piaf / PIAFStat

... evaluation system for field trials

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History and Requirements

History

• 1999 first conceptual design / 2000 first release
• 2007 September: actual release 5.34

Requirements on PIAFStat

• Open structure and split-up: data handling (piaf) / analysis (SAS)
• Simple interactive analysis of field trials using expert know how
• Automation of standard analyses
Problem Analysis

<table>
<thead>
<tr>
<th>Data collection</th>
<th>Question of field trials</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single trials or series of trials with characters:</td>
<td>Statistical model:</td>
</tr>
</tbody>
</table>

**Classification**
- Year
- Replication
- Soil-Climate-Region
- Intensity
- Variety
- ...

**Analysis**
- Crop yield
- Dry substance
- Spikes per meter
- Sprout je qm
- Mildew
- ...

**Standard procedures**
- A-BL Standard Block Design
- A/B Split-Plot Design
- A+B Strip-Plot Design
- GEO Geo-Statistical Analyses
- VK Series Analyses
- TAB Tabulation for single trial
- ...

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PIAFStat

**PIAFStat**

Results

- Reports
- Tables
- Data
- Statistics

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BioMath GmbH
Three types of users

Normal user
- Data selection
- Standard procedure
- Handling of results

Analyst
- Data selection
- Selection of the procedure for a special design
- Adaption of the selected procedure
- Interpretation of results

Developer
- Development of analysis strategies
- Implementation into procedures

Background Mode

Dialog Mode

Extended SAS-Language

PIAFStat
Application

import - export

data

interface

PI AFStat

control

execution background

SAS

procedure library

extended reports

Tables, Data, Statistics ... in differently formats
Example: Loading Data...

Data selecion: *piaf* creates ADS
Adaption of selected procedure...

Results
List and Log (handled by PIAFStat)
Reports, Tables, Data, Statistics (external files)
Language elements

- Classification of characters
- Analysis of characters
- Standard class-characters (WDH, SERIE, BKR, K-ALL...)
- Optional Section
- Blocks
- Functions
- Layout

A*B two-factorial block design

DEKLARATION


K2( ...)

PROGRAM

/* Berechnung N je PG-Stufe */
Proc sort data=daten;
    by [K1] [K2];
run;
proc means data=daten nophint;
    var &MERKMAL;
    by [K1] [K2];
    output out=n_PG N=N;
run;
Summary

• PIAFStat is an add-on to piaf for statistical analysis of field trials
• Expert know how is available in a procedure library and simply to use
• The library is expandable and the procedures are adaptable
• Standard procedures and tabulation procedures are available to analyse single trials and series of trials
• Background mode: automation of standard analyses
• Dialog mode: individual adaption of analyses

Today

17:10 – 17:35 Session V2 “Hohenheim-Gülzow-method”
18:10 – 19:20 Presentation - Euroforum Katharinensaal

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