DECdoc Firebird Database

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1. Introduction

I'm a collector of **DEC** hardware, software & manuals.

Sometimes collections grow so large that you run the risk to loose track of your collections' items. Then it's time to look for a tool to manage the "chaos"!

Example (my collection as of yet):

701 hardware items

510 software media items

5.810 manuals (paper & pdf files)

2. An Example

Imagine for example the **DSV11 Dual Synchronous Serial QBus Interface** option.

The following questions might arise:

- When was the **DSV11** introduced?
- Which variants of the **DSV11** do exist?
- Which module(s) make the **DSV11**?
- Which other parts belong to the **DSV11** option?
- Which cabinet kits are there for the **DSV11**?
- Which values (e.g. supply voltage, maximum supply current, Qbus loads, baud rates, ...) are specific to the **DSV11** option?

- How many **DSV11s** are in my collection, where are they from and in what condition?
- Where are my unused **DSV11s** stored?
- Into which of my computer systems are **DSV11s** configured?
- Which manuals (and other documents) describe the **DSV11**?
- Which of the **DSV11** manuals do I own?
- Which of my **DSV11** manuals are printed and which are scanned to pdf or other file types?
- Where are my **DSV11** manuals stored?
- Which versions of **VMS** (or other **DEC** operating systems) support the **DSV11**?
- Which driver software is needed for the **DSV11**?
- Are there License PAKs for the **DSV11** driver software?
- Which of the **DSV11** driver License PAKs have I got?
- What are the diagnostic software modules for the **DSV11**?
- Which version(s) of the diagnostic software modules for the **DSV11** have I got?
- Which media contain the **DSV11** diagnostics and where are they stored?

Of course you can find some of this kind of information by reading the relevant manuals, but what and where are they? Naturally you can go through every shelf and every box, look into all of you computers, but that would take ages!

The **DECdoc** database is designed to cover all possible aspects of collecting **DEC** items, especially hardware, software and manuals of all kinds. The "**doc**" in **DECdoc** means "documenting", not "documents" alone.

DECdoc is a (hopefully growing) **DEC** knowledge base as well as a means to manage collections of **DEC** items (and related "third party" products).

Special care was taken to include the interrelations between two or more of the main categories (hardware, software, manuals) and/or subcategories.

Data now contained in **DECdoc** was shamelessly taken from several sources (e.g. Manx for manuals, Modules field guide for hardware items) as well as extracted from **DEC** manuals and other sources e.g. by reading and typing or OCR. There was (and will still be) a considerable amount of manual labor especially with filling the "connecting" tables.

Most of the used data sources lack a strict formatting as well as the important cross connections between the three main categories. Finding special information in conventional sources is normally limited to an unspecific text search.

Up to now **DECdoc** is mainly focused on **PDP-11** and **VAX** hardware, software and manuals. Of course **DECdoc** is open for older (e.g. **PDP-8**, **PDP-10**) as well as newer **DEC** computer architectures (for example **Alpha**). Even so-called "Third-Party" products are integrated into **DECdoc**. Famous names in this category are **EMULEX**, **DILOG** and **PLESSEY** for example. To be honest, **DECdoc** could even be used to handle collections of computers originating from **DEC**s major competitors: **IBM**, **HP**, **SUN** and others ;-)

Until recently the **DECdoc** database ran on a Linux **PostgreSQL** server only. From now on there's a simplified version based on a **Firebird** file database. No more need to set up a database server and ODBC hassle!

The front end for both database versions is built with **LibreOffice Base.**

What do you need for the **Firebird** file database version:

- LibreOffice (at least version 7.x)
- DECdoc LibreOffice Base interface file: **DECdoc-Firebird_V001.odb**
- DECdoc Firebird database file: **DECdoc_V001.fdb**

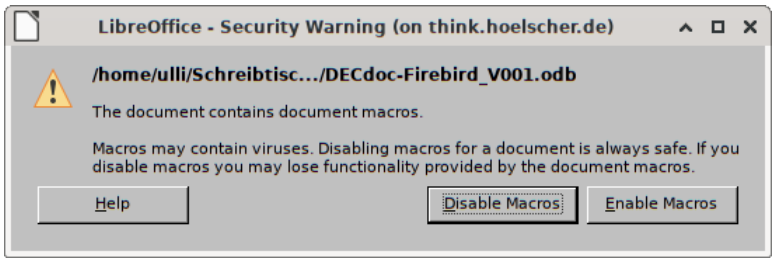
3. Preparing to use the DECdoc Firebird File Database

- If not already done, download & install LibreOffice.
- Copy both DECdoc files:
  - **DECdoc-Firebird_V001.odb** and
  - **DECdoc_V001.fdb**

  to a directory of your choice (the file version numbers may differ).
- Write protect the **DECdoc-Firebird_V001.odb** LibreOffice Base file. This will protect you against unintentionally modifying the DECdoc user interface. There will be no problem changing existing or entering new data, because it is stored in the Firebird database file **DECdoc_V001.fdb**.

4. Configuring LibreOffice Base for the Firebird File Database

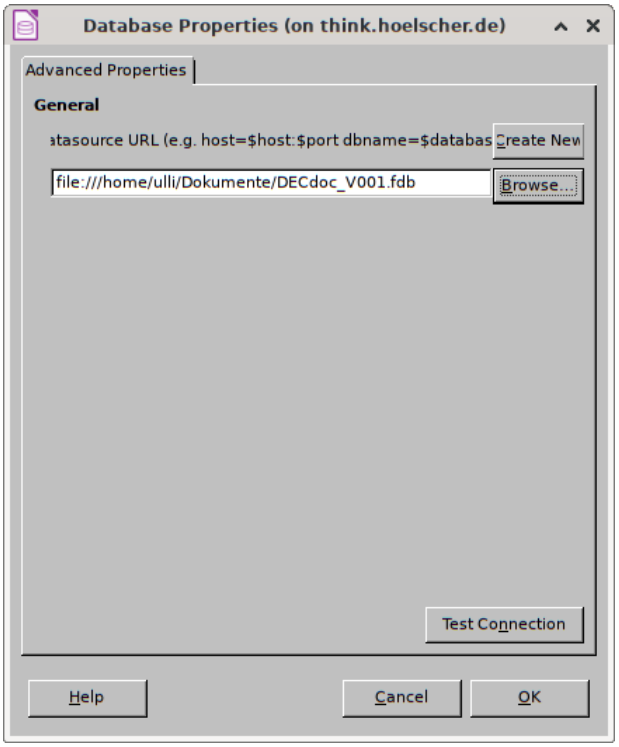
Open the **DECdoc-Firebird_V001.odb** file with LibreOffice Base:



Choose: Enable Macros; the macros included are safe.

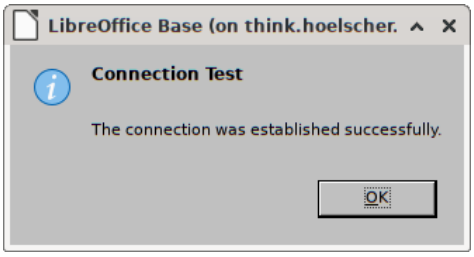
Close the automatically opened form "Hardware".

Now choose from the LibreOffice Base main menu: **E**dit/Data**b**ase/**P**roperties...



Now choose: **B**rowse... and navigate to where you put the **DECdoc_V001.fdb** file (the version number may differ).

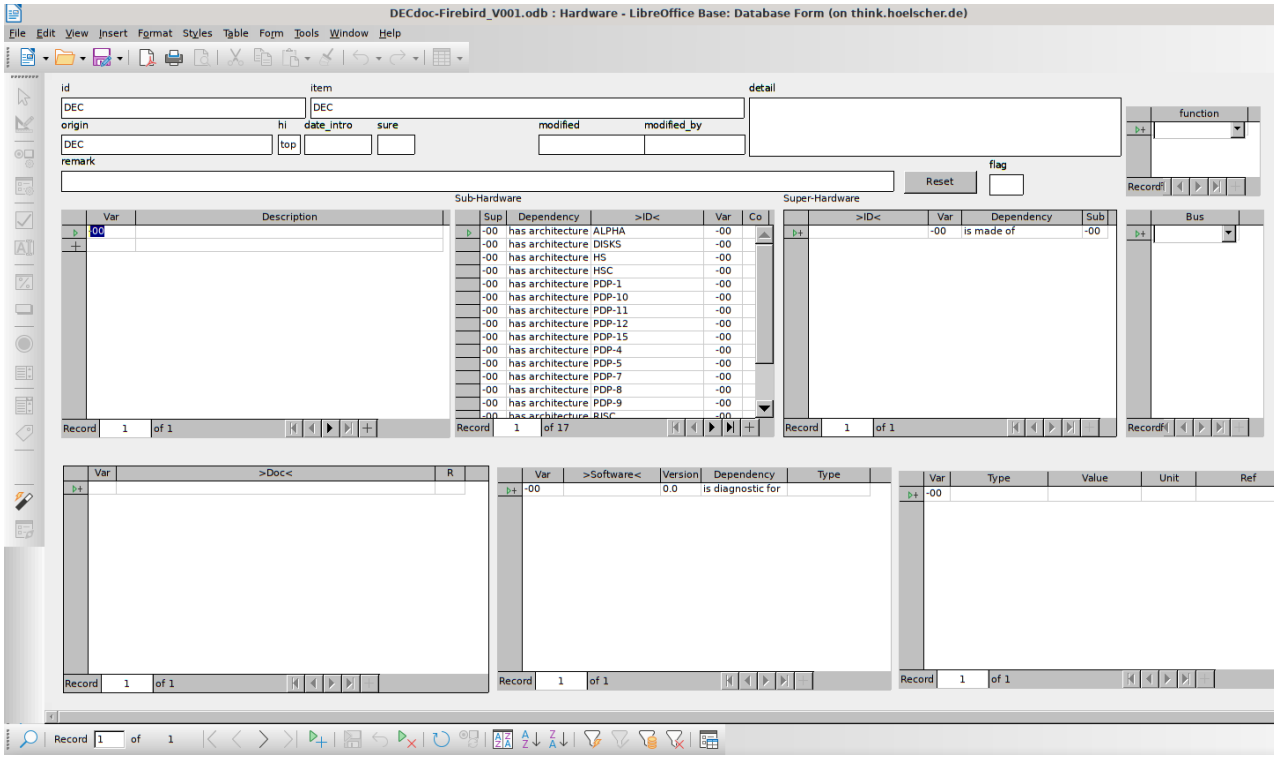
Now verify operation with: Test Co**n**nection



Now you can use the DECdoc database with the LibreOffice Base interface :-))

5. Using the DECdoc LibreOffice Base Interface

As soon as you open the DECdoc LibreOffice Base interface the **Hardware** form will be opened automatically (of course you can change that if you want to).



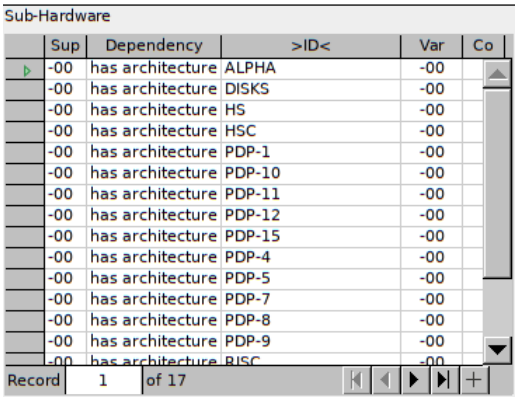
Hardware data is stored hierarchically, i.e. starting with the top level item **DEC**.

You can either traverse the hierarchy downwards to the hardware item you want to know about or select it directly.

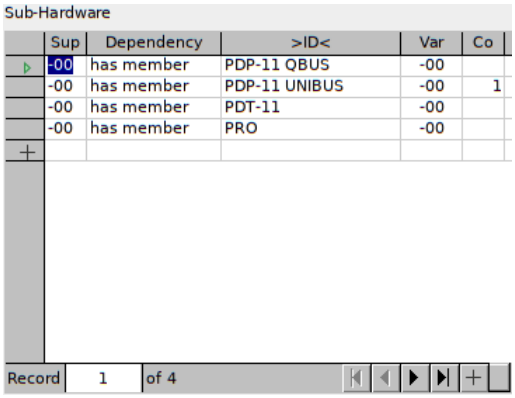
5.1 Traversing the Hierarchy

5.1.1 Going down

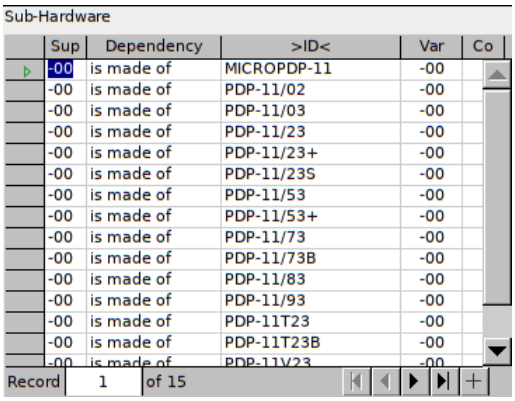
Have a closer look at the **Sub-Hardware** table (at the center):



Hold down the **Control** key **<Ctrl>** and click on any item in the **>ID<** column (scroll downward using the scroll bar on the right side for more items, e.g. **VAX**) to get one step downwards to a DEC architecture, e.g. **PDP-11**:

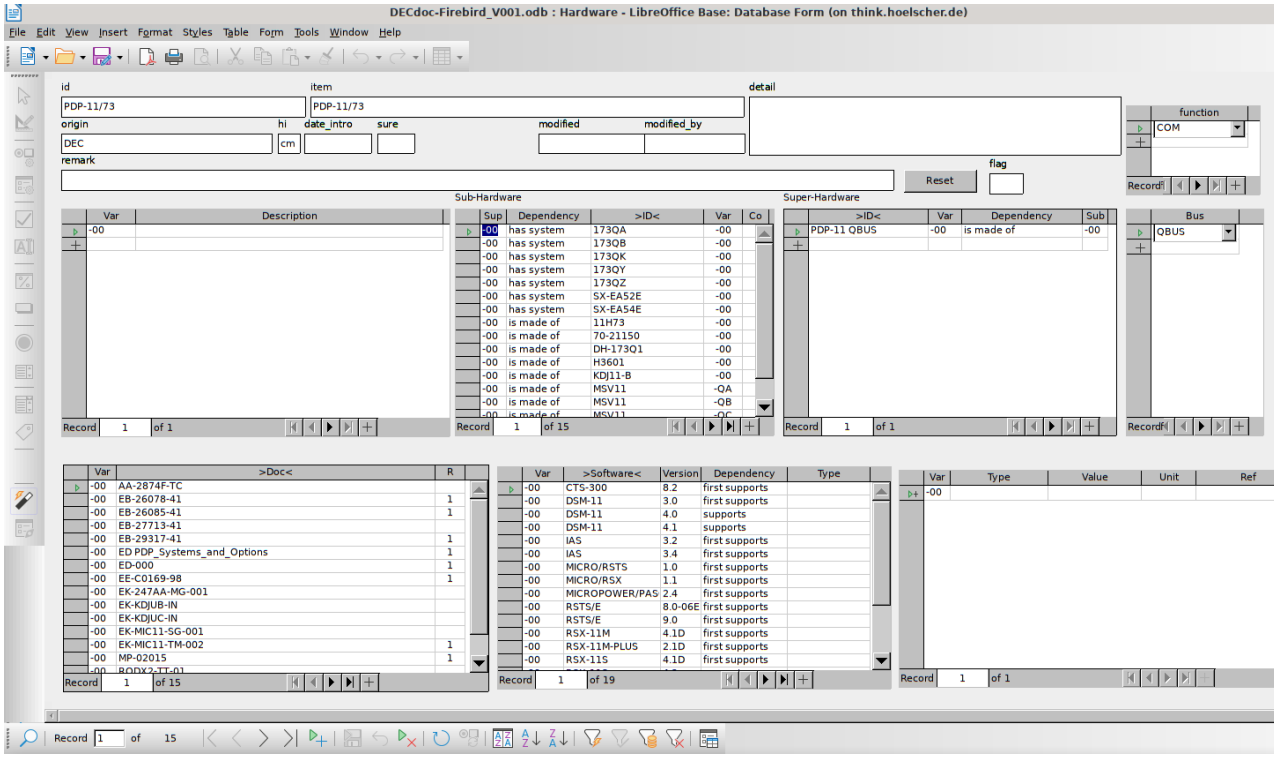


Here you can choose between the different PDP-11 architectures: **PDP-11 QBUS**, **PDP-11 UNIBUS**, **PDT-11**, and **PRO**. Now navigate further down the hierarchy (like before), e.g. to **PDP-11 QBUS**:



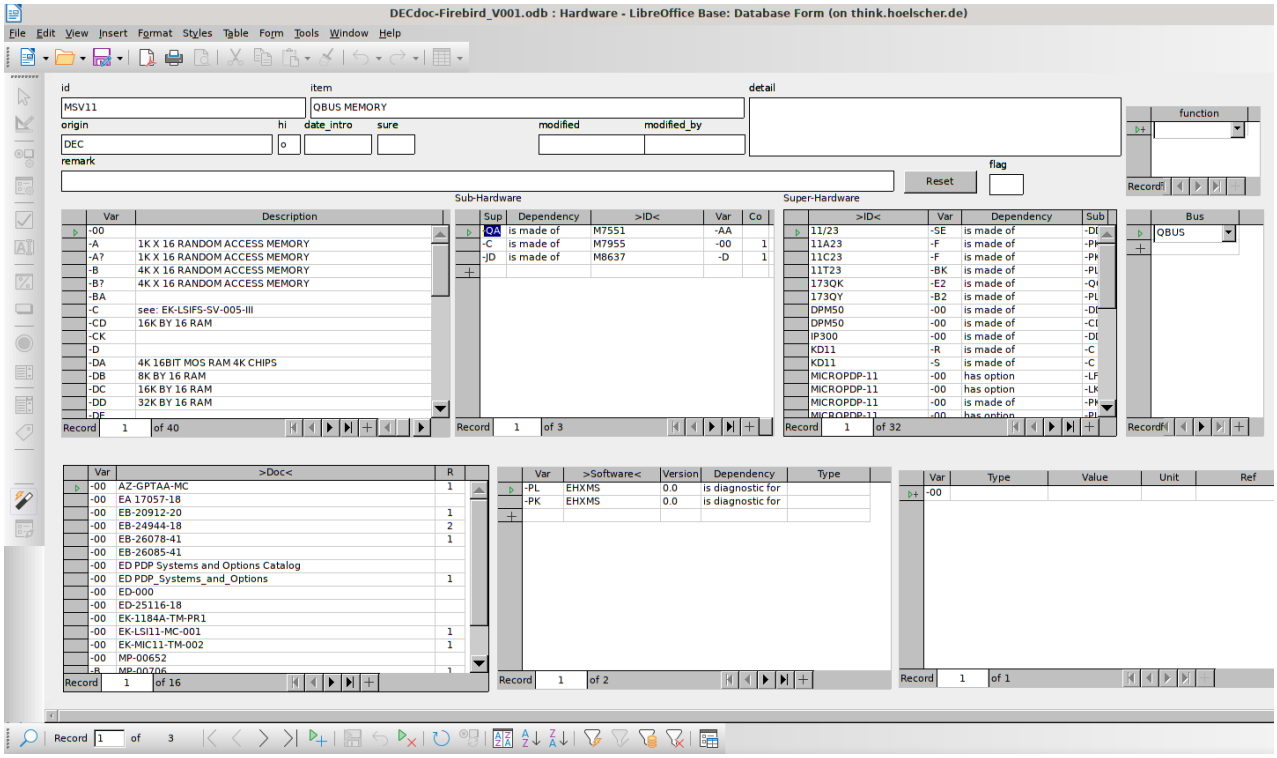
You want to know about the **PDP-11/73**, so move further downward to that.

Now lets have a look at the whole form:



- Top: Common data fields of the actual item
- Middle left: Actual item variants table
- Middle center: Items table [on the next hierarchy level downwards] (here: PDP-11/73 systems and options)
- Middle right: Items table [one hierarchy level above the current item] (here: PDP-11 architecture)
- Bottom left: Documents table [related to the current item]
- Bottom center: Software table [related to the current item]
- Bottom right: Item values table [e.g. disk space or power consumption]
- Far right at the top: Item function table (here: "COM" for computer)
- Far right in the middle: Busses table [used with the current item] (here: "QBUS")

Going one step further down to the MSV11 Memory shows us details about it:



There are still two (optional) levels of hierarchy below the level of "option", "module" and "part".

It's time to have a closer look at the hardware "variants" now. Almost all DEC hardware items (except for the "higher" hierarchy levels) have got variants originally assigned by DEC.

For reason of consistency **all** hardware items are assigned at least the base variant "-00" in DECdoc.

Hardware item variants distinguish between (for example):

- different subtypes
- different properties , e.g. memory size
- different states of ongoing development
- different housings
- different packaging
- ...

Attributes common to all variants are assigned to the base variant.

Two important notes:

- **When you jump downwards or upwards in the hardware hierarchy, you jump to an item with all of its variants, although you click on the item in the row with a specific variant.**
- **Every time you jump, a filter is set to the item of choice. When you want to display all items instead of the one chosen, you have to reset the filter first, see: "Removing Form Filters"**

5.1.2 Going up

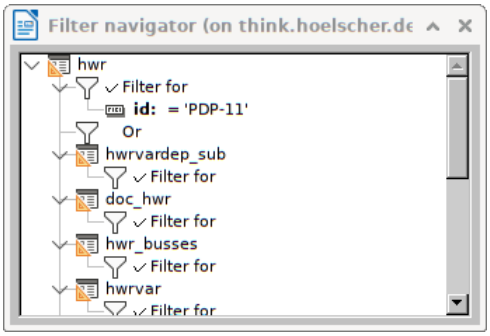
At any time you can go up the hierarchy by clicking (with the <Ctrl> key pressed) on an item in the "Super-Hardware" table.

5.2 Accessing an Item directly ("Filtering")

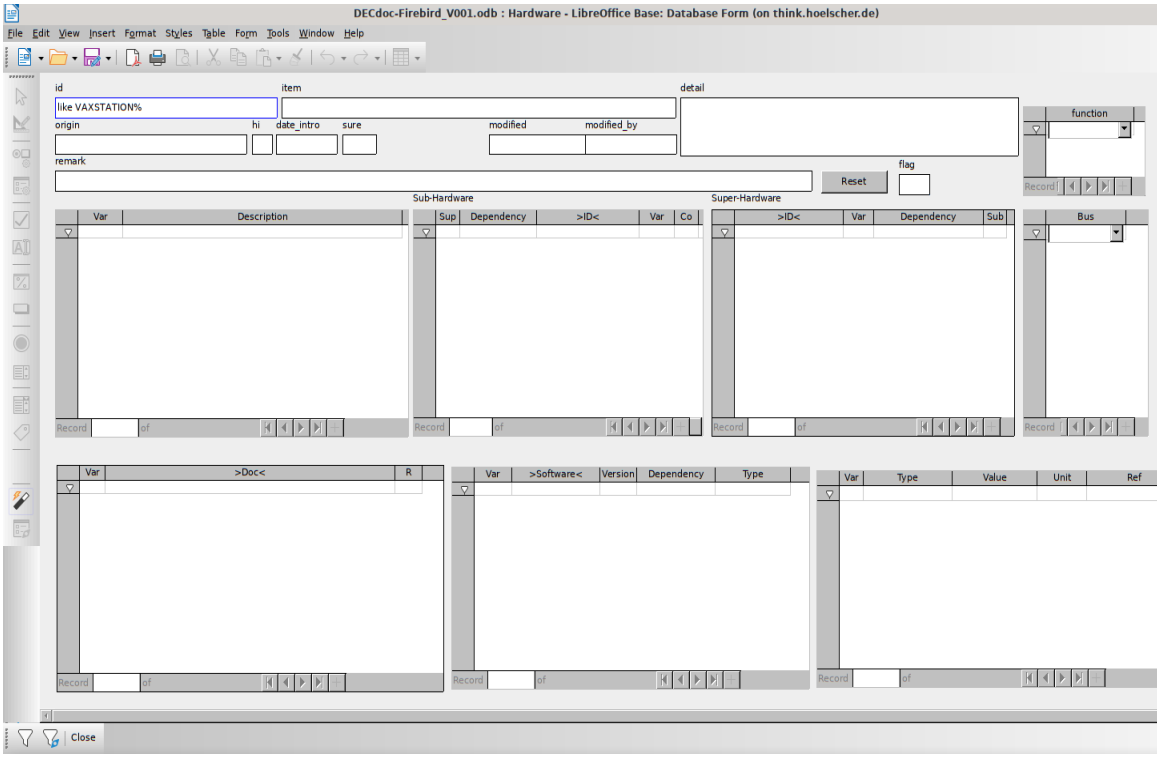
Instead of going through the hierarchy you can access any item directly when you know its name. Have a look at the bottom Form Navigation Toolbar:

Click at the "Form-Based Filters" button or use the keystroke combo "Ctrl + Shift + L".

The Filter navigator window will open; close that one - we don't need it:



Now you will see an almost empty hardware form:


DECdoc-Firebird_V001.odb : Hardware - LibreOffice Base: Database Form (on think.hoelscher.de)
File Edit View Insert Format Styles Table Form Tools Window Help
id
like VAXSTATION%
item
detail
origin
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date_intro
sure
modified
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remark
Reset
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Super-Hardware
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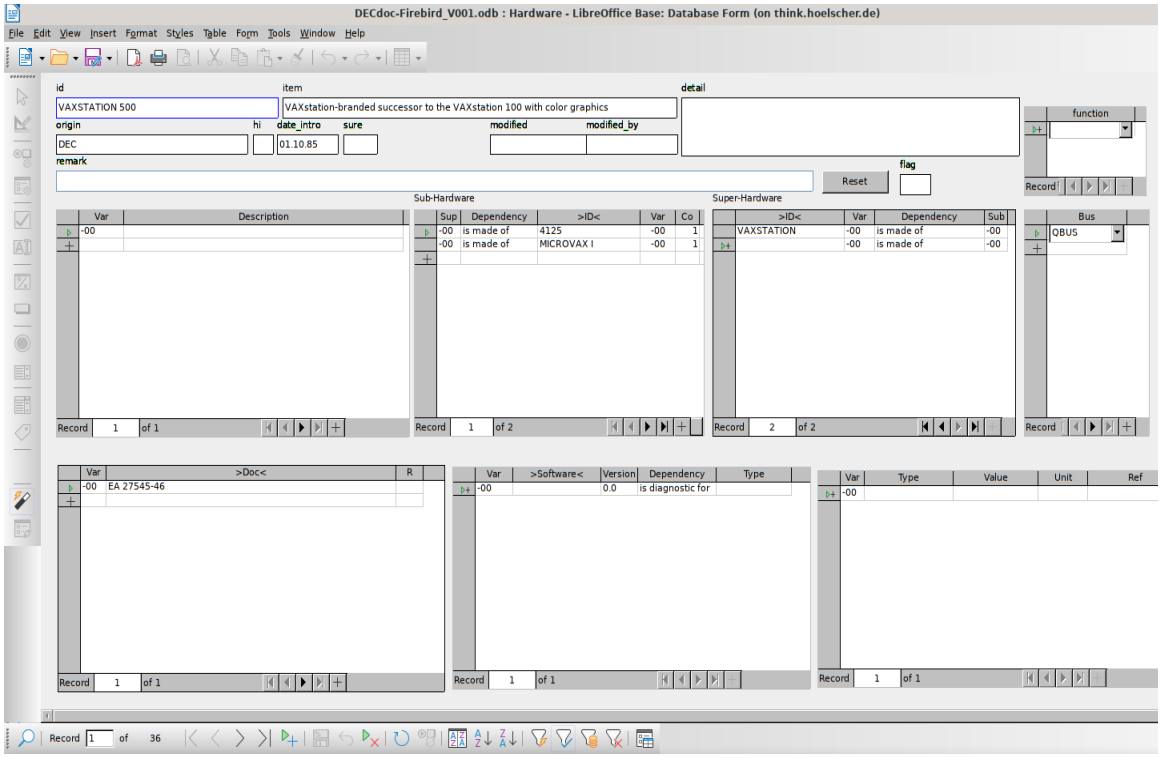
Description
Sup
Dependency
>ID<
Co
Sub
Bus
>Doc<
R
>Software<
Version
Type
Value
Unit
Ref
Record
of
Close

You can use any of the hardware item attributes (fields on top of the form) to specify properties of the item(s) you are looking for. Note that all the conditions you set must match. When you get no results at all, use fewer conditions.

I recommend using the "id" field for searching. Imagine you want to look for VAXstations of any kind, then use "like VAXSTATION%" as search string (without the quotes). Use uppercase strings only when setting conditions for the "id" field, because all ids are in uppercase to ease searching. The "like" tells the program that you want to filter using wildcards. The "%" is the wildcard for an arbitrary number of characters or numbers.

To start filtering use the bottom leftmost button ("Apply Form-Based Filter")  :



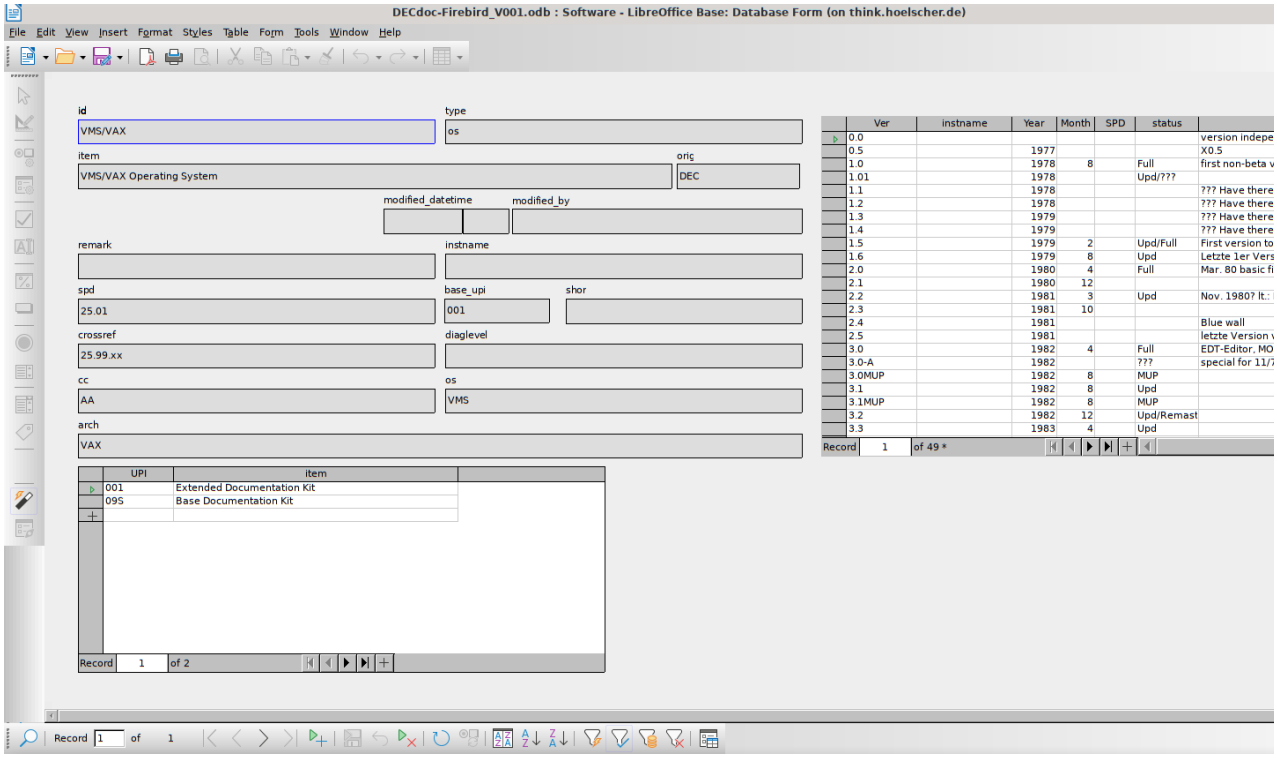
Now you can scroll through the results of your query (here: 36 items) using the scroll icons (**|<**, **<**, **>**, **<|**) at the bottom.

Of course you can jump to other hardware items from here as described in "Traversing the Hierarchy"/"Intra-Form and Inter-Form Links".

5.3 Removing Form Filters

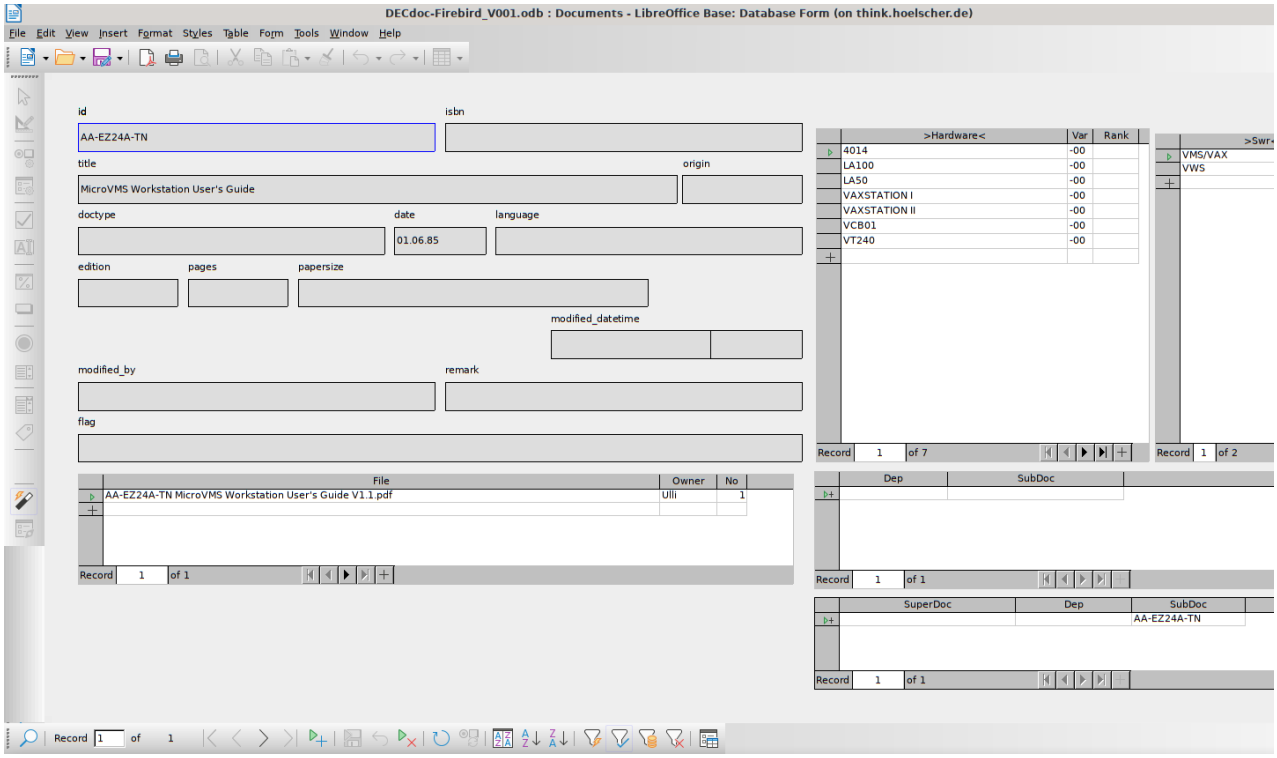
Filters can be removed by clicking the "Reset Filter/Sort" icon  .

5.4 Form "Software"



DECdoc LibreOffice Base Form "Software: VMS/VAX"

5.5 Form "Documents" (Manuals)



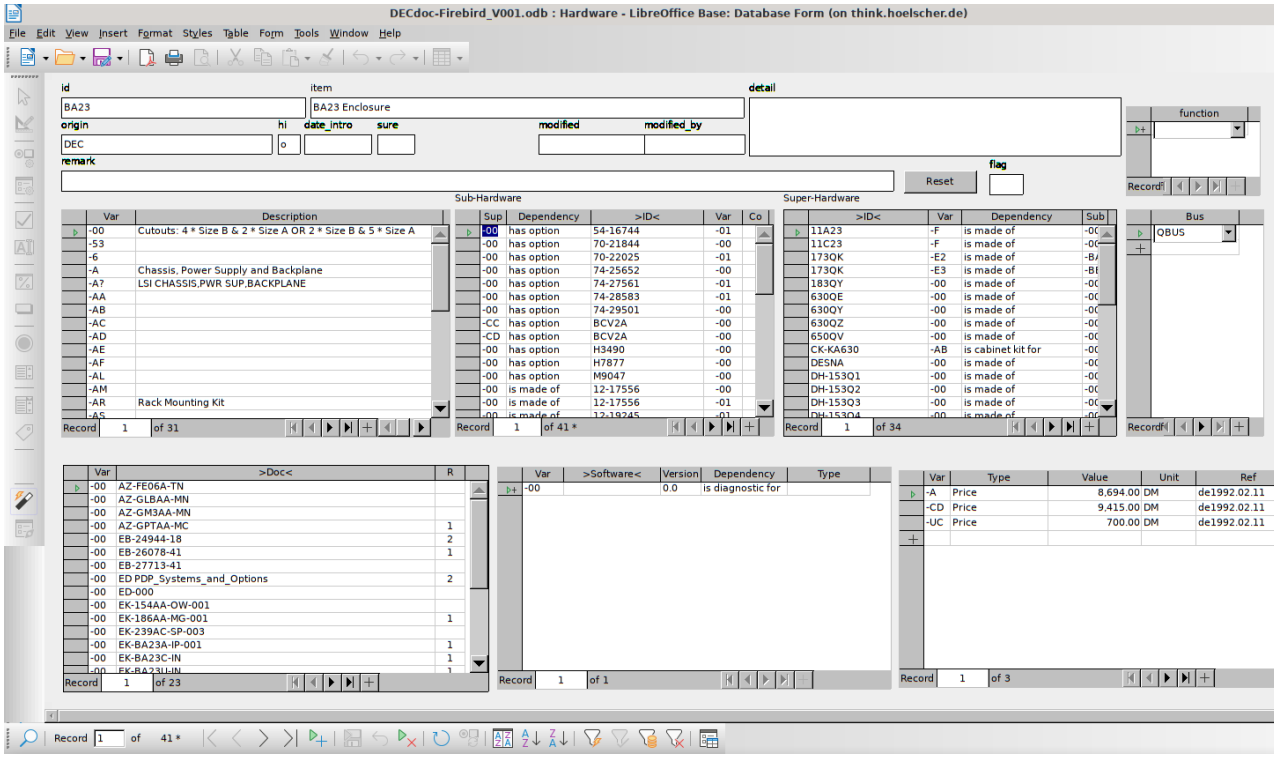
DECdoc LibreOffice Base Form "Documents: AA-EZ24A-TN"

6. Intra-Form and Inter-Form Links

Imagine you're using the **DECdoc** form "Hardware".

You are currently looking at the **VAXSTATION II** record.
Now you want to know more about the **BA23** enclosure.

Do a **<Ctrl>** + click at the **BA23** entry and the form will now display the **BA23** record:



DECdoc LibreOffice Base Form "Hardware: BA23"

All items in columns with clasped headings like "**>ID<**", "**>Swr<**", "**>Hardware<**", or "**>Doc<**" are linked to the respective form.

When you jump to another item in the same form, the same form is used and the focus on the previous item is lost.

When you jump into another form, the previous form is left "as is" keeping the focus on the item before you jumped.

You can switch between open forms easily by clicking on their icons in the task bar or cycle between them using **<Alt + Tab>**.