



V4, February 2020

# Reporting tTEM and SkyTEM data/models to GERDA using Aarhus Workbench

## Introduction

This document describes the procedure for uploading SkyTEM and tTEM data and models from Aarhus Workbench to the National Geophysical database – GERDA.

General information regarding GERDA upload can be found on the GERDA website: [www.gerda.dk](http://www.gerda.dk).

Uploading data/models to GERDA has two main phases. First, raw and processed data are uploaded to a project. Subsequently, a number of inversion results (model editions) are uploaded to the dataset/project. The full upload procedure can be split into seven steps. Below is a seven step quick guide, each step is explained in details in the text.

## Quick guide

1. Create a project from GERDA's website. Also create instruments etc. if they do not already exist.
2. Download a template PC-GERDA database (now containing the newly created project-ident, etc.)
3. Export raw/processed data from Aarhus Workbench (for this you need the template GERDA database)
4. Upload Export raw/processed data from Aarhus Workbench via the GERDA website.
5. Download a new template PC-GERDA database (now containing the newly uploaded dataset-ident(s))
6. Export the inversion results (models) from Aarhus Workbench (for this you need the template GERDA database from step 5).
7. Upload the exported model database from Aarhus Workbench to GERDA via the website.

If your project contains more than one dataset/dataset-node, then repeat step 3 and 4, before stepping to 5. Repeat step 6 and 7 if you have more than one inversion result (model edition) to upload.



## 1. Create a project

- Create a new project in GERDA for your later data upload.
- New projects, instruments etc. are created from the [GERDA website](#) (2020 link). You need a GERDA user account to do this.
- Consult the GERDA website "[Nomenklatur](#)" for instructions regarding project names, etc..
- 

The screenshot shows the GERDA website interface. The main content area displays a table of existing projects with columns for 'Ident' and a description. The 'CREATE NEW PROJECT' form is open on the right side, containing fields for 'Ident', 'Name', 'Note', 'Validfrom', 'Validto', 'Purpose', and 'Region'. The 'Purpose' field has a dropdown menu with options: 'raastof vandindvinding', 'saarbarhed', 'forskning', 'kursus', 'forening', and 'bygge-anlaeg'. The 'Region' field has a dropdown menu with options: 'dk.mim.nyk.susaa\_ringsted', 'dk.nst.storstroem', 'dk.midtjylland', 'dk.nordjylland', 'dk.syddanmark', 'dk.sjaelland', 'dk.hovedstaden', and 'dk.mim.aal'.

Ident	Description
dk.aaa.grv-finning-tem	dk.aaa.grv-finning-tem
dk.aaa.grv-finning-patem	dk.aaa.grv-finning-patem
dk.aaa.grundvand-spoerring_soe	Spørring SØ
dk.vejleamt.grundvand-snaptun-106-30	Snaptun
dk.ringamt.grundvand-holstebro_syd-105-04	Holstebro_Syd
dk.ringamt.grundvand-holstebro_nord-105-03	Holstebro_Nord
dk.aaa.raastof-silkeborg_n	Fase 2 råstofkortlægning ved
dk.aaa.raastof-asklev	Fase 2 råstofkortlægning ved
vl.vamt.vandby	Vandby kildeplads
dk.aaa.raastof-tvede	Fase 2 råstofkortlægning ved



## 2. Download PC-GERDA Template database

- Download a Template PC-GERDA database from the [GERDA website](#) (called “Tom PCGERDA”). The Template PC-GERDA database holds all project-idents in GERDA, including the newly created project needed in the next step.
- No user login is needed to download a Template PC-GERDA.
- The Template PC-GERDA format must be Firebird/interbase.

- **Projekter:** Oprettelse af nye projekter, og opdatering af oplysninger om eksisterende projekter. Herunder registrering af hvilke områder projektet ligger i, hvem der er deltagere i projektet, samt med hvilke formål projektet er udført.
- **Områder:** Oprettelse af nye områder (til hvilke projekter kan knyttes), samt opdatering af oplysninger om eksisterende områder.
- **Deltagere:** Oprettelse af nye deltagere (som kan indgå i projekter), samt opdatering af oplysninger om eksisterende deltagere.
- **Instrumenter:** Oprettelse af nye instrumentindivider (sendere, modtagere, kabler, modtagerspoler, switchboxes, etc.), samt vedligeholdelse af oplysninger om eksisterende instrument-individer.
- **Instrumenttyper:** Oprettelse af nye instrumenttyper (sendere, modtagere, kabler, modtagerspoler, switchboxes, etc.), samt vedligeholdelse af oplysninger om eksisterende instrument-typer.
- **Software:** Oprettelse af nye softwareversioner, samt vedligeholdelse af oplysninger om eksisterende software-versioner.
- **Software typer:** Oprettelse af nye softwaretyper, samt vedligeholdelse af oplysninger om eksisterende software-typer.

Efter opdatering af stamdata kan man downloade en PCGerda-database, der indeholder de nye stamdata (men ingen geodata). [Download en tom PCGerda database.](#)

**Elevation**

**Datum**

**UTM-zone**

**e-mail**  
 \*

**Database format**  
 Pt. kan der være problemer med udtræk i Access, så ikke alle data kommer med ved download. Det anbefales i stedet at bruge Firebird, hvis filen er tæt på maks. størrelse (1GB for Access 97 og 2 GB for Access 2000)..


**name of generated file**  
 \*

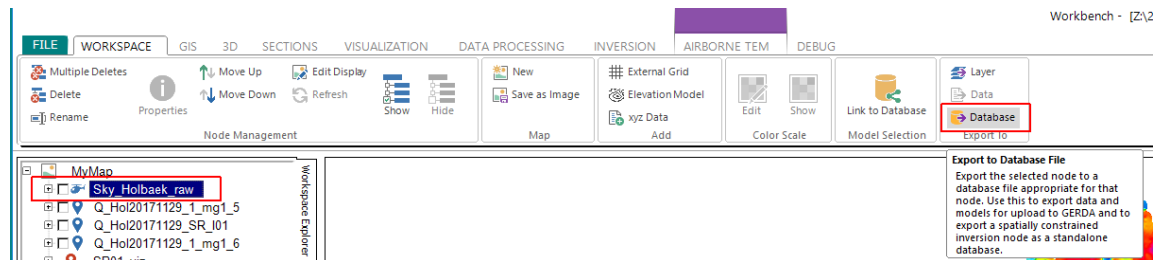
**Include rawdata (large datasets)**       **Include ODVLACON (large datasets)**

**Jeg accepterer ovenstående betingelser**

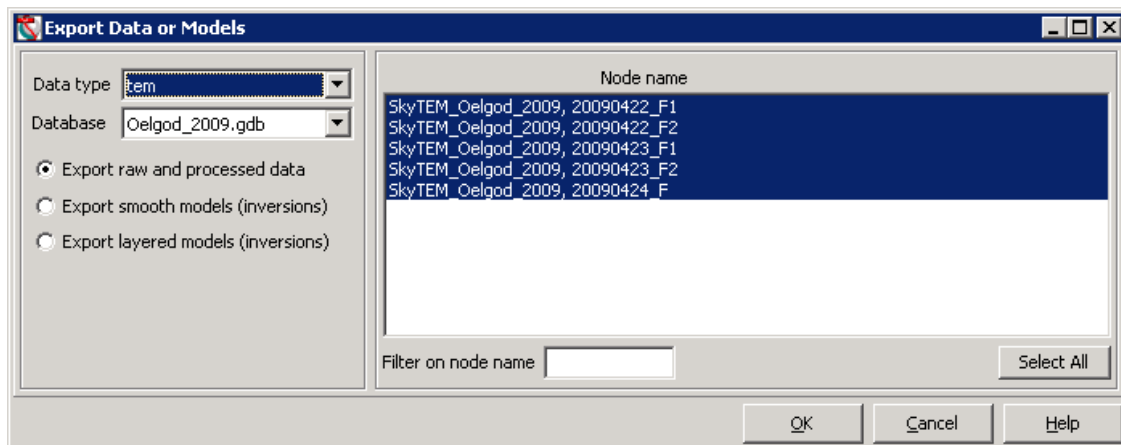


### 3. Raw/processed data export, Aarhus Workbench

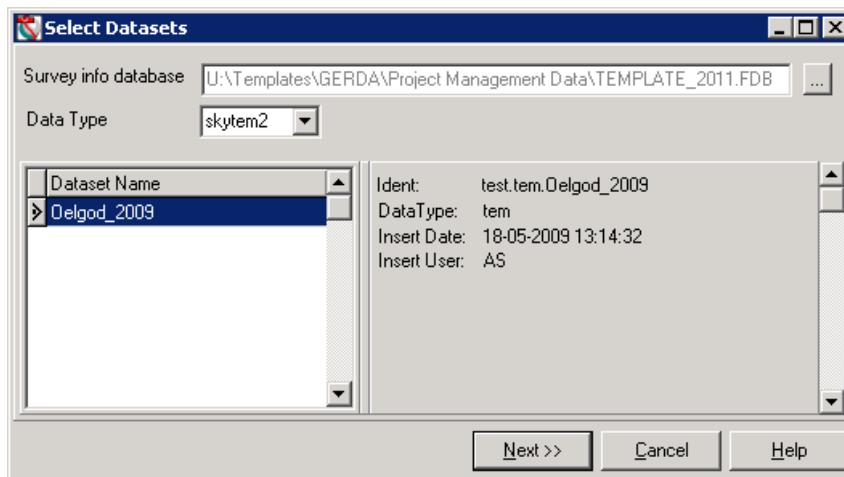
- Select a dataset node in the Workspace explorer in Aarhus Workbench
- Pick  Database from the Workspace ribbon under *Export to* (see figure below).



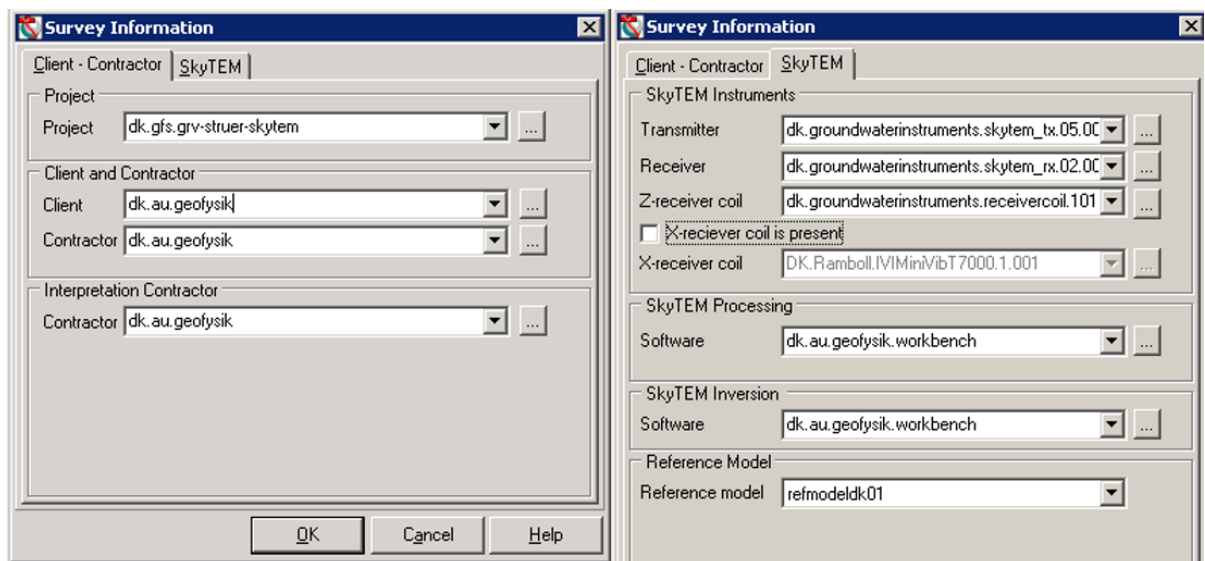
- Pick Export raw and processed data on the form below.



- Select the processing nodes for export/upload. Select only nodes that have been used for the inversion (normally all of them). The raw data are automatically included in the export.
- After export, *Survey Info* needs to be added to the exported database.
- Link to the Template PC-GERDA database under *Survey info database* and select a dataset.



- Fill in the survey info in the two forms below.



Reference model:

- Refmodeldk01: TEM-data calibrated to the old 5-layer test site model. Before November 2011.
- Refmodeldk02: TEM-data calibrated to the 7-layer test site model from November 2011.
- Refmodelnone: Used for non TEM-data



## 4. Upload Export raw/processed data

- Upload the exported database from Aarhus Workbench via the [GERDA website](#) (2020 link). User login is needed.
- You may zip the database prior to upload to reduce the file size. Only one database per zip file.
- **Important:** Remember to check the box “*Include datasets rows*”

**import**

Choose File  
 No file selected. \*

Comment

e-mail  
 \*

Include dataset rows

- Wait for e-mail confirmation from GERDA for a successful data upload, before you proceed to step 5.
- If you have more datasets/datasetnodes to the same project, then repeat step 3 and 4 before proceeding to step 5.



## 5. Download GERDA template database

If your project/your inversions only use data from one dataset/dataset-node you may skip this step.


- Download a new Template PC-GERDA database from the [GERDA website](#), like in step 2. This Template PC-GERDA now also holds the dataset dataset-ident(s) for the newly uploaded dataset(s), which are needed for step 6.

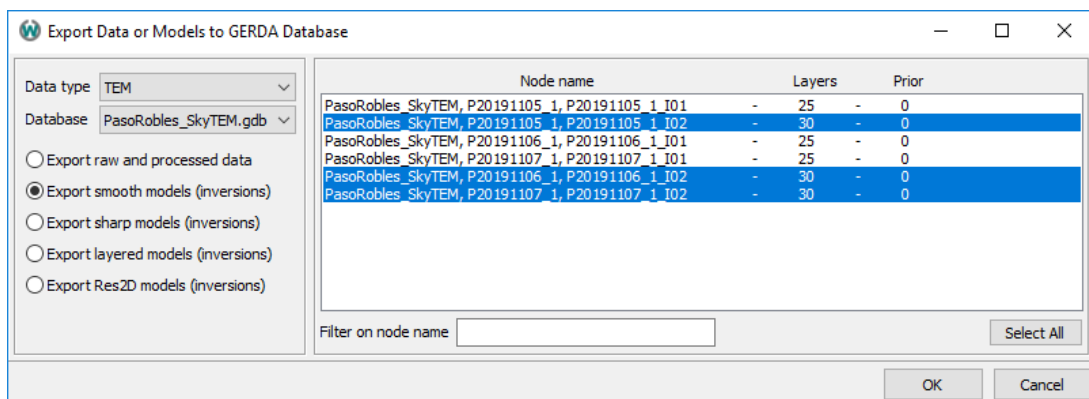


## 6. Model export, Aarhus Workbench LCI/SCI

The entry to the model export for LCI and SCI inversions in Aarhus Workbench is slightly different.


### 6a) LCI case:

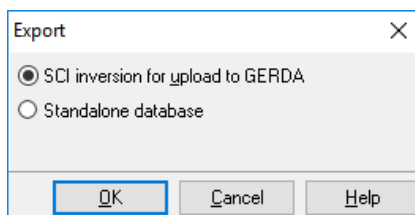
- Select the dataset node holding the LCI-inversions in the Workspace explorer.
- Pick  Database from the *Workspace* ribbon under *Export to...*
- Select “Export smooth, sharp, or layered models (inversion)” See the form below.



- Select the LCI inversion nodes to upload under *Node name*. Do not mix different LCI inversions of the same dataset/data-processing.
- A database will be exported and you then proceed to the **LCI+SCI case**.

### 6b) SCI case:

- Select an SCI inversion node in the Workspace explorer
- Pick  Database from the **Workspace** ribbon under *Export to*
- *Select SCI inversion for upload to GERDA* and proceed to the **LCI+SCI case**.







### 6a+b) LCI+SCI case:

At this stage and forward, the LCI and SCI upload procedures are the same and use the form below.

- Select the template PC-GERDA from step 5 under *Dataset GERDA database*. If your inversion only includes one dataset/dataset-node, you can select the uploaded dataset GERDA database from step 4 instead, since this database also holds the needed dataset-ident.
- In the model edition window below, you must match (select) the LCI/SCI-dataset(s) shown to the right under *SCI/LCI sources dataset* to the correct dataset-ident in the left panel under *Dataset Idents*.
- Hit the *Match* bottom, and the match will show up in the *Matched Idents and SCI dataset* list.

- Fill out the needed info under *Edition and inversion software*.
- The *Edition name* will become the last part of the model-ident. Note that the resulting model-ident will automatically include the inversion type (smooth, shap, layer, ..), model sub-type (LCI,SCI 1D, 2D...), numbers of layers, etc. The *Edition name* will therefore typically just be “primary”, “basic”, ...
- The *Edition comment* is a short comment to the edition like “standard smooth inversion”, “Inversion with prior from borehole logs”, ...



- Reference model:
  - Refmodeldk01: TEM-data calibrated to the old 5-layer test site model (older than November 2011).
  - Refmodeldk02: TEM.data calibrated to November 2011, 7-layer test site model
  - Refmodelnone: Use for non TEM-data.
- If you have more inversion results (model editions) to upload, then repeat step 6 and 7.



## 7. Upload LCI/SCI models to GERDA

- Upload the exported model-database from Aarhus Workbench via the [GERDA website](#) (2020 link). User login is needed. Note that you cannot upload the model part until the dataset part from step 4-5 has been successfully uploaded to GERDA.
- You may zip the database prior to upload to reduce file size. Only one database per zip file.
- **Important:** Leave the “*Include datasets rows*” unchecked on the GERDA upload form below.

**import**

Choose File  
 No file selected. \*

Comment

e-mail  
 \*

Include dataset rows

- You will receive an e-mail from GERDA regarding the model upload.
- If you have more inversion results (model editions) to upload, then repeat step 6 and 7.