

# Package ‘wikibooks’

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**Type** Package

**Title** Functions and datasets of the german WikiBook ``GNU R''

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**Depends** R (>= 2.1.0)

**Description** The german Wikibook ``GNU R'' introduces R to new users.

This package is a collection of functions and datas used in the german WikiBook ``GNU R''

**License** GPL (>= 2)

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## R topics documented:

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wikibooks-package	<i>Functions and datasets of the german WikiBook "GNU R"</i>
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## Description

The german Wikibook "GNU R" introduces R to new users. This package is a collection of functions and datas used in the german WikiBook "GNU R"

## Details

Package: wikibooks  
 Type: Package  
 Version: 0.2  
 Date: 2007-06-20  
 License: GPL version 2 or newer

## Author(s)

Joerg Schlarman (aka Produnis)  
 Maintainer: Joerg Schlarman (aka Produnis) <schlarman@produnis.de>

## References

[http://de.wikibooks.org/wiki/GNU\\_R](http://de.wikibooks.org/wiki/GNU_R)

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Abschlussnote	<i>Calculation of a fictive graduation mark</i>
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## Description

This function calculates a fictive graduation mark, wich is set together by three grades. This is used in the Wikibook-Section "Programmierbeispiele"

## Usage

Abschlussnote(x, y, z)

**Arguments**

x	The first grade
y	The second grade
z	The third grade

**Author(s)**

Joerg Schlarmann

**References**

[http://de.wikibooks.org/wiki/GNU\\_R:\\_Programmierbeispiele](http://de.wikibooks.org/wiki/GNU_R:_Programmierbeispiele)

**Examples**

```
#Your three grades are 1.3, 1.7, 2.8  
Abschlussnote(1.3, 1.7, 2.8)
```

---

bsp1

*Datatable of Example 1*

---

**Description**

This is a data-table, used in example 1

**Usage**

```
data(bsp1)
```

**Format**

A data frame with 10 observations on the following 4 variables.

Geschlecht a factor with levels m w, giving the sex

Alter a numeric vector

Gewicht a numeric vector, giving the weight

Groesse a numeric vector, giving the height

**Source**

[http://de.wikibooks.org/wiki/GNU\\_R:\\_Anwendungsbeispiele#Beispiel\\_1](http://de.wikibooks.org/wiki/GNU_R:_Anwendungsbeispiele#Beispiel_1)

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bsp2

*Datatable of Example 2*

---

**Description**

This is a data-table, used in example 2

**Usage**

```
data(bsp2)
```

**Format**

A data frame with 20 observations on the following 2 variables.

`Geschlecht` a factor with levels `m w`, giving the sex

`Note` a numeric vector, giving the grade

**Source**

[http://de.wikibooks.org/wiki/GNU\\_R:\\_Anwendungsbeispiele#Beispiel\\_2](http://de.wikibooks.org/wiki/GNU_R:_Anwendungsbeispiele#Beispiel_2)

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bsp3

*Datatable of Example 3*

---

**Description**

This is a data-table, used in example 3

**Usage**

```
data(bsp3)
```

**Format**

A data frame with 14 observations on the following 2 variables.

`Erfolg` a factor with levels `0 1`, giving success

`Abschlussnote` a numeric vector, giving the grade

**Source**

[http://de.wikibooks.org/wiki/GNU\\_R:\\_Anwendungsbeispiele#Beispiel\\_3](http://de.wikibooks.org/wiki/GNU_R:_Anwendungsbeispiele#Beispiel_3)

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bsp4

*Datatable of Example 4*

---

**Description**

This is a data-table, used in example 4

**Usage**

```
data(bsp4)
```

**Format**

A data frame with 7 observations on the following 4 variables.

Name a factor giving people's names

Geschlecht a factor giving people's sex

Lieblingsfarbe a factor giving people's colour

Einkommen a numeric vector, giving people's earnings

**Source**

[http://de.wikibooks.org/wiki/GNU\\_R:\\_Anwendungsbeispiele#Beispiel\\_4](http://de.wikibooks.org/wiki/GNU_R:_Anwendungsbeispiele#Beispiel_4)

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Bundesliga

*Results and fixtures of the german football-league "Bundesliga"*

---

**Description**

This data-set contains the fixtures and results of the german football-league "Bundesliga" from 1963 - 2007

**Usage**

```
data(Bundesliga)
```

**Format**

A data frame with 13406 observations on the following 10 variables.

Saison the season

Spieltag the matchday

Datum Date of the match

Anpfiff kick-off (Hour:Minute)

Heim home-team's name

Gast guest-team's name

Tore.Heim home-team's goals at end of match

Tore.Gast guest-team's goals at end of match

Tore.Heim.Halbzeit home-team's goals at end of halftime

Tore.Gast.Halbzeit guest-team's goals at end of halftime

### Source

fTip-Database <http://sourceforge.net/projects/ftip>

---

Bundesliga.Mannschaft *Show all matches of one team during one or all seasons*

---

### Description

This function (written for the "Bundesliga"-dataset) shows all matches of a selected team during one specific or all available seasons.

### Usage

```
Bundesliga.Mannschaft(Mannschaft, Saison = "all")
```

### Arguments

Mannschaft a team (e.g. "FC Schalke 04")

Saison a season (e.g. "2001/2002") or "all" for all season

### Author(s)

Joerg Schlarmann

### References

fTip-Database <http://sourceforge.net/projects/ftip>

### See Also

[Bundesliga.Tabelle](#)

## Examples

```
## select one season
data(Bundesliga)
Bundesliga.Mannschaft("FC Schalke 04", "2006/2007")

## use all seasons
data(Bundesliga)
Bundesliga.Mannschaft("FC Schalke 04")

## see a list of all teams of season 1993/1994:
unique(Bundesliga$Gast[Bundesliga$Saison=="1993/1994"])
Bundesliga.Mannschaft("1. FC Nuernberg", "1993/1994")
```

---

Bundesliga.Tabelle      *Team-Rankings at matchday*

---

## Description

This function (written for the "Bundesliga"-dataset) shows team-rankings at specific matchdays of a season.

## Usage

```
Bundesliga.Tabelle(Saison, Spieltag = 1, output = "Tabelle")
```

## Arguments

Saison	the season, e.g. "1998/1999"
Spieltag	a matchday, e.g. 3
output	use "Tabelle" if you want the teamrankings at the selected matchday. Use "Platzierung" for an overview of the team-rankings during the season

## Author(s)

Joerg Schlarmann

## References

fTip-Database <http://sourceforge.net/projects/ftip>

## See Also

[Bundesliga.Mannschaft](#)

## Examples

```
## Showing the ranking at matchday 34
data(Bundesliga)
Bundesliga.Tabelle("1963/1964", 34, "Tabelle")

## Showing team-rankings for season 2006/2007
data(Bundesliga)
Bundesliga.Tabelle("2006/2007", output="Platzierung")
```

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Bundesliga.XML	<i>create an XML-file of all fixtures available in "Bundesliga"-dataset</i>
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---

## Description

This function creates an XML-file of all fixtures available in the "Bundesliga"-dataset. By default, the XML-file is called "Bundesliga.xml" and is stored in your working directory using the function `sink()`.

## Usage

```
Bundesliga.XML(Datei = "Bundesliga.xml", Saison = "all")
```

## Arguments

Datei	filename, by default "Bundesliga.xml"
Saison	season to be included, by default "all" for all seasons

## Author(s)

Joerg Schlarmann

## See Also

[sink](#)

## Examples

```
# this saves all season to file "Bundesliga.xml"
Bundesliga.XML()

#this writes only season 2001/2002 to "myfile.xml"
Bundesliga.XML("myfile.xml", "2001/2002")
```



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`cms`*Dataset of an assessment instrument*

---

**Description**

A dataset ment to be used for the "sens.spec"-function of the wikibooks-package

**Usage**

```
data(cms)
```

**Format**

A data frame with 620 observations on the following 2 variables.

`ascore` scores of the assessment-instrument

`arisk` definition wether "ascore" leads to positive group (1) oder negative group (0)

**Details**

This dataset contains the scores of an assessment-instrument and wether the probands belong to positive or negative group. Data is ment to be used with the "sens.spec"-function of the wikibook-package.

**Source**

[http://de.wikibooks.org/wiki/GNU\\_R:\\_Programmierbeispiele#Beispiel\\_2](http://de.wikibooks.org/wiki/GNU_R:_Programmierbeispiele#Beispiel_2)

---

`Essen.Zeit`*How long does it take to give food in nursing home*

---

**Description**

A datasset of a students "evidence based nursing project (ebnp)" with the question how long it takes to give food to patients in a nursing home

**Usage**

```
data(Essen.Zeit)
```

**Format**

A data frame with 63 observations on the following 22 variables.

PATID patient id

ALTER patient's age

SEX patient's sex

STUFE patient's "Pflegestufe"

MAHLZEIT patient's meal (supper, breakfast, lunch)

ORT place

SPEILAGE describing, where the meal was parked

PATLAGE describing where the patient was sitting or lying

PATPOSIT patient's heading section

NAHRART describing whether the meal was reduced to small pieces

HILF1 help-medium 1

HILF2 help-medium 2

HILF3 help-medium 3

HILF1HOW quantity of help-mediums

TRUNK1 drink

TRUNK1ML quantity of drinking (in ml)

TRUNK2 drink 2

TRUNK2ML quantity of drinking (in ml)

PERSON person giving food to patient

ZEIT time, how long it took to give food

BREAK describing whether there was a break

PORTION describing how much food was given

---

Mikrolagerung

*pressure at sacral-bone: 30 degree vs. micro-positioning*

---

**Description**

Dataset of a German students "evidence based nursing project (ebnp)" with the question what pressure at the sacral-bone-area can be measured using 30 degree and micro-positioning

**Usage**

data(Mikrolagerung)

**Format**

A data frame with 98 observations on the following 21 variables.

PROBAND ID

ALTER age

GROESSE height

GEWICHT weiggth

BMI Body-Mass-Index

HUEFTE Hip circumference

SEX proband's sex

RETEST test or retest

KOPFTEIL position of head section

RE30 pressure at sacral-bone-area while lying 30 degree to the right side

SCHU\_RE true angel assessed at right shoulder during 30 degree positioning to the right side

BECK\_RE true angel assessed at right pelvis during 30 degree positioning to the right side

LI30 pressure at sacral-bone-area while lying 30 degree to the left side

SCHU\_LI true angel assessed at right shoulder during 30 degree positioning to the left side

BECK\_LI true angel assessed at right pelvis during 30 degree positioning to the left side

MIKR01A pressure at sacral-bone-area while micro-positioning at right shoulder

MIKR01B pressure at sacral-bone-area while micro-positioning at right pelvis

MIKR01C pressure at sacral-bone-area while micro-positioning at left shoulder

MIKR01D pressure at sacral-bone-area while micro-positioning at left pelvis

MIKR02A pressure at sacral-bone-area while micro-positioning at right pelvis and shoulder

MIKR02B pressure at sacral-bone-area while micro-positioning at left pelvis and shoulder

**Details**

While lying in bed, pressure is the main reason why patients get a pressure-ulcer. The aim of this EBNP was to get knowledge about how pressure differs during various positionings. The probands where positioned to the left and to the right side by 30 degrees while lying in a bed. Each time, the pressure at the sacral-bone-area was measured, as at this area a pressure-ulcer arises very often. After that, pressure was assessed while probands where positioned by micro-positioning at left and right shoulder and pelvis.

---

`sens.spec`*sensitivity and specificity of an assessment instrument*

---

**Description**

This function generates sensitivity and specificity for all possible cut-off-points of an assessment instrument using the assessment-scores.

**Usage**

```
sens.spec(x, y, risk = 1, dir = "LESS", plot = F)
```

**Arguments**

<code>x</code>	score of an assessment-instrument (numeric)
<code>y</code>	a factor which classify x to positive or negative group
<code>risk</code>	y-value for the positive group (e.g. 1 or "y")
<code>dir</code>	"LESS" if a low (x) leads to positive group; "GREATER" wether a high (x) leads to positive group
<code>plot</code>	logical wether a plot should be generated

**Author(s)**

Produnis

**References**

[http://de.wikibooks.org/wiki/GNU\\_R:\\_Programmierbeispiele#Beispiel\\_2](http://de.wikibooks.org/wiki/GNU_R:_Programmierbeispiele#Beispiel_2)

**Examples**

```
# Using the cms-Dataset
## Not run: sens.spec(cms$ascore, cms$arisk, risk=1)
```

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