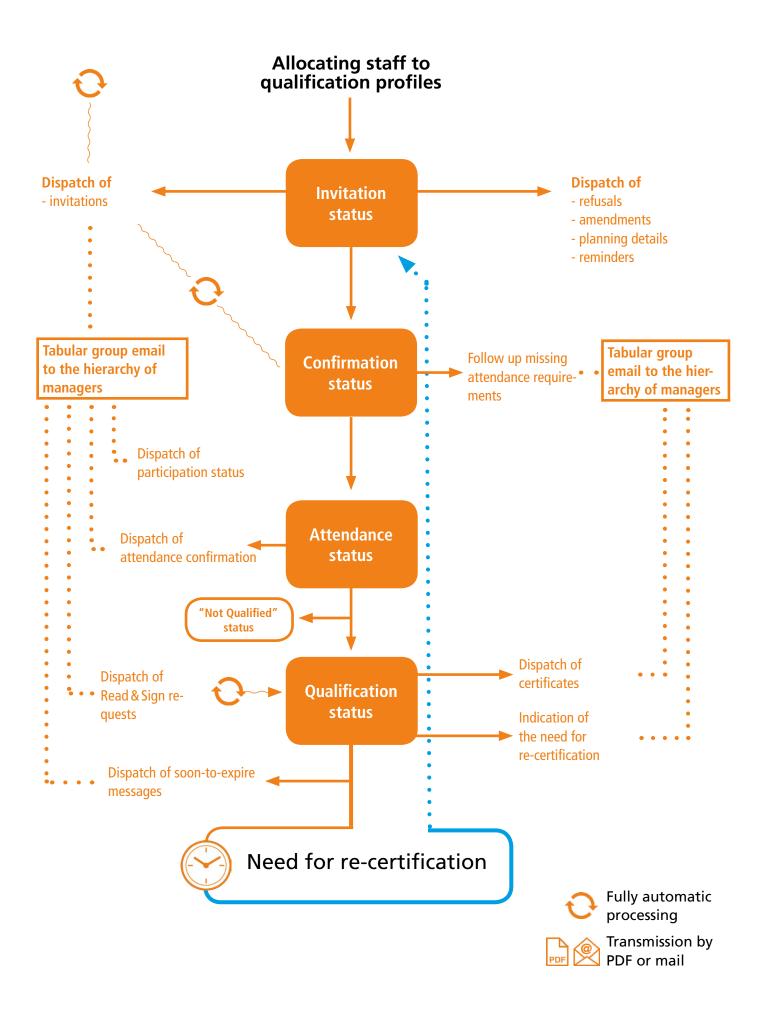
#### Fully automatic processing of email replies

The event participants receive emails containing predefined links for accepting or declining invitations - with an easy mouse click, attendance can be confirmed or declined.

Within seconds these messages are processed in a fully automatic and tamper-proof way by an eControl service which means that the training- and specialist department are spared from having to carry out these time-consuming routine activities themselves.

Confirmed Read & Sign requests can also be fully automatically processed in real-time via email, which then unlocks the respective qualification without any time delay.





### Read & Sign

#### Read and confirm

The Read & Sign process ensures that service and procedural instructions, new document versions and general company decrees can be acknowledged and implemented by staff promptly. These acknowledgements must be reliably archived and, if necessary, later verified.

#### A procedure for all company orders

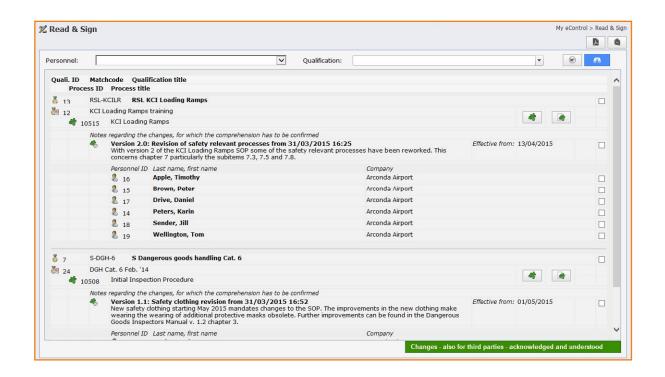
The current model is based on the assumption that service or procedural instructions, process or document versions, company orders and other important announcements can be assigned directly or indirectly to a process or sub-system. These processes and sub-systems are connected directly or indirectly with the staff through qualifications.

General company-wide announcements as well as very specific amendments to particular operating instructions can be reliably disseminated irrespective of content.

This logic also includes external third-parties in the Read & Sign logic and can be used as a departmental- or sector-specific notification system

#### Lead time and coming into force

Organisational changes should only be put into effect once the employees involved have had enough time to learn of and prepare for them. If an associated staff member fails to confirm acknowledgement before the amendment comes into force, the qualification in question automatically lapses. As soon as the associated staff member confirms their acknowledgement on the system the lapsed qualification is returned with its previous period of validity.



#### Active signing by the staff involved

Associated staff members receive personalised messages which specifically state which content requires confirmation or signature. If an employee has already acknowledged that particular content, they need only click on a confirmation link in the Read & Sign-E-Mail - the acknowledgement will then be processed on the system fully automatically and in real-time.

System users can alternatively make use of a separate Read & Sign dialogue which lists all current Read & Sign requests along with detailed descriptions; this dialogue also facilitates the download of any stored documents.

#### Read & Sign without login or computer

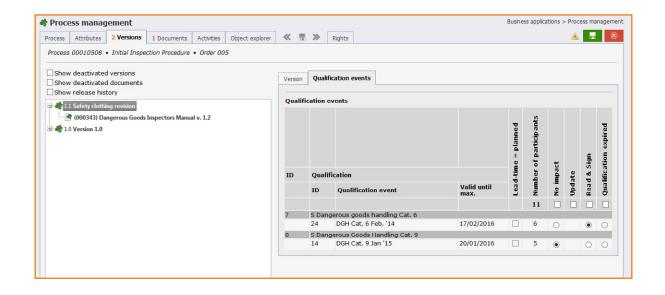
Not everyone who needs to confirm acknowledgement of company orders has eControl system access or an email account. Through their own Read & Sign dialogue, every manager is able to see the Read & Sign requests of their employees.

The necessary training can then be implemented in good time by the manager individually or in groups. For this purpose eControl provides at the press of a key registers, which can document the requests and circulate them as part of the review. The registers are straight-forward and easy for the manager to compile in batch through group selection. Thus, even for time-critical requirements, the correct application of Read & Sign procedures can be verified without the need to login or to have a computer available.

# Other procedural-organisational scenarios - amendments without the need for Read & Sign

Operational directives can be anticipated through training events or other circumstances meaning that there is no additional need for Read & Sign among the associated staff. When the directive comes into force however the system should document this seamlessly. In this case the process supervisor's assessment, with an explanatory note if necessary, will be stored in a legally robust manner to say that no Read & Sign confirmation is needed.

In other cases an operational directive can prove so far-reaching that qualifications expire perforce and participants will need to be re-trained in future training sessions.



### Case study: Driving licence department

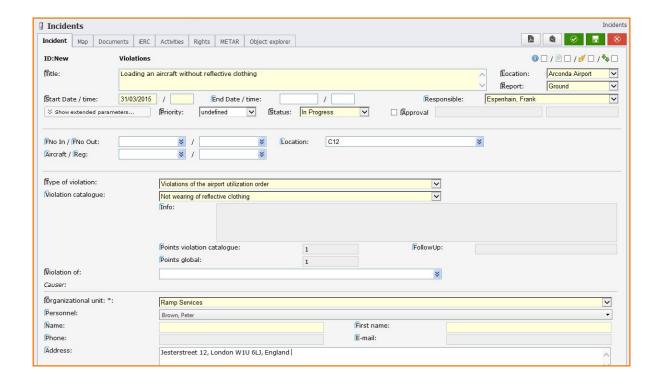
#### Interaction of process and qualifications

Using an operational driving licence department as an example shows how training and qualifications management interacts with other management tasks - here principally focusing on incident management, based on the eForms within eControl.

#### Infringements - eForms with consequences

For larger vehicle-accessible premises, usage regulations are created according to risk criteria. In practice these usage regulations are repeatedly infringed, but these violations only incur penalties in a small number of cases - just the tip of the iceberg. This occurs when events which require reporting - for example, accidents or damage to property or people - are documented or when security staff record infringements.

eControl provides electronic forms, or eForms, for documenting violations. These contain information on the nature of the violation, when it happened and who was responsible. The form for recording violations also enables suitably authorised staff to classify the violation according to severity and to grade it in a company-specific points catalogue. This grading can occur either at the point when the infringement is recorded or later by panel.

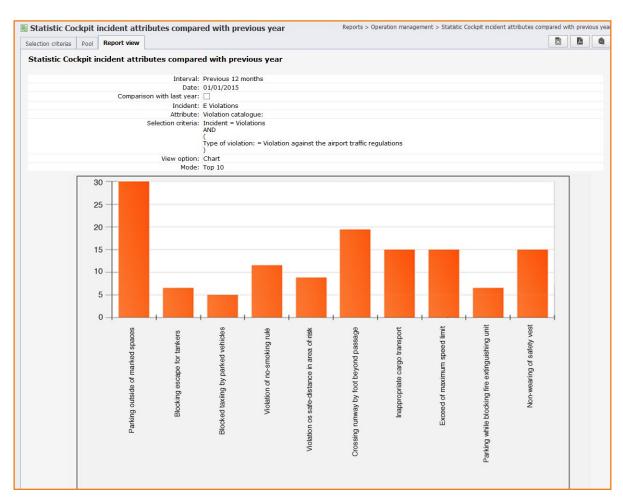


#### **Emergency response measures**

For serious violations, the eControl Notifier Service alerts the supervising staff fully automatically via email or SMS - a basic function of every eControl installation.

#### **Recognising repeat offenders**

eControl provides various statistics for analysing violations over time. Repeat violations can be traced through frequency distributions and trend analyses. Individual report generators with freely definable search options are useful for proving, almost effortlessly, suspected connections and causalities.



In eControl significant statistical information can be filed for reuse along with all related search settings and explanatory notes. If necessary, these stored report settings can also be published in an information cockpit. eControl then updates the data daily and fully automatically over a rolling time period. Relevant employees can retrieve these cockpit statistics containing current data daily and at any time with a mouse click - a basic function of every eControl installation.

#### **Corrective action**

If significant clusters of violations can be determined and accounted for, clear corrective or preventative measures must be initiated. If the connections between violations are not obvious or if a significant violation is indicated, an inquiry can be set up through eControl's investigation management.

eControl documents the whole of measure management from planning and implementation through to assessment of effectiveness.

#### Violations in the light of training and qualifications management

It is the consequences that then provide the link to training and qualifications management - so that the range of possible actions taken reflects the wide range of potential infringements.

#### Penalty

#### Withdrawal of the qualification "works driving licence"

The qualification "works driving licence" is reclassified from 'qualified' to 'not qualified', and all related qualification profiles are also terminated - this is the most far-reaching punishment.

#### Penance

#### Additional qualification

The employee/s is/are invited to attend qualification events which are aimed at promoting future compliance with usage regulations. This additional qualification can be recorded on the points system for points to be deducted from the employee's personal points total.

#### Qualification – the correct focus?

If appropriate, the training- or specialist department can also make a proactive contribution to the reduction in traffic danger. It remains to be proved whether training situations sufficiently reflect the violations which actually occur in practice. Training participants can be motivated to make sure they comply with usage regulations with even just an indication of what could happen if they violate them.

Irrespective of whether processes are modified, violations reduced through changes in the infrastructure or self-inspections intensified, eControl supports an integrated view of processes and any corrective or preventative measures which are introduced and documents them comprehensively.

### Data protection and the rights concept

#### Protection for person-related and personal data

In the course of its duties the training department needs access to address and contact details, and all other relevant information such as age, gender, language spoken preconditions, etc..The amount of detail included when the data are filed is not dependent on eControl but on the qualifications being sought.



#### My eControl - to each their own data

Each employee has access to all stored information about their qualifications. The rules governing authorisation guarantee that, when logged on to the system, the employee can only retrieve information about themselves.



#### Hierarchies and training status

Every manager should be able to view the qualification status of their employees, as well as their own, in order to provide the best support possible for their qualification requirements. Hierarchical relationships are analysed independently and in real-time by the data-base, which then dependably restricts the available view of the data just to the employees within the manager's remit.



#### Who can do what?

eControl's authorisation concept encompasses several functional user rights for the soft-ware module TQMS. If necessary, employees can be specifically authorised for single functions or reports - as few user rights as possible, as many user rights as necessary.



#### **Qualification term?**

A qualification's validity period is limited by a maximum term; it can also be shortened through Read&Sign requests or restricted through certification. Residual terms are constantly expiring or are prolonged in good time through re-qualification. Without system support it is practically impossible to check reliably that the rules are being followed.

eControl offers a sophisticated way of establishing how particular validity terms can be influenced and by whom, not in general but for each individual qualification. This means that competencies can be delegated to specialist departments without escalating the need for financial expense.



#### **Oracle Database Security**

eControl's access rights are in principle enforced by the Oracle database itself. eControl adheres to the database's high levels of security. Your data are protected where they belong – on the database. The enforcement of access rights at database level protects data even when third-party system interfaces access the database or if the database is violated. eControl is a registered Oracle application.



#### Tamper-proof, legally robust documentation of database access

eControl independently monitors every modification to the database. Which data have been entered or altered when and by whom can be traced for every data field. This audit trail is logged fully automatically, is tamper-proof and even covers system access through interfaces.

To make it easier to document the relational database system in a tamper-proof way, system administrators have access to a complete data dictionary.

### Reports and statistics

#### Tailored information analysis

eControl Training and Qualifications Management comprises a number of report generators. Every report generator contains high-performance selection criteria and grouping options. Dialogues are intuitive to use due to their coherent and ergonomic design.

Report generators respond to all training queries near-effortlessly, always at the press of a key and, of course, compliant with data protection.

#### There follows a list of the specific report generators in TQMS



Qualification profiles personnel assignment



Personnel master data sheet



Personnel status report



Personnel personnel list



Processes process versions and qualification events



Process versions status and qualification participations



Processes qualification assignment



Processes trained process versions



Qualifications detail view



Qualification process allocation employee



Qualifications statistic remaining term



Qualification profile overview



Qualification profiles personnel assignment



Qualification profiles profile resolution



Qualification profiles remaining term per employee



Qualification profiles statistic remaining term



Profiles statistic remaining term qualifications



Qualification profile overview



Qualification participation frequency scale



Qualification event detail view



Qualification events results



Qualification events frequency scale



Qualification events list of participants



Qualification events overview list



Qualification requirement overview list



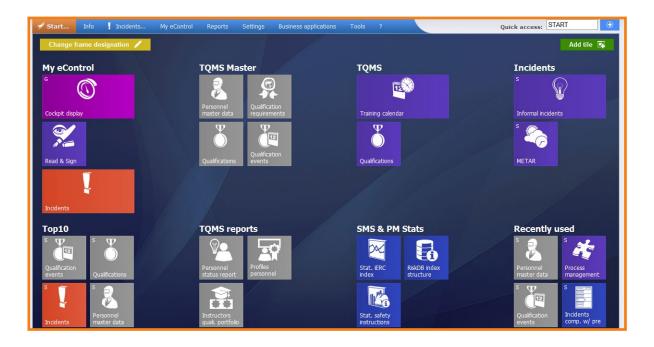
Qualification requirements personnel



🛂 Instructors qualification portfolio



Instructors process portfolio

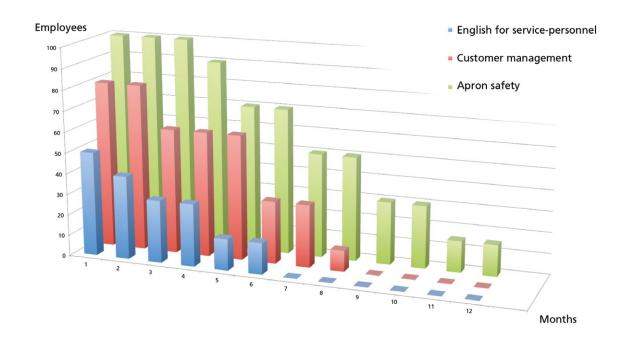


#### Further options for assessment through the system standard

Besides report generators, TQMS provides a variety of other reports in several editing dialogues.

eControl contains powerful cockpit statistics and indicator descriptions which can also analyse data from training and qualifications management - no need for spreadsheets to analyse the number of qualification attendees per business area or the accumulated training man days per month and department.

The header of every eControl report contains the customer logo and documents which report has been requested when, using which selection criteria, and by whom. The output from report generators always follows as a PDF or CSV file which can then be further processed by any spreadsheet program.



### **Interfaces**

#### Seamless integration into established workflows

Robust and flexible interfaces make it easier for eControl to link IT systems which supply and process data. eControl's interfaces can be configured in many different ways to avoid expensive customisations and maintenance.

#### Staff master data

TQMS can be paired with master data from upstream human resources systems. Depending on what is currently being implemented, many different data fields are processed and business regulations applied.

#### Qualification status - controlling shift and operational planning systems

eControl delivers status reports to recipient shift and operational planning systems about qualifications and qualification profiles, including any master data that is required. This software approach ensures that only those employees are utilised who currently hold the necessary qualifications.

#### **Outgoing invoices**

eControl passes on individual and collective invoice data to downstream accounting systems. Other debtors may be charged the amounts stated in the invoices, regardless of the company having undergone training. VAT account codes are set up to suit the accounting requirements of recipients both inland and abroad.

Data transfer occurs cyclically and fully automatically according to the guidelines currently installed.

#### **Cost accounting**

Professional training is intensive both in terms of staff and cost. eControl makes possible a breakdown of these costs according to consumption. Superseding cost centres, training sessions can be accounted individually based on the materials needed for each qualification, training session and certification.

#### Training dates, room occupancy figures, indicators and key figures

If required, eControl makes training dates, indicators and key figures available as downloads, which can be processed further by downstream systems. For example, this information can be used for the automated display of room occupancy figures, or the publishing of the training calendar on the intranet.

#### **Automated email processing**

eControl takes the burden off the staff in the training and specialist departments involved by providing fully automatic processing of incoming emails. This processing by eControl services takes place in real-time.

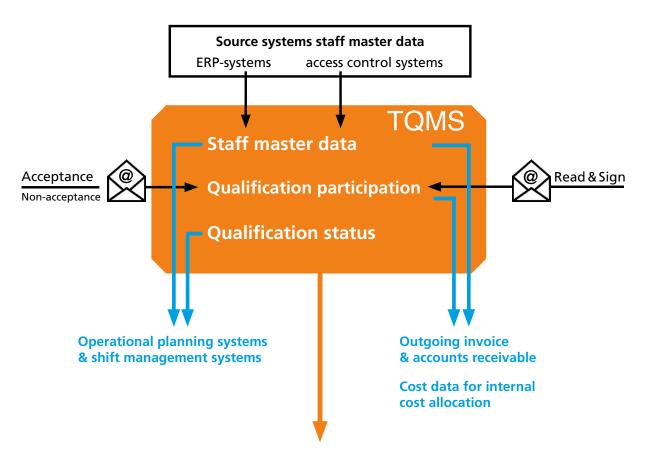
#### Customising

The interfaces described above are the standard means of delivery for the system - if the customer needs to make any other links between data-delivery and/or data-receiving systems, there are many different customisation options available. Our interfaces are based on a universal Windows-compatible function block which we can easily shape to fit your individual organisational requirements.

#### **Technical standards**

Interfaces are file-based in accordance with the eControl standard; this means that the data format XML is used. We can, of course, also handle web services, the Business Application Programming Interface (BAPI) from SAP etc.

All interfaces are integrated as Windows services, logging can always be customised to suit individual needs.



Training dates, events, indicators and key figures for any third-party system

### **My eControl**

#### A central point of information for employees

Optimal training and qualifications management increases the motivation of both staff and managers by actively including them in the planning and staff development process.

My eControl provides functions which employees and managers need.

#### The web and Intranet instead of posted notices and training calendars

As a web-based system eControl TQMS is available to all employees who have system access. Training calendars and other print media need to make available at all times and it is a labour-intensive task to keep them continuously updated. eControl publishes this information through My eControl - it can be filtered according to requirement and is user-friendly.

#### How long does my qualification last for and what kind of training do I need

The calculated expiration date of an employee's particular training as "breathing apparatus wearer" can be checked by the employee themselves on their certificate - or simply through a mouse click in the MyeControl dialogue. The digital training calendar lists possible re-certification dates which can be chosen to fit around professional commitments and personal availability.

#### What do I need to do for my employees?

This would be a labour-intensive duty without a good information system as managing a small number of employees requires a huge amount of care and discipline.

My eControl gives managers the right functions. Each manager can select training events from the training calendar and request participation for his employees. The manager plans actively to minimise any adverse impact on processes within their remit and consequently and crucially on the value creation of the whole company.

### e-Learning

#### Blended learning

Launch Coming Soon

Blended Learning combines the classroom-based learning of TQMS with e-Learning in a joint training calendar. Blended Learning enables pure knowledge transfer, the traditional classroom-based learning also trains for practical implementation.

#### **TQMS** Author management

TQMS author management helps with the creation and processing of eTraining events. Customised page design allows the author to direct attention to the layout of the content rather than to features of the software.

eControl's eTraining events have the scope and function levels that you need. Standard backgrounds, animations and other features of every web browser make knowledge transfer easier. The individual pages can be set up specifically for each training event or can be stored and updated centrally.

Using the authoring system's WYSIWYG interface the design is visualised in real-time. The interface is so intuitive to use that the potential savings offered by eLearning are not consumed by escalating creation costs - that is if the employees aren't put off by frustrated authors and badly designed eLearning pages.

#### **TQMS** Assessment module

Any elements of the structure of intermediate or general examinations can be defined with eControl. The author decides page by page what should be assessed and in what form. Several options are available, when deciding examination points, for answering questions and evaluating results. The examinations can be inserted page-by-page or as the end of a point in the structure. The use of time limits and repetition makes it easier to control complex e-learning content.

#### **TQMS eLearning statistics**

It is a particular advantage of eLearning that processing information and in particular examination and interview answers can be made digitally available and analysed according to a variety of criteria.

eLearning statistics and report generators are universal in nature. The results of the analysis help to optimise both eLearning and traditional class-based learning.

#### Technical platform? - My eLearning

It goes without saying that not all eLearning participants who come from outside companies can and should have access to internal company content information. For eLearning, eControl offers a standalone web application with My eLearning which reduces information just to the essential information while still offering My eControl capabilities.

### **Our services**

#### for the software life cycle

The conception and commissioning of a fully integrated training and qualifications management system is labour-intensive; we are able to support our customers because of our wide-ranging experience and our in-depth knowledge of the various software functions.

The installation of the system can be mainly handled by the customer independently, or by the manufacturer, or in collaboration with management consult-ants.

Our consultants, project partners and our development department look after eControl TQMS just as much as you want – from the initial idea to servicing.

#### **Needs analysis**

If desired, our consultants can carry out gap analyses which compare already installed systems and regulatory requirements to the particular demands specific to the company in question.

#### **Training**

We offer training courses and workshops for all system components, in order to ensure smooth running of the entire system. In customer-specific in-house seminars, our consult-ants consider the specific circumstances and requirements of the company in question and make it easier to locate potential for increased productivity and optimization.

#### **Commissioning & data migration**

The introduction of eControl TQMS generally ties in with an existing training organisation. We are experienced in the skilful modelling of qualifications, qualification profiles, processes and communication procedures. In some circumstances, there may be digital or digitizable sets of data which need to be transferred to the prepared model with as little fuss as possible, in time for a key date.

#### **Interfaces**

Interface requirements can as a rule be incorporated into the service programmes which form part of the delivery package for the system. If necessary our consultants can help with the integration of firewalls, gateways, backup systems, virus scanners and other system elements.

#### **Update and Upgrade-management**

eControl software is under continuous development and improvement. We offer updates as required, from software patches to complete upgrades. Our hotline is available to customers to deal with anything from system documentation to technical questions. We offer service in both English and German, as standard.

#### **Database management**

Arconda Systems AG is available, as an experienced Oracle partner company, to cover all your needs in relation to Oracle databases. This support extends from help with system problems to the provision of conceptual management and high availability. eControl is an official Oracle database product. We also offer special Oracle user licences for eControl, at reduced cost.

#### **Customising**

eControl is a branch-specific modularized standard software with extensive opportunities for altering parameters. As a general rule, the product can be installed without the need for specific software-technical adaptations. Should individual software functions be required, as manufacturers we can of course fulfil this need. Our consultants focus on an objective, universal optimization of the range of functions, through which in the past, the most varied individual adjustments were embedded in the system standard. In this way, we ensure continuous development, while keeping customization and servicing costs to the minimum.

# <u>eControl</u>

Process Management Operation Management

Safety Management Audit Management Qualification Management Compliance Management Environmental Bird Control Management

Customers:































District Government of Upper Bavaria



Customers international:













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