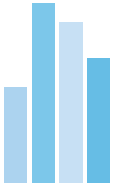
Dissemination Database and its use

ICBS 2014

Lars Knudsen
Statistics Denmark

STATISTICS DENMARK



Presentation plan

Experiences with PX-Products in Statistics Denmark

- History with PC-Axis
- SQL-datamodel or PX-files
- About our setup
- Special features
- Future setup …

Presentation plan (continued)

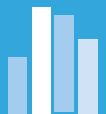
Development of PX-Products by Statistics Denmark

- Before .Net
- .Net developments

- Question and answers
- Comming days …

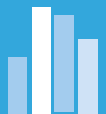
Experiences with PX-Products
Some history

- Online access to **mainframe** databank (AXIS) in 1986
- Produced **cd-roms** with px-files during 1990's and beginning of 2000's
- Created **PX-Make**
- And introduced **PX-Publ** and **PC-Axis SQL**
- Lanched free online web access to **StatBank interface** in 2001

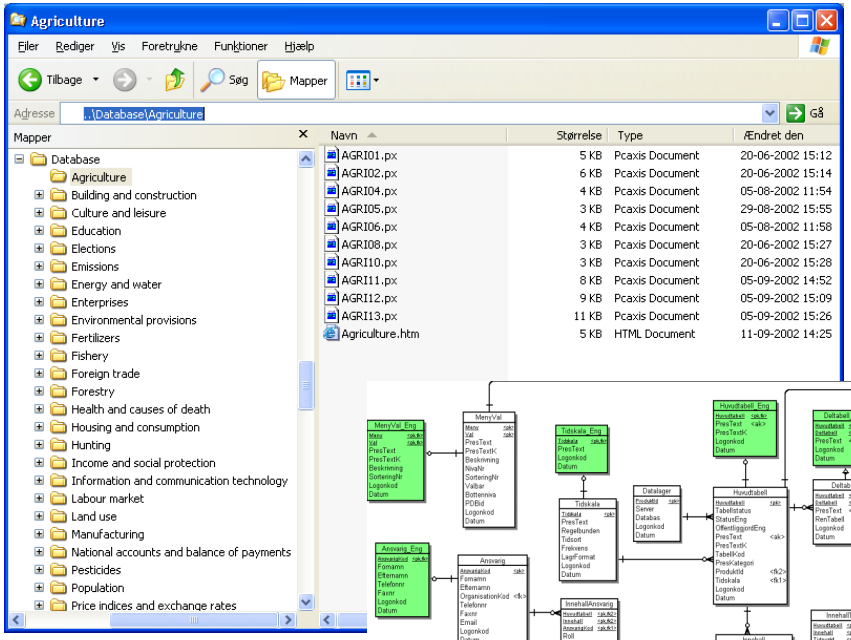


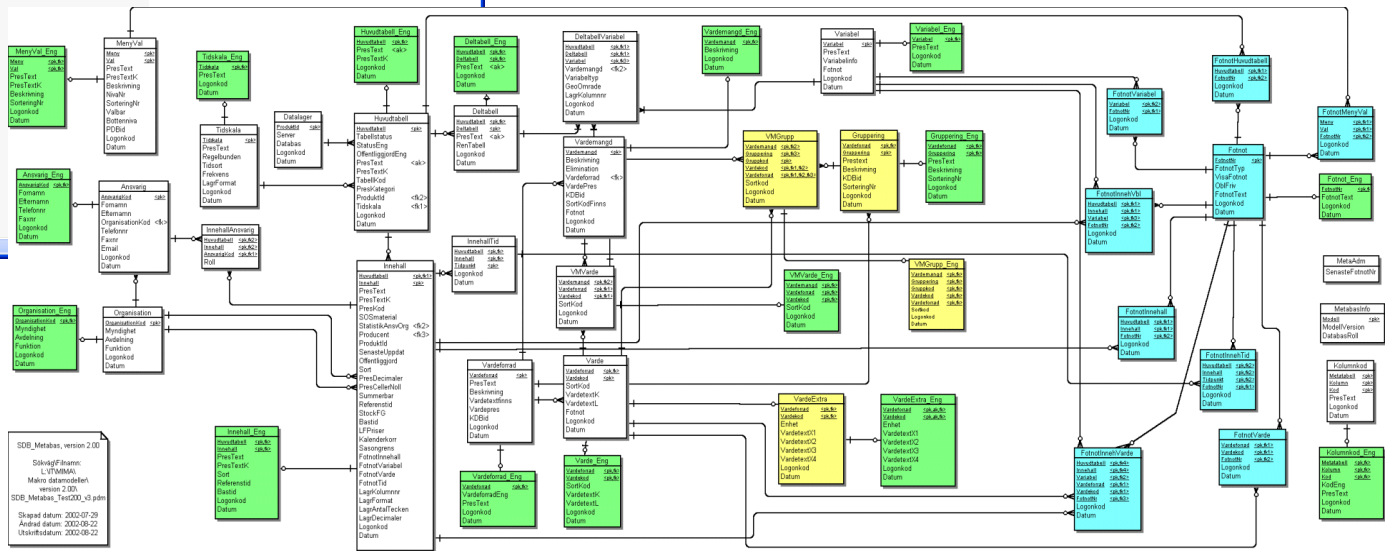
Experiences with PX-Products
Some history

- Opened for **saved queries** via web interface (in XML) around 2003
- Introduced **DataShooting** (e-mail service)
- Using **PX-Web** for external sites in 2004
- Created **PX-iGraph** for web interface
- Opened **StatHost** service for statistical producers
- Started **.Net** developments around 2008
- Also been using **PX-Edit, PX-Batch** but only limited



SQL Datamodel or PX-files





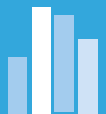
STATISTICS DENMARK

SQL Datamodel or PX-files

Datamodel

+ Re-use of metadata
+ Large datasets (e.g. 10-20 GB)

- No common interface for updating data and metadata
- Complicated to setup and use



SQL Datamodel or PX-files

PX-files

+ Easy to create and manage, due to PX-Edit and PX-Make
+ Easy to share, overview and change

- Redundant metadata information
- More difficult to search and query

SQL Datamodel or PX-files

- Many different setups around the world
- Important to use a setup that suits your production process best

Features of the StatBank system

- Search: Adwords, synonyms, misspellings etc.
- Aggregate Time periods on the fly
- Manual Pivot: Drag and Drop
- Saved Queries
- Re-select from selection
- Time Series output / program
- DataShooting: One mail per day
- Comming up: Calculations

Services for Dynamic Updating

We offer:

- Saved queries
- Graphs and Maps – wrapped in XML
- XML feed through URL
- Web Service – HTML wrapped in XML
- Standardized deep links / Web queries
- Example?

Data and Metadata administration in SQL Datamodel

- Using in-house developed tools
- SumTimes: for databank administrators (centrally used)
- SumTools: for statisticians (decentrally used)
- Not easy to share with other countries

Dynamic web pages #1

- 200 topic sites built and automatically maintained via 300-400 saved queries and web service

EMPLOYED PERSONS

Area of workplace: **All Denmark** | Unit: **Number**

	2008	2009	2010	2011	2012
Commuting, total	2 857 565	2 801 519	2 684 992	2 667 424	2 673 552
No commuting	231 267	185 395	179 754	179 537	179 933
Up to 5 km	900 641	893 927	850 497	839 326	831 435
5-10 km	516 490	504 525	480 940	475 630	475 064
10-20 km	534 814	526 920	502 036	497 832	501 216
20-30 km	265 069	266 368	256 558	257 684	261 358
30-40 km	138 313	139 127	135 943	137 145	140 002
40-50 km	77 755	78 539	76 789	78 331	80 459
More than 50 km	185 939	199 832	195 522	195 315	197 210
Unknown	7 277	6 886	6 953	6 624	6 875

Footnote

In connection with the publishing of register-based labour force 2012 the statistics have been reviewed for the years 2009-2011. This matrix will also be reviewed for 2009-2011 as soon as possible.

Get your own statistics: Employed persons (AFSTA1)

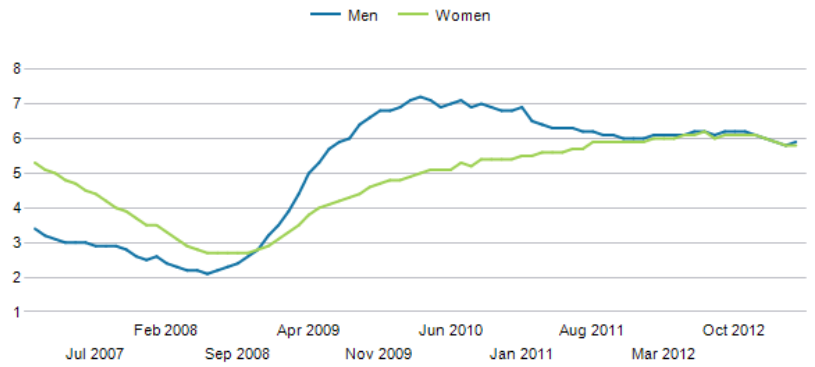
REGISTERED UNEMPLOYMENT

Key Figures | Documentation

SEASONALLY ADJUSTED FIGURES

Seasonal adjustment and actual figures: **Seasonally adjusted figures in percent of the labour fo**

Benefits, sex and age:



Get your own statistics: Seasonally adjusted figures (AUS07)

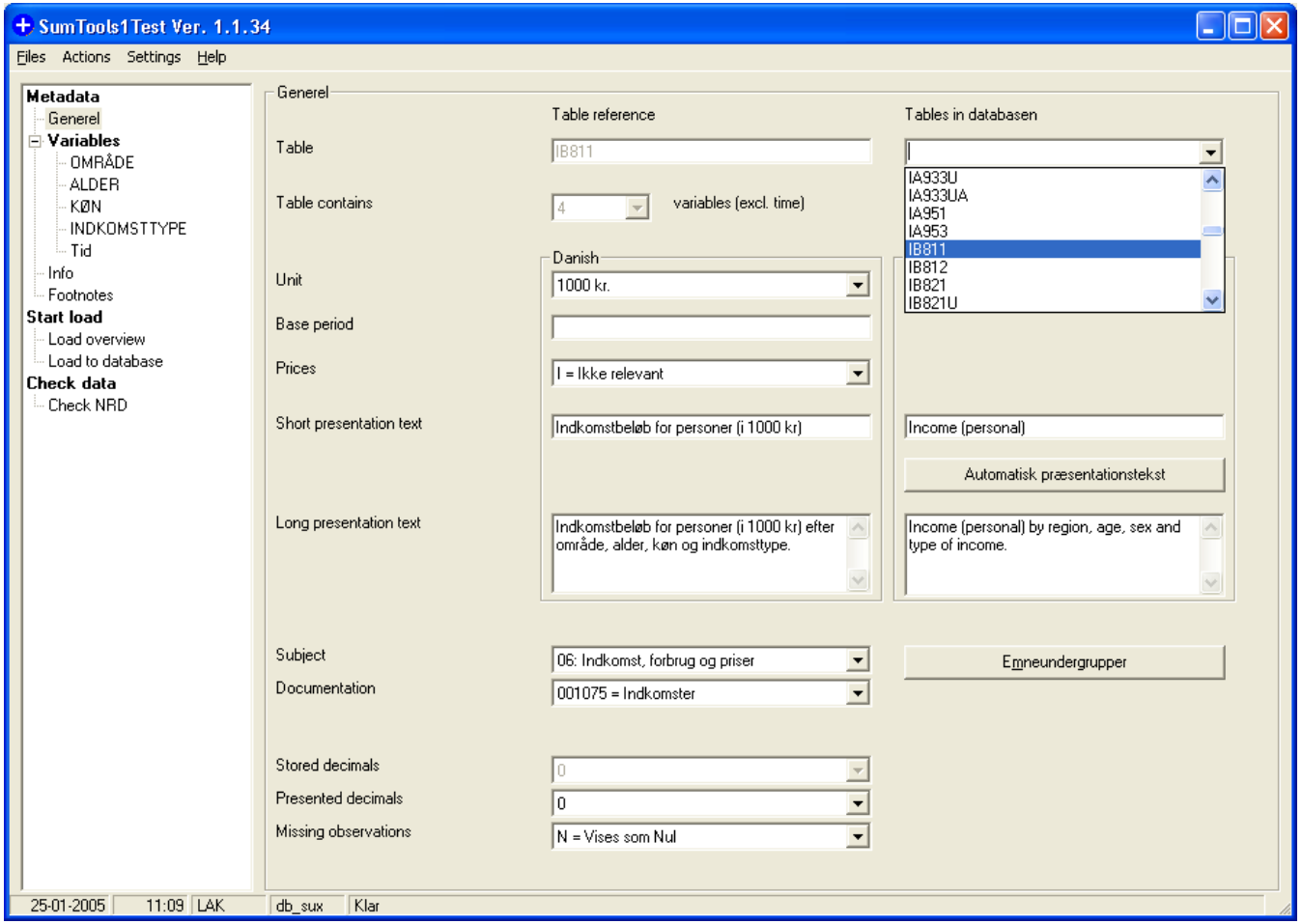
Dynamic web pages #2

- 42 indicators

SHORT TERM TRENDS

	Period	Value	Dev.
National accounts			**t/(t-1)**
Gross domestic product, real growth (DKK million, 2005-price level chain figures)	Q1/13	387,164	0.2
Private consumption, real growth (DKK million, 2005-price level chain figures)	Q1/13	194,411	0.1
Government consumption, real growth (DKK million, 2005-price level chain figures)	Q1/13	107,152	-2.1
Investments in buildings and civil engineering works, real growth (DKK million, 2005-price level chain figures)	Q1/13	29,814	-2.1
Other gross fixed capital formation, real growth (DKK million, 2005-price level chain figures)	Q1/13	42,097	0.7
Imports of goods and services, real growth (DKK million, 2005-price level chain figures)	Q1/13	204,686	1.6
Exports of goods and services, real growth (DKK million, 2005-price level chain figures)	Q1/13	214,802	-0.4
Employment. National accounts (1000 persons)	Q1/13	2,788	-0.3
Labour market			**t/(t-4)**
Jobs. WTA (number)	Q4/12	2,890,593	-0.1
Jobs. Hours worked, WTA (1000 hours)	Q4/12	924,467	-0.9
Indices of average earnings in the private sector (1. qtr. 2005=100)	Q4/12	123.7	1.4
Indices og average earnings in the public sector, central government (1. qtr 2005=100)	Q1/13	126.6	2.0
Indices of average earnings in the public sector, local government (1. qtr. 2005=100)	Q1/13	126.1	0.6
Registered unemployment			**t/(t-12)**
Gross unemployment (converted into full-time) per cent of the labour force [2)]	Apr/13	5.9	-0.1

SumTools


SumTools1Test Ver. 1.1.34
Files
Actions
Settings
Help
Metadata
Generel
Variables
OMRÅDE
ALDER
KØN
INDKOMSTTYPE
Tid
Info
Footnotes
Start load
Load overview
Load to database
Check data
Check NRD
Generel
Table reference
Tables in databasen
Table
IB811
Table contains
4
variables (excl. time)
IA933U
IA933UA
IA951
IA953
IB811
IB812
IB821
IB821U
Danish
Unit
1000 kr.
Base period
Prices
I = Ikke relevant
Short presentation text
Indkomstbeløb for personer (i 1000 kr)
Income (personal)
Automatisk præsentationstekst
Long presentation text
Indkomstbeløb for personer (i 1000 kr) efter område, alder, køn og indkomsttype.
Income (personal) by region, age, sex and type of income.
Subject
06: Indkomst, forbrug og priser
Emneundergrupper
Documentation
001075 = Indkomster
Stored decimals
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Presented decimals
0
Missing observations
N = Vises som Nul
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11:09
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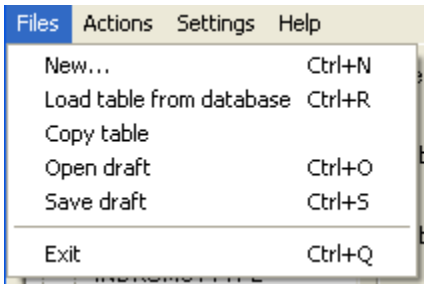
db_sux
Klar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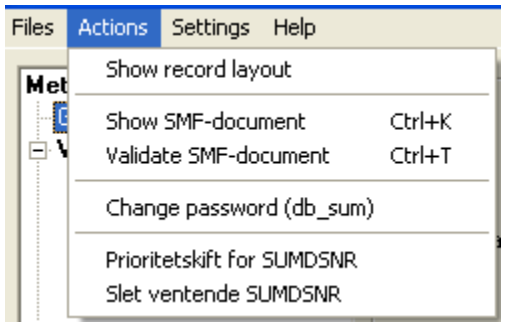
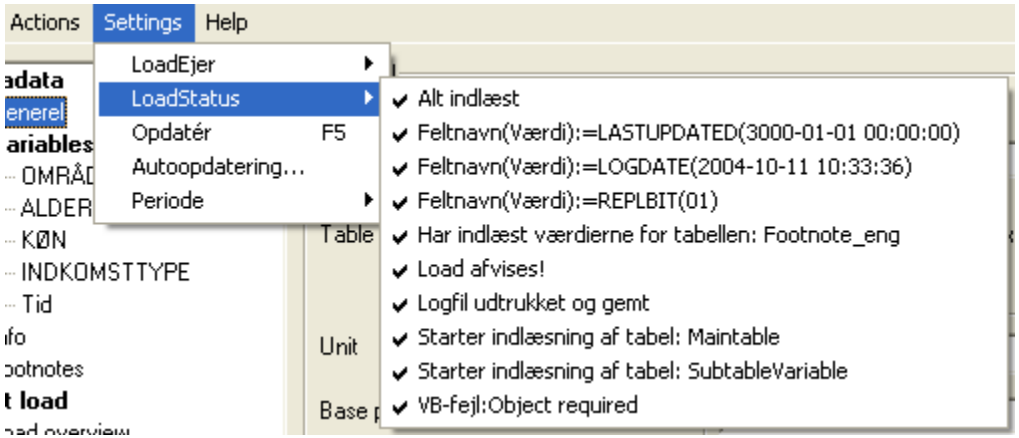
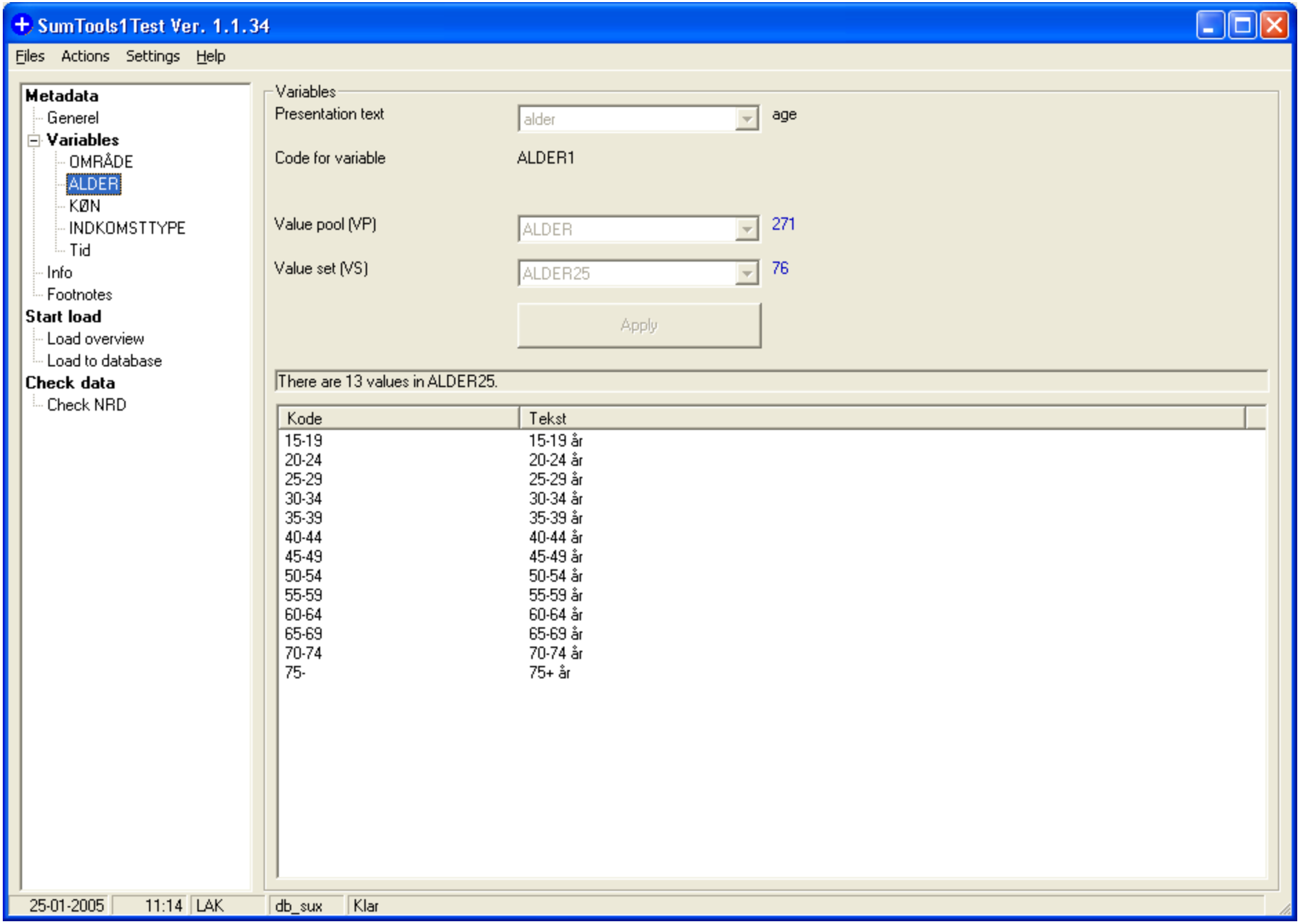
Settings
Help
New... Ctrl+N
Load table from database Ctrl+R
Copy table
Open draft Ctrl+O
Save draft Ctrl+S
Exit Ctrl+Q


Files
Actions
Settings
Help
Show record layout
Show SMF-document Ctrl+K
Validate SMF-document Ctrl+T
Change password (db_sum)
Prioritetskift for SUMDSNR
Slet ventende SUMDSNR


Actions
Settings
Help
LoadEjer
LoadStatus
Opdatér F5
Autoopdatering...
Periode
Alt indlæst
Feltnavn(Værdi):=LASTUPDATED(3000-01-01 00:00:00)
Feltnavn(Værdi):=LOGDATE(2004-10-11 10:33:36)
Feltnavn(Værdi):=REPLBIT(01)
Har indlæst værdierne for tabellen: Footnote_eng
Load afvises!
Logfil udtrukket og gemt
Starter indlæsning af tabel: Maintable
Starter indlæsning af tabel: SubtableVariable
VB-fejl:Object required
OMRÅD
ALDER
KØN
INDKOMSTTYPE
Tid
Table
Unit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KØN
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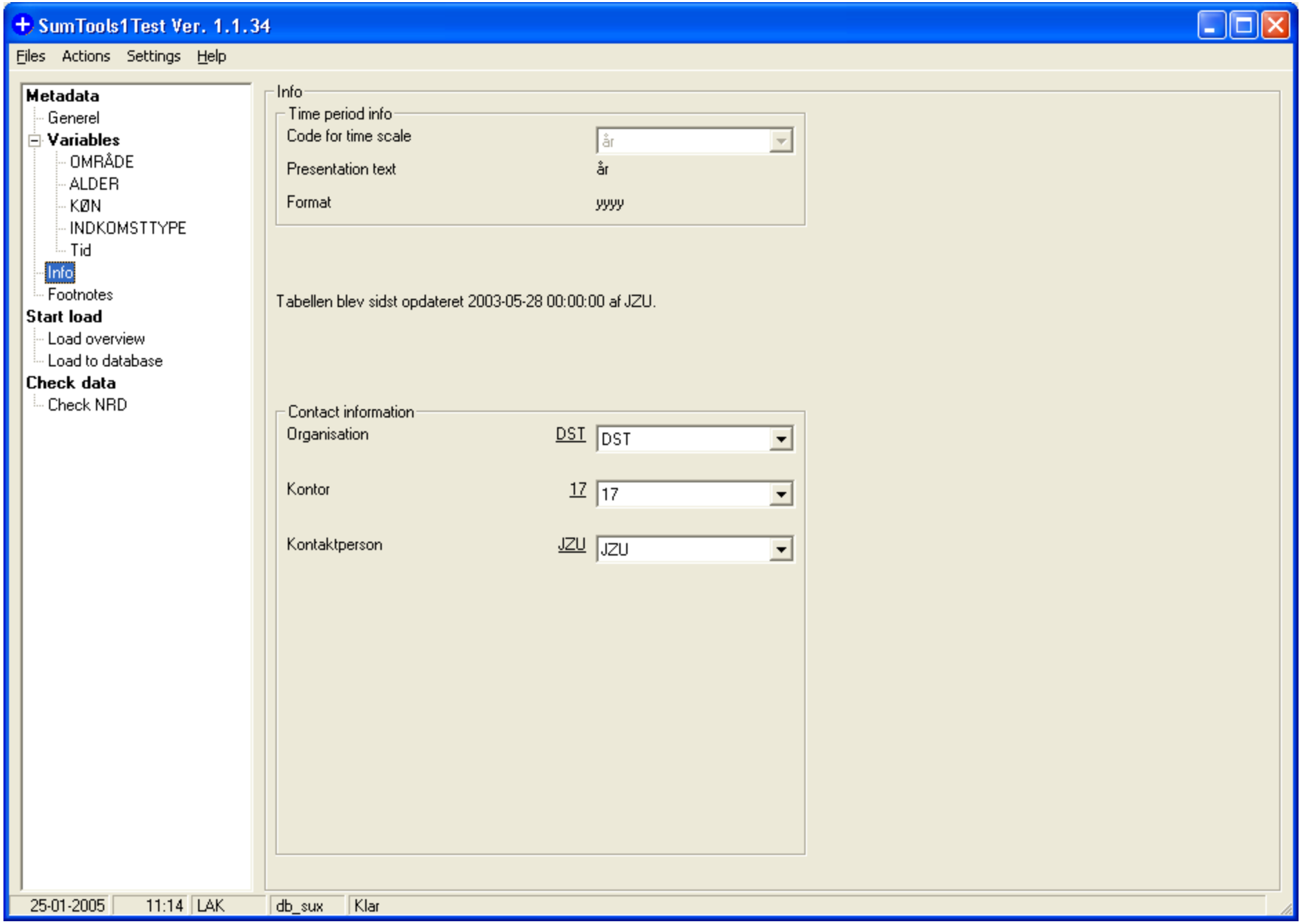
Tid
Info
Footnotes
Start load
Load overview
Load to database
Check data
Check NRD
Variables
Presentation text
alder
age
Code for variable
ALDER1
Value pool (VP)
ALDER
271
Value set (VS)
ALDER25
76
Apply
There are 13 values in ALDER25.
Kode
Tekst
15-19 15-19 år
20-24 20-24 år
25-29 25-29 år
30-34 30-34 år
35-39 35-39 år
40-44 40-44 år
45-49 45-49 år
50-54 50-54 år
55-59 55-59 år
60-64 60-64 år
65-69 65-69 år
70-74 70-74 år
75- 75+ år
25-01-2005
11:14
LAK
db_sux
Klar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Load overview
Load to database
Check data
Check NRD
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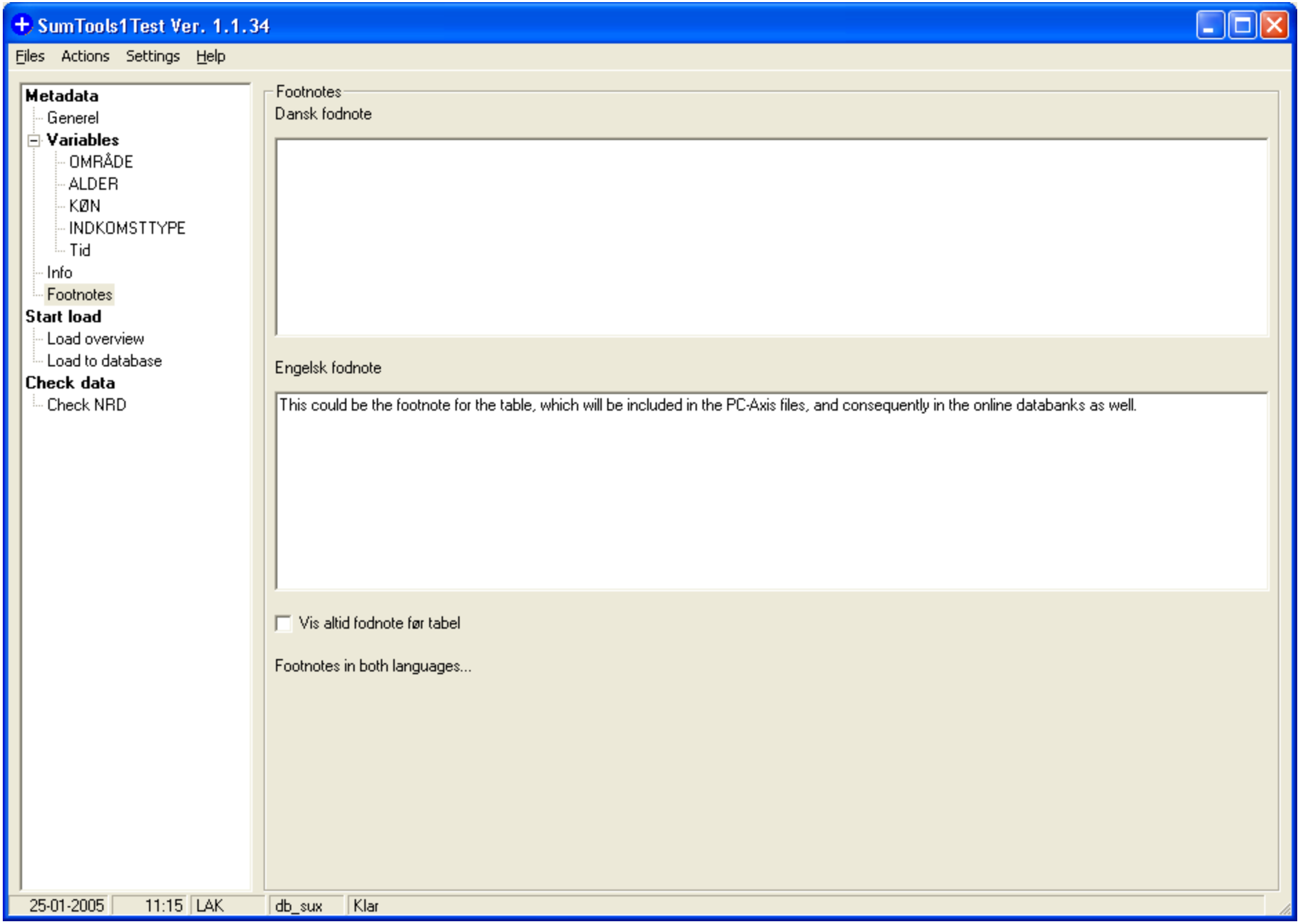
år
Presentation text
år
Format
yyyy
Tabellen blev sidst opdateret 2003-05-28 00:00:00 af JZU.
Contact information
Organisation
DST
DST
Kontor
17
17
Kontaktperson
JZU
JZU
25-01-2005
11:14
LAK
db_sux
Klar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Start load
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Load to database
Check data
Check NRD
Footnotes
Dansk fodnote
Engelsk fodnote
This could be the footnote for the table, which will be included in the PC-Axis files, and consequently in the online databanks as well.
Vis altid fodnote før tabel
Footnotes in both languages...
25-01-2005
11:15
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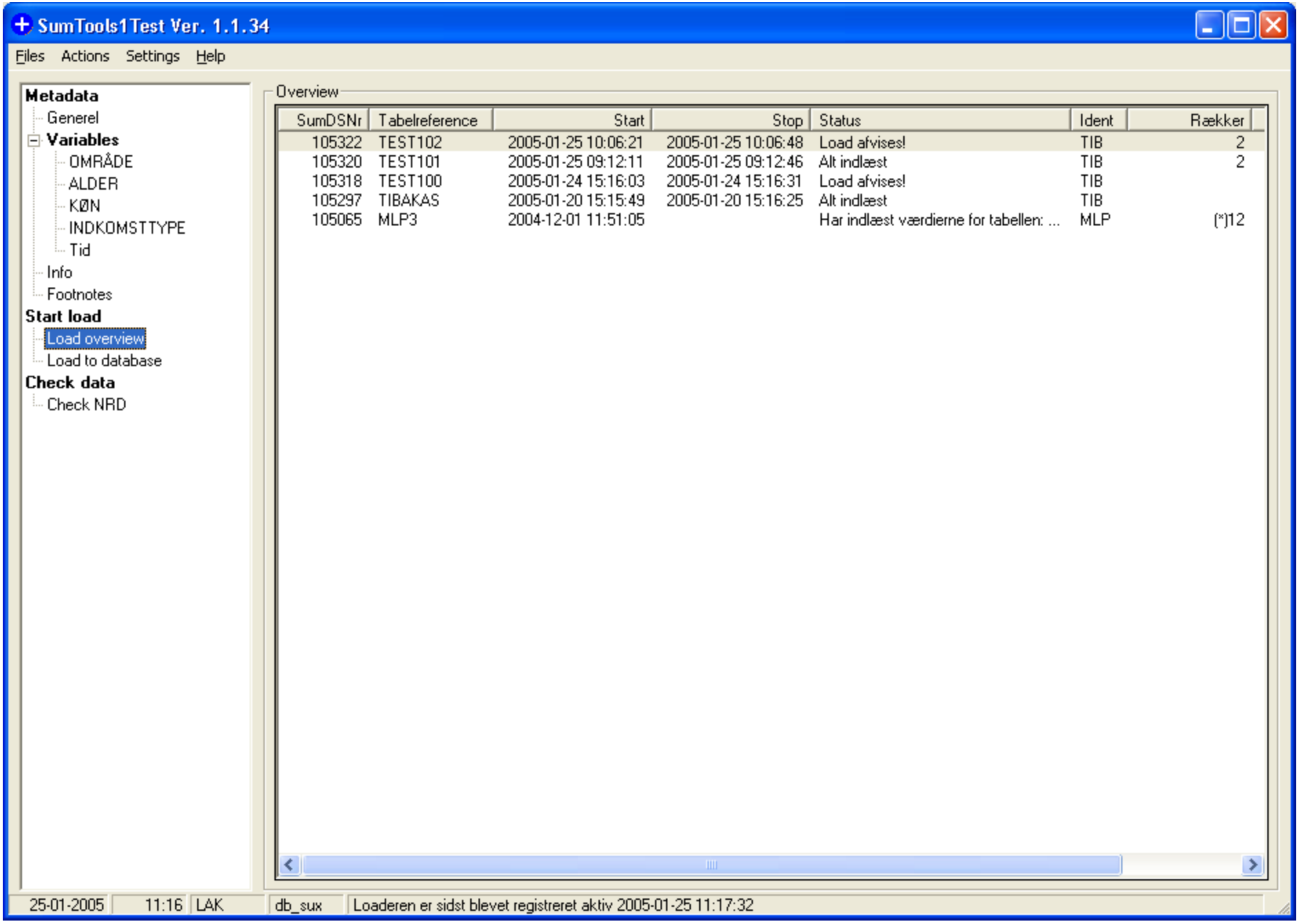
db_sux
Klar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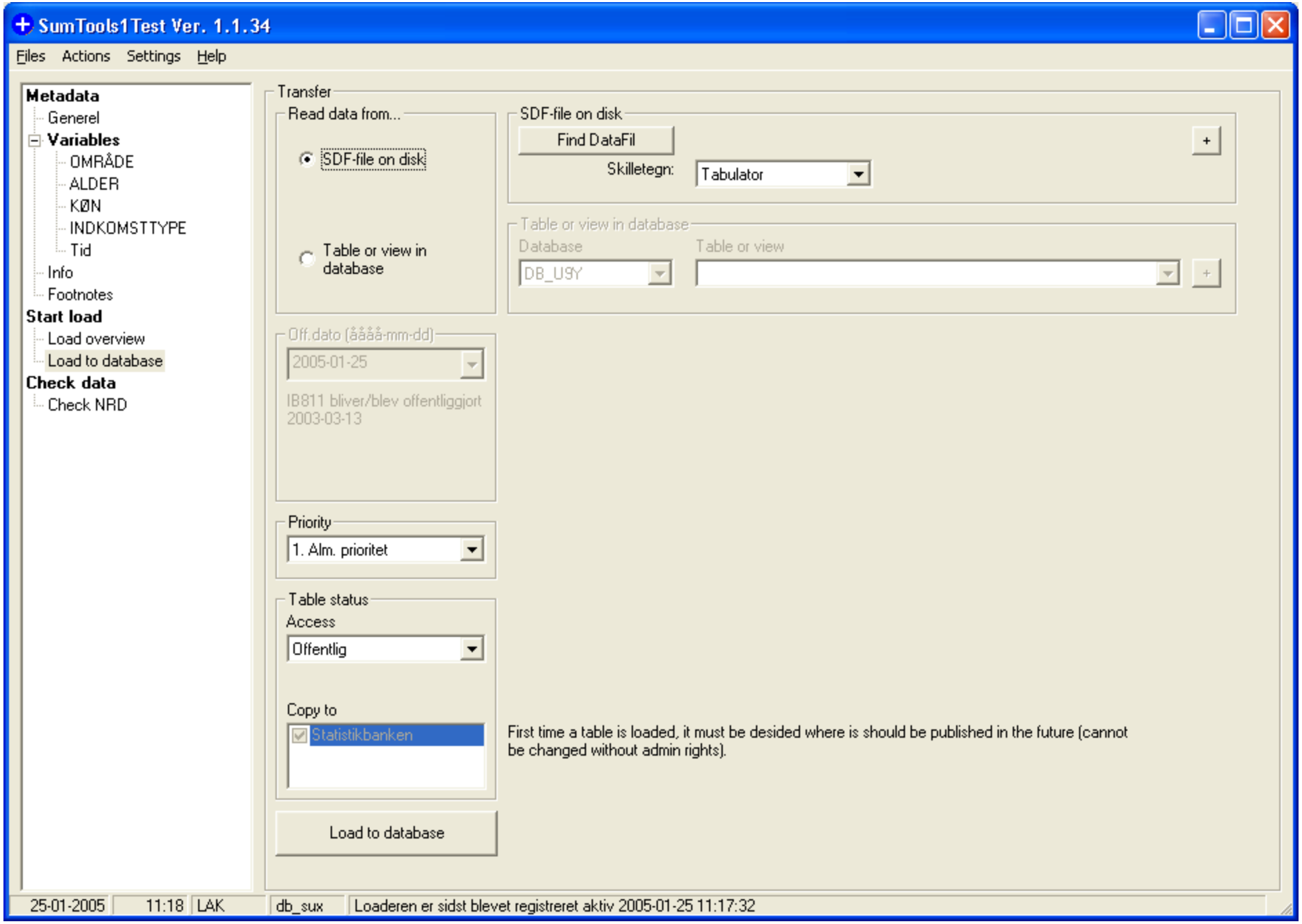
Load to database
Check data
Check NRD
Overview
SumDSNr Tabelreference Start Stop Status Ident Rækker
105322 TEST102 2005-01-25 10:06:21 2005-01-25 10:06:48 Load afvises! TIB 2
105320 TEST101 2005-01-25 09:12:11 2005-01-25 09:12:46 Alt indlæst TIB 2
105318 TEST100 2005-01-24 15:16:03 2005-01-24 15:16:31 Load afvises! TIB
105297 TIBAKAS 2005-01-20 15:15:49 2005-01-20 15:16:25 Alt indlæst TIB
105065 MLP3 2004-12-01 11:51:05 Har indlæst værdierne for tabellen: ... MLP (*)12
25-01-2005 11:16 LAK db_sux Loaderen er sidst blevet registreret aktiv 2005-01-25 11:17:32


SumTools1Test Ver. 1.1.34
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Footnotes
Start load
Load overview
Load to database
Check data
Check NRD
Transfer
Read data from...
SDF-file on disk
Table or view in database
SDF-file on disk
Find DataFil
Skilletegn:
Tabulator
Table or view in database
Database
DB_U9Y
Table or view
Off.dato (åååå-mm-dd)
2005-01-25
IB811 bliver/blev offentliggjort 2003-03-13
Priority
1. Alm. prioritet
Table status
Access
Offentlig
Copy to
Statistikbanken
First time a table is loaded, it must be desided where is should be published in the future (cannot be changed without admin rights).
Load to database
25-01-2005
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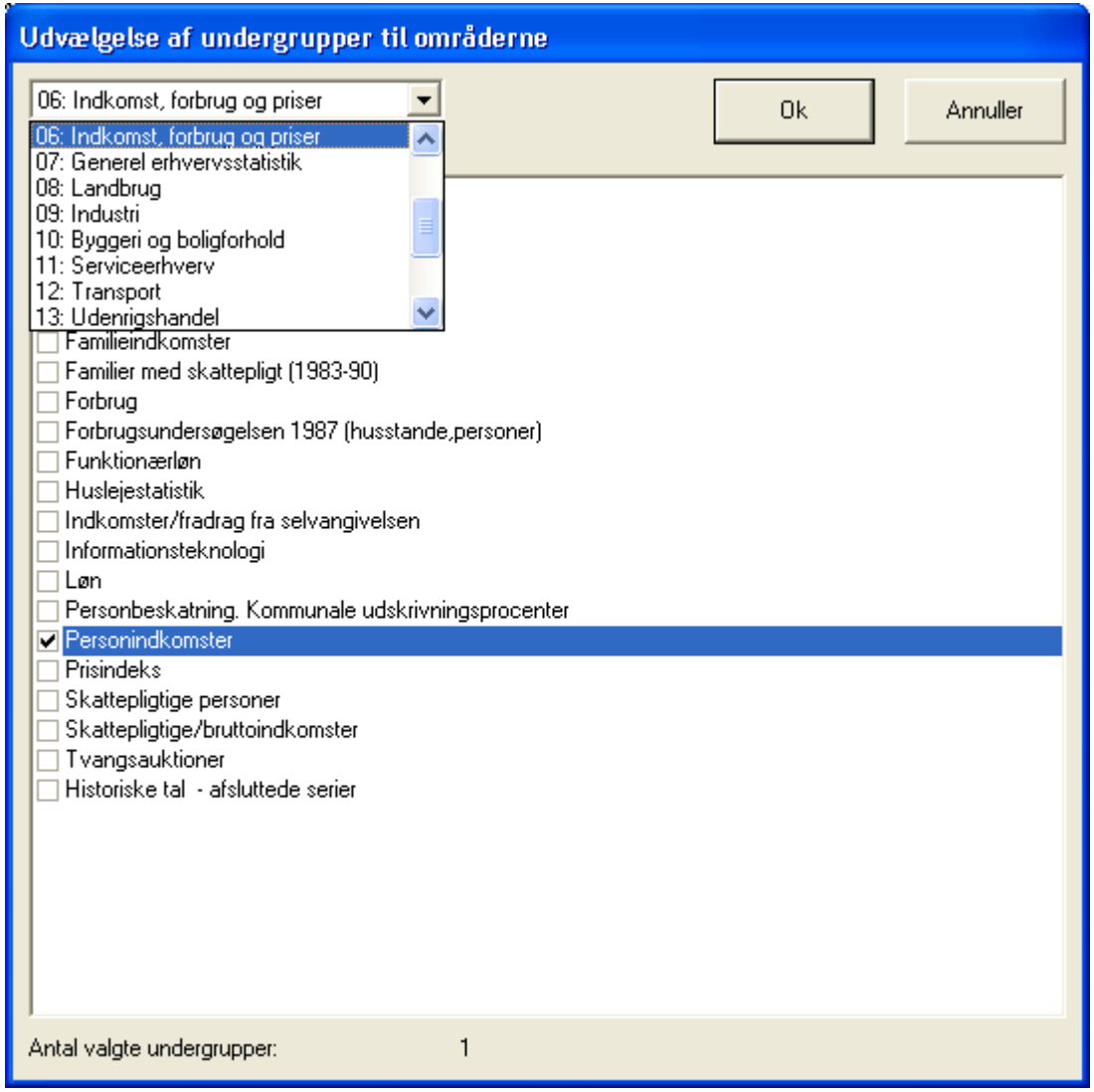
LAK
db_sux
Loaderen er sidst blevet registreret aktiv 2005-01-25 11:17:32


Udvælgelse af undergrupper til områderne
06: Indkomst, forbrug og priser
Ok
Annuller
06: Indkomst, forbrug og priser
07: Generel erhvervsstatistik
08: Landbrug
09: Industri
10: Byggeri og boligforhold
11: Serviceerhverv
12: Transport
13: Udenrigshandel
Familieindkomster
Familier med skattepligt (1983-90)
Forbrug
Forbrugsundersøgelsen 1987 (husstande,personer)
Funktionærløn
Huslejestatistik
Indkomster/fradrag fra selvangivelsen
Informationsteknologi
Løn
Personbeskatning. Kommunale udskrivningsprocenter
Personindkomster
Prisindeks
Skattepligtige personer
Skattepligtige/bruttoindkomster
Tvangsauktioner
Historiske tal - afsluttede serier
Antal valgte undergrupper: 1

Future setup …

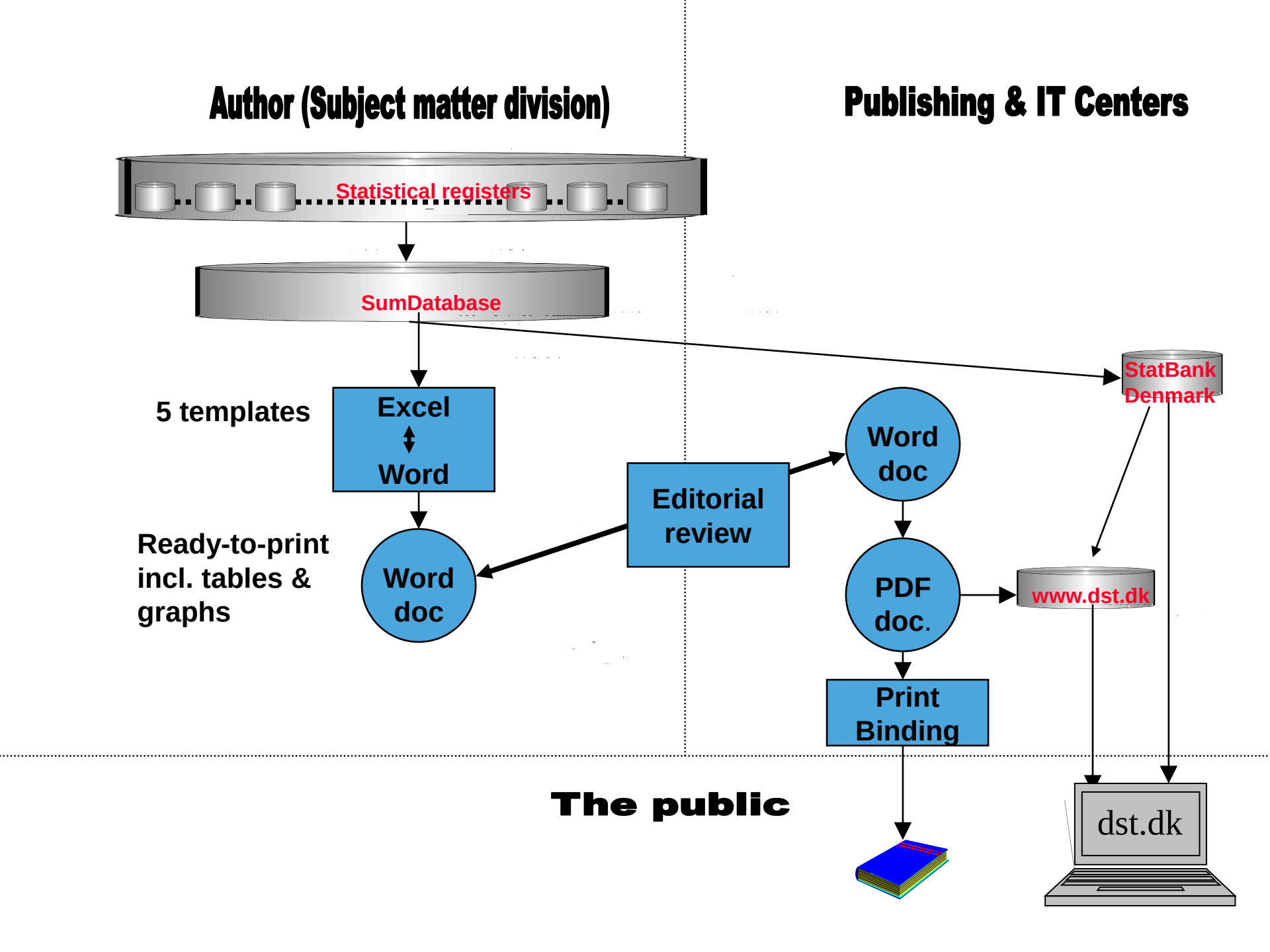
- Using as much of PX-Web.Net as possible
- Develop part we need in-house
- Re-write administration tools to .Net

Development of PX-Products

- StatBank web interface towards SQL datamodel
- PX-Make
- PX-iGraph
- PX-Publ
- .Net: Menu object model and new PX-iGraph

From Database to publications

- PX-Publ: Retrieves data from SQL Datamodel, into Excel and Word


Author (Subject matter division)
Publishing & IT Centers
Statistical registers
SumDatabase
StatBank Denmark
5 templates
Excel
Word
Word doc
Editorial review
Ready-to-print incl. tables & graphs
Word doc
PDF doc.
www.dst.dk
Print Binding
The public
dst.dk

Features of PX-Publ

- Retrieve data dynamically from database
- Easy updating of data tables in publications
- Ensure relationship between databank table and publication
- Make table editing in Excel possible
- Ensure consistency between web and paper releases