

PRODEFIS Training Management Solutions

Developed in partnership with airlines for airlines, implementing their vision of how training management should work.

PRODEFIS TPMS

Training and Performance Monitoring EBT / AQP / ATQP

PRODEFIS COURSE

Training Planning & Scheduling, Course Management, Resource Management, Venue Management

PRODEFIS E-FILE

Electronic Personnel Files, Employee Self-Service, Qualification and Compliance Management

PRODEFIS LMS E-Learning, Exam Management





PRODEFIS TPMS Training & Performance Monitoring System EBT / AQP / ATQP

TPMS is an all-in-one IT solution for airlines implementing EBT (Evidence-Based Training), AQP (Advanced Qualification Program), ATQP (Alternative Training & Qualification Programme), traditional training or mixed.

TPMS covers all training-related activities for training managers, instructors/examiners and trainees; streamlines the coordination and communication with the planning and scheduling teams; and, provides detailed tools for analyzing all aspects of your training programs.

Full Support for Proficiency-Based and Data-Driven Training

EBT, AQP, ATQP

Real time performance data

Automation throughout the system

Complementary consulting services for business

Strong business case

Overview

PRODEFIS TPMS

- offers web interfaces for training managers, instructors/examiners and trainees
- provides dedicated process support for training managers
- allows electronic grading and data collection for all event types
- fully supports EBT, AQP, ATQP
- enables paperless training organization
- maximizes standardization of assessments

Manager Web Interface

With this interface training managers can

- · access the training forms of trainees and instructors/examiners
- sign off or revoke forms
- conduct selection panel meetings
- join appraisal processes
- conduct review board meetings
- assign remedial training packages
- review performance analyses of trainees, instructors/examiners and training organization

Unique and Unrivalled Workflows for Training Managers

TPMS provides integrated and consistent functions and workflows which support training manager related tasks and processes.

PRODEFIS TPMS

- supports training managers in decision-making by delivering instant performance reviews
- automates routines using defined key performance indicators

Instructor/Examiner Web Interface

With this interface, instructors/examiners can

- access their own training schedules
- grade/submit forms
- view their archived forms
- access trainees' profile
- · review trainees' forms submitted by other instructors/examiners
- Send forms and related documents to authorities

Crew Web Interface

With this interface, trainees can

- access their own training schedules
- view their own forms submitted by instructors/examiners
- assess e-learning lessons
- submit exams
- access/update their own profiles
- submit feedback forms
- review own performance analyses

Additional Web Interfaces

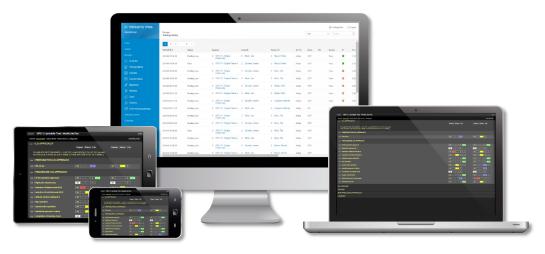
TPMS offers additional web interfaces for other user groups involved, e.g. for schedulers.



Grading & Data Collection for All Events and Courses

TPMS comes with the most powerful form builder available on the market. It allows you to create forms of any complexity, forms to be used for all training phases and all training programmes (e.g. EBT, AQP or ATQP), forms set up for any crew complement on any training device, forms to run on any platform online/offline.

You can use electronic forms for trainings and checks on flights, in simulators, in classrooms, at home... on all devices, be it iPads, Windows tablets, Android tablets, notebooks or MacBooks.



Use electronic forms for all events on all devices

All Process Areas Supported

TPMS provides unique features and out of the-box processes, making training administration most efficient.

TPMS covers all EBT, AQP, ATQP process steps from individual training/check form generation up to data driven curriculum development for a proficiency-based qualification of your crew.

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IEs: # Sessions & Average Grade Dispersion

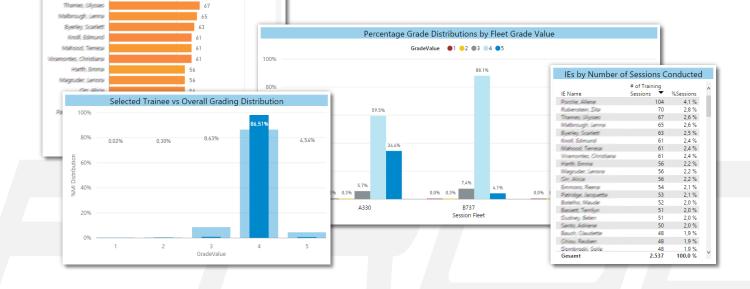
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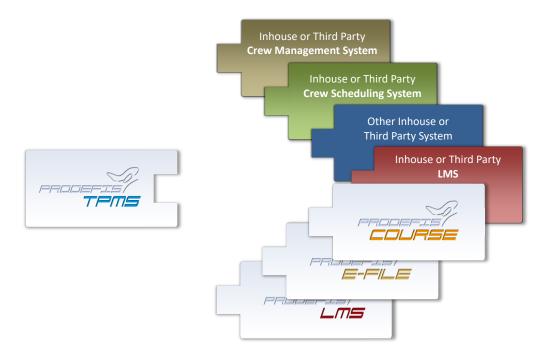
Integrated Analytical Module

TPMS comes with an integrated and powerful analytical module. It allows tracking of

- individual pilot performance,
- group performance,
- trainer performance,
- performance of the entire training organization.

There is no need for additional reporting tools or data warehouses. However, you can export the integrated data warehouse at any time and use your own favourite reporting tool.





TPMS can be integrated with COURSE, LMS, E-FILE and other systems

Supplementary Services

EBT, AQP and ATQP subject matter experts are among our team. This unrivalled know-how together with TPMS's built-in and ready-to-use processes, will speed up your move to any data-driven system.

We support you in set-up of implementation plans, in creation of training syllabi, in analyzing the collected data and in all other areas of data driven training methods.

EBT - Mixed, Baseline and Enhanced

TPMS is the only system worldwide covering every aspect of EBT, and supporting Mixed EBT, Baseline EBT and Enhanced EBT.

ATQP Fast Track Packages

TPMS is the only system worldwide coming with a ready-to-use Implementation Plan and with a generic task-analysis. The task-analysis contains scenarios and task lists including subtasks and elements, detailed performance standards, and ready-to-use assessment/grading systems.

prodefis also provides services for adapting the generic task-analysis to your SOPs and OMs.

AQP-Related Services

TPMS is delivered with generic Task Analyses, JTLs, QSDs as well as with an implementation plan.

Integration with Other Systems

TPMS can be integrated with existing systems seamlessly, for instance:

- Automatic generation & pre-population of electronic forms from your planning system (crew scheduling or training management system).
- Automatic update of qualifications in your crew qualification data-base.

Automatic First-Look

This module manages First-Look maneuvers. From a pool of scenarios, one or more are randomly attached to any chosen electronic form. The analysis of the data collected is the core argument for any safety case or risk assessment.

Feedback Management

Feedback forms are designed by using a powerful feedback form builder. After any configured training event, TPMS will automatically generate electronic feedback forms. Trainees will submit these through the Crew Web Interface. Later, people in charge can use the analytical module to analyze feedback results.



PRODEFIS COURSE

Training Planning & Scheduling, Course Management, Resource Management, Venue Management

COURSE is the training management system of choice for airlines and aviation training organizations.

COURSE fully supports processes of training planning and operations. It can be used by all parties involved in training management, and it allows for seamless integration with other systems.

Collaborates with your Rostering Systems Seamlessly

Optimum use of resources Streamlines business processes Sustained reduction of costs

Planning & Scheduling

Training demand identification allows effective planning of resources, courses and training activities.

The scheduling allows for manual, semi-automated or fully automated assignment of trainees, instructors and resources to training activities, while taking into account rules and availabilities.

Course Management

You can plan and schedule courses according to your curricula. In order to ease and optimise this process, COURSE allows for setting up and maintaining re-useable course templates.

In a course template, you can virtually predefine every single resource. The result is that the creation of an actual course could be as simple as selecting a course template and the course's start date.

Staff Management

The STAFF Module of COURSE is a full-blown Staff Management System. It is specially tailored to meet the requirements of the aviation industry.

Depending on the selected configuration, you can either use it as your main system or as an extension to your existing system.

Resource & Venue Management

You can manage all training-related data for instructors, simulators, classrooms and equipment, for instance contracts, prices, or slots.

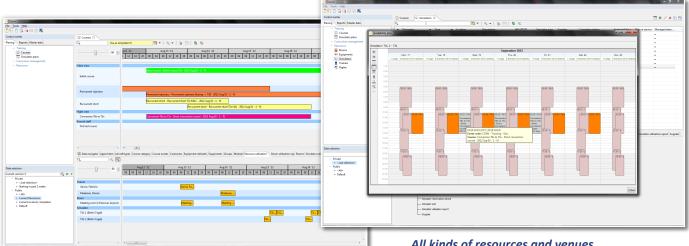
You can also access all utilization and cost reports required for an effective training management.

Document Management

COURSE comes with an embedded DMS (Document Management System). It enables you to manage all kinds of documents.

You can define your own document hierarchy, separately for each record type. And you can attach as many electronic documents as needed to each single record in the system.

For instance, you could scan a simulator contract and attach it to the respective contract record.



User-friendly yet powerful planning interface All kinds of resources and venues can be managed in COURSE

Paperless Instructors

The instructor module enables moving to a 100% bi-directional paperless communication between training department and instructors.

This involves all related processes such as accessing own schedule and course plans, registering trainees, grading, accessing trainees' qualifications, checking trainees' performance history or revalidating qualifications.

Record Keeping & Auditing

Depending on your requirements, meticulous record-keeping & change tracking can be established.

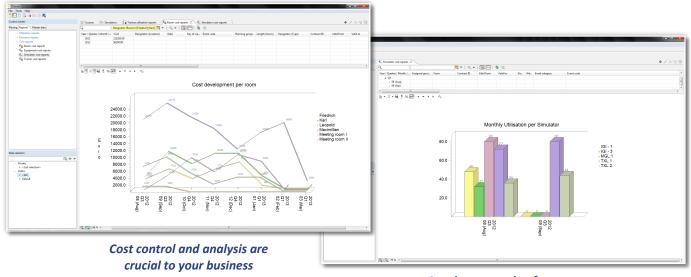
The system allows for configuring what is to be audited and how far the auditing should go.

Regulatory authorities can be granted rights to access audit-relevant data via the Internet.

Analytical & Reporting Module

This module allows for analysing and running reports on all your data.

For instance, you could create utilization and cost reports for all trainees and resources, or you could calculate training needs and generate reports on qualification expirations, just to name a few.

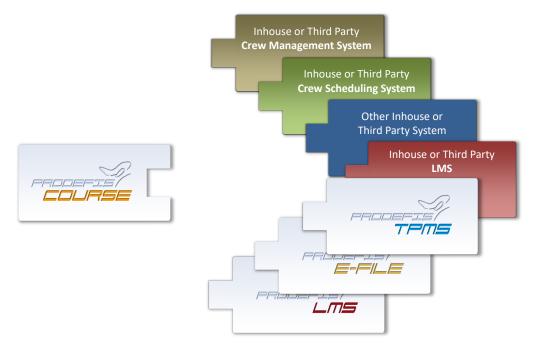


Another example of reports packaged with COURSE

Integration with Other Systems

COURSE can be integrated with existing systems seamlessly, e.g. with a crew management and scheduling system, with an HR system, with an LMS, with a simulator booking system or with other systems.

All relevant data from other systems can be made fully available in COURSE and vice versa, if required in real-time.



COUSRE can be integrated with TPMS, E-FILE, LMS and other systems

Process Automation

Increasing a training organization's effectiveness through process automation has been one of the design goals of COURSE. COURSE can attain this goal by various means:

- COURSE can be integrated with other systems to provide a high degree of process automation. For instance, changes in an HR system could be updated in COURSE automatically; or schedules in COURSE could be exported to a crew scheduling system automatically.
- The paperless instructor eliminates the paperwork and automates the communication.
- Another example of process automation is the semi or fully automated assignment of trainees, instructors and resources.

PRODEFIS E-FILE

Electronic Personnel Files, Employee Self-Service, Qualification and Compliance Management

The Business Case is Too Big to Ignore!

Fastest Go-Live Maximum Cost Savings Multilingual User Interface Ensures regulatory compliance Approved by Civil Aviation Authorities Flexible Integration with Existing Systems

Electronic Personnel Files

E-FILE enables electronic storing of all employee related documents and linking them to the respective electronic records in the system.

This way you can access all records and documents through one single web interface at anytime and anywhere.

Self-Service

The self-service features allow employees to maintain all kinds of personal data and to upload respective documents while reducing office staff's workload.

This may also include sensitive and regulator-relevant data. This is possible because the quality of the data is assured.

QA Workflows

A shift of workload to employees does not mean poor data quality. In case of E-FILE quite the opposite is the case.

E-FILE comes with sophisticated workflows which allow managers to efficiently monitor and approve data entered by employees.

Qualification & Compliance Management

COURSE allows for defining and monitoring qualification requirements and training pre-requisites.

You can also define complex expiry rules and track qualification expirations. These features and related reports keep currency & ensure compliance.

Flexible Integration & Deployment

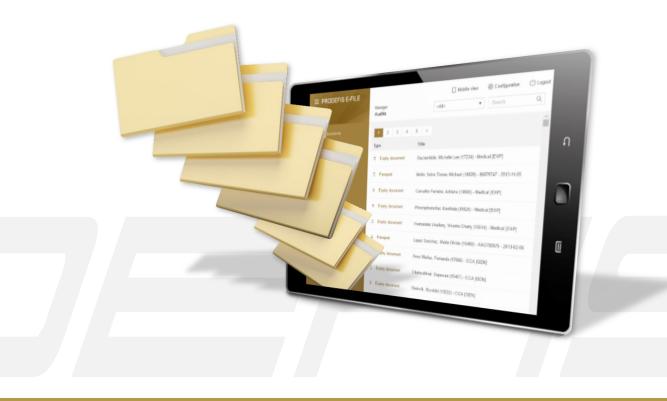
Deploy E-FILE within virtually any organization's IT environment and seamlessly integrate it within your existing systems; for example, within your HR system, crew management system, training management system, and/or crew qualification system, according to your needs.

The Business Case is TOO BIG to Ignore!

Besides indisputable business benefits, the business case for introducing E-FILE is simply too big to ignore.

E-FILE reduces costs by:

- eliminating costs for maintaining traditional document archives
- shifting responsibility for digitizing documents from office staff to employees
- shifting data maintenance workload from office staff to employees



AIAAAEI22 AIRLINE LMS ELECTRONIC E-LEARNING WEB MANAGEMENT

PRODEFIS LMS E-Learning, Exam Management

Approaching E-Learning Management From the Other Way Around!

Innovative Integration with Airlines' Scheduling Systems

High Degree of Automation

Engine Compliant with AICC and SCORM

Very Low Administration Efforts – for Business and IT

Learning Management System

LMS, the Learning Management System, is a web-based e-learning system delivering training lessons and exams and capturing results, electronically.

We have chosen an alternative and very airline specific approach to LMS which results in very low administration efforts – for business and IT.

Key Features

As an airline you can

- assign online-training lessons and exams to each of your employees
- track the status of lessons and exams
- monitor the results
- track follow-up/remediation actions

User Interface

LMS offers Web-interfaces for:

- Learners (can be any airline employee)
- Instructors and Examiners
- Managers

PRODEFIS TPMS Integration

LMS can be fully integrated with TPMS, this way leveraging all of its benefits, for instance:

- all enhanced manager workflows
- the unique roster interface
- the interfaces to all other systems

AICC and SCORM

Our content player is fully compliant with AICC and SCORM, this way ensuring the maximum compatibility with third-party contents. Of course, you can use your own content as well.

The engine allows for running training lessons and exams in all current browsers on all relevant platforms.

PRODEFIS PRODUCTS

Innovative Systems Created in Partnership with Airlines for Airlines

prodefis offers integrated software products for the aviation industry. All prodefis products optimize processes, increase productivity and reduce costs and workload. Each product can be tailored to your requirements and integrated with existing systems. prodefis products meet the requirements of small and big organizations as well as of low-cost carriers and network airlines.

For detailed information please visit our website www.prodefis.de.

Products Besides PRODEFIS Training Management Solutions

PRODEFIS AIS

Information System for Airlines and their Business Partners

The web-based AIS provides secure access to real-time operational airline data as well as to historical and planning data.

PRODEFIS CAP

Arrangement of Crew Accommodation and Travel

CAP is highly automated. It offers complete support in arrangement of crew accommodation and positioning and in management of respective suppliers.

FLEXIBLE DELIVERY MODELS

License and Secure prodefis Cloud (SaaS)

prodefis offers two delivery models. The following table compares the License with the Secure prodefis Cloud (Software as a Service) Model. It is intended to be used as a basis for decision-making together with the requirements of your organization.

	License	prodefis Cloud
<pre>Upfront capital expenditure ⇒ "higher" might be relevant for tax reasons ⇒ "lower" converts capital item into expense item</pre>	1	✓
Total cost of ownership is	higher	lower
 Managers control budgets, but not resources of IT department ⇒ software decision depends on IT department ⇒ software decision can be made independent of IT department 	1	✓
<pre>Initial set-up/time-to-market/time-to-value</pre>	1	✓
Airline has control over release changes (independent of other customers)	1	
Minimum business and IT resource requirements for release changes		√
Software is always up-to-date		1
Effort/cost of trial operation are	higher	lower
Responsibility for IT infrastructure is with	airline	prodefis
Full integration with airline's operations or back office systems	1	\checkmark
Offline usage (e.g. grading on line checks while disconnected from Internet)	1	✓
Move from one model to another (e.g. from Hybrid SaaS Model to License Model)	1	1
Setting up test environments parallel to regular environment	1	✓
Maximum control over own data	1	\checkmark

Comparison table for prodefis software delivery models

PRODEFIS CLIENTS Long-term Relationships

Cathay Pacific Group

Air Hong Kong, Hong Kong Cathay Pacific Airways, Hong Kong HK Express, Hong Kong

Qantas Group

Qantas, Australia Eastern Australia Airline, Australia Sunstate Airlines, Australia Network Aviation, Australia National Jet Systems, Australia Express Freighters Australia, Australia

Jetstar Group

Jetstar Airways, Australia Jetstar Asia Airways, Singapore

SAS Group

SAS Link, Denmark SAS Scandinavian Airlines, Sweden

Air Austral, France Air Greenland, Greenland Air Tahiti Nui, French Polynesia Allegiant, USA Avincis Aviation Norway AS, Norway CMA CMG, France Flyr, Norway German Airways, Germany

Lufthansa Group

Austrian Airlines, Austria Brussels Airlines, Belgium Eurowings, Germany Eurowings Discover, Germany Eurowings Europe, Austria Germanwings, Germany LAT Lufthansa Aviation Training, Germany Lufthansa, Germany Lufthansa Cargo, Germany Lufthansa CityLine, Germany Swiss Airlines, Switzerland

TUI Group

TUIfly, Germany TUI Airlines Nederland, The Netherlands TUI Airlines Belgium, Belgium TUI Airways, United Kingdom TUIfly Nordic, Sweden

Jet Time, Denmark Norwegian Air Shuttle, Norway Pegasus Airlines, Turkey Rega - Swiss Air Rescue, Switzerland Smartwings, Czech Republic Volotea, Spain Widerøes Flyveselskap, Norway Largest airline in New Zealand, New Zealand



prodefis gmbh, Germany
+49 30 6098 4340 / info@prodefis.de / www.prodefis.de