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For dr1000-hackx 0.10.

# 1 Installation

This section describes the installation and de-installation procedure for the dr1000-hackx for the DR1000. Note that the hack changes part of the firmware and might thus make the software more unstable and can lead to data loss. As indicated on the MobileRead forum, it should always be possible to revert back to an original firmware by copying the firmware-installation-files on the SD-card and then resetting the device.

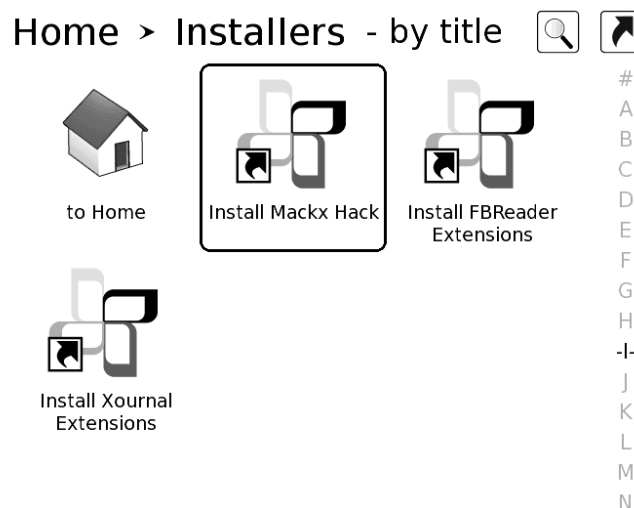
## 1.1 Copying on the SD-card

The first step is to copy the files to the correct location on your SD-card. The zip-file with the files for the patch should be extracted on the root of the SD-card.

## 1.2 Installation

The copied files contain the (de-)installation script. If you upgraded to a new firmware version and want to install the hack again, then first read the New Firmware-section below!

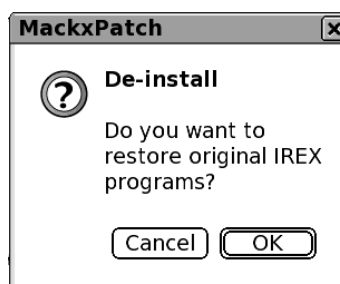
The installation-script can be started by double clicking on the 'Install Mackx Hack' icon. The icon is located in Programs/Install, browse to it using the SD Card-view. See the picture below.



Note that the picture shows the Installers-View which is not yet available when the hack is not yet installed.

### 1.2.1 De-install

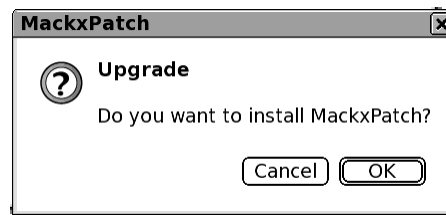
When you have already installed the hack before and are now upgrading to a newer version, the installation script will ask you if you want to de-install the existing version. De-installation is not required when upgrading so only select this when you want to remove the hack and go back to the original firmware.



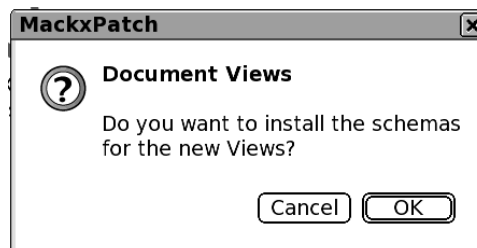
Select OK to start the de-install and Cancel to continue with installation.

### 1.2.2 Install

The next pop-up will ask you if you really want to install the hack.



Choose OK to continue. The installation contains two parts: installation of gconf-schemas for the new views and installation of the changed firmware. You can choose if the gconf-schemas should be installed (again), installation is not mandatory if they have not changed.



The installation of the changed firmware component will not lead to an extra pop-up, there will only be a pop-up to indicate that the installation has finished and that a reboot of the device is required to use the changed files.



After clicking OK the device will reboot. This might give some strange effects on the screen, but everything should be normal again within a minute.

### 1.2.3 New Firmware

The installation-script copies the 'current'-versions of the firmware components that are replaced to the SD-card. These will be used during de-installation. A problem occurs when a new firmware version is installed with first de-installing the hack. After the firmware-upgrade, the SD-card still contains the 'original'-versions of the old-firmware, so when de-installing, the old-versions will be used and not the correct ones from the new firmware.

There are two solutions to this problem:

- 1) De-install the hack before installing new firmware.
- 2) Remove the old-firmware backups before installing the patch for the new firmware. They are located in: Programs/\_mackxpatch/ and called: ctb\_original; popupmenu\_original; sysd\_original; libermetadb\_original and globaldb\_original;

### 1.2.4 Extra Views

The Programs/Install folder can contain more icons that are related to new views. These views will not be installed with the normal-installation script, so they have an extra script. Note that new views

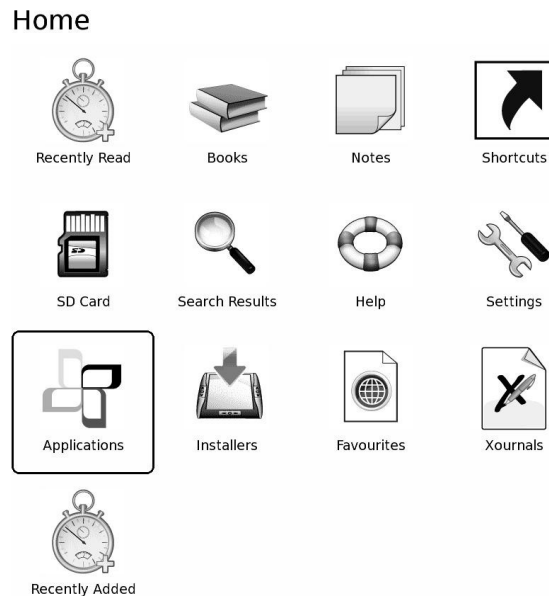
only get active after the device is reset. Some installation script will do the reset, others require a reset or a power-cycle from the user.

## 2 User Manual

This section describes how to use and configure the changes that are made with the hack.

### 2.1 Views

The Home-screen that is normally shown after start-up contains a selection of Views. Each view shows some part of the content of the SD-card (or some internal data) with its own sorting, grouping and appearance. The firmware is changed to support some extra views. Some of them are added during the install, but you can also add your own views.



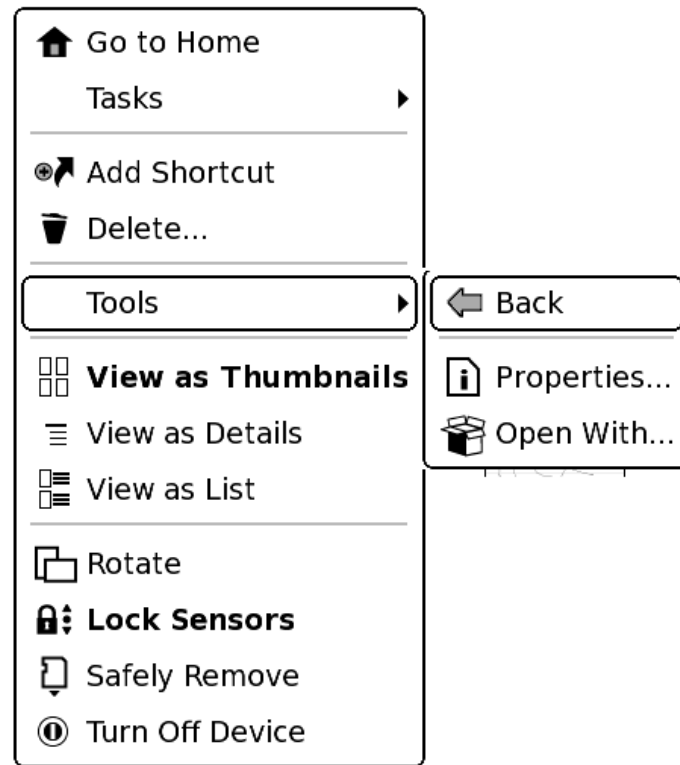
The picture shows a modified Home-screen with some extra added views. Some 'standard' views are not shown anymore. The new views are:

- Recently Read: The standard view shows the recently added documents, this view shows the recently read document. This makes it easy to find the document you where reading the last time you used the DR.
- Application: This view shows all items on the SD-card that are marked as 'application'. See the Properties-section below on how to mark items.
- Installers: This view shows all items on the SD-card that are marked as 'install'. See the Properties-section below on how to mark items.
- Favourites: This view shows all items on the SD-card that are marked as 'fav1'. See the Properties-section below on how to mark items.
- Xournals: This view shows all items on the SD-card that are marked as 'xournal'. See the Properties-section below on how to mark items.

As indicated most new views need some extra work before they can be used sensibly.

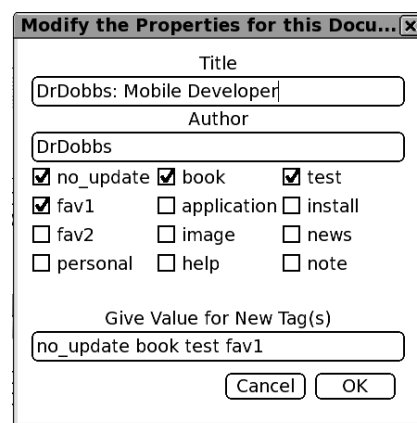
## 2.2 Tools-Properties (upd 0.9)

A new menu item has been added, named 'Tools->Properties'.



After selecting a document (by using the up/down/right/left-keys) bring-up the menu. You will see the new item. Select it and you will get a dialog to modify the title, author and 'tag' for the document. The Title and Author are used by the DR to show in the different views (except the SD-Card-View which shows the file-name). The tag is used by the DR to mark documents as a specific type of document. The tags that are used by the standard firmware are: book; image; news; personal; help; and note.

The new views also support more tags, see the previous section.

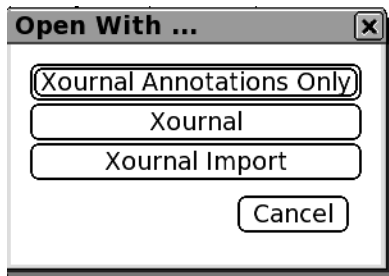


The original firmware only allows one tag per document, the hacked firmware allows multiple tags to be assigned to a document. The 'known'-tags can be selected with the check-boxes, new ones can be typed into the Edit-box. A maximum of 15 predefined tags will be shown.

## 2.3 Tools-Open Width... (0.9)

The menu-item Tools->Open With (see figure above) allows to open a document with an alternative viewer/program. When for a certain extension alternative viewers are installed, then these can be chosen with the dialog opened by this menu entry.

The example below shows extra programs/options that are installed for pdf-files, the 'Install Xournal Alternatives' icon needs to be clicked to install xournal as alternative for pdf files.



If you want to create extra installers for alternatives of a certain file-type, see the `_add_xournal_alt.sh` script and the `alt-xournal*.schemas` files.

## 2.4 Prevent Title/Author overwrite (0.7)

The default behaviour of the UDS is to overwrite the title and author of a document with the title and author as it is recorded in the document. This is a very usefull feature, unless the title and/or author are do not have the value that you wish they would have. To overcome this problem, the “no\_update”-tag can be used. So when changing the title/author also add “no\_update” to the tags as shown in the example above.

## 2.5 StartPage

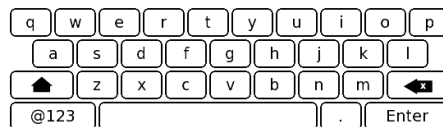
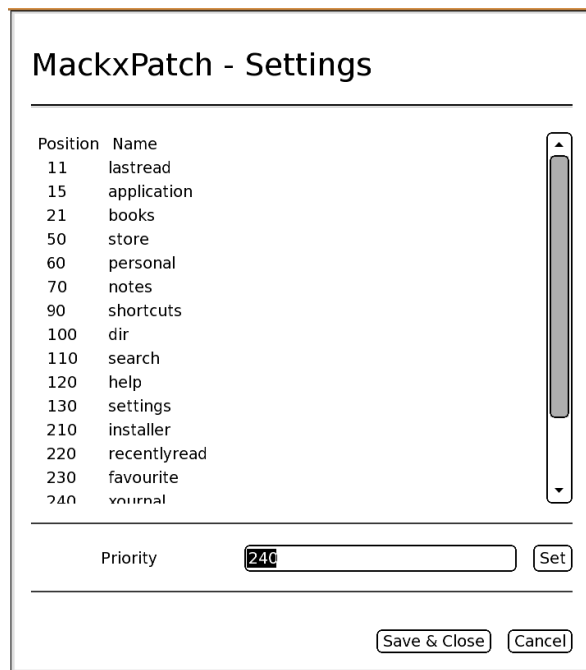
With the original firmware, after start-up the Home/Desktop is shown. The hack allows this behaviour to be changed. There is another new menu-item called 'Set as StartPage'. When this menu-item is selected, the current view will be shown at the next restart. This allows for example to start with the Recently Read-View.

## 2.6 Settings

Some of the changes to the firmware can be configured, to do this two extra settings dialogs are added. Navigate to the Settings-View to start them.

### 2.6.1 MackxHack

This dialog allows to configure the Home/Desktop view.



The dialog shows a list of views of the Home-screen, in front of the name, which is used to determine its position. The view with the lowest number is shown first. When the number is zero, the view will not be shown.

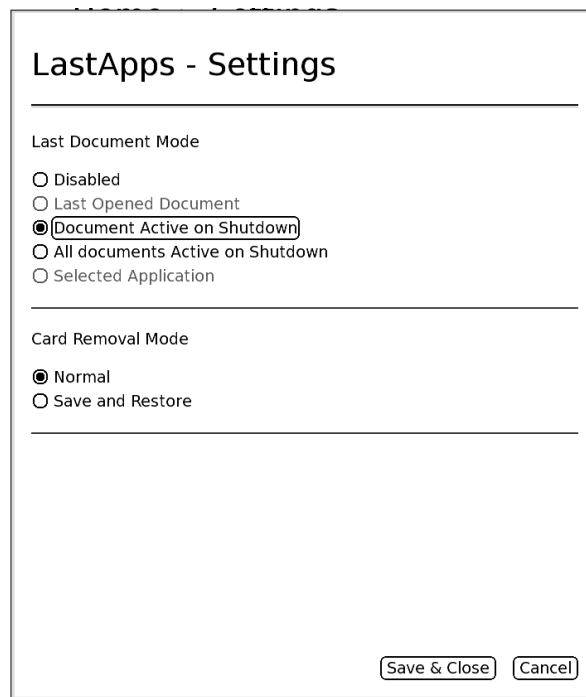
To change the position of a view:

- Double click on the view. The priority will now be shown in the edit-box at the bottom of the dialog.
- Determine its new position and enter the value.
- Select the Set-button to activate your choice.
- Multiple items can be changed in this way
- When finished make sure to choose 'Save & Close' to apply the changed settings.

## 2.6.2 LastApps

This dialog allows to configure the behaviour for the last-app functionality. The last-app functionality has two parts: the start-up behaviour and the card-removal behaviour.





**Last Document Mode:** controls the startup behaviour.

- Disabled: do not start any document at startup.
- Document Active on Shutdown: Start the document that was active on top of the screen (i.e. visible) when the DR was shutdown.
- All documents Active on Shutdown: All document that where 'active' (i.e. shown in the TaskBar at the right side of the screen) are opened after start-up.

The other options are not implemented and can not be choosen.

**Card Removal Mode:** controls the behaviour after card removal/re-insertion.

- Normal: normal behaviour do nothing extra
- Save and Restore: Remembers the open documents (shown in the TaskBar) when the SD-card is removed (with menu-item 'Safely Remove') and re-opens these documents again when the card is re-inserted.

### 2.6.3 Adding New Views

It is also easy to add your own views, you only need to create a new schema-file (and install it). The easiest way is to modify an existing one. See `Programs\_mackxpatch\schemas\`.

This is an example using the `favourites.schema` file. Lets assume you want to create a view to only see those documents that are required for ProjectX.

- Copy `favourites.schema` to `projects.schema`
- Search for all occurrences of 'favourite' and change them to 'projectx' or 'ProjectX Files' depending on the context. E.g. `<key>/schemas/apps/er/patch/ctb/views/projectx/title</key>` and `<default>ProjectX Files</default>`
- Look for the 'tag\_filter'-key and change 'fav1' to 'projx'.
- The 'position'-key can be used to change the position at which the new view should appear in the Home-screen. (Can later be changed in Settings.)
- See `Programs\_mackxpatch\_apply.sh` how to create a script to add a new schema-file. You

need to reset for the firmware to detect the new view and show it.

The 'style'-key determined the basic behaviour of the view. Only a limited 'styles' are supported, it is best to only use 'tag' for your own views.

### 2.6.4 Clock in StatusBar (0.8)

In stead of the text 'Menu' the current time can also be shown. This can be enabled in the Settings->Time & Date dialog (last option). When enabled the clock will be enabled when the screen is refreshed (i.e. when a page is turned.)

Clock

*Enable when clock should be shown in menu bar*

☐ Show clock in Menu-Bar

### 2.6.5 Remember KeyLock (0.8)

An option is added in Settings->Navigation Sensors that allows to remember the lock-status of the sensors. After a reboot, currently the keys are always unlocked. When the new option is enabled, the lock-status at the time of shutdown is remembers and restored after a restart.

Enable after Restart

*This setting controls if enable state should be remembered after a restart.*

☒ On

☐ Off

## 2.7 Extra Views

Some extra views are available that are not added with the standard installation script. These views need to be specifically installed. Each view only shows documents that are marked with a specific tag. Documents can have different tags.



- MustRead: This view shows all items on the SD-card that are marked as 'mustread'. See the Properties-section above on how to mark items. A document can be added to the MustRead-View (i.e. tagged with mustread), but the next time the document is opened, from the MustRead-view, the document is removed from the view (i.e. the tag is removed). This can be used to tag documents that you want to read but for which you do not have immediate time. If you wait too long, they will be gone from the 'Recently Added'-view, the MustRead-View is an alternative.

### 2.7.1 Auto Remove (0.7)

The Auto Remove-Viewtype has the extra item 'flags' in the schema-file. In the install-script this item should be set to the value: autoremove to enable the Auto Remove functionality. When a view has the autoremove-flag, all documents will be removed from it, once it is opened. This is implemented by removing the view-specific-tag from the tags of the document. The MustRead-view is an example of such viewtype.

## 2.8 Toolbar Icons (0.7)

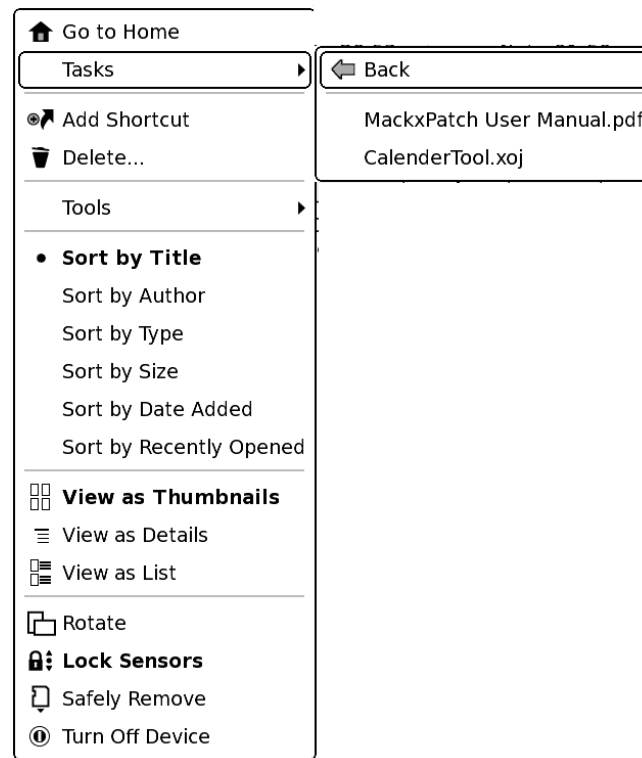
In the original firmware 3rd-party applications can not add any icons to the toolbar (left-part of statusbar). The toolbar icons are coupled to the currently shown menu, two new ipc-messages have been added to popupmenu to allow 3rd-party applications to add menu-entries to the toolbar: “addToolBarItem” and “clearToolBarItems”.

More details to follow in future updates of this document, see also the (coming) 0.8 release of xournal or the [BitBucket archive of xournal](https://bitbucket.org/mackx/xournal-dr/overview) (https://bitbucket.org/mackx/xournal-dr/overview).

The \iRex\popupmenu\data\convert\_icon script can be used to create the proper icons.

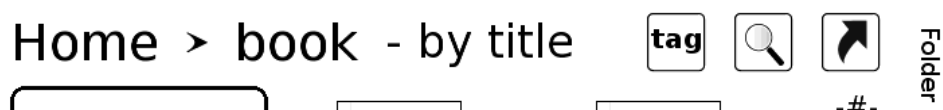
## 2.9 Tasks (0.9)

The Tasks menu-entry allows to switch to a task without using the stylus.

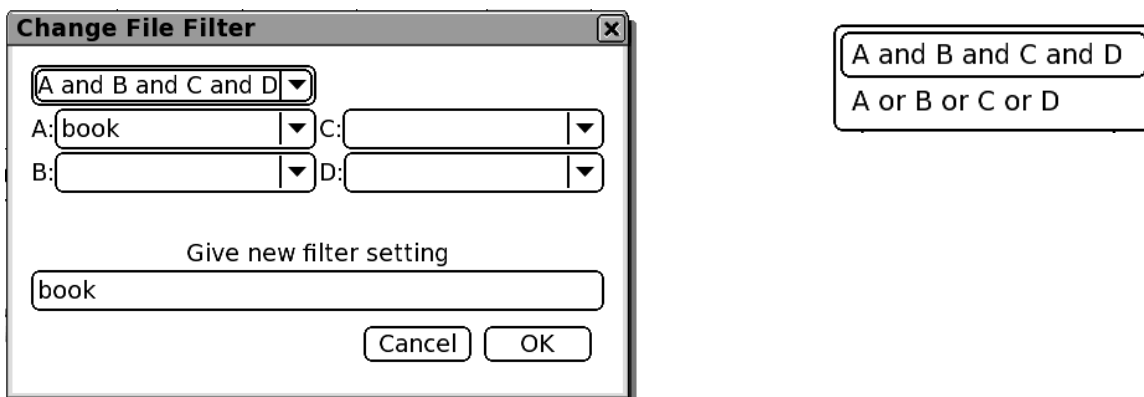


## 2.10 Tag Filter (0.10)

Tag-related views allow to fine-tune the shown documents by settings a tag-filter. The dialog to set the new filter can be selected with a new icon that is shown in the right upper corner. Note that the icon will only be available in tag-related Views.



The following dialog allows to select a new filter, two different filter can be chosen, see right picture. One filter allows to limit the number of books by requesting multiple tags to be present and the other allows to expand the number of books by requesting one of the tags to be available.



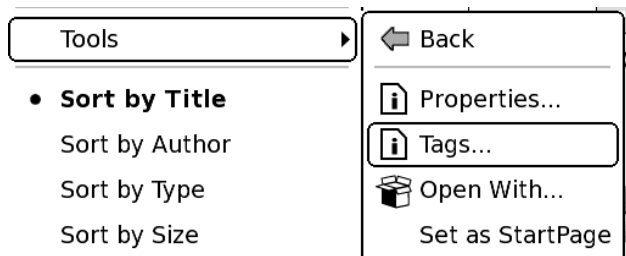
A maximum of 4 tags can be used.

When multiple tags are selected the title of the View will change to 'Multiple tags'.



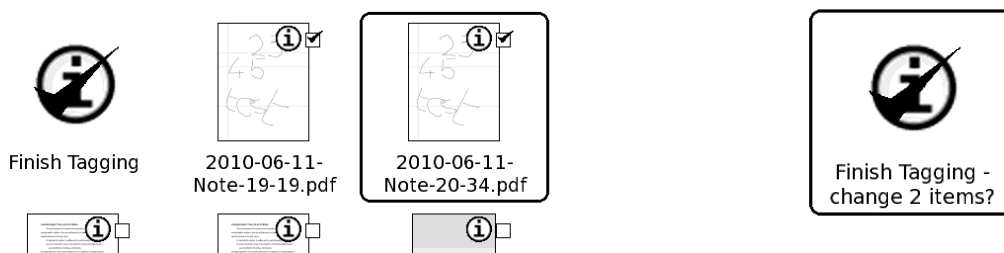
## 2.11 Tagging Multiple Documents (0.10)

Apart from changing the tag of a single document using the Properties-menu function, the 'Tags'-function allows to modify the tag of multiple documents at once. The function can be started using the 'Tags ...' menu-item.



Selecting documents to tag works in the same way as selecting document to delete. First the documents to tag must be selected and then the selection needs to be confirmed:

Home > book - by title



After confirming the Tag-modification dialog is opened:

All tags that are attached to one (or all) of the documents are shown. To add a tag to all selected documents, select the new tag and press OK. To remove a tag from all documents (all documents that have the tag) uncheck the tag and press OK. To add a tag to all documents that is currently attached to only a few documents, uncheck the tag, press Apply, check the tag, press OK.

## 2.12 Idle Time (0.10)

Due to a bug in the Adobe-plugin of uds (the standard viewer), the DR sometimes enters idle-mode before the next page is completely rendered. This leads to the 'Please Wait' dialog when going to the next page. To overcome this problem (or at least make it appear less often) a dialog is added to control the idle-time. The DR enters idle mode when no active processing is going on after the indicated time. This hack was created by rvs.