

# Resume of Mark Dönszelmann

March 27, 2019

F-01170 Echenevex  
France

Work: (+41)-227672976

E-mail: [Mark.Donszelmann@gmail.com](mailto:Mark.Donszelmann@gmail.com)

---

## General

Place of Birth	Amsterdam, The Netherlands
Marital Status	Married
Nationality	Dutch
Languages	Excellent knowledge of English and Dutch. Good knowledge of German. Fair knowledge of French.
Contact Address	CERN, CH-1211 Geneva, Switzerland.

---

## Academic Qualifications

Master of Science September 1983 to May 1989	University of Technology, Delft, The Netherlands in Electronics Engineering.
Final High School Exam September 1977 to June 1983	“Vossius” Gymnasium, Amsterdam, The Netherlands in Mathematics, Physics, Chemistry, Biology, English, Dutch and Ancient Greek Language.

## Professional Experience

Researcher/Engineer	Physics Department, Radboud University, Nijmegen, The Netherlands.
May 2015 until current date	<p>When I started to work for Radboud University as a Researcher I kept being responsible for some of the ongoing projects, such as OTP, the Online Website and ADEPO. I joined the FELIX project, first as a software developer and after about one year as software coordinator.</p> <p>FELIX (FrontEnd Link eXchange) is a combined Hardware/Firmware/Software project which aims to replace the main Data Acquisition of ATLAS by making it more faster and more maintainable. In the final system there are fewer sub-detector specific components, in fact only software components will be detector specific, while hardware and firmware is made generically. The project involves a number of ATLAS institutes across the world, where the Dutch participation is in Firmware (NIKHEF) and software (Nijmegen).</p> <p>The FELIX project will initially be installed in part of the ATLAS detector. Other experiments, such as protoDune, already have a running setup today.</p> <p>My own participation in the FELIX project initially consisted of a register map generator which defines interfaces and connects Firmware to Software, some small tools for the readout, and design, implementation and testing of the main readout system for FELIX (felixcore) together with Joern Schumacher. This software is written in a combination of the languages C, C++ and Python and uses low level tools to access firmware and hardware.</p> <p>I also setup the website, moved all our software to the gitlab system, used CMake to build the system, and setup Continuous Integration for the software. I helped Gokhan Unel in setting up Continuous Integration for the firmware on a set of our test machines.</p> <p>I was asked in Spring 2016 to become the software coordinator of the FELIX project, which I kindly accepted, and I still keep this role. This involved planning, running weekly meetings, coordinating the geographically dispersed software developers and reporting in the Final Design Review, the Product Readiness Review and in future reviews. As a software team we participated in numerous testing weeks, organized by ourselves and sometimes by Detector Subsystems, where we support the running of the FELIX hardware, firmware and software.</p> <p>On the FELIX project and for ATLAS in general I supervised a number of students on less and more critical parts of the system. Bob Stienen as summer student from Nijmegen, wrote a web application for ATLAS to automate the opening and closing of the detector, Marvin Musold as school pupil from Germany, wrote a documentation system for the FELIX user manual, Evlin Bakos, a PhD student from Nijmegen, is currently writing readout specific software for the Muon system, to readout data from FELIX.</p>

OTP	<p>As CERN got rid of Business Objects, the reporting engine for OTP (described below) the OTP Reports needed to be migrated to a new system. After some investigation from my side I concluded that the replacement system, Pentaho, was not up to the job we needed for ATLAS, so I wrote a webapp using PHP and JavaScript to access our OTP Database and publish the reports. The system was considerably faster, easier to use and more functional than the Business Objects system we had before. The new system is well received by the users. I keep maintaining both this system and the OTP Tool to import data into the Database, on request of the ATLAS Management.</p>
Other tasks	<p>The ADEPO software is under maintenance, is used every year we have a long or short shutdown, to measure the position of the ATLAS detector and to put it back in place. The Online website is an ongoing effort and slowly gets renewed and updated. I organize and lead visits to the ATLAS detector, including the underground cavern area, when it is open, mainly for Dutch but also for other groups of visitors.</p>
Software Developer/Architect	<p>Boğazici University, Istanbul, Turkey</p>
January 2010 until April 2015	<p>Working as a Project Associate in the ATLAS experiment at CERN.</p> <p>The project associateship involved several projects, the Operation Task Planner (OTP), work on the Operation and Upgrade Websites and the creation of an interactive Web Application for the ATLAS Wireless Safety System (ATWSS).</p> <p>I am in charge of OTP, which is a bookkeeping tool for shifts, expert tasks and service work in ATLAS. People in ATLAS book their shifts and log their service work in OTP. OTP itself consists of an Oracle database keeping data of approximately 800 tasks, a Web interface written in Java using the Google Web Toolkit (GWT) to enter and modify all these tasks, and a Business Objects (BO) reporting system to generate weekly reports. Documentation on OTP is all kept in a Wiki, where also weekly reports are generated. I take care of implementing new features in OTP as well as support calls made by people in ATLAS.</p> <p>The work on the Operation and Upgrade Websites consists of rewriting most of the web pages in a more streamlined fashion.</p> <p>The ATLAS Wireless Safety System involves a readout system and display of information. Workers in the Cavern are equipped with a Helmet with camera, audio and measurement devices to keep track of radiation dose, oxygen and CO2 levels, body temperature and other physical parameters. This info is displayed for them and for supervisor in the Control Room or in the Cavern. The procedure to be followed is shown in short movies to the workers in the cavern to keep their time in the cavern to a minimum. Eventually this system should project the procedure superimposed over their real (camera) view in the form of augmented reality. A Data Acquisition System involving the readout of the ATWSS system and storage in an SQL database using Hibernate was created in Java. The display of values and graphs as well as videos are in a Web Application using GWT to handle the diversity of browsers and Atmosphere for the asynchronous update of all information. Highcharts is used to make the plots, SipML5 to handle the audio.</p>

	<p>As a side project I took over the maintenance and further development of the software of the ADEPO project, which takes care of measuring and positioning the ATLAS subsystems in the correct place. This system uses BCAMs provided by Brandeis University to measure the exact placement of the ATLAS detectors. The readout is written in C++ using the Qt Framework.</p>
Software Developer/Architect	Sonatype, the maven company, California, U.S.A.
October 2009 - December 2009	<p>Worked on the migration and further development of the Native Archive Plugin (NAR) for Maven (a build system in Java) and its sub components. This plugin was first developed by me when I worked at SLAC (see below). Sonatype expressed an interest in further developing it. This plugin handles compilation and linking of native languages under maven. This NAR plugin has since been distributed as open source software and is maintained by a group of people elsewhere.</p>
Software Developer/Architect	Riscure B.V., an independent security test laboratory in Delft, The Netherlands.
January 2008 - September 2009	<p>As a Java architect I maintained and further developed the software for the Inspector testing platform. This software in use in-house at Riscure but also sold and used by customers does both data acquisition as well as analysis of data gathered by security analysts. Inspector was extended with new features such as GPU computing, new types of plots.</p> <p>On top of development of Inspector itself a software process was put in place consisting of mercurial as software configuration management, maven as build system, mantis as issue tracking system and hudson as continuous integration system.</p> <p>Almost all of the work was done, with the necessary hardware, in a remote location.</p>
Staff	SLAC Computing Services at the Stanford Linear Accelerator Center, California, U.S.A.
May 2002 - December 2007	<p>As a Staff employee at SLAC I work under the direct supervision of Dr. Tony Johnson, in software development group of four people. This group provides analysis and visualization software for SLAC's experimental programs, such as BaBar (B-Physics Experiment), GLAST (Gamma Large Array Space Telescope) and LCD (Linear Collider Detector).</p> <p>To support our work as a group I am mainly involved in developing tools for visualization (WIRED 4), the protocol for Event Display data exchange (HepRep), the simulation driver for HepRep (Geant4), the implementation of interfaces for data analysis (AIDA), the base library (FreeHEP) and its graphics output library (Vector Graphics). I also maintain most of the infrastructure for our software development, such as the revision control system, the build system, a bug reporting system and a system for continuous integration.</p> <p>Some of our work has spun off software libraries that are useful for others and have been released by us as Open Source software. I keep these libraries up to date and help others (mainly from outside High Energy Physics) to use it and we reintegrate their improvement which is a benefit to our group.</p> <p>During the past 5 years our group has welcomed many students to work with us on our software, several of which fell under my direct supervision.</p>

Below a little more information on each of the subjects that I have been working on in particular:

Visualization	<p>I completely rewrote WIRED (WWW Interactive Remote Event Display), thereby producing a much more scalable and extendible event display framework. We upgraded from HepRep1 to HepRep2 (High Energy Physics Data Protocol for Event Display) which made interaction between WIRED and its data source a lot easier. WIRED 4 which runs inside the Java Analysis Studio (JAS3) allows the user to display and interact with High Energy Physics events. Picking of tracks and hits and displaying extra information is now all possible.</p> <p>For the GEANT4 simulation program, used in High Energy Physics and beyond, I wrote visualization output drivers in C++ for both the HepRep1 and HepRep2 formats. For compression I needed the Open Source zipios++ library with quote some changes, which were all contributed back to that project.</p> <p>As part of our group effort to reach more users, we put together a GEANT4 Tutorial CD, which included two main parts on Analysis with JAS and Visualization with WIRED. The tutorial is available from SLAC and has been run several times as part of the SLAC/GEANT4 program as well as at the 2005 CERN School of Computing.</p>
Analysis	<p>For data analysis AIDA (Abstract Interfaces for Data Analysis) provides a standard. I actively took part in defining this standard with others from SLAC, CERN and LAL. Our implementation in Java (JAIDA) was written by others in the group. I built a glue-layer (AIDAJNI) to make the Java AIDA implementation interact with the C++ AIDA implementation (written at CERN/LAL). To make sure the interfaces in Java and C++ were equivalent I built a compiler to derive the interfaces from a generic definition: AID (Abstract Interface Definition).</p>
Base Library and Vector Graphics	<p>To support reuse in our own work we set up the FreeHEP Java Libraries in our group. Both WIRED and JAS use this library extensively. The library contains both High Energy Physics parts and more generally useable parts. The latter are used by many people outside HEP, as part of our Open Source effort. I worked in particular, with other people mainly from outside HEP, on the Vector Graphics part of FreeHEP. Vector Graphics allows the user to output whatever he draws on the screen in publishing quality vector output formats, such as PostScript (PS), Portable Document Format (PDF), Enhanced Meta File (EMF), Scalable Vector Graphics (SVG) and Macromedia Flash (SWF).</p>
Software Infrastructure	<p>JAS, WIRED and FreeHEP make up some 3000 classes in total for which we initially set up the CVS (Concurrent Versioning System), ANT (a make-like build tool in and for Java) and our in-house scripts for compilation checking and testing. In the past two years I migrated this infrastructure over to SVN (Subversion, the replacement of CVS), Maven, a far more powerful build system than ANT), and a combination of Continuum and CruiseControl, both tools to continually integrate and test the software. On top of these tools we use JIRA, a Bug Tracking, Issue Tracking, &amp; Project Management system. Tony and I share the burden of keeping all these systems in place and up to date.</p> <p>I am using Eclipse (Open Source Integrated Development Environment in Java) as my main working environment for both Java and C++, though all of our software also builds from the command line and runs on the main four platforms (Windows, Linux, MacOS X and Solaris).</p>

Experimental Work	<p>Apart from the regular work in our group I have been experimenting in adding Native code compilation to the Maven tool in the form of the NAR-Plugin (Native Archive Plugin for Maven). The first results on this work have been well received in the our own community but maybe more important also in the Maven developer and user groups.</p> <p>Recently I have invested time in the usage and extension of the Open Source SWIG (Simplified Wrapper and Interface Generator) tool, which would in the first place allow us to generate most or all of the code of AIDAJNI. It could also create a more general bridge between a lot of the High Energy Physics C++ software and our Java Analysis and Visualization software. In particular I have made mockups of MarlinJava (Java interface to Modular Analysis and Reconstruction for the Linear Collider) and G4Java (Java interface to GEANT4). The latter would allow a user to program and run GEANT4 from Java.</p>
November 2001 - April 2002	<p>While waiting to immigrate to the U.S.A. I worked on the Open Source Vector Graphics package of FreeHEP.</p>
Staff	<p>ECP and IT divisions of the European Organization for Nuclear Research (CERN), Geneva, Switzerland.</p>
November 1995 - October 2001	<p>As a Staff member of CERN I have been working for Dr.P.Palazzi, Dr.G.Kellner in the IPT group (Information and Programming Technology) and more recently for Dr.J.Knobloch in the API group (Applications for Physics and Infrastructure). Over the past 6 years I worked on the following subjects:</p> <p>AIDA: I participated in the definition of the Abstract Interfaces for Data Analysis, which define a set of generic interfaces in both C++ as well as Java, for Histograms, NTuples, Plotters, Fitters, Functions and other categories. These interfaces are currently supported by JAS (Java Analysis Studio) and Anaphe and may be supported by other analysis frameworks in the future. The AIDA initiative is well supported by the LHC experiments.</p> <p>HepRep: The HepRep definition follows the same concept as AIDA, except for HEP Representables for Event Display. The standard is being defined by BaBar-WIRED (SLAC) and ATLAS-WIRED (CERN), and is currently implemented on both sides. It allows physicists to select what data they would like to see and filter it, and it allows event display writers to stick to one standard which could be used by more experiments.</p> <p>JACO: To connect Java better to C++ one can use the JNI and a lot of handwritten glue code. JACO, Java Access to C++ Objects, allows for automatic generation of this glue code, by parsing the C++ header files and generating that code. The parser was written-generated by me, while the generator was written by Tony Johnson at SLAC. The project is in a fairly advanced state.</p> <p>FreeHEP: is a Java Library of reusable components for HEP and made by HEP. It is an Open Source project of SLAC, SCIPP and CERN to leverage on common Java code produced in the JAS and WIRED projects. AIDA (java), HepRep and JACO are all included in the FreeHEP library.</p> <p>WIRED: In january 1996 a project was launched under the name WIRED, which stands for World-Wide Web Interactive Remote Event Display. In collaboration with an Italian and Swedish institute we looked two things: the applicability of Java in our HEP environment, and the need for showing and interacting with events from HEP experiments across the Internet. I</p>

took the roles of project leader and main architect. A prototype of WIRED, running inside a WWW browser, was delivered after half a year.

Over time the Java language has improved and so has the WIRED project. Today WIRED is a framework for experiments to build their event displays. It is integrated with JAS (Java Analysis Studio) so that physicists can use one interactive tool to do physics analysis, plot histograms and look at events. Several experiments at CERN and outside have joined the project and are either using WIRED (BaBar and CHORUS) or seriously looking into using it (ATLAS, LHCb)

WIRED event displays have also proven to be useful to explain High Energy Physics to the general public. Both CERN, in its traveling exhibition and MicroCosm, and RAL, during its open days, have displays set up. CERN has also recently released a CD-ROM which included WIRED.

Apart from 3D event displays WIRED also provide useful projections, such as a fish-eye, rho-Z and V-plots, which provide special views to get a better understanding of some of the more complicated events.

The collaboration of WIRED and JAS has spun off the FreeHEP library. Both projects are Open Source, which mean that people from outside can use the code, but also contribute to it. The organization of the WIRED project is in my hands. Over time many students, among them summer students, technical students and graduate students from different universities, have worked on the WIRED project under my supervision. Also many people from different institutes are collaborators in the WIRED project.

Java Installation at CERN:

To properly support Java for the WIRED and FreeHEP project and for the GRID initiatives at CERN, Wolfgang Hoschek and I keep a full Java installation and library repository up to date for both the Unix and Windows machines. This work is a continuation of an earlier initiative by the Java Study Group. The installation is also in use by several other groups and experiments.

Teaching, Technology Transfer and 3rd level Java support: The work in Java on the WIRED project lead to some activities. One is consulting to the LHC Computing Workshops, to the experiments as well as to the Java Study Group. The latter group tries to boost the use of Java within CERN by providing software installations and libraries as well as tutorials on Java subjects.

The other is in the form of technology transfer and teaching. I have been lecturing at the CERN School of Computing, in 1995, 1997, 1998 and 1999, on subjects ranging from Information Systems, XML, CORBA and Java to Mobile Agent Technology, a subject which is likely to come back within the Datagrid initiatives. I participated as lecturer and organizer in the WebCast of the 1999 CERN School of Computing, which was a big success. Several short courses in different subjects were given by me in the Summer Student Software Labs in 1997, 1998 and 1999.

Miscellaneous: I am currently participating in the Windows 2000 Migration Task Force as a representative of the IT/API group. I also contribute to the W3C meetings at CERN which mainly focus today on XML issues.

---

Associate

Electronics and Computing for Physics division of the European Organization for Nuclear Research (CERN), Geneva, Switzerland.

April 1995 - October 1995

Under supervision of R.Cailliau and Dr.P.Palazzi I worked in the programming Technology group of ECP. The work consisted of supporting the WWW server for CERN and the Experiments and doing research in the field of connecting existing databases and information systems to the

	World-Wide Web. F.Tenneboe, technical student under my supervision, created EDWIN (Event Display with WWW Interface) in which physics events can be shown via World Wide Web. This form based event display had a certain level of interactivity (zoom, rotation and panning).
WWW Building Interface:	A graphics drawing package and a coordinate database was used by me to create a WWW interface to the map of buildings (500) at the CERN sites.
CSC:	I organized a track of the CERN School of Computing '95 in Arles, France, where I presented together with B.Rousseau and H.Lie lectures and tutorials on WWW for Physics.
<hr/>	
EU Fellow	Electronics and Computing for Physics division of the European Organization for Nuclear Research (CERN), Geneva, Switzerland.
October 1994 - March 1995	The EU sponsored my fellowship at CERN for half a year. I worked on the WISE project, outside CERN. This project establishes WWW servers for small enterprises in countries in Europe where Internet connections are still rare and expensive. The project was under supervision of R.Cailliau.
<hr/>	
Fellow	Electronics and Computing for Physics division of the European Organization for Nuclear Research (CERN), Geneva, Switzerland.
January 1992 - September 1994	<p>Communication Systems and GUIs: As a Fellow, working for Dr.Ph.Gavillet, I designed an event driven communication system (DIM) together with C.Gaspar, who subsequently implemented it. This system was needed for DUI, the Delphi User Interface, a configurable Motif based interface for the DELPHI Online Data Acquisition and Slow Control System. I designed and implemented almost all of this system, using C, UIL and DIM.</p> <p>I then redesigned the communication system, which DELPHI used to have with LEP, to make it conform to the DUI and DIM standards.</p> <p>WWW Server: As a separate project I worked on the setup of DELPHI's World-Wide Web (WWW) server, for which I first ported the CERN-WWW server to OpenVMS. This server is now also in use by other VMS machines in the rest of the world. A converter was built to convert SDML (Digital's version of SGML) into HTML by D.Chardon, a Technical Student under my guidance.</p> <p>WWW Gateway: As part of the integration of DELPHI into WWW I have set up a HIPE (Slow Control User Interface) to WWW gateway as well as a DIM to WWW gateway. Both were designed by me, but the latter was implemented by K.Rodden, a summer student under my supervision.</p>
<hr/>	
Research Associate	High Energy Physics Department of the "Nationaal Intituut voor Kern- en Hogere Energie Fysica" (NIKHEF-H), Amsterdam, The Netherlands.
June 1989 - December 1991	DELPHI Inner Detector: After my studies I started working, under supervision of Dr.J.Timmermans and Dr.Z.Hajduk, for the Inner Detector Group of the DELPHI experiment on the Large Electron Positron Collider (LEP at CERN). For this group I was in charge of the Slow Control software (VMS machines). I also participated in setting up the Data Acquisition Software and was responsible for maintenance and monitoring of the Inner Detector during data taking.



Slow Controls User Interface: During this time I created a configurable user interface (HIPE) for the Slow Controls, which was eventually used by most of the other sub-detectors of DELPHI.

---

Laboratory Assistant	Electronics Department of the University of Technology, Delft, The Netherlands.
September 1987 - April 1989	Teaching and Network Installation: As a laboratory assistant I guided 3rd year students through their 'Digital Electronics Practical Work'. I also renovated this course substantially by introducing and installing a Novell PC network. I worked in the Electronics Department under direct supervision of Mr. Koolhaas.

---

Summer Job	Physics Department of the University of Amsterdam, Amsterdam, The Netherlands.
June 1987 - September 1987	Data Acquisition: At the Physics Department I designed read-out electronics and wrote IBM-PC software (in PASCAL) to read out a tube-digitizer. I worked under supervision of A. Wassink.

---

Summer Student	Experimental Physics division of the European Organization for Nuclear Research (CERN), Geneva, Switzerland.
June 1986 - August 1986	Communication Software: During this time I worked for B. van Koningsveld on communication software for an IBM-PC computer to down-load Eprom-able code from a mainframe (MVS machine) into an EPROM-Programmer.

---

---

## Participation in Reviews, Schools, Conferences and Courses

Review	CERN, Geneva, Switzerland.
12 December 2018	FELIX Product Readiness Review, Part 1.
Workshop	CERN, Geneva, Switzerland.
30 April 2018	ATLAS FELIX User Workshop, talk on Software Status.
Review	CERN, Geneva, Switzerland.
7 March 2018	FELIX Phase-1 Final Design Review.
Review	CERN, Geneva, Switzerland.
11 November 2016	FELIX Phase-1 Preliminary Design Review.

## Resume of Mark Dönszelmann

Training Summer 2016	CERN, Geneva, Switzerland. Pentaho beginners and advanced course, to help replace OTPs Business Objects
Conference  10 - 14 October 2011	International Conference on Accelerator and Large Experimental Physics Control Systems (ICALEPCS'11), Grenoble, France. Poster on "A C/C++ Build System based on Maven for the LHC Controls System".
Conference  2 - 7 September 2007	Computing in High Energy Physics (CHEP'07), Victoria, British Columbia, Canada. Poster on "Maven - A Build Tool for Java and Native Code Projects".
Tutoring 4 - 17 September 2005	CERN School of Computing 2005, Saint Malo, France. Data Analysis and Visualization in the Physics Computing track.
Conference 27 September - 1 October 2004	Computing in High Energy Physics (CHEP'04), Interlaken, Switzerland. Presented talk on WIRED 4.
Conference 24-28 March 2003	Computing in High Energy Physics (CHEP'03), La Jolla, California. Presented talk on FreeHEP.
Workshop 20-22 January 2003	Geant4 Space Users' Workshop 2003, ESTEC, Noordwijk, The Netherlands. Presented tutorial on Geant4 Visualization and Analysis Systems.
Tutoring 16-29 September 2001	CERN School of Computing 2001, Santander, Spain. Presented the "WIRED and JAS" lectures of the "High Throughput Distributed Systems" track, together with Tony Johnson from SLAC. Also included were three afternoons of exercises using a distributed version of JAS (Java Analysis Studio).
Workshop 2-5 May 2001	HEPVis'01 workshop on visualisation and interactive data manipulation - Boston, U.S.A. Presented "WIRED 2 - WWW Interactive Remote Event Display".
Workshop 5-7 February 2001	Orsay, Paris, France. Participated and organized AIDA (Abstract Interfaces for Data Analysis) Mini-Workshop.
Workshop 17-18 October 2000	Orsay, Paris, France. Participated in GEANT4 workshop.
Training May 2000	CERN, Geneva, Switzerland. Followed courses "Introduction to Databases" and "Advanced Databases".
Conference 7-11 February 2000	Computing in High Energy Physics 2000, Padova, Italy. Presented talk on "WIRED" and two posters one on the "CERN Building and Map Interface via WWW and on the Palm" and the other on the "Java Infrastructure in the CERN Software Repositories".

## Resume of Mark Dönszelmann

Tutoring 22-26 November 1999	Ecole Générale d'Informatique, Lyon, France. Presented "Agents in Java", "WIRED" and a set of exercises (reuse of CSC'99).
Training 18-20 October 1999	CERN, Geneva, Switzerland. Followed course "Goal Directed Project Management Course".
Tutoring 12-15 September 1999	CERN School of Computing '99, Stare Jablonki, Poland. Presented "Agents in Java", "WIRED" and a set of exercises.
Workshop 6-9 September 1999	HEPVis'99: Fourth workshop on visualization techniques for High Energy and Nuclear Physics - Orsay, France. Presented different topics of "WIRED".
Tutoring 2-6 August 1999	Summer Students Software Lab, CERN, 1999. Presented "Java Computing Using Mobile Agent Technology".
Training 26-28 January 1999	CERN, Geneva, Switzerland. Followed course "Objects 9000: Requirements Engineering".
Training 3-6 November 1998	CERN, Geneva, Switzerland. Followed course "Software Configuration Management".
Tutoring 6-19 September 1998	CERN School of Computing '98, Madeira, Portugal. Presented "Agents: Mobile Agents in Java" and a set of exercises. I also organized together with two colleagues the WebCast of one of the tracks in the CSC.
Tutoring 10 -14 August 1998	Summer Students Software Lab, CERN, 1998. Presented "Java Computing Using Mobile Agent Technology".
Workshop 18-20 March 1998	2nd LHC Computing Workshop, Barcelona, Spain. Presented "ComponentWare in Java".
Workshop 28-30 January 1998	HEPVis'98: HEP Visualization and Data Analysis Workshop, SLAC, Stanford, California, USA. Presented "WIRED".
Tutoring 17-30 August 1997	CERN School of Computing'97, Pruhonice, Czech Republic. Presented "Programming Information Systems" and a Java Tutorial in the track "Information Systems for Physics Experiments".
Tutoring 21 July-1 August 1997	Summer Students Software Lab, CERN, 1997. Presented Java Tutorial.
Training 15-20 June 1997	Certosa di Pontignano, Sienna, Italy. School on "Distributed Algorithms and Fault Tolerance".
Conference 7-11 April 1997	Computing in High Energy Physics'97, Berlin, Germany. Presented talk on "WIRED - World-Wide Web Interactive Remote Event Display".

## Resume of Mark Dönszelmann

Computing Seminar 30 October 1996	CERN, Geneva, Switzerland. Presented talk on “WIRED - World-Wide Web Interactive Remote Event Display”.
Conference 23-27 September 1996	Queen Elizabeth II Conference Centre, London, England. Attended “Object Expo Europe and Java Expo”.
Computing Seminar 28 August 1996	SLAC, Stanford, California, U.S.A. Presented talk on “WIRED - World-Wide Web Interactive Remote Event Display”.
Workshop 18 August 1996	Dynamic Meta Computing, CERN, Geneva, Switzerland. Presented talk on “WIRED - World-Wide Web Interactive Remote Event Display”.
Computing Seminar 7 February 1996	CERN, Geneva, Switzerland. Presented talk on “World-Wide Web for High Energy Physics Experiments”.
Exhibition 24-28 September 1995	Toulouse, France. SITEF’95, CERN/WWW Stand.
Conference 18-22 September 1995	Computing in High Energy Physics’95, Rio de Janeiro, Brazil. Presented talk on “Advanced Use of World-Wide Web in the ‘Online’ System of DELPHI (CERN)”.
Tutoring 20 August - 2 September 1995	CERN School of Computing’95, Arles, France. Presented tutorial “Interfacing to the World-Wide Web” in the track “WWW for Physics”, including a set of exercises.
Invited Talk 16 June 1995	CERN, Geneva, Switzerland. Presented “World-Wide Web” for Swedish Highschool Teachers.
Training 15-17 May 1995	CERN, Geneva, Switzerland. Followed Course in “ESA Software engineering standards”.
Tutoring 2-5 May 1995	CERN, Geneva, Switzerland. Presented tutorial on “Navigating the CERN World-Wide Web”.
Training 3-4 April 1995	CERN, Geneva, Switzerland. Followed “PERL 5, Advanced course”.
Invited Talk at Conference 31 March 1995	Computer and Information Networks in the Multimedia Age, Ecole Polytechnique Federale de Lausanne, Switzerland. Presented talk on “World-Wide Web Interfacing”.
Exhibition 8-9 March 1995	CERN, Geneva, Switzerland. Assisted at the “CERN World-Wide Web Mediadays”.
Exhibition 24-26 February 1995	G-7 Conference on Information Society, Espace Leopold, Brussels, Belgium. Assisted and organised the “WWW Cafe” stand.

Conference 17-20 October 1994	Second International World-Wide Web Conference, Chicago, U.S.A. Presented talk on “Gateways for World-Wide Web in the ‘Online’ Data Acquisition System of the DELPHI Experiment at CERN”.
Conference 25-27 May 1994	CERN, Geneva, Switzerland. Attended the “First International World-Wide Web Conference”.
Invited Talk 5 April 1994	Bogaziçi University, Istanbul, Turkey. Presented talk on ‘Introduction to World-Wide Web’.
Invited Talk & Committee 14-17 March 1994	‘I Cappuccini’, San Miniato, Tuscany, Italy. Presented talk on “The use of World-Wide Web for High Energy Physics, A Status Report” at the “First Topical Seminar on WORLD WIDE WEB and beyond for Physics Research and Applications”. Also member of the International Advisory Committee.
Invited Talk 4 March 1994	LPNHE Universités Paris VI et VII, France. Presented talk on “World-Wide Web for High Energy Physics”.
Conference 18-22 October 1993	International Conference on Accelerator and Large Experimental Physics Control Systems (ICALEPCS'93), Berlin, Germany. Presented poster on “The DELPHI distributed information system for exchanging LEP machine related information”.
Committee December 1993	Washington D.C., U.S.A. Member of the Programme Committee of the “International Motif User Conference”.
Conference 1-3 December 1992	International Motif User Conference, Washington D.C., U.S.A. Presented talk on “A Configurable Motif Interface for the DELPHI Experiment at LEP”.
Training 23-26 November 1992	CERN, Geneva, Switzerland. Followed course in “Building Object Oriented systems with C++”.
Conference 13-18 January 1992	L’Agelonde France-Telecom, France. Attended the “Second International Workshop on Software Engineering, Artificial Intelligence and Expert Systems in High Energy and Nuclear Physics”.
Training 23 August - 2 September 1991	Ystad, Sweden. Attended the CERN School of Computing 1991.

---

## List of Publications

The ATLAS collaboration	FELIX: the New Detector Interface for the ATLAS Experiment ATL-DAQ-PROC-2018-010
-------------------------	---

## Resume of Mark Dönszelmann

The ATLAS collaboration	FELIX: a PCIe based high-throughput approach for interfacing front-end and trigger electronics in the ATLAS Upgrade framework JINST 11 (2016) C12023
The ATLAS collaboration	A new approach to front-end electronics interfacing in the ATLAS experiment JINST 11 (2016) C01055
J. Nguyen Xuan et al.	A C/C++ Build System Based On Maven for the LHC Controls System Conf. Proc. C111010 (2011) pp.WEPKS026
J. Allison et al.	The GEANT4 Visualisation System Comput. Phys. Commun. 178 (2008) 331-365
M. Dönszelmann et al.	AIDA, JAIDA and AIDAJNI: Data Analysis using interfaces Computing in High Energy Physics and Nuclear Physics 2004, Interlaken, Switzerland, 27 Sep - 1 Oct 2004, pp.445 (CERN-2005-002)
M.Dönszelmann	WIRED 4 - A generic Event Display Plugin for JAS 3 Proceedings of Computing in High Energy Physics 2004.
M.Dönszelmann and A.S.Johnson	Distributed Analysis with Java Analysis Studio Proceedings of the CERN School of Computing 2001, Santander, Spain.
M.Dönszelmann and A.S.Johnson	WIRED - WWW Interactive Remote Event Display Proceedings of the CERN School of Computing 2001, Santander, Spain.
G.Barrand et al.	Abstract Interfaces for Data Analysis - Component Architecture for Data Analysis Tools To be published in Computer Physics Communications, 2001. Proceedings of Computing in High Energy Physics 2001, September 2001, Beijing, China.
G.Alverson et al.	Summary of the HEPVis'01 Workshop Proceedings of Computing in High Energy Physics 2001, September 2001, Beijing, China.
A.Ballaminut et al.	WIRED - World-Wide Web Interactive Remote Event Display Computer Physics Communications 140 (2001) 266-273.
M.Dönszelmann	CERN Building and Map Interface via WWW and on the Palm Proceedings of Computing in High Energy Physics 2000 (513-518), February 7-11, 2000, Padova, Italy.
P.Charpentier et al.	DIM, a Portable and Efficient Package for Information Publishing, Data Transfer and Interprocess Communications Computer Physics Communications 140 (2001) 102-109.
J.Gillies and R.Jacobsson	Particle Physics - a keyhole to the birth of Time Particle Physics Education CD-ROM, CERN, 2000. This CD includes a special copy of WIRED to interactively view events.

- Augustinus, A et al. The Evolution of the DELPHI Experiment Control System or How to Survive 10 Years of Running  
7th Biennial International Conference on Accelerator and Large Experimental Physics Control Systems, Trieste, Italy, 4 - 8 Oct 1999, pp.e-proc. 3
- M.Dönszelmann Agents in Java  
Proceedings of the CERN School of Computing 1999, September 12-15, 1999, Stare Jablonki, Poland, CERN-2000-001 (97-99).
- M.Dönszelmann Agents: Mobile Agents in Java  
Proceedings of the CERN School of Computing 1998, September 6-19, 1998, Madeira, Portugal, CERN-98-08 (115-117).
- M.C.Coperchio et al. WIRED - World-Wide Web Interactive Remote Event Display  
Computer Physics Communications, 110 (1-3) (1998) pp. 155-159.
- M.Dönszelmann Information systems for physics experiments  
Proceedings of the CERN School of Computing 1997, August 17-30, 1997, Pruhonice, Prague, Czech Republic, CERN-97-08 (35-36).
- M.Dönszelmann et al. WIRED - World-Wide Web Interactive Remote Event Display  
Proceedings of HEPVis'96, 2-4 September, 1996, CERN Geneva Switzerland, CERN-97-01 (67-68).
- P.Abreu et al. Performance of the DELPHI detector  
DELPHI Collaboration, Nucl. Instr. and Meth. A378 (1996) 57-100.
- V.Bocci et al. Architecture and Performance of the DELPHI Trigger System  
Nucl. Instrum. Methods Phys. Res., A : 362 (1995) 361-385.
- M.Dönszelmann et al. Advanced Use of World-Wide Web in the 'Online' System of DELPHI (CERN)  
Proceeding of Computing in High Energy Physics 1995 (553-561), September 18-22, 1995, Rio de Janeiro, Brazil.
- M.Dönszelmann Interfacing to the World-Wide Web  
Proceedings of the CERN School of Computing 1995, August 20 - September 2, 1995, Arles, France, CERN-95-05 (295-306).
- M.Dönszelmann and K.Rodden Gateways for World-Wide Web in the 'Online' Data Acquisition System of the DELPHI Experiment at CERN  
Advance Proceedings of the Second International WWW Conference '94 "Mosaic and the Web" Volume 2, 985—992, October 17 - 20, Chicago, U.S.A.
- V.Bocci et al. Basic concepts and architectural details of the Delphi trigger system  
Submitted to IEEE Trans. Nucl. Science (1994).
- R.Cailliau et al. The use of World-Wide Web in HEP  
Proceedings of the Conference on Computing in High Energy Physics'94, 21 - 27 April 1994, San Francisco CA, U.S.A. 394—401.

- M.Dönszelmann      World-Wide Web and High Energy Physics Experiments, A status Report  
Int. Jour. of Mod. Phys. C - Physics and Computers Vol. 5 No. 5 (1994) 755—764.
- M.Dönszelmann and C.Gaspar      The DELPHI distributed information system for exchanging LEP machine related information  
Nucl. Instr. and Methods in Physics Research A 352 (1994) 280—282.
- T.J.Adyé et al.      The Design and Operation of the Slow Controls for the DELPHI Experiment at LEP  
Nucl. Instr. and Methods in Physics Research A 349 (1994) 160—182.
- C.Gaspar and M.Dönszelmann      DIM A Distributed Information Management System for the DELPHI Experiment at CERN  
Proceedings of the IEEE 8th Conference on Real-Time Computer Applications in Nuclear, Particle and Plasma Physics, June 8-11, 1993, Vancouver, Canada.
- M.Dönszelmann et al.      A Configurable Motif Interface for the DELPHI Experiment at LEP  
Proceedings of the International Motif User Conference (156-162), December 1-3, 1992, Washington D.C., U.S.A.
- T.Adyé et al.      The Slow Controls of the DELPHI Experiment at LEP  
Proceedings of the Computing in High Energy Physics Conference '92, September 21-25, 1992, Annecy, France.
- L.Beneteau et al.      The Delphi Histogram Presenter  
Proceedings of the Second International Workshop on Software Engineering, Artificial Intelligence and Expert Systems in High Energy and Nuclear Physics (125-133), January 13-18, 1992, L'Agelonde France-Telecom, France.
- M.Jonker et al.      The Delphi Experiment Control System  
Proceedings of the Second International Workshop on Software Engineering, Artificial Intelligence and Expert Systems in High Energy and Nuclear Physics (543-552), January 13-18, 1992, L'Agelonde France-Telecom, France.
- T.Adyé et al.      Design and Performance of the DELPHI Data Acquisition System  
Proceedings of the IEEE 7th Conference on Real-Time Computer Applications in Nuclear, Particle and Plasma Physics, June 24-28, 1991, Julich, Germany.
- T.Adyé et al.      Architecture and Performance of the DELPHI Data Acquisition and Control System  
Proceedings of the International Conference on Computing in High Energy Physics '91, March 11-15, 1991, Tsukuba, Japan.
- P.Aarnio et al.      The DELPHI detector at LEP  
DELPHI Collaboration, Nucl. Instr. and Meth. A303 (1991) 233—276.
-