

# FiPS Grading Module **Documentation**

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- *Although this documentation is only available in English, the userinterface of the FiPS Grading Module is only available in German!*

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## What's it all about?

The University of Kaiserslautern's Internet- and multimedia based university level physics distance education project FiPS not only uses the Internet to teach physics but also to make course administration more effective and efficient for both the staff and the students. The FiPS Grading Module enables students to check their course performance and to compare it with the overall performance of all students whenever and wherever they want. The staff can use the system to get a fast and complete overview, making it possible to identify problems and to take measures early.

More printer optimized information in English is available here: [PDF](#)

## License

You are allowed to use the FiPS Grading Module for free, as long as you do use it for non commercial purposes. If you want to use it for commercial purposes, you have to ask [fips@physik.uni-kl.de](mailto:fips@physik.uni-kl.de) for permission first. In any case you will use the software completely on your own risk, you will not make us (the author, University of Kaiserslautern) responsible in any way for any damage you might experience by downloading, installing and/or using the software.

## System Requirements

In order to use the FiPS grading module you need a computer (further called "server") with the following things installed:

### Hardware

PC with..  
... Internet or Intranet access  
... Microsoft Windows Operating System (95/98/ME/NT/2000/XP)

### Software

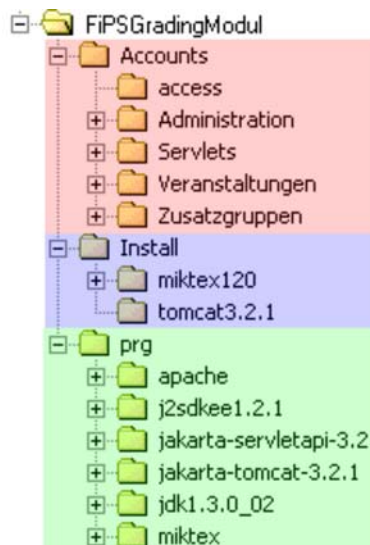
Apache Webserver Version 1.3.12 (or higher)  
Apache Jakarta Tomcat Servlet Engine Version 3.2.1  
Apache Jakarta Jakarta Servlet API Version 3.2  
ApacheModuleJServ.dll

Java 2 SDK Standard Edition Version 1.3  
Java 2 SDK Enterprise Edition Version  
1.2.1  
Microsoft Access 2000  
MikTex Word Processing System

As the FiPS Grading Module is based on Java technology, the installation and operation requires a working Java environment. The FiPS Grading Module can also be implemented on non Microsoft Operating Systems. If you want to do this, you have to supply a database software being able to communicate with the Java subsystem.

## Installation

Download and run the FiPS Grading Module distribution file called "fipsgrad.exe". Running the file will result on the following directory structure on your harddisk:



### FiPS Grading Module Servlet, database and configuration files

Directory which you have to care about when using the FiPS Grading Module. It contains databases, configuration files and the Servlets necessary for running the system. You don't have to care about the "Servlets" folder.

### FiPS Grading Module installation files

Contains all files necessary for installation (except Microsoft Access 2000).

### Apache Webserver, Java SDK 2 Enterprise Edition, Apache Jakarta Servlet API, Apache Jakarta Tomcat, Java SDK 2 Standard Edition, MikTex installed files

This "prg" folder will be EMPTY at the beginning of your installation. It will be the place for the installed programs and their configuration files (e.g. apache\conf\httpd.conf).

In order to install the FiPS grading module please use the following guide to install the necessary software and configuration files. The supplied installation files can be found in the "Install" directory (including subdirectories) and should be installed in the "prg" directory (actually you can install them to wherever you want, but if you are not familiar with Apache and Co. it's probably easier to follow the suggested directory structure):

1. Install Microsoft Access 2000 by running the installation file and reboot.
2. Install the MikTex Word Processing system by running the supplied installation file (follow the instruction shown during installation)
3. Install Apache Webserver Version 1.3.12 (choose the "run as service" option on NT/2000/XP systems) by running the supplied installation file.
4. Open the Apache Webserver configuration file "httpd.conf" with an editor. Go to line 218 and change "ServerAdmin" to the name of the Administrator. Go to line 232 and change "ServerName" to the name of the system (something like "yourhost.domain.com").
5. Install Java 2 SDK Standard Edition Version 1.3 by running the supplied installation file.
6. Install Java 2 SDK Enterprise Edition Version 1.2.1 by running the supplied installation file.
7. Unzip the supplied Apache Jakarta Tomcat Version 3.2.1 package to the appropriate place (see directory structure visible above).
8. Unzip the supplied Apache Jakarta Servlet API Version 3.2 package to the appropriate place (see directory structure visible above).
9. Copy the supplied ApacheModuleJServ.dll into the Apache modules directory (e.g. "prg\apache\modules").
10. Open the Apache Webserver configuration file "httpd.conf" and include a link to the tomcat-apache.conf configuration file which can be found in the jakarta-tomcat--3.2.1\conf directory at the end of the file. E.g. (insert the appropriate path instead of "E:\"): include "E:\prg\jakarta-tomcat-3.2.1\conf\tomcat-apache.conf"
11. Go to Windows system properties and set the following path names for environment variables (insert the

appropriate path instead of "E:\"):

TOMCAT\_HOME= E:\prg\jakarta-tomcat-3.2.1

JAVA\_HOME= E:\prg\jdk1.3.0\_02

PATH=E:\prg\jdk1.3.0\_02\bin;...

CLASSPATH=E:\Accounts\Servlets\Klassen\classes;E:\prg\j2sds1.2.1\lib\j2ee.jar

12. Go to prg\jakarta-tomcat-3.2.1\bin directory and create desktop links for the files "startup.bat" and "shutdown.bat".
13. Use these links on the desktop to start, stop and start the Apache Jakarta Tomcat system.
14. Stop and start the Apache Webserver.
15. Go to the jakarta-tomcat-3.2.1\conf directory and open the file "conf.xml" with an editor. Using the appropriate path instead of "E:/" insert the following lines into the file:

```
<Context path="/webapps/AccountAdministration"
  docBase="E:/Accounts/Servlets/Administration"
  debug="0"
  reloadable="true"
  trusted="true" >
</Context>
```

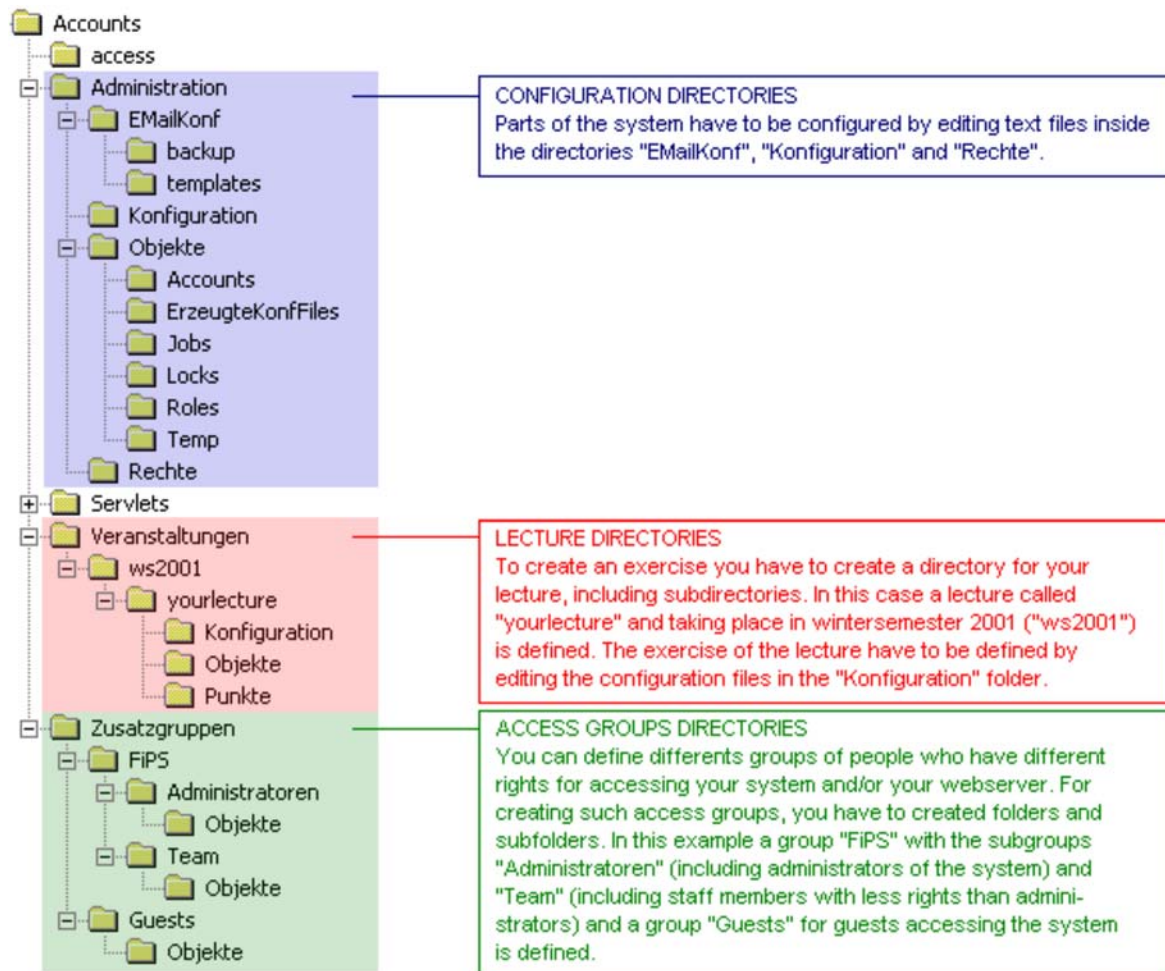
```
<Context path="/webapps"
  docBase="E:/Accounts/Servlets/User"
  debug="0"
  reloadable="true"
  trusted="true" >
</Context>
```

16. Stop and start Tomcat
17. Stop and start Apache
18. Go to "Accounts\Servlets\Administration\WEB-INF\conf", open the file "servlets.conf" with an editor. Check each line not beginning with "#" for the appropriate path.
19. Go to "Accounts\Servlets\User\WEB-INF\conf", open the file "servlets.conf" with an editor. Check each line not beginning with "#" for the appropriate path.
20. Register the database included in "Accounts\Administration\Rechte\gruppen.conf" with the system properties ODBC database subsystem.
21. Stop, start and stop Tomcat

Now the FIPS Grading Module should be ready for use. Open "yourhost.domain.com/webapp" into your Java enabled Webbrowser and take a look at the supplied sample lecture and students. The administrator username is "admin," the administrator password is "fips". Please refer to the databases for a complete overview about the supplied demonstration students and tutors.

### **Working with the System**

For setting up new lectures or adding a student you have to use an editor and access the directory structure and open a database into Microsoft Access 2000:



Lectures and accounts of people involved in lectures can be configured in the "red area" of the directory structure. Accounts independent of lectures (e.g. for granting people rights to access protected areas of your webserver) can be configured in the "green area" of the directory structure. The difference the configuration of them lies in the two additional subdirectories which can be found in the "red area".

People with access to the system can be separated into students and tutors. The names of the students are contained in the "studierende.mdb" Microsoft Access 2000 database in the second level folder of your lecture (this is e.g. "Veranstaltungen\ws2001\yourlecture"). The names of the students can be found in the "betreuer.mdb" Microsoft Access 2000 database in the same folder. In the "green area" the Microsoft Access 2000 database "user.mdb" is defining the names of the people who you want to grant access to your system/webserver.

You don't have to take care about the following folders: access, backup, objekte, servlets

#### Create a new account:

1. Add the lastname, the firstname, the password (optional), the email address into the "studierende.mdb" or "betreuer.mdb" Microsoft Access database in the "Veranstaltungen" (e.g. if you want to add a student) or "Zusatzgruppen" (e.g. if you want to add a guest) directory. Use "#nameofaccount" to reference to an already existing account.
2. Open "<http://yourhost.domain.com/webapps>", go to "Rechteverwaltung" and click onto "Starten".

#### Create a new lecture:

1. Create a new directory in the "Veranstaltungen" folder with the subdirectories according to the directory structure visible above..
2. Create the "betreuer.mdb" and "studierende.mdb" Microsoft Access databases.
3. Register the databases in the Windows ODBS system choosing "user DSN" in the ODBC system dialog.

4. Register the databases in "Rechte\gruppen.conf".
5. Register the new lecture in "Rechte\berechtigungen.conf"
6. Register the new lecture in "Rechte\roles.conf"
7. Create the file "uebungsgruppen.conf" in the "Konfiguration" directory of your new lecture directroy, edit the tutors and their assigned student groups.
8. Open "http://yourhost.domain.com/webapps", go to "Rechteverwaltung" and click onto "Starten".

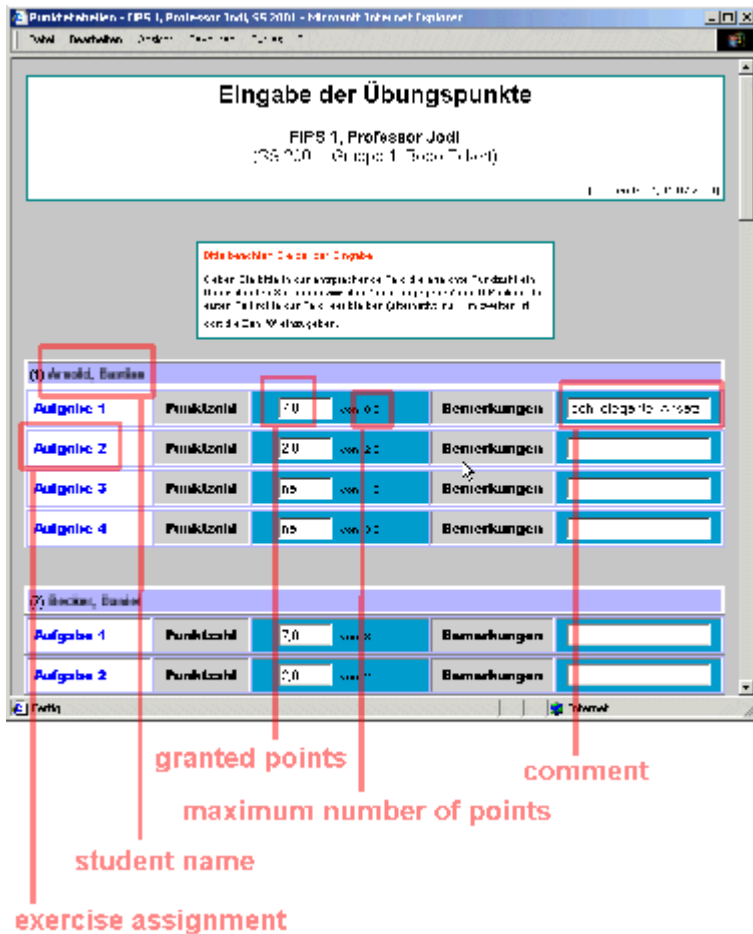
Assign students to exercise groups:

1. Edit the file "gruppeneinteilung.conf" in the directory of the appropriate lecture.
2. Open "http://yourhost.domain.com/webapps", go to "Rechteverwaltung" and click onto "Starten".

Create a new exercise and determin the number of points the students can get in each exercise assignment:

1. Define the structure of the exercise (number of exercise assignments in each exercise, number of exercises) by editing the file "uebungsblaetter.conf" in the "Konfiguration" directory inside your lecture directory.
2. Define the number of point the students can get in the exercises assignments by editing the file "erreichbarePunkte.dat" in the "Konfiguration" directory inside your lecture directory.

In daily work you normally just have to deal with the webinterface of the system. The tutors will use it to grade the students:



You, your stuff and the students will use it to get an overview of their grading, either in tabular style...

(number of exercise) number of exercise assignment

Anzeige der Übungspunkte  
FIPS 1, Professor Jodl (SS 2001)

Navigation: Zurück, Weiter, etc.

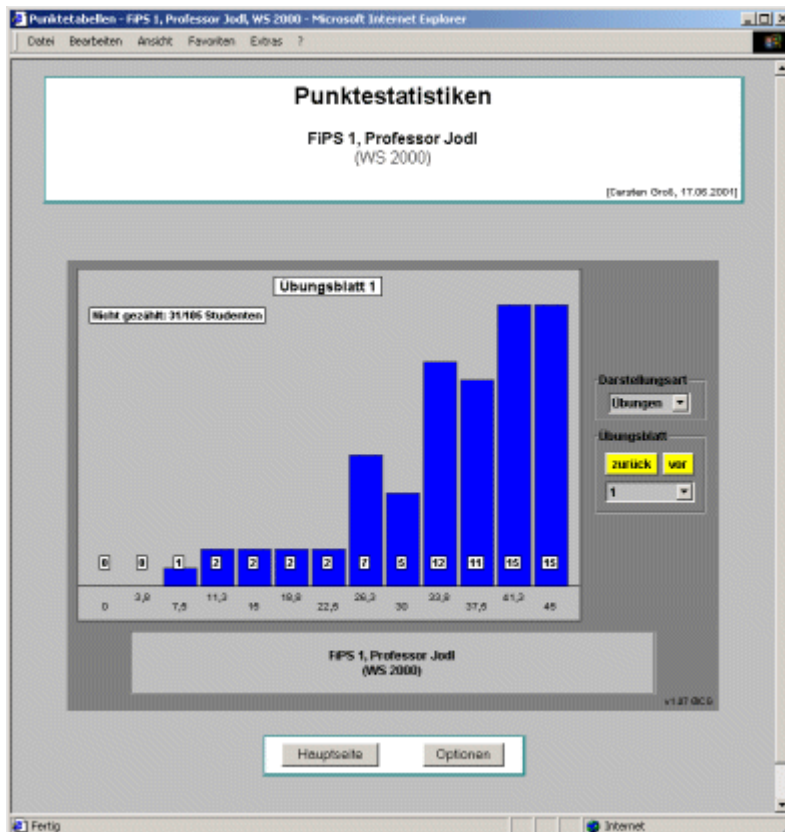
Aufgabe	(01) 01	(01) 02	(01) 03	(01) 04	(01) 05	(01) 06	(01) 07	(01) 08	(01) 09	(01) 10
Punkte	7,0	2,0	1,0	2,0	7,0	10,0	8,0	7,0	8,0	10,0
Durchschnitt	6,4	1,1	0,9	2,1	5,3	6,8	6,5	5,9	5,5	7,9
maximal	8,0	2,0	1,0	3,0	10,0	10,0	8,0	7,0	8,0	10,0

maximum number of points

average number of points graded to all students

number of points granted to the student

...or in histograms style:



If you want to use the system in another language than German, please tell us: [fips@physik.uni-kl.de](mailto:fips@physik.uni-kl.de)

## Release Notese

The documentation is still in progress...

## Support

For support send an email to [fips@physik.uni-kl.de](mailto:fips@physik.uni-kl.de).

## Download

You can download the latest FIPS Grading Moduler Distribution by using the following form field. As we would like to know who is using the FiPS Media Server it would be nice to provide us with your name, email address and institution. This information will not be given away to third parties and may help us to know if it is worth to continue development.

Please allow some seconds for the download to start, thank you!

Btw.: We would love to get some feedback!

If you are experiencing download problems, please contact [fips@physik.uni-kl.de](mailto:fips@physik.uni-kl.de)

firstname:	<input type="text"/>
lastname:	<input type="text"/>
email address:	<input type="text"/>
institution:	<input type="text"/>
	<input type="button" value="Get It!"/>