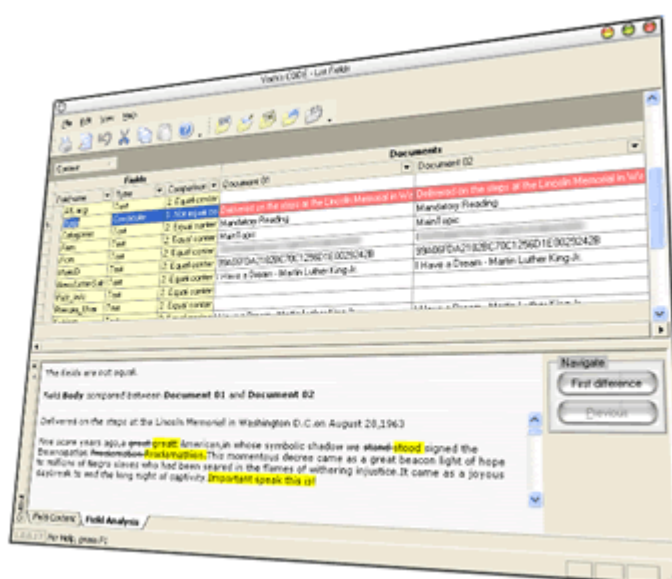


List Fields

Version 1.1



Robert Ibsen Voith/Voith's CODE

Welcome to List Fields



This is the User's Guide for List Fields and its main purpose is to unveil the possibilities in List Fields and to enable you to make the most out of the product.

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CHAPTER 1

Introduction

This guide will cover how to install and use List Fields.

In This Chapter

What is List Fields ?	2
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What is List Fields ?

List Fields is a Lotus Notes-based tool which has these objectives:

- Be an alternative to Document Properties. You have always been able to see fields in Notes document either through the Notes-form or via the Document Properties. Not all fields are necessary available or visible in the Notes form, so you may need to use the Document Properties. However, the Fields-list in the small Document Properties are small, and it generally feels to small to navigate in if you have many fields. List Fields wants to be an alternative to Document Properties.
- List fields in any Notes document. You will see the fields, types and other field information. Up to 10 documents can be open at the same time
- Edit field names-, types, flags and content directly in List Fields in an easy, intuitive and powerful way. List Fields supports text, text list, number, number list, time/date and time/date field types.
- Show details of the currently selected database, document and field
- Show the content of the fields, including rich text content such as fonts, decorations, inline images, tables etc.
- Show the fields in a table, which you control completely. You can locate, sort, order and group fields to your own preferences.
- If field content is different between documents, List Fields will easily identify these fields with a different row color. This makes it really easy to spot which fields differs between documents!
- Aid you in resolving so-called *replication or save conflicts*. When you open a document which is a part of a replication or save conflict, List Fields will detect this and offer you to open the other participants as well. This makes it real easy to spot the differences between the conflict-participants. You can also open the Notes documents themselves from within List Fields.
Finally you can let List Fields resolve the conflict for you!
- Show additional descriptive information about known \$Fields. When you encounter fields such as \$Mailer, \$UpdatedBy, \$MsgTrackFlags and so forth, you will instantly know the purpose of these fields.
- Launch List Fields from either view- or document context. This is achieved by enabling the tool as a so-called Lotus Notes-menu addin. This makes List Fields available through the Actions-menu in the Notes client. You can also launch List Fields directly from the operating system, via for example an icon, short-cut or system wide key combination.
- Export the field list with information to other formats such as XML or Excel.
- Copy the content to the clipboard. Both text and HTML format supported!

- Easily save or open images and attachments from your documents, including Notes own internal bitmaps, GIF and JPEG.
- Easily save or open OLE attachments from your documents.
- Open Notes documents containing MIME, and see each component of the MIME message. This includes the ability to open HTML parts and save and open image elements!
- Use a modern user interface, which let you control the position and size of every component. You can easily drag and drop the output and detail areas to their own windows, or let the be integrated in the user interface.
- Act as a successor to the old NNTEDIFF.DLL tool. Lotus Notes release 3 and 4 was shipped with an undocumented tool named NNTEDIFF. This tool enabled you to compare two documents. It had its issues, but was great for it's limited use.

History - what was NNTEDIFF ?

One of the objectives of List Fields is to be a successor of the old tool NNTEDIFF.DLL. This section describes what NNTEDIFF was.

First we take a look at the built-in field-list already in Lotus Notes called *Document Properties*. Document Properties are easily accessible by right-clicking on a document either from a view or from a document. You see the document properties below;

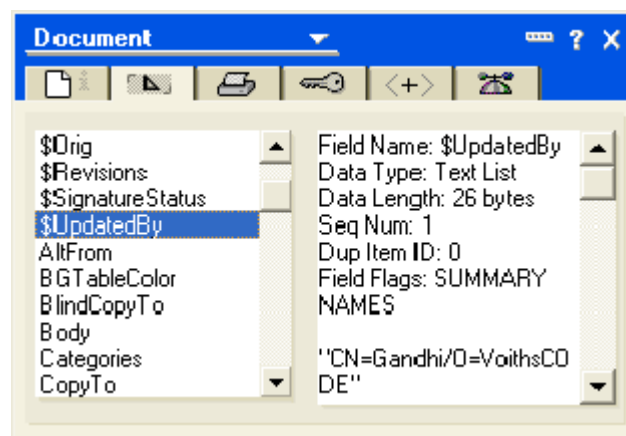


Figure 1: The document properties

The Document Properties are presented in a little dialog box, and you can see all kinds of information here. It is generally very handy, and easy to use. One of the major disadvantages with Document Properties is the fixed size of the dialog box. You can't resize the dialog box so you have to do a lot of scrolling both to locate the fields and to see the contents. Finally you can't really manipulate the content other than copy it to the clipboard.

With Document Properties available, would you ever need any other tool? Many people say yes! What if you want to compare fields from multiple documents, for example in order to resolve a replication or save conflict? Then Document Properties gets cumbersome to use.

Back in the Lotus Notes release 3 and 4 timeframe, Lotus shipped an undocumented tool called NNTEDIFF. It was shipped as a Dynamic Link Library (DLL) and you had to install it manually in the Notes configuration file NOTES.INI. When installed, it was accessible through the **Actions**-menu in the Notes client as *Compare two documents*. When you selected two documents from any view in Notes, you would get the following dialog box:

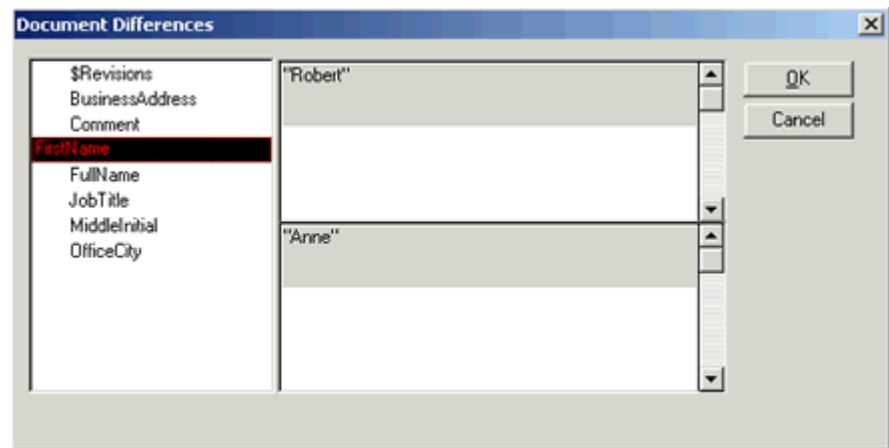


Figure 2: NNTEDIFF dialogbox

Within the dialog box above you could easily spot which field that differed between the two documents. You could also see the content of the two fields.

Easy objective and easy usage! However, NNTEDIFF could also easily crash and since it was unsupported by Lotus, you could never count on any support. A real "use it if you like it, but don't contact us if you have problems"-tool.

A final challenge was the fact that this tool didn't work at all in Lotus Notes release 5 or 6. So NNTEDIFF kind of died with release 4 of Lotus Notes.

Typographical Conventions

Before you start using this guide, it is important to understand the terms and typographical conventions used in the documentation.

For more information on specialized terms used in the documentation, see the Glossary at the end of this document.

The following kinds of formatting in the text identify special information.

Formatting convention	Type of Information
Triangular Bullet(>)	Step-by-step procedures. You can follow these instructions to complete a specific task.
Special Bold	Items you must select, such as menu options, command buttons, or items in a list.
<i>Emphasis</i>	Use to emphasize the importance of a point or for variable expressions such as parameters.
CAPITALS	Names of keys on the keyboard. for example, SHIFT, CTRL, or ALT.

KEY+KEY

Key combinations for which the user must press and hold down one key and then press another, for example, CTRL+P, or ALT+F4.

CHAPTER 2

Installation

This chapter describes how to install List Fields. You will be guided through the automatic installer application, in addition to getting the nitty-gritty details of which files go where. This will help you install List Fields on multiple Lotus Notes installations on one machine.

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Requirements

List Fields is a Lotus Notes based tool. This implies that List Fields won't run as a standalone windows application, but rather as a *plugin* to Lotus Notes.

When installed, List Fields will reveal itself via the **Actions**-menu in the Lotus Notes client, and it will act on the selected documents in both view- and document context. This means that you can start List Fields either from a view, where you select from 1 to 10 documents - or - from the currently open document, either in read- or edit mode. Finally you select the **Actions-List Fields** menu.

List Fields has these requirements:

- Lotus Notes Release 5.0.3 or newer
 - A Notes configuration file (Notes.ini) must be available in the first 128 bytes of the system PATH environment variable
- Machine and platform requirements; The same as for the Lotus Notes Release 5 client, which is:
 - Windows 95, 98 or ME - Windows NT 4.x SP3, Windows 2000 or Windows XP
 - Pentium processor
 - RAM: On Windows 9x and Windows NT more than 32 MB. On Windows 2000 more than 64 MB and on Windows XP more than 128 MB.
- Diskspace: List Fields occupies approximately 14 MB. If you wonder why List Fields occupies all this space, it's because it include a large toolkit called Xalan from Apache.org. The Xalan toolkit is used to convert richtext in Notes documents to HTML display in List Fields.

Two methods, the
installer or manual

The Installer

A step-by-step guide through the standard installer.

Why use the installer ? The main benefit by using the installer, is that it does the lot for you. It analyses the Lotus Notes installation to figure out where you have the Notes program- and data directories, it places all the files and components of List Fields in the correct directories, register common components and finally update your Registry database with the correct settings. Using the installer, should be easy and straight forward. In addition, by using the installer, you will also get an uninstaller, so you can get rid of List Fields.

The initial installation screen

When you first start the installer, you'll see this screen:

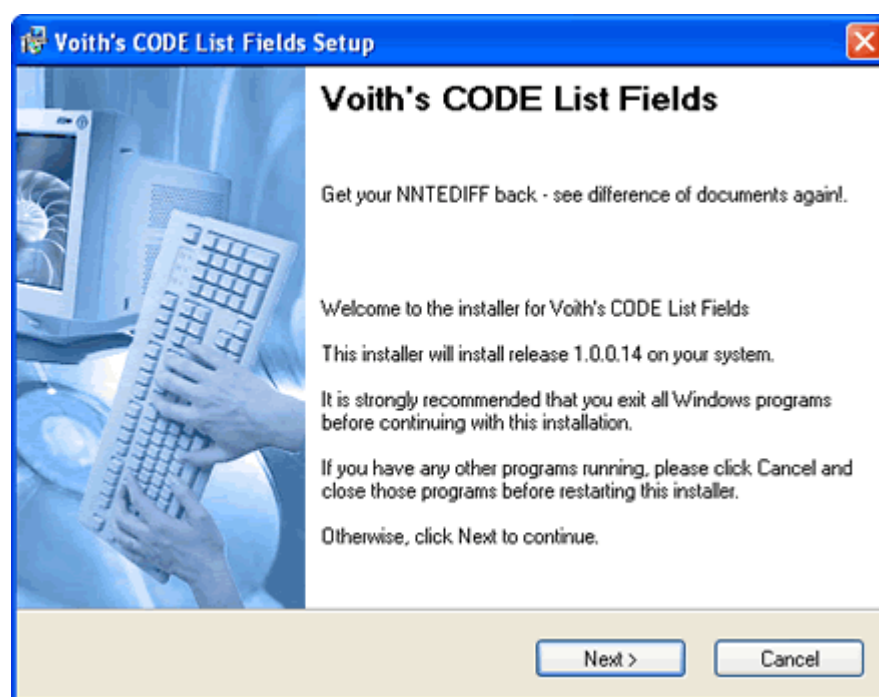


Figure 3: Initial installer screen

Note that you can see what release you are about to install already here!

You're not an Administrator ?!?

In order to install List Fields you need to have so-called *administrators rights* in order to do so. If you haven't got such rights, you will see this screen:

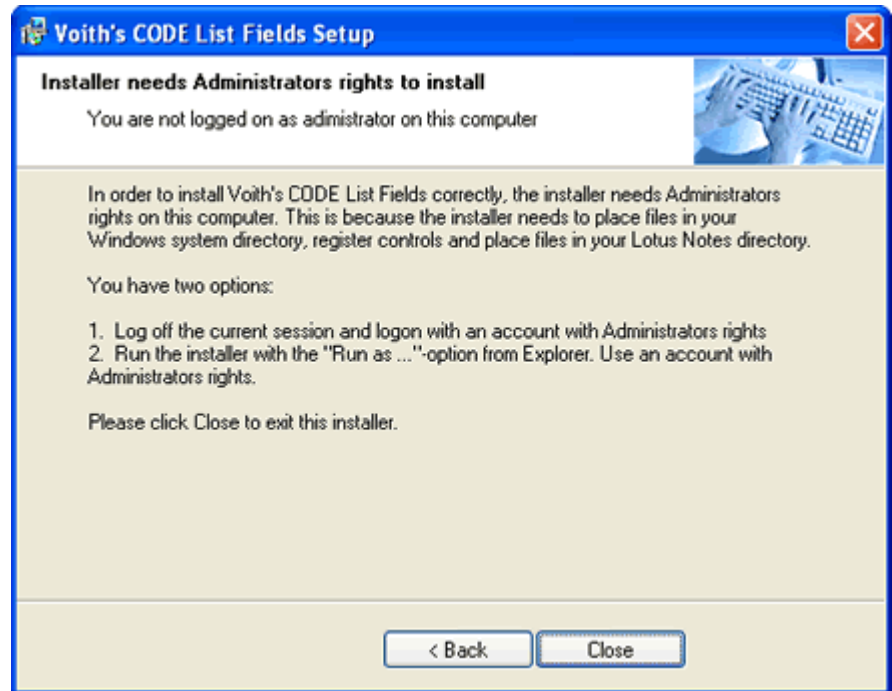


Figure 4: Not an Administrator ?

When you log on to a computer, your user name and password grant you access to the computer. In modern operating systems like Windows 2000 and XP it is possible to control what a user can- and can't do. This is done through so-called *access rights*. You have different levels of access rights, and at the top - with god-like powers, throne the Administrator. Anybody with so-called *administrators rights* can do anything on the computer. Other levels, such as the *User-level*, can't do nearly as much on the computer, other than just use it and the installed programs.

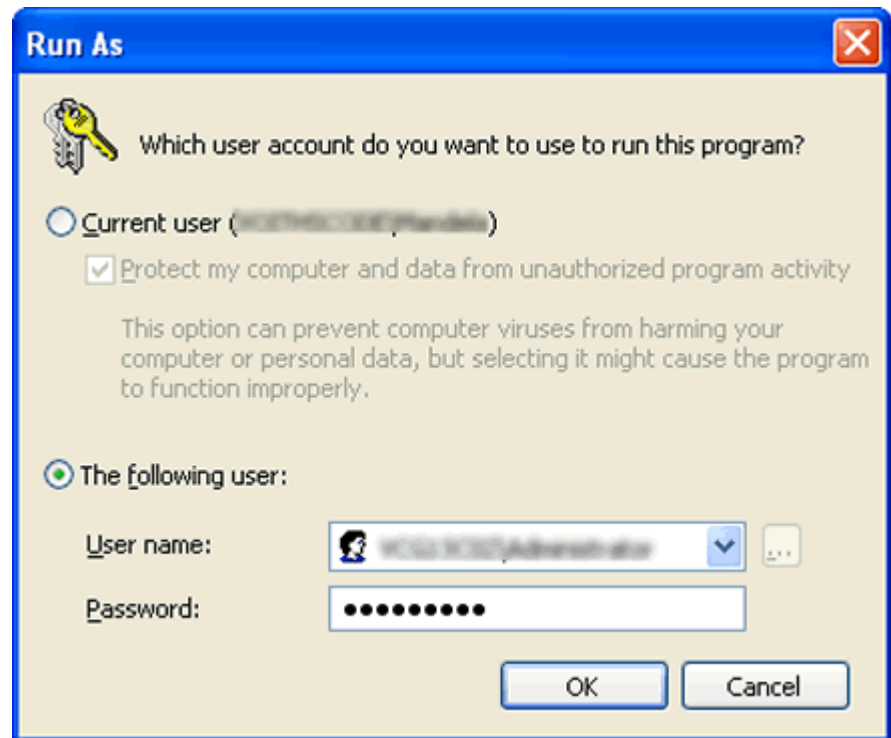
In order to install List Fields you need to create directories, access and write to the registry and write files in restricted areas etc. To do all this, you need administrators rights. Later, in order to use List Fields, you only need Users rights.

If you see the screen above, then the installer has determined that your current user name hasn't got sufficient access rights. You can do one of these options:

- 1 Log off the current session, and login again with another user name - with higher rights.

- 2 If you are on a Windows 2000 or XP computer, and happen to know the user name and password of the administrator account, you can run the installer program via the *Run As ...* option in the explorer. Hold the SHIFT key down while you right-click on the installer program icon, and you should see an extra menu "Run as...".

Below you see how the Run As dialog box look at Windows XP



Note that you can specify another user name and password. If you use the administrator user name and password, you will run the installer with the rights of the administrator instead of your own. Nifty detail in Windows 2000/XP !

In Windows 95, 98 or ME you always have Administrator rights, and can do anything - also installing applications.

Install for all users - or just the current one

The following screen....

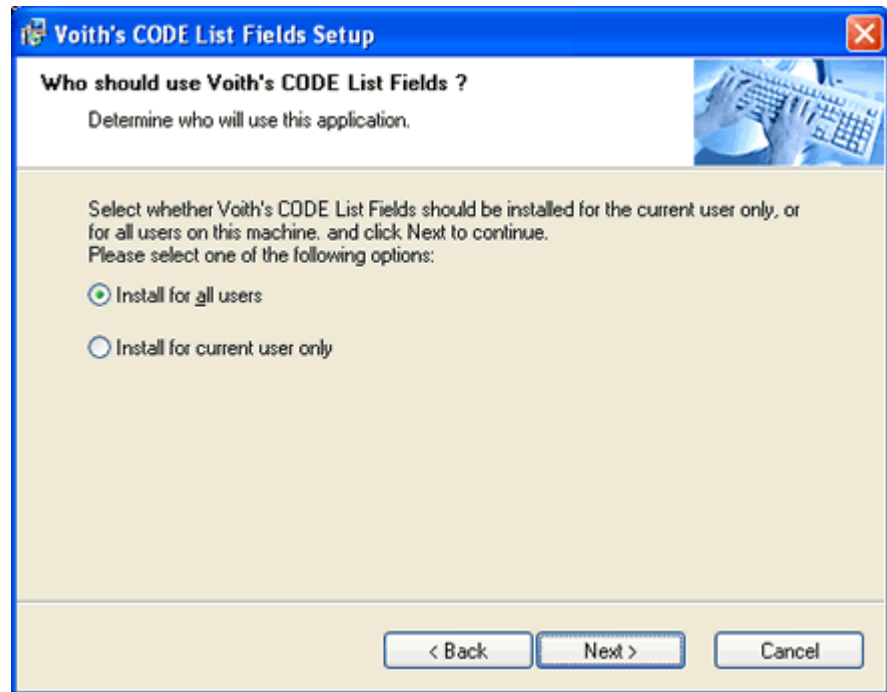


Figure 5: Install for all- or current user only ?

... let you decide whether all users - or - just the current one - should be able to use List Fields. This question is targeted at those users that have to share a computer with other users.

If you select *Install for all users*, List Fields will be available to all users, and if you select *Install for current user only*, only the current user will be able to use List Fields. Even if other users may see the application files, they will not be able to run the application.

Behind the scenes this selection determine where some of the necessary registry keys should be placed. The *all users* option place the registry data at the so-called HKEY_LOCAL_MACHINE level, and thus makes the keys readable to all users. The *current user* option place the registry data at the HKEY_CURRENT_USER level, and thus ensure that only the current user has the correct setup for List Fields to run.

In Windows 2000 and XP the stronger security of the registry database ensure the security of the settings. In Windows 95, 98 and ME, the values will be readable to all users, and thus it may be possible to recreate the settings for unintended users.

Therefore, you should not regard this option as a real security measure.

Lotus Notes is not installed ?

If you try to install List Fields and it determine that Lotus Notes hasn't been installed, you will see this screen:

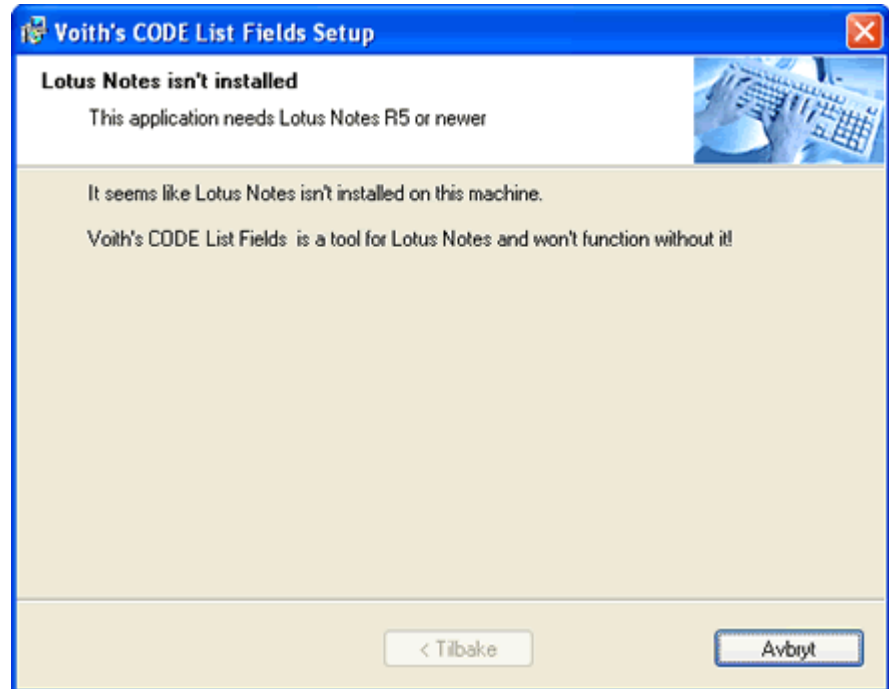


Figure 6: Lotus Notes isn't installed

There are several ways to determine if Lotus Notes is installed or not. List Fields look for certain registration keys in the registry. If the following key doesn't exist, or hasn't got a value ...

HKEY_LOCAL_MACHINE\SOFTWARE\Lotus\Notes\Path

...the installer decide that Lotus Notes hasn't been installed correctly. All versions of Lotus Notes 5 and 6 sets this value if you install Lotus Notes with the standard installer from Lotus/IBM.

Multiple versions of Notes installed on the same machine ?

If you have multiple versions of Lotus Notes installed on the same machine (you are a Notes developer for example), the registry value above will contain the path to the latest Notes installation you performed. So if you installed Notes R5 and then Notes 6, the registry keys will contain the values of Notes 6, since that was installed last.

If you need List Fields to work on both versions, please refer to *this* topic to see how to do the install manually. The installer does not support multiple Notes installations at this time.

The Licence

Now it's time for some licence-reading. The screen looks like this:

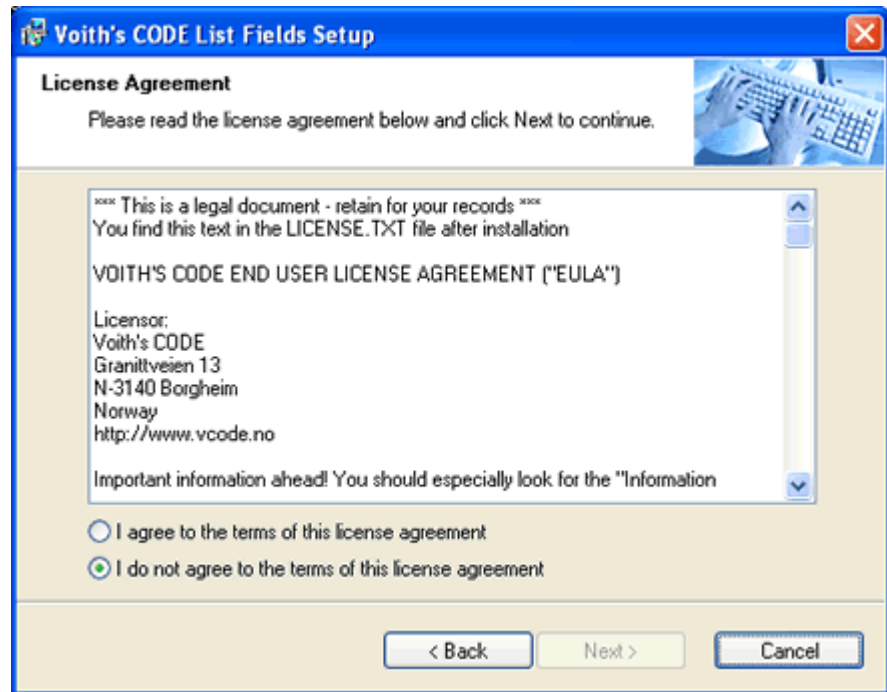


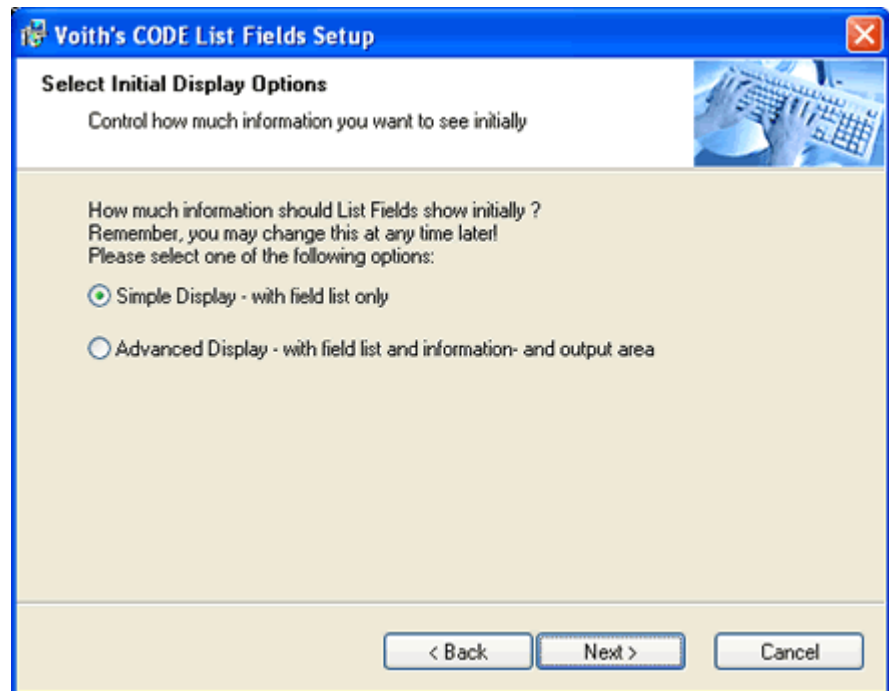
Figure 7: The Licence

Read the licence and either agree to it - or not. If you don't agree to the licence, the installation will abort. You will also have the possibility to read the licence when the installation has finished. The **Installation Completed!** screen in the installer has a View Licence button.

Note: The licence contains - among other legal material - information about how List Fields may - or - will communicate over internet.

Simple or Advanced Display ?

When List Fields start up for the first, initial time, you will be presented a simple or advanced layout. You select what option you want in this screen:



To help you differentiate between these two options, take a look at the simple display layout below:

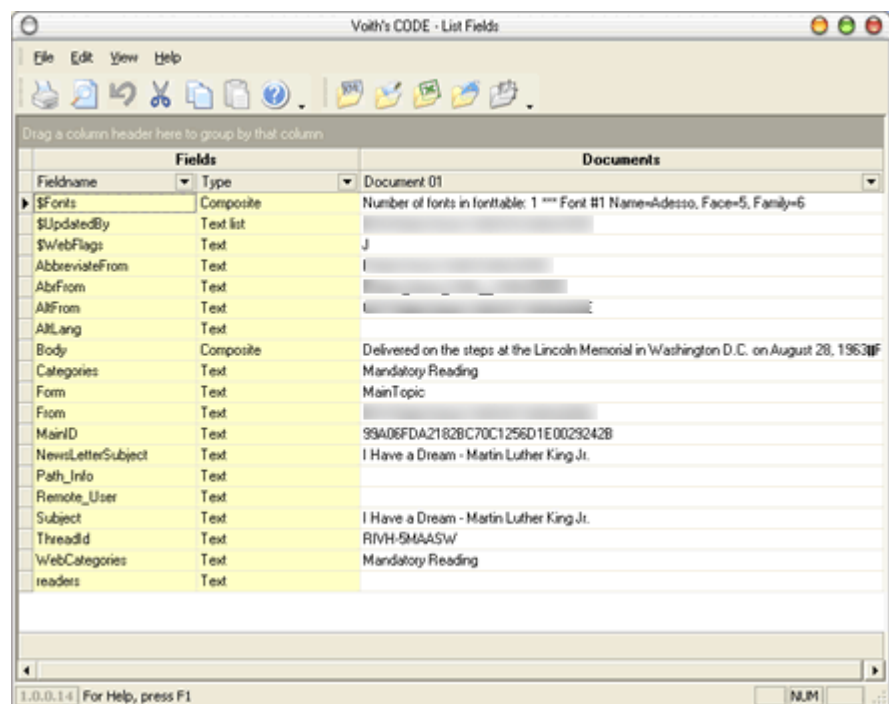


Figure 8: Simple Initial Display

Basically you see a table with the fields and their content. Pretty easy and not too much clutter on the screen. This is therefore the *simple display*.

Below you see an Advanced Display screen:

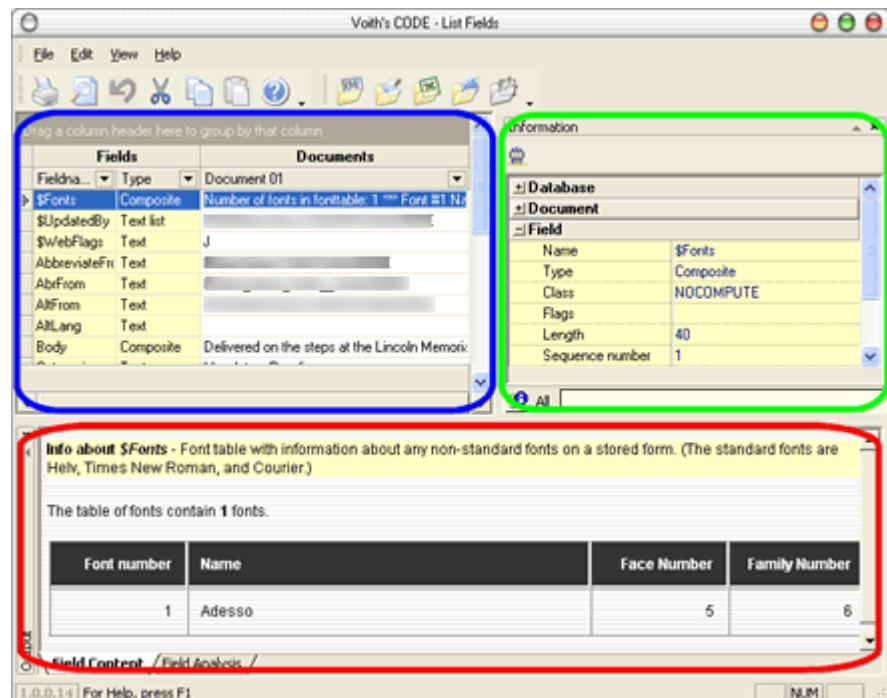


Figure 9: Advanced Initial Display

Oops! Much more clutter on the screen! Well that's the *Advanced Display* ! The blue square now contains the field list as you know from the simple display. In addition you have got other elements. The green square represent the so-called *Information Area*, which shows details about the currently selected database, document and field. The red square represent the so-called *Output Area* which shows the content of the currently selected field. In the sample above, you see how List Fields explain the content of the special Notes field \$Fonts.

Note that you can change the visibility (see an area or not), and position and size of it at any time. This option during installation is only to give you a smooth start!

Also note that you can revert back to original layout at any time from the **Field Area Preferences dialog box** (see "Field List Area Preferences" on page 134).

Additional Information

Voith's CODE want to be as honest and clear about what the installer to as possible. Therefore you will see this screen informing you about the prerequisites and content:

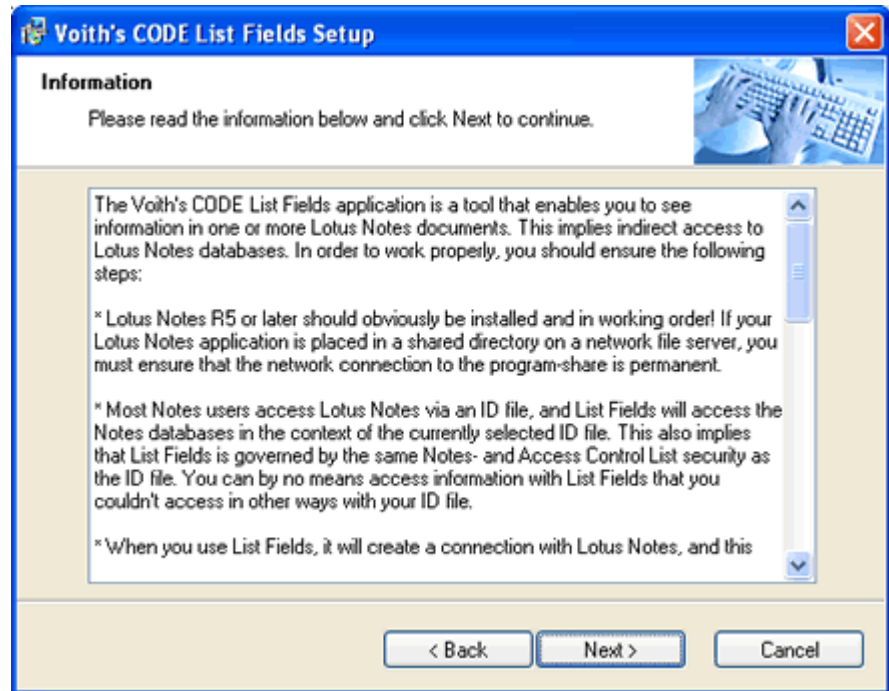


Figure 10: Additional Information

Read information and press *Next*.

Why this honesty ?

The world is full of software installing spy-ware, ad-ware and other behind the scenes logic without you knowing it. Often software communicate over the internet, sending and revealing information about your computer, installed software and usage patterns, again without informing you.

Voith's CODE want to contribute to an open - "we ask before we do"- policy believing that you, our customer, should stay in control over your computer and software, and decide yourself what should be communicated or not.

Select Installation Path

Now it's time to decide in what directory you want to install List Fields. This is done from this screen:

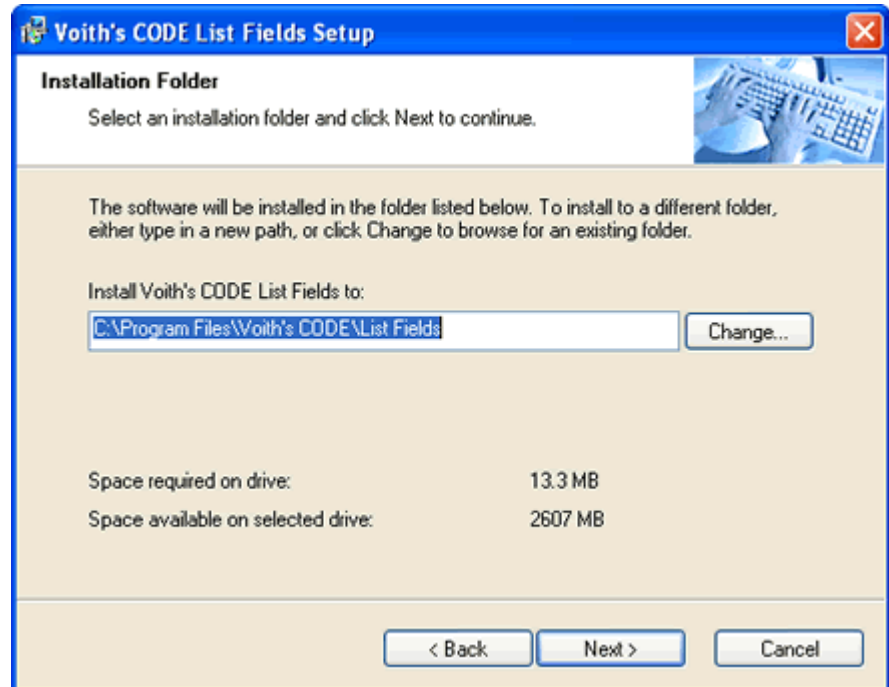


Figure 11: Select Installation Path

The List Fields-installer suggest a traditional directory located in the Program Files directory on your computer. Change this to your own personal standard if you like - such as omitting the company name if you want a directory sorted on the program name.

You can press the **Change** button to change the directory.

Also note the size of the installation, and how much available space you have on your selected hddisk.

A note on the size of this application

- What ??? 14+ MB for this simple little tool!!! The application itself is around 4 MB due to the fact that the application use so-called *static linking* in order to reduce dependency of common DLLs on your computer. If List Fields used the opposite linking scheme, so-called *dynamic linking*, the application would be approximately 1.5 MB. The online help file itself is 1.6 MB. Lotus own API toolkits occupy approximately 3.5 MB.

In order to perform good quality output from richtext fields, List Fields carries the Xalan XSLT processor from Apache.org. This is a pretty big library occupying approximately 4 MB. Future releases of List Fields may change these libraries, and thus shrink on filesize.

Sorry for any inconvenience this need for disk space demand on your computer!

Select Shortcut Path

You set the so-called Shortcut Path here:

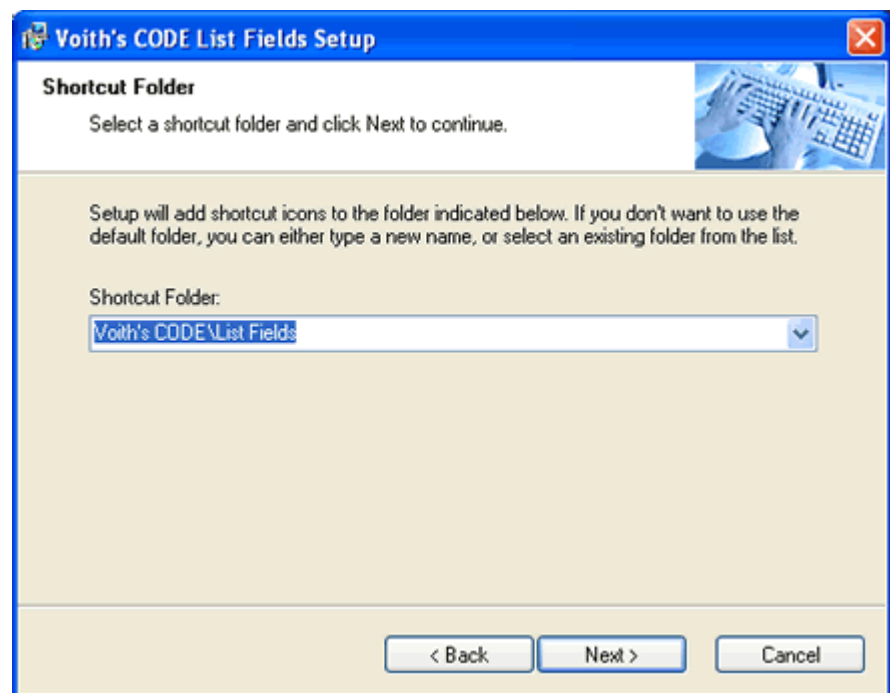


Figure 12: Select Shortcut Path

This is the folder where List Fields will appear under your **Start -> All Programs** menu. Use the drop down arrow to select any existing folder, or enter a new one.

Lotus Notes is running

Since List Fields is a Lotus Notes-based tool, it needs to make Lotus Notes aware of its presence. This is mainly done via one key and value in the main configuration file of Lotus Notes; NOTES.INI. This change can be done without stopping Lotus Notes on its own, but, if you run a previous version of List Fields, a component of List Fields will be loaded in memory by Lotus Notes at startup, and thus *held* by Lotus Notes. This means that the installer can't re-install the file, since it's already "active". Below you see how such a message would look:

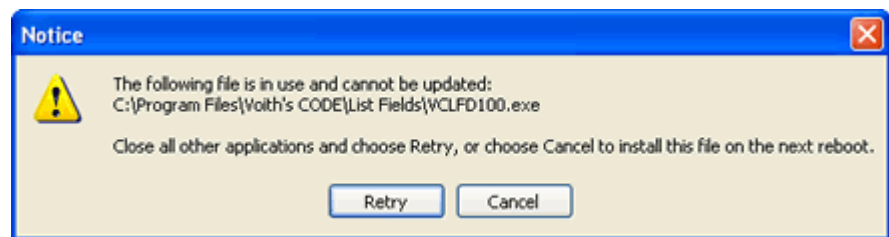


Figure 13: The file is active

The only remedy is to stop Lotus Notes first. In addition, even if the installer were able to replace files during the install process, Lotus Notes would have to restart in order to show you the menu item for List Fields. So, you're in for a restart of List Fields almost anyway!

If Lotus Notes is active when you install List Fields, you will see this screen:

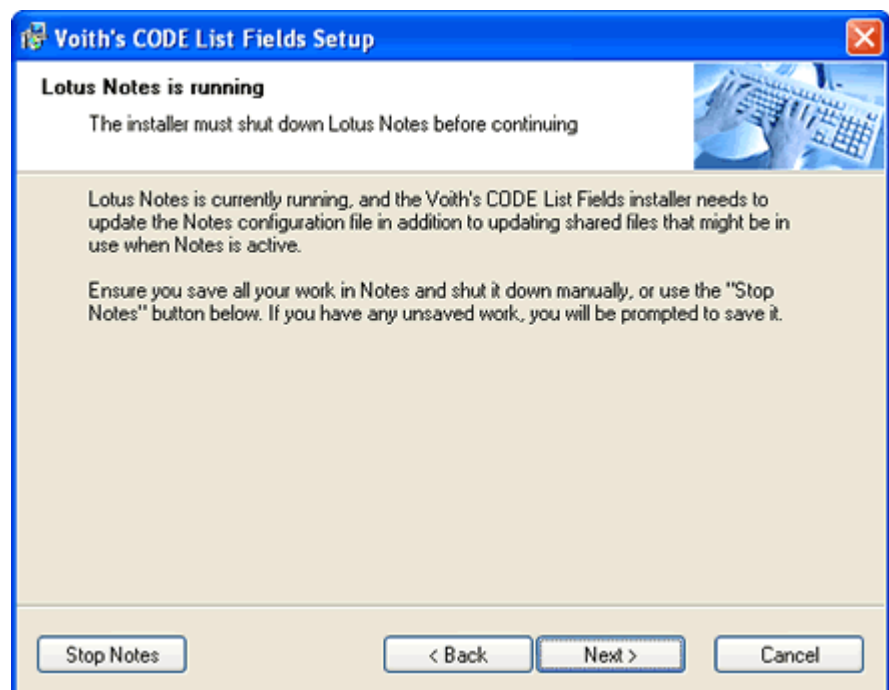


Figure 14: Lotus Notes is running

You can either stop Lotus Notes itself, and click **Next**, or - you can click on the **Stop Notes** button. The Stop Notes button will try to close Lotus Notes gracefully. You'll see this message:

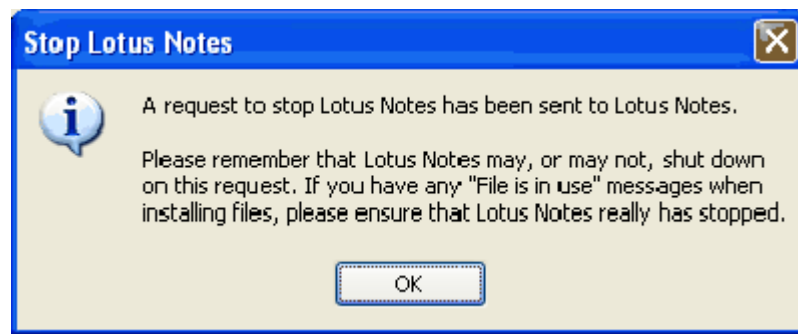


Figure 15: Stop Lotus Notes Warning

However, if you have any documents that need attention in Notes, where dialog boxes such as "Do you want to save this document" popup, this close-command will fail.

You should to check that Lotus Notes really stopped before you continue.

Info about Lotus Notes/List Fields integration

This screen inform you about how List Fields integrate with Lotus Notes:

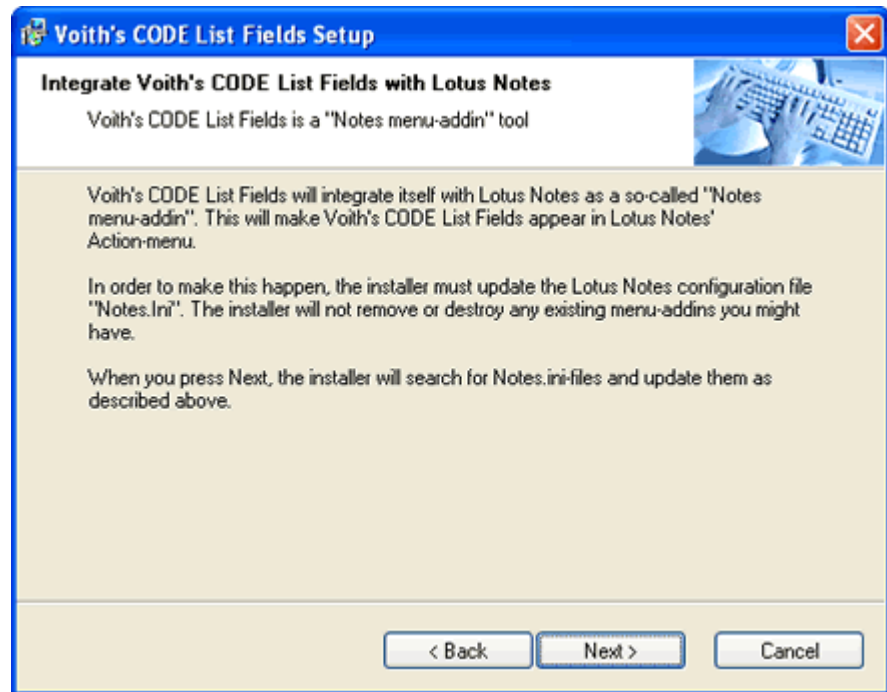


Figure 16: Info about Lotus Notes/List Fields integration

Lotus Notes separate raw data from look and feel by the concept of back-end and front-end data. Read much more about that *here*. Lotus Notes offers several ways to integrate with applications, especially if you just want to access Notes back-end data. When it comes to integration with the front-end the possibilities are limited.

Basically to you have *Notes Menu Addins* and *Import Libraries*.

Import Libraries are ment to import data into Notes documents. Lotus Notes have several import libraries for files such as Microsoft Word, Microsoft Excel etc. You find all these libraries in the drop down list on the dialog box originating from the **File->Import** menu. Import Libraries are not suitable for the kind of integration List Fields wish to perform.

The other possibility is *Notes Menu Addins*. List Fields installs itself as a menu addin, and List Fields will reveal itself from the **Actions** menu in Lotus Notes. It looks like this:

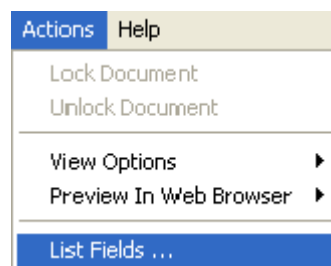


Figure 17: The List Fields menu

A menu addin is installed in Notes by registering it's DLL name in the keyword **AddInMenus** in the Notes main configuration file NOTES.INI.

When you press Next, the installer will search and find all NOTES.INI files in the common Notes program- and data directories, and modify the AddInMenus keyword.

Ready to Install

Finally, you are ready to install! You'll see this confirmation screen:

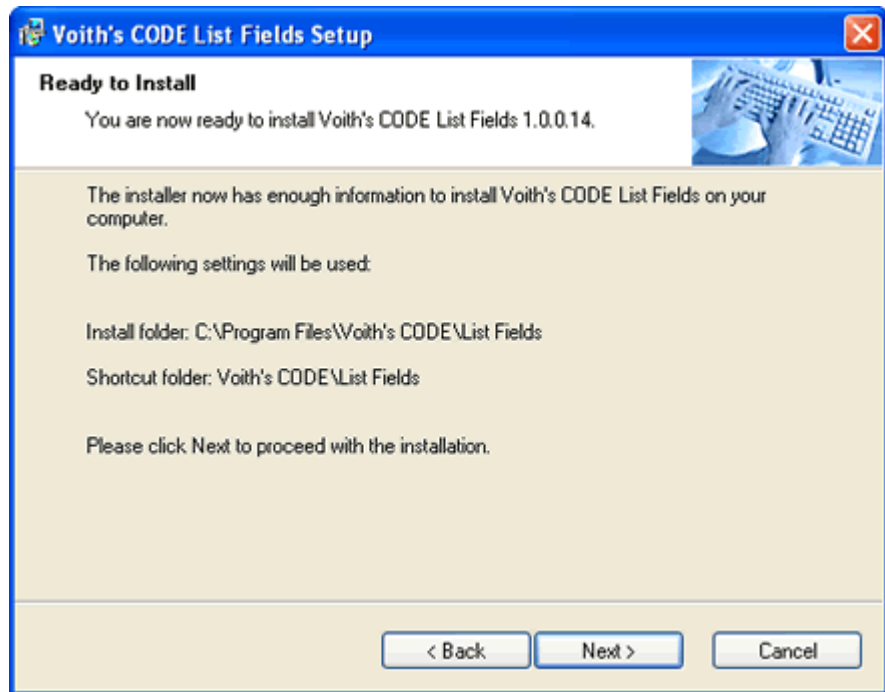


Figure 18: Ready to Install

This is the final chance to abort the installation without spreading files all over the place! Beyond this point, you must use the uninstaller to remove List Fields. Press **Next** to continue.

If you continue, you'll see the installer perform work, and that we be shown in this progress screen:

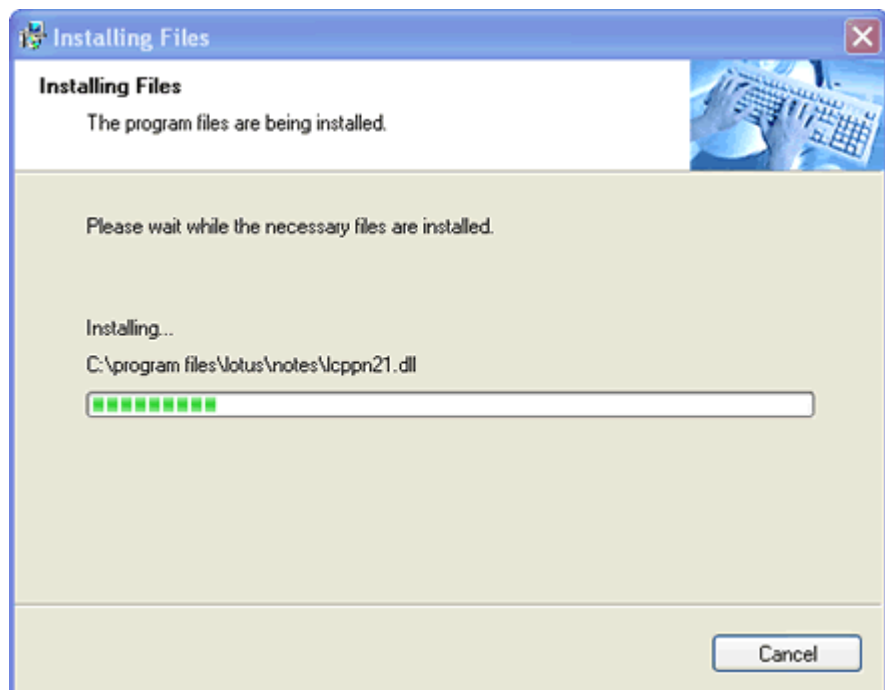


Figure 19: Installation in Progress

Installation Completed!

When all files have been copied and all configuration done, you'll see this screen:

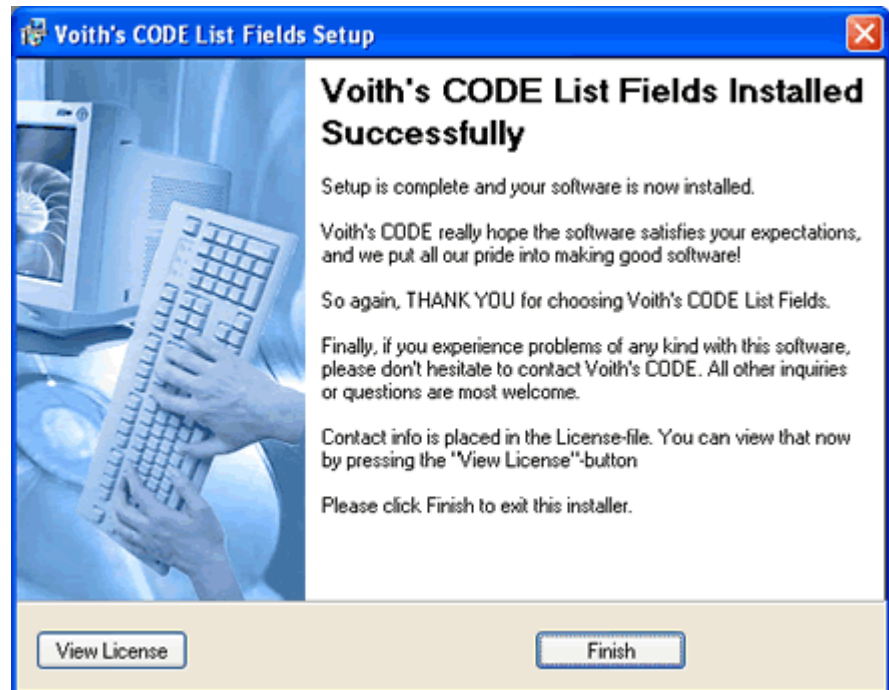


Figure 20: Installation Completed

After a sincere THANK YOU, you can press the **Finish** button to finish the installation. This will terminate the installer successfully.

You also have the possibility to view the licence again, if you want to.

What - do I need to reboot ?

You will only see this screen if you are installing List Fields on Windows 95, 98 or ME. All other Windows operating systems "survive" the installation without rebooting.

The screen looks like this:



Figure 21: Need to Reboot

The installer will change the AUTOEXEC.BAT to include a path to the installation directory. All applications based on any Notes APIs demand this. You must reboot your machine in order to activate the changes.

Uninstalling List Fields

All good things come to an end, and you might end up saying "No, List Fields was not for me".

As a good citizen of the Windows community, List Fields therefore offers an *uninstaller*. An uninstaller is a little program that removes List Fields gracefully from the machine. Remember, the installer copies several files to different directories, and do numerous changes to the registry database, and even if it is fully possible to remove List Fields manually, it's not recommended. The uninstaller does this job for you!

You can start the uninstaller in one of two ways.

Via the Control Panel's *Add or Remove Programs* applet.

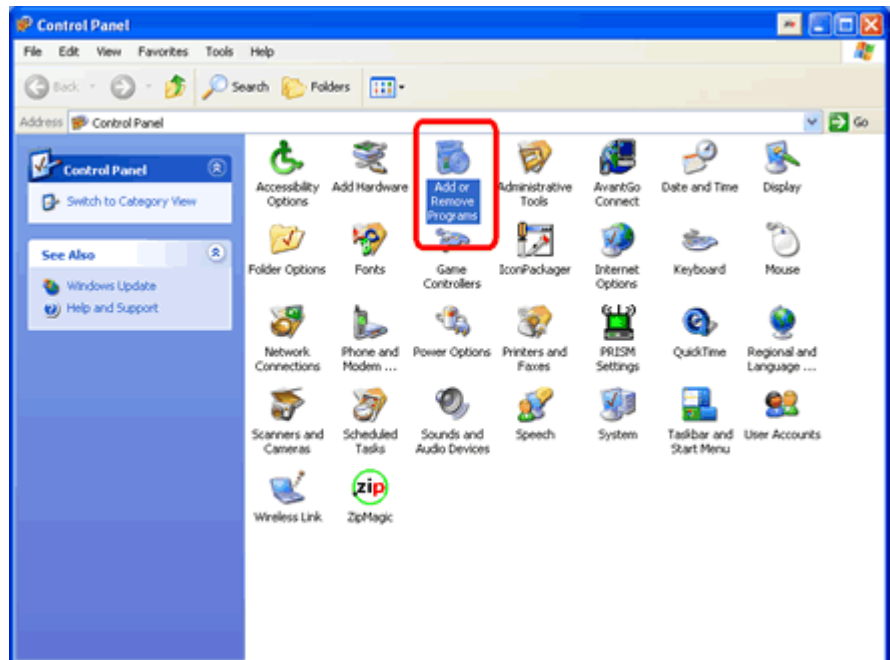


Figure 22: The Control Panel

After the Add or Remove Programs applet has started, locate Voith's CODE List Fields and press the **Remove** button.

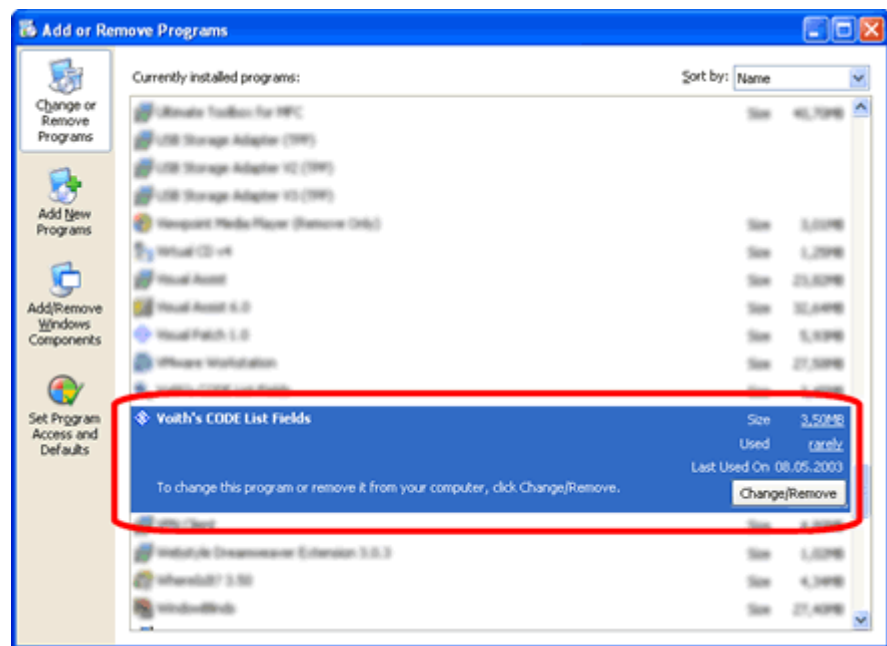


Figure 23: Remove List Fields

After this operation, List Fields will be gone. Be sure to restart Lotus Notes to make the menu disappear.

The other way to initialize the uninstaller, is to select the **Uninstall List Fields** from the **Programs->Voith's CODE->List Fields** menu:

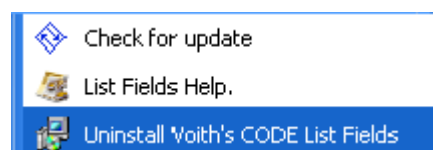


Figure 24: Launch the Uninstaller

How to do a manual installation

This topic guide you through a manual install of List Fields. This is handy if you have multiple Notes clients installed on the same machine, or if you want to automate the installation of List Fields.

Notes Menu Addin tools

List Fields is a so-called *Notes Menu Addin* tool. This type of application has some general characteristics:

- The application is visible in Lotus Notes's **Actions** menu. An example is shown below

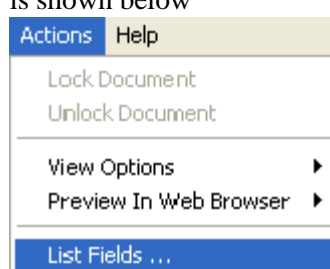


Figure 25: The List Fields menu

- It can be activated when certain conditions are met, such as; "Only be enabled when document is in edit mode, and that you have placed the cursor in a richtext field", or "Only be enabled when user is in a view". If the conditions aren't met, the menu item is disabled - or *grayed out*.
- The application itself must be a DLL with specific functions. Please see the Notes C API documentation for specific details.
- The DLL must be specified in NOTES.INI. Add the DLL filename to the **AddInMenus** keyword. If you don't place the DLL directly in the Notes Program Directory, you should specify the full path and filename.

Note: The Notes.ini must be available in the first 128 bytes of the system environment variable PATH.

The menu addin applications has several limitations, where the lack of document identification mechanism is one of the most severe. To overcome such limitations, Notes menu addin applications uses various techniques.

The Application Directory

List Fields installs files in several directories, but the so-called Application Directory is regarded as *home*. Typically this directory is placed somewhere along the Program Files directory structure. If you installed Windows with default directory structure, you'll find a C:\Program Files directory. Typically applications create a company subdirectory here, such as Microsoft, Adobe or Macromedia. The installer will try with a default company name of Voith's CODE for List Fields. In the company subdirectory C:\Program Files\<Name of any company> applications typically create an application directory. In our case the full application directory will be C:\Program Files\Voith's CODE>List Fields.

The following files are placed here:

Filename	Description	Filesize
VCLFD100.EXE	The main application	1.3 MB
LIST FIELDS USER GUIDE.CHM	The online help file. This can also be displayed independently of List Fields	1.6 MB
LICENSE.TXT	The End User License ("EULA") file, same as shown during installation.	5 kB
UPDATE.EXE	List Fields contains a feature to download updates via Internet, and this program file does that job.	700 kB
UPDATE.ICO	Icon file for the Updater	29 kB
UPDATE.CLI	Data file for the Updater	23 KB
TIPS.TXT	Tips for the "Daily Tips" window.	~ 2 kB

Notes Program Directory

This is the directory where the main Notes files are placed. Search for NLNOTES.EXE and you are on the spot! You can also look in the Registry for the value of following key:
HKEY_LOCAL_MACHINE\SOFTWARE\Lotus\Notes\Path.

If you install Notes R5 in the default directories, the Notes Program Directory will be C:\Lotus\Notes. If you do the same with Notes 6, the default program directory will be C:\Program Files\Lotus\Notes.

The following files are placed here:

Filename	Description	Filesize
VCLFM100.DLL	The <i>Notes Menu Addin</i> DLL. This file is registered in NOTES.INI's AddInMenus keyword	24 kB

NDBLF.DLL	A Notes Database Driver used to among other things identify current context. This is called directly by Lotus Notes and Notes won't look in other directories!	57 kB
LCPPN23.DLL	The Lotus Notes C++ Runtime DLL. This is necessary when we want to program in C++ and let our application access Notes!	1,8 MB
DXLTOOLS10.DLL	The Lotus DXL Runtime DLL. This is used to extract Notes data into the Lotus'ish XML format DXL	2,6 MB
VCLFSUPRT.DLL	Support DLL for List Fields	700 kB

Very important: In order to have Notes C/C++ API based applications run correctly, these applications must know where to find the core Notes program files. The C and C++ API libraries use functions in all the DLLs! This is done by specifying the Notes Program Directory in the PATH environment variable. In Windows 95, 98 and ME, this is set in the AUTOEXEC.BAT file with the command

```
SET PATH=%PATH%;<full path to the Notes Program Directory>
```

In Windows NT, 2000 and XP the PATH environment variable is set from the **System** applet in the **Control Panel**. Be sure to have **Administrators Rights** in order to change this variable's content.

The Windows System Directory.

List Fields consist of several component files, that both need to be placed in the so-called **System** directory. This is typically C:\Window\System32 or C:\WINNT\System32 if you have installed Windows in it's standard directories. If you are uncertain what your system directory is, take a look at the **PATH** statement definition. The **System** directory is very often specified there, since this directory contains many many common and shared component files.

The following files are placed here:

Filename	Description	Filesize
ACTSKIN43.OCX	This is the Skin component, making it possible to use different skins in List Fields. This file need to be registered - more on that later! This file needs to be registered in Windows. See how to do that <i>here</i> .	380 kB
ACTSPASH.OCX	This is the splash screen component. This file needs to be registered in Windows. See how to do that <i>here</i> .	190 kB

DXDBGGRID.DLL	This is the grid component, which List Fields use for it's field list in the table	665 kB
	This file needs to be registered in Windows. See how to do that <i>here</i> .	
DXDBINSP.DLL	This is the so-called "Inspector" component, which List Fields use to show the database, document and field properties in the Information Area	316 kB
	This file needs to be registered in Windows. See how to do that <i>here</i> .	
XALAN-C_1_6_0.DLL	This is the XSLT processor, from Apache.org	1.9 MB
XERCES-C_2_3_0.DLL	This is the XML processor, also from Apache.org	2.0 MB

All these files are installed as system files by the List Fields-installer, which means that Windows keep track of their usage. If other applications use the same files, these files won't be uninstalled if you choose to uninstall List Fields. This protection only works if you use Windows NT, 2000 or XP.

Notes Data Directory

The Notes Data Directory the directory where Lotus Notes place it's database files (all the NSF and NTF files among others). It is not used during installation

The Temporary Directory

List Fields creates several files during operation, and it will remove the files after normal operation. In the unfortunate situation of a application crash, or other malfunction, the temporary files won't be automatically removed. No important information is ever stored here, so you can safely remove all temporary files!

Necessary modifications in the Registry

The List Fields makes several modifications to the registry.

Note: Some of the settings are obfuscated, to keep your registration information a little bit more secure for prying eyes. This information is at the present time not possible to recreate in a manual matter.

Another thing to note; If you select to install List Fields for all users, the following keys and values below should be placed in the HKEY_LOCAL_MACHINE\Software hierarchy. If you just want to install for the current user, place keys and values in the HKEY_CURRENT_USER\Software hierarchy. Read much more about that [here](#).

Below you see an image of the registry content:

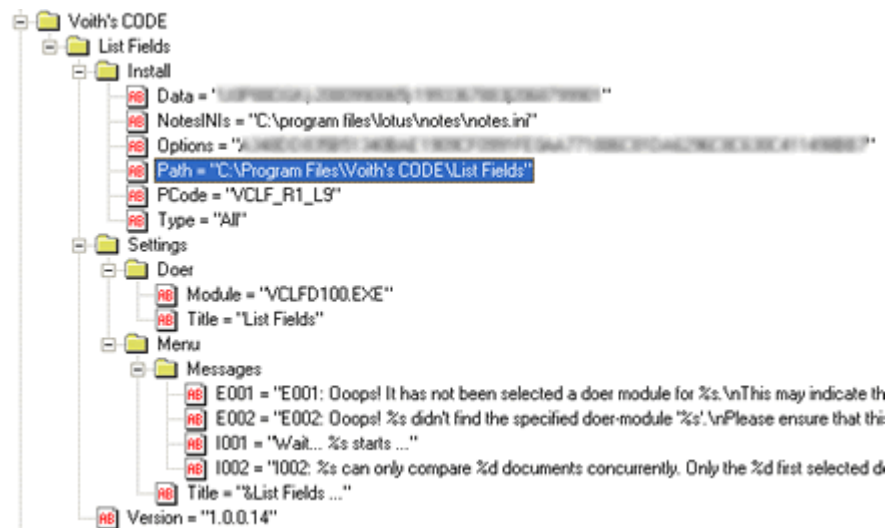


Figure 26: The List Fields Registry Content

The Options and Data keys are obfuscated. Below is a table which identifies each key and it's value

Key	Value
Install\Data	Obfuscated
Install\NotesINIs	Used by the installer to keep track of which NOTES.INI files it has modified with the necessary NOTES.INI changes. See more about these changes here .
Install\Options	Obfuscated
Install\Path	The full path to where the main application file specified in the key Settings\Doer\Module., see below

Install\PCode	Product Code. This is used if you want to upgrade the software via Internet. The PCode has the following meaning: VCLF_R<Release number>_L<Language number>. Currently we are on release 1, and the only available language is 9 meaning English. VCLF=Voith's CODE List Fields by the way!
Install\Type	Installed for all users ? If so "All" is the value, if not, the key isn't installed
Settings\Doer\Module	The name of the main application file, the so-called "doer". The current value is VCLFD100.EXE.
Settings\Doer>Title	The title of the application
Settings\Doer\Menu\ Messages	Several messages used by the <i>Notes Menu Addin</i> DLL to inform user about potential problems.
Settings\Doer\Menu>Title	The menu item title as it will be shown in the Actions menu in Lotus Notes. If you use an ampersand (&) this will be the keyboard accelerator in the menu.
Settings\Version	The current build-version of List Fields. Note that you might stay on release 1.0 for a long time, but the build numbers increase as bug fixes etc. are implemented.

Necessary modifications in the NOTES.INI

In order to make List Fields, it must be registered as a *Notes Menu Addin* tool. This is primarily done with the **AddInMenus** keyword in the configuration file **NOTES.INI**.

Note: Different versions of Lotus Notes have over the time placed NOTES.INI in several directories. The best tip is to use the Windows Search for files tool and locate your NOTES.INI. This will at the same time reveal if you have multiple NOTES.INIs on your machine. If so, it's very important to modify the correct one. If you for example have Notes R5 and Notes 6 installed simultaneously, you must know which version you installed latest, since all Registry modifications done by the Notes installer always point to the latest installation.

If you want to use an earlier Notes version, you must also ensure that the PATH environment variable also point to the *old* installation, and not the current installation.

The trick is to get List Fields to use the Notes DLL files of the version you plan to use List Fields in. List Fields can't operate in two different Notes versions simultaneously, .

Below you see a snippet from a NOTES.INI file with only List Fields's Addin menu DLL, and no other previous Notes Menu Addin tools registered:

```
[Notes]
...
AddinMenus=VCLFM100.DLL
...
```

This could also have been specified like this:

```
[Notes]
...
AddinMenus=C:\Program
Files\Lotus\Notes\VCLFM100.DLL
...
```

And finally you see how the AddInMenus look like when it has more than one Addin Menu. The comma is used as separator between the DLL's

```
[Notes]
...
AddinMenus=VCLFM100.DLL,TANSA2.DLL,NSFINFO.DLL
...
```

The sequence of the DLLs determine the order of the menu items in the Actions menu.

Register common components

List Fields contains several common modules which needs to be so-called *registered* in Windows. This means that the components are registered in the Registry with it's information, and thus made available to all other applications in Windows that would like to use their functions and features.

In order to register functions in Windows, ensure that the files are placed in the correct directory. Read more about that *here*. Then open an command prompt (CMD.EXE from the Start->Run ...menu) and locate the system directory with the change directory command CHDIR (or CD for short). This can be done like this:

```
CD \Windows\System32
```

When in the system directory, issue the following command:

```
REGSVR32 <name of file to register>
```

For example:

```
REGSVR32 DXDBGRID.DLL
```

When enter is pressed, you should after a short while see a confirmation message of a successful registration. Do this for all the system files that has "This file needs to be registered in Windows" *here*.

You may also uninstall - or un-register the component by issuing the -u parameter, such as:

```
REGSVR32 -u DXDBGRID.DLL
```

Security

Lotus Notes has always been a very secure place to store data. Nothing - repeat - *nothing* can access Notes data without having a valid user ID file. We say we operate in the context of a specific user ID. This implies that List Fields will have the same rights as the currently used ID file, and you cannot access data you're not authorized to access.

Lotus Notes normally asks for a password during startup (this feature can be turned off, if you have enabled automatic synchronization between your Windows user id and Notes. Refer to the installation of Lotus Notes for further details). When entered and accepted, Lotus Notes let you access all the data that you have access to.

When you run additional so-called *Notes based applications* - such as List Fields, you will also normally be prompted for a password. It may look something similar to this dialog box:

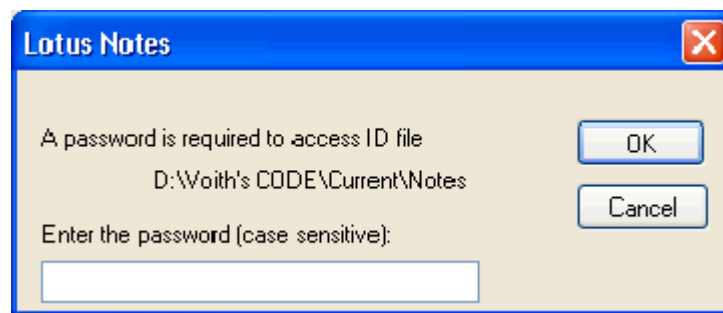


Figure 27: Notes API Password dialog

This will happen *every* time you start the Notes based application.

Why is it like this ? It has all to do with security of your data. Nothing that you don't explicitly allow to access your data, should be able to do so behind the scenes. Imagine how trojan- and virus like applications could install silently and access your data without you knowing it - that would be considered a severe security breach!

How to make Lotus Notes stop asking for a password all the time ?

Unfortunately the standard Notes security makes your legal Notes based applications cry for password every time they access Notes data. Lotus has a feature which allows you to *trust* all Notes based applications at large.

This feature is controlled within the dialog box of your Notes user ID file, and is thus protected by the heavy Notes user ID protection logic of Lotus Notes. The procedure to allow Notes based applications access, differs a little bit between Lotus Notes Release 5 and Notes 6.

How to allow Notes based applications access to Notes data in Lotus Notes Release 5

Access your user ID dialog box via the menu **File -> Tools -> User ID**. You may have to enter your Notes password. In this dialog box you will see the following field on the *Basics* tab.

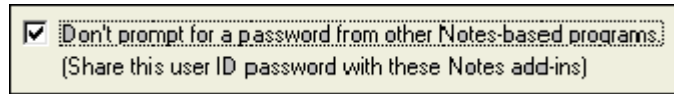


Figure 28: "Don't prompt for a password" in R5

When you select *Don't prompt for a password from other Notes-based programs*, you will not be asked for a password.

How to allow Notes based applications access to Notes data in Lotus Notes Release 6

Access your user ID dialog box via the menu **File -> Security -> User Security**. You may have to enter your Notes password. In this dialog box you will see the following field on the *Security Basics* tab.

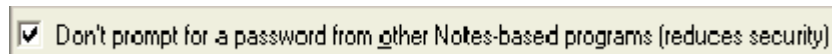


Figure 29: "Don't prompt for a password" in ND6

When you select *Don't prompt for a password from other Notes-based programs (reduces security)*, you will not be asked for a password.

Things to think about when you do this

Selecting to trust Notes based applications like shown above will trust all Notes based applications at large. Either you trust none, or you trust all! You cannot select which applications to trust and which you don't trust.

This has some security aspects, since it expose your system for potentially malicious code. After you select this feature, Notes based applications *can* access your Notes data without you knowing it.

So what to do ? A software vendor (like Voith's CODE...) tells you to install a tool (such as List Fields...) and that you must enable the *don't prompt for password*-feature above in order to avoid password popups. Make an assessment of the vendor. Is the vendor trustworthy ? Then make an assessment of the application. Should the application be trusted ? If answers to both questions are yes, then enable *don't prompt for password*, otherwise don't.

But what's more important: You must pay attention to any following Notes based applications you may install later. These applications now have direct access, since the *don't prompt for password*-feature already has been turned on.

CHAPTER 3

List Fields Operation

This chapter will guide you through operation of List Fields, and unveil the features of List Fields one by one.

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Starting List Fields

This topic covers how to start List Fields and describe the dialog boxes and choices you encounter when you start the application.

How to start List Fields ?

List Fields can either be started via the **Action**-menu in the Notes client, or directly from the operating system, such as from an icon, short-cut or system wide key combination. This gives you maximum flexibility on how to start List Fields!

How to start List Fields via the Action menu

The most feature rich way to start List Fields is from the **Actions -> List Fields** menu in the Lotus Notes client. Before you select this menu, you must select at least one document from a view, or have an document open in either read- or edit mode. You can thus start List Fields from either *view*- or *document context* respectively. Below you see how the List Fields menu appear at the bottom of the **Action** menu:

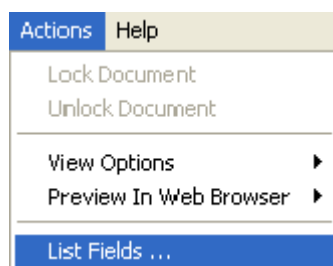


Figure 30: The List Fields menu

The placement of the menu is locked by Lotus Notes itself. All so-called **Lotus Notes menu addins** will be placed in the Actions menu in the order they appear in the *AddInMenus* keyword in the Notes configuration file NOTES.INI. Notes menu addins will always be placed at the bottom of the menu.

If you don't see the List Fields-menu then List Fields hasn't been installed correctly. Please refer to the **Installation** chapter for further details.

Note! Launching List Fields via the Actions-menu is the only way to open multiple documents at once.

How to start List Fields from the operating system

List Fields can also be started directly from the operating system. This can for example be from an application icon in your Programs menu or Quick Launch Taskbar. You can also assign a system wide short-cut key combination to the application for super fast access.

The trick is to add the parameter `/STANDALONE` as a parameter to the executable file `VCLFD100.EXE`.

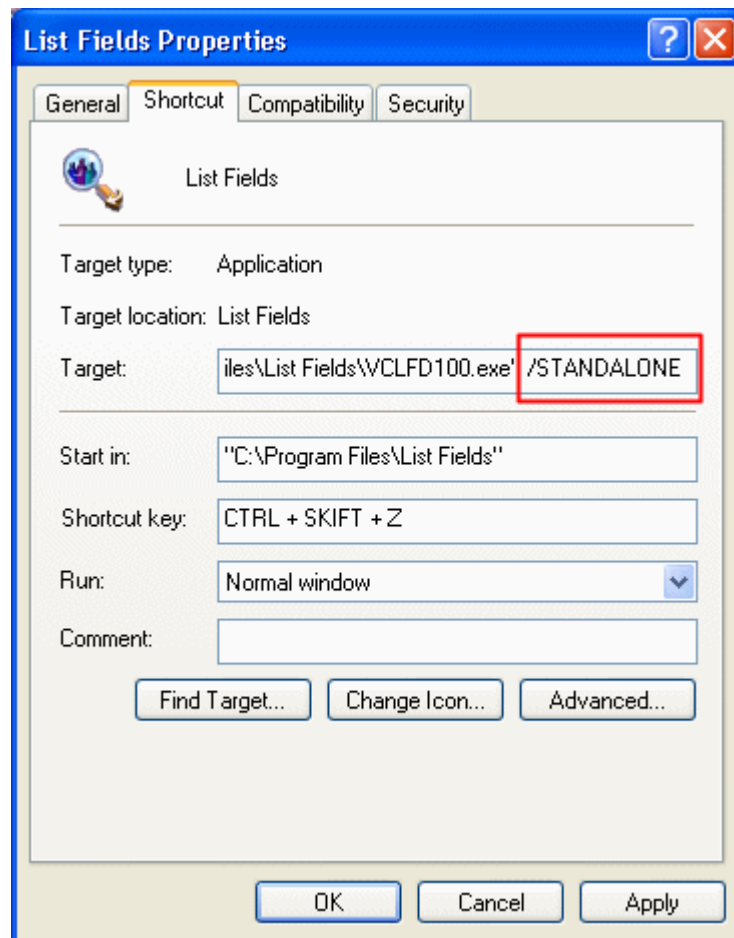


Figure 31: How to add the /STANDALONE parameter

In the figure above the `/STANDALONE` parameter has been added to the short-cut's *Target*. Whenever you launch List Fields from this short-cut, it will now try to detect which document you are working on automatically.

Limitations! Unfortunately List Fields can't read Design-documents from the *Lotus Domino Designer* yet, nor can it operate on documents in the Domino Administrator. You will receive error messages **E001** (see "E001: The Lotus Domino Designer is on top" on page 165) **and** E002 (see "E002: The Domino Administrator is on top" on page 165) respectively if either the Designer or the Administrator "is on top" over the ordinary Notes client. You must therefore ensure that you only launch List Fields when you know that the Notes client is on top, otherwise unpredictable results may occur.

Likewise, you should try to launch List Fields on "other elements" than ordinary documents. Again, unpredictable results occur if you try to launch List Fields when the Replicator Page, Welcome page (without documents!) or any open dialog box is active.

Finally, List Fields won't be able to understand view-selections when launched in this manner. If you want to compare multiple documents, you must launch List Fields via the **Actions-menu** (see "How to start List Fields via the Action menu" on page 45).

If you unfortunately launch List Fields under wrong circumstances and unpredictable results occur, the List Fields-process might hang. Use Windows' task list to kill the List Fields-process directly. Hopefully the Notes clients survives this hang, and you can continue to work in Notes afterwards. Otherwise, restart the Notes client as well. Sorry for any inconvenience!

How to assign a system wide

The newer versions of Windows, such as Windows 98 SE, Windows ME, Windows 2000 and Windows XP, has the ability to assign a system wide shortcut key to any shortcut. The purpose of this feature is to enable ultra-quick access to most used applications.

In the previous screenshot, the key combination CTRL + SHIFT + Z is assigned to the List Fields-shortcut. By pressing this key combination from anywhere, anytime, List Fields will launch! No need to fiddle with the mouse to get to the Actions-menu!

If your version of Windows doesn't support shortcut key combinations directly, there exist several tools on the Internet which has similar functionality.

Start List Fields in debug mode

Hold down the SHIFT key while you start List Fields and you will start List Fields in so-called *debug-mode*. Read more about that **here**. (see "Solving problems - debugging" on page 155)

Reset windows positions at startup

Hold down the ALT key while you start List Fields and all windows positions will be reset back to initial positions. This is equivalent of pressing the **Reset windows positions** button in the **Field List Area preferences** (on page 134). Also note that all **layout files** (see "List Fields saves all layout changes" on page 150) will be removed.

What happen when you start List Fields ?

When List Fields is launched, several things happen. Especially the first time! Many things are checked, and you will have several messages and questions popping up. This topic explain *why* these messages and questions pop up and how to react to them.

Don't show me that again! - Common feature for many dialog boxes

Before we did into each message that can occur during startup, let's check a common feature to most messages in List Fields.

For most of the questions in List Fields, you will have the possibility to turn off the message for the future.

For example, when you feel comfortable with the fact that you probably should save your documents before launching List Fields, you can - and probably should - turn off this message:

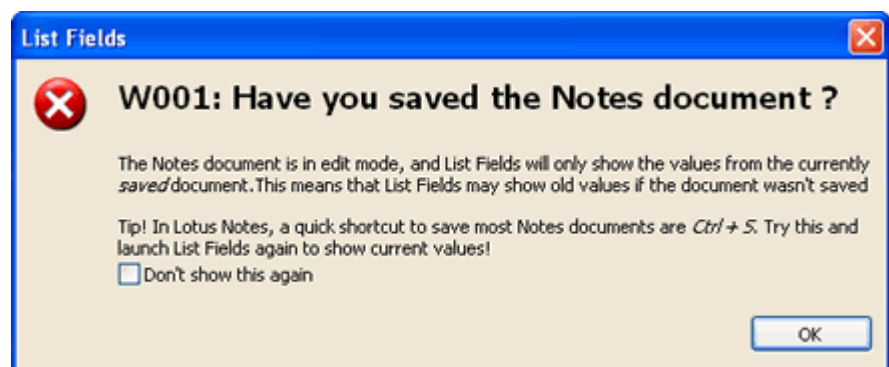


Figure 32: Have you saved the Notes Document ?

Note the *Don't show this again* at the bottom.

What if you regret your choice and want to see the message anyway ?

List Fields has the possibility to turn on messages again. This is done from the **Messages preferences dialog box** (see "Messages Preferences" on page 129).

Unregistered version

If you haven't registered List Fields yet, Voith's CODE will grant you a 60-day trial period, and you will see a dialog box similar to this each time you start List Fields:

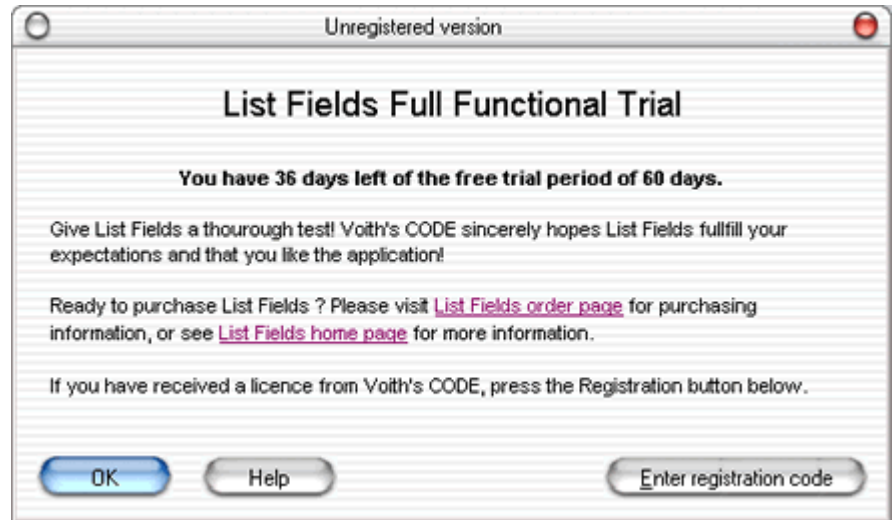


Figure 33: Unregistered Version

For each calendar day passing you will see how many days remain of the 60-day trial period. Pressing OK let List Fields start normally.

If you are ready to order List Fields, click on the *List Fields order page* link in this dialog box. This will open up the List Fields order page on the web in your default internet browser.

For additional information, click on the *List Fields home page* link.

If you have registered List Fields, you will receive an e-mail from Voith's CODE with your registration code. The registration code is a long string of characters which should be copied to the clipboard, and pasted into the **dialog box** (see "Enter registration information" on page 52) you see when you press the Enter registration code-button.

What! Has the trial period expired !

Eventually will the trial period expire and then you will see this dialog box:

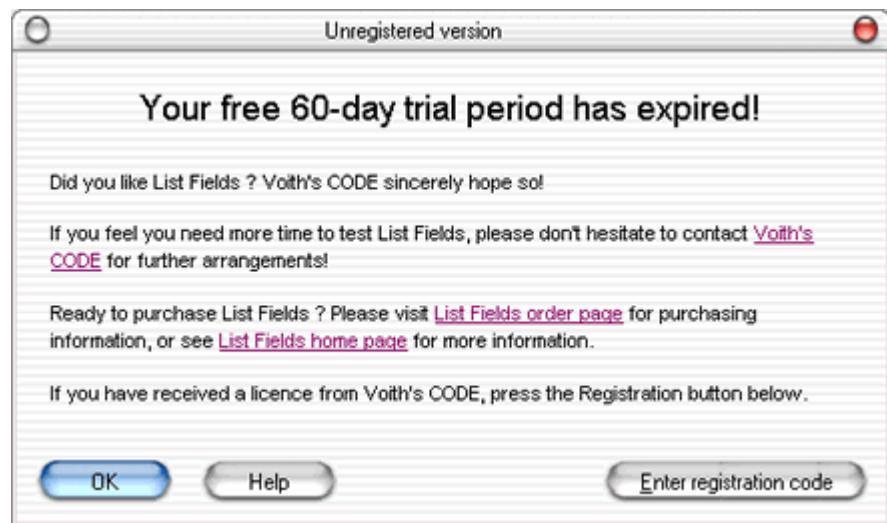


Figure 34: Trial period has expired

If you feel that you need longer time to evaluate List Fields, please don't hesitate to contact Voith's CODE for further arrangements.

You can either press OK to exit List Fields or press Enter registration code to enter a registration code.

Invalid Registration Key

You may also see this dialog box if you have other issues with the registration code:



Figure 35: Invalid Registration Key

The reasons for this message to pop up are:

- *The key has been mistyped.* If you manually type the long registration code in the **Registration Information** (see "Enter registration information" on page 52) dialog box, or for some other reason can't create an exact duplicate of the registration code, you will see this message.

- *The key has expired.* The licence system in List Fields allows to create registration keys that expire after a specified date. This may be the reason for this message. You should have received an e-mail from Voith's CODE about registration key expiration before you experience this message.
- *The key is restricted to run on only one computer.* The licence system in List Fields also allows to lock a registration code to only one computer. This is controlled via the *machine id* (on page 53) of your machine.

The only available options at this stage is to press **OK** to exit List Fields or to enter a new registration code by pressing the **Enter registration code** button.

Enter registration information

You see this dialog box when you press the **Enter registration code**-button from the *Unregistered Version* (on page 49) dialog box.

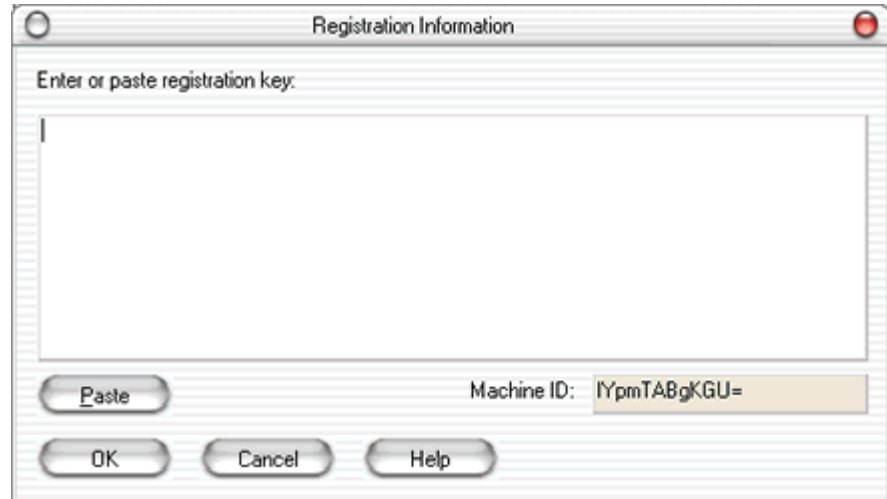


Figure 36: Registration Information

This is the dialog box where you enter, or paste, the registration code received in an e-mail from Voith's CODE.

Ensure that you have selected and copied the registration code to the clipboard, and press the **Paste**-button. When done correctly, it will look like this:

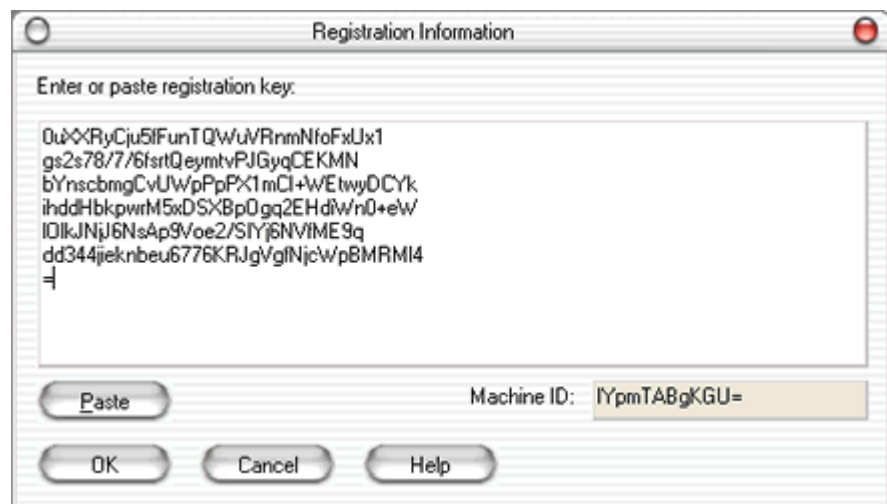


Figure 37: Registration Information - with code

Press **OK** to save the registration code, or press **Cancel** to abort the registration of List Fields.

When you press **OK**, you will see this confirmation message:

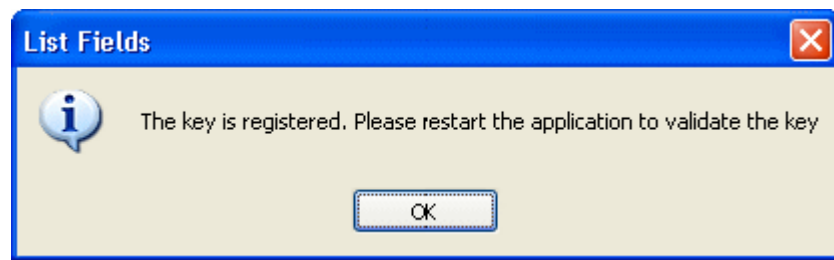


Figure 38: Registered key confirmation

When you press OK in this dialog box, List Fields will terminate, and you have to start it again.

Machine ID

The machine ID is a key which is unique to your machine, and it is based on a number of issues on your machine. For example will the operating system version and network card etc. be components in this id. If one or more of these components change, the machine id will also change.

The machine id is located in the Registration Information dialog box, and looks like this:

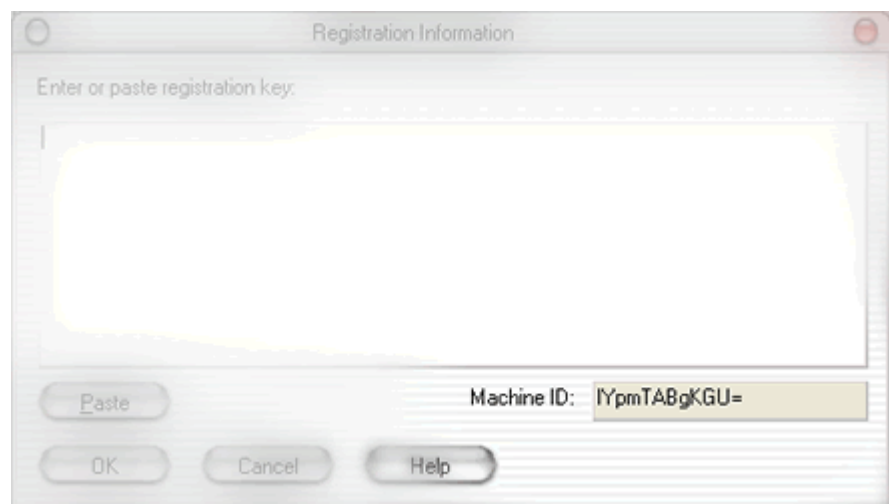


Figure 39: Machine ID

Voith's CODE use the machine id to lock the licence for special licences types to one machine. In other words, the licence can't be moved from one machine to another. If your licence type require usage of the machine id, you will be informed about that in the registration code e-mail from Voith's CODE.

Edit- or read mode - and - front-end vs. back-end documents in Lotus Notes ?

Edit- or read mode ?!?

Lotus Notes has two document *modes*, either read- or edit mode. In read mode you can only read the document, and not alter it. In edit mode you can also alter and save the document. It is the security mechanisms in Lotus Notes that control whether you read- and/or edit the document.

List Fields can be launched on Notes documents in both modes. As long as you have the right to read the document, List Fields can also read it (remember, List Fields inherit the exact same access rights as your Notes ID file has).

Front-end versus Back-end document ?!?

Another subtle thing to be aware of is the differences between a so-called front-end document versus the corresponding back-end document.

When you read or edit a Notes document, you typically do this via a Notes form. The Notes form contains the fields and layout of the document you see. You have probably seen that you easily can switch forms and thus look at the document with different forms. The Notes form represents the *front-end document* and is in fact a copy of the real data stored elsewhere. The real data - or *back-end document* - is not stored with the layout and looks, but separated as more traditional data records.

When you make changes to a Notes document in a Notes form, these changes only exist in the front-end document - until you save the document. Then Lotus Notes copies the data from the front-end document to the corresponding back-end document.

This is nice when you want to present a document with different looks and features, and makes it easy to change the look and feel of the database without changing the real data. It's also cool to know that Lotus Notes has done this since its first incarnation back in 1989 and thus making Lotus Notes one of the first database systems to separate display from content.

What if the document is in edit mode and hasn't been saved ?

List Fields can only access the back-end document! This implies that a potential challenge may arise if you launch List Fields on a document in edit mode which haven't been saved immediately before List Fields-launch. List Fields will read the back-end document and show those values to you, and you might not see the most current values! Due to this fact, you will see the following message if you launch List Fields on a document in edit-mode:

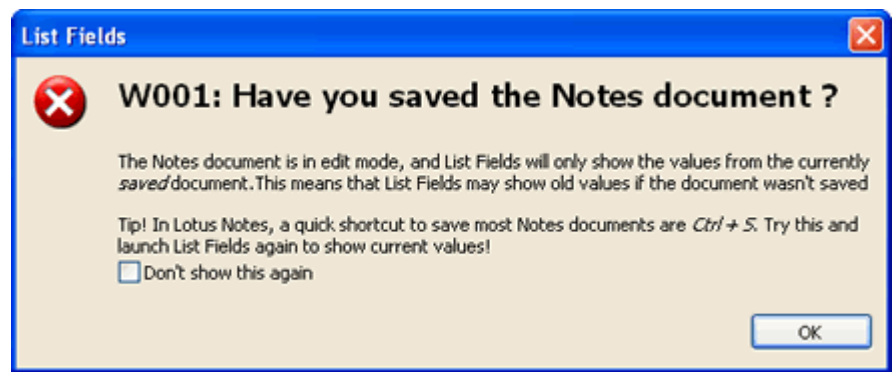


Figure 40: Have you saved the Notes Document ?

This message briefly explain the issues presented in this topic, and you can easily turn off the message by selecting *Don't show this again*-checkbox. If you want to turn the message back on, go to the **Messages preferences dialog box** (see "Messages Preferences" on page 129).

How do you want List Fields to treat security and access to Lotus Notes ?

When you start List Fields, the first dialog box you'll see will be this one:

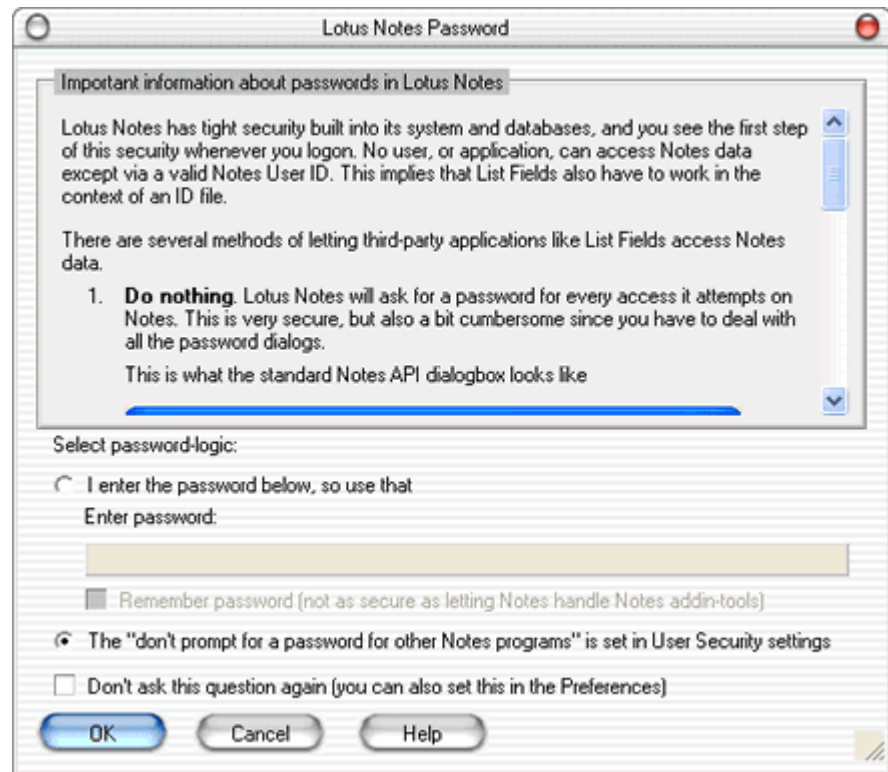


Figure 41: List Fields Password Dialogbox

From this dialog you select how List Fields should treat password logic. The dialog box has two distinct areas. The topmost area contain the important password information, very similar to this section. The area at the bottom contain the selection area where you finally select how you want List Fields to behave.

As described in the **Security** (on page 41) section, List Fields cannot access Lotus Notes without a valid user ID. That section also describes that you have a possibility to trust all Notes based applications at large. This will however impose a security risk, that you might not want to accept.

List Fields can therefore work with Lotus Notes security in other ways.

- 1 Let everything be as it wore without changing anything. This option implies that you don't trust any Notes based applications and have not enabled the *don't prompt for password*-feature in the User ID preferences dialog box. This option will force List Fields to ask for a password *every* time it starts. This is cumbersome, but secure.

In the context of the password dialog above, this is similar to entering the password in the password-field, but not selecting the *Remember password (not as secure as letting Notes handle Notes addin-tools)*.

- 2 Trust all Notes based applications - including List Fields. This option implies that you have enabled the *don't prompt for password*-feature in the User ID Preferences dialog box. List Fields will not prompt for a password when it starts, neither will any other Notes based application. This is more convenient, but reduces security, since every Notes based application now have access to Notes data. This option is discussed in detail in the Security section.

In the context of the password dialog above, you should select *The "don't prompt for a password for other Notes programs" is set in User Security settings*. This indicates to List Fields that Lotus Notes itself won't need to ask for a password for Notes based application such as this.

- 3 Let List Fields remember the password for you. This option will enable List Fields to store your password in encrypted form on your machine. When List Fields starts, the password will be decrypted and used, thus avoiding Notes asking for a password. This is similar to the features you see in for example Internet Explorer when it offers to store the password for a certain user ID for you. This option is not secure, and is only offered as a convenient way to avoid password popups without opening up all security as you do with Option 2. Even if the password is stored with strong encryption (AES), it will be possible for a knowledgeable cracker to reverse engineer List Fields and figure out how the password is stored. Voith's CODE recommend that you only use this option if your machine. is installed in a secure environment, such as in a locked server room. It is not advisable to use this option on a laptop computer.

In the context of the password dialog above, this is similar to entering the password in the password-field, and selecting the *Remember password (not as secure as letting Notes handle Notes addin-tools*. The sample dialog box above show exactly this scenario.

You can also select *Don't ask this question again* (you can also set this in the Preferences). This will hide this password dialog box. If you regret this later, you can always turn it back on from the List Fields Preferences.

What if you enter a wrong password ?

List Fields will try to use your password, but if that doesn't work, you'll see this dialog box:



Figure 42: Oops - Wrong Password!

Retype your password and try again!

The Notes document hasn't been saved

If you try to run List Fields on a document which hasn't been saved yet, you will see this message:

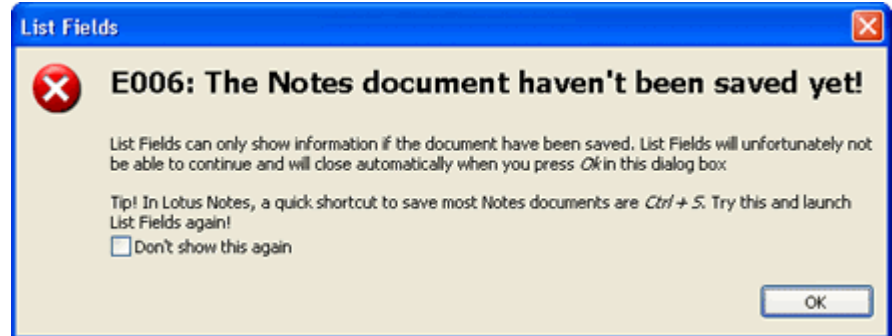


Figure 43: The Notes document hasn't been saved

The only action is to press OK and abort this List Fields-session. The reason for this is that List Fields only can read the *back-end document*, and since the document hasn't been saved, no back-end document exist yet.

Backup and work database created

When List Fields start, it check the existence of the so-called *Notes Backup Database*. This database is a List Fields-created database which contains work documents and backups of documents which List Fields change. In other words, List Fields won't change a but unless it has a complete backup of documents involved.

If the database doesn't exist, List Fields will inform you about the creation of this database, and you will see this message:

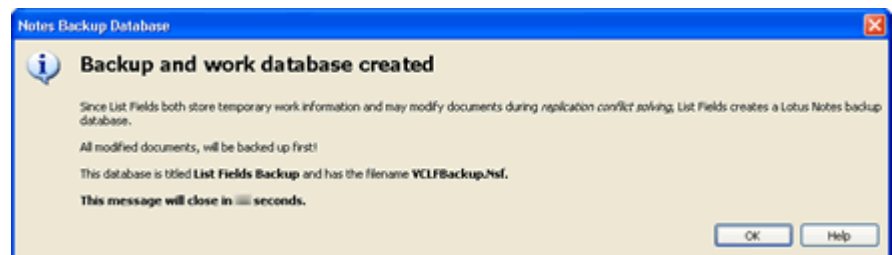


Figure 44: Backup and work database created

The database is created with you (or more precisely, the user ID you run Notes in context of) as the only person with access to the database.

Tip of the day

By default you won't see the "Tip of the day" dialog box. You have to enable that from the Preferences dialog box. Read more about that ***here*** (see "Startup Preferences" on page 128). When enabled, you will see this dialog box:

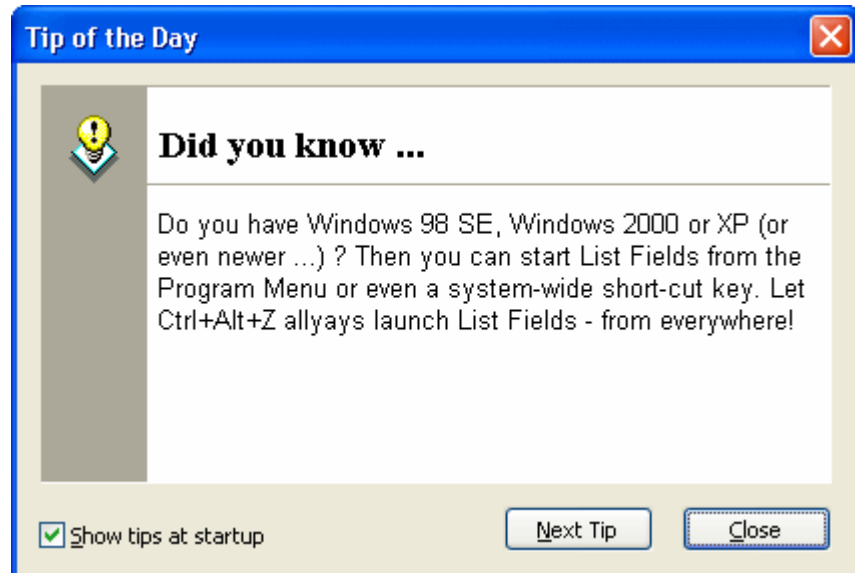


Figure 45: Tip of the Day

It typically contains small tips about List Fields. If you don't read manuals, turn this dialog box on to learn new features.

If you feel impatient, you can also browse to the next tip, and don't wait until next launch of List Fields!

To turn the dialog box off, un-select **Show tips at startup**.

Replication or Save Conflict detected

If one or more of the documents you have selected participate in a replication or save conflict, you will see the following dialog box:

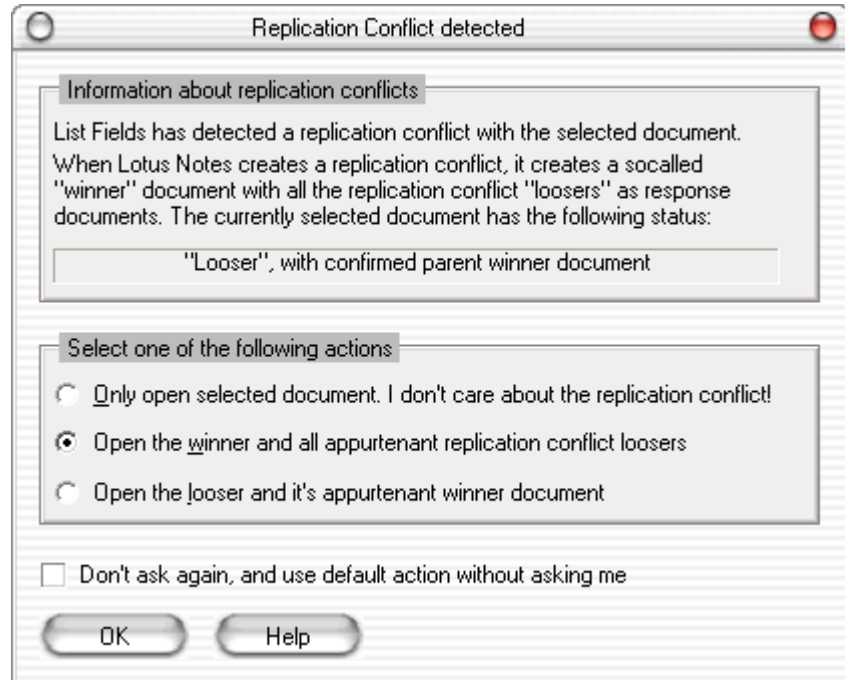


Figure 46: Replication-
or save conflict detected

To see what this dialog box do, see *this* (on page 144) topic, or read more about replication and save conflicts in general, see *this* (see "Replication or Save conflicts" on page 139) topic.

Common features - available everywhere

Several features can be used all over in List Fields. You can for example copy most information to the clipboard, and use hyper links.

Copy to clipboard

Sometimes you would like to use- or take a look at data from List Fields in other applications. List Fields can copy most of it's data to the clipboard.

Copy plain text from Field List- and Information Area

If you are in the **Field List**- or **Information Area**, you can just select any text and right-click. From the popup context menu, select **Copy**.

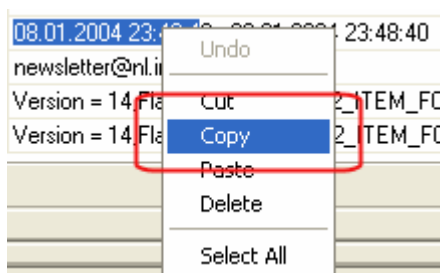


Figure 47: Copy text from field list- or information areas

In the screenshot above, some text was selected, and then the right mouse button was clicked. Select **Copy**.

Copy the whole Information Area as both text and HTML

In the Information area, you also have the option of copying the whole information to the clipboard. Point your cursor at one of the keywords, and right-click.

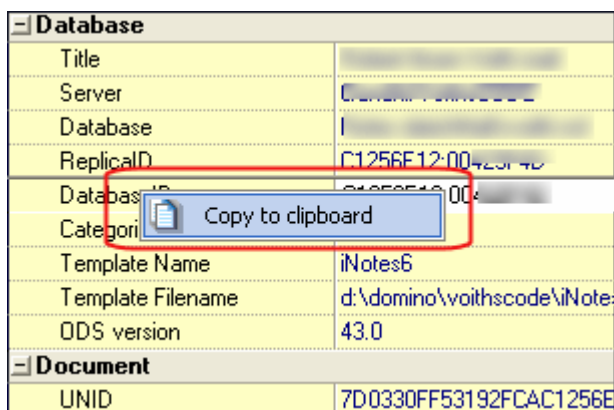


Figure 48: Copy the whole Information Area to the clipboard

This operation will copy the complete Information Area to the clipboard both as text and as HTML.

Copy the whole Output Area as both text and HTML

From the **The Output Area**Output Area, you use the same trick as for the Information Area. Point anywhere and right-click:

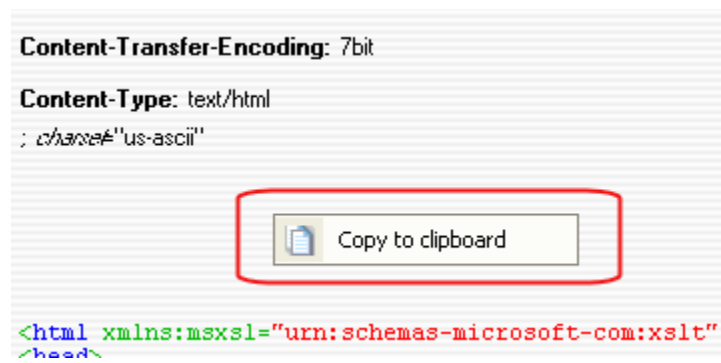


Figure 49: Copy the whole Output Area to the clipboard

Again, both text and HTML formats will be copied to the clipboard.

High Quality Rendering of richtext

List Fields support so-called High Quality Rendering (HQR) of all richtext in Lotus Notes. This means that List Fields will attempt to give you an idea what the richtext content look like in the real Notes document.

To support HQR List Fields use a mixture of common richtext programming combined with DXL processing. Below you see a sample of HQR:

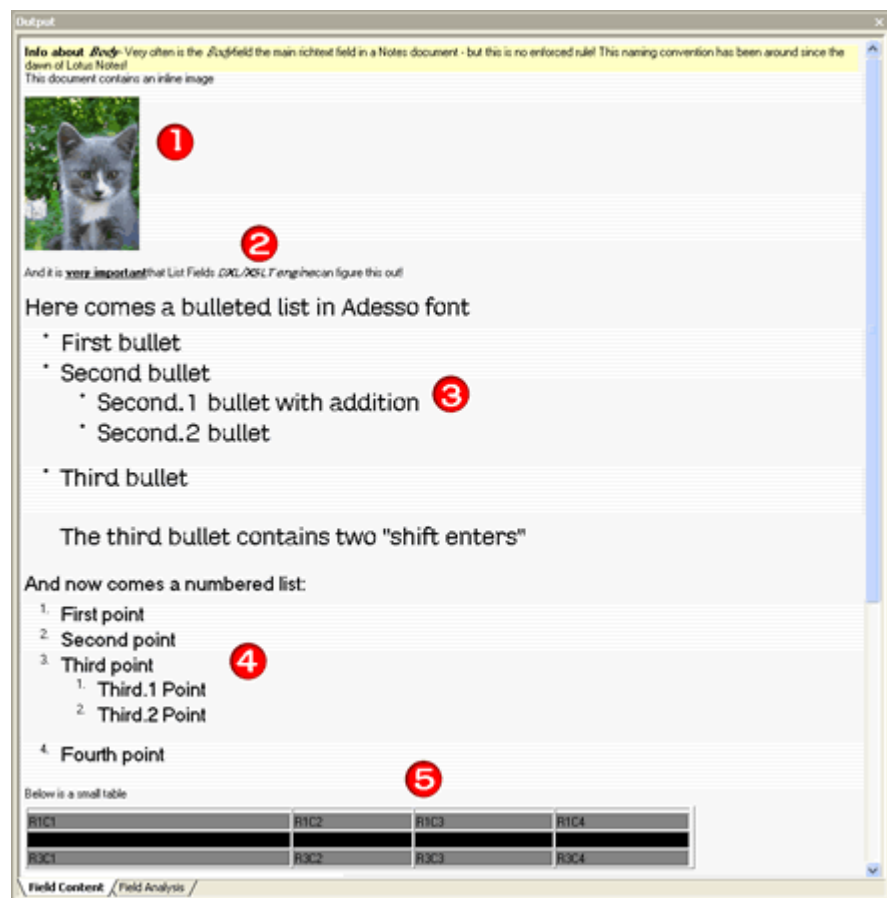


Figure 50: Example of High Quality Rendering

- 1 Most inline images are rendered. GIF, JPEG and Notes own internal bitmaps are shown. Click on an image to display a menu where you can open- or save the image! Read more about that *here* (see "Open or save file-, image- and OLE attachments" on page 111).
- 2 Font and font sizes are shown. Note on font sizes that HTML font-sizes use size-steps from 1 to 7. This means that the font sizes may look smaller or larger than the real font size in the Notes document.

Most fonts decorations such as nold, italics, underlined.

- 3 Bulleted lists are shown, also with indents
- 4 Numbered lists are shown, also with indents

- 5 Tables are shown, with many of the original attributes such as background colors etc.

It is important to remember that List Fields aim at giving you an idea of the richtext content, not a 100% representation!

Below you see a not-so-successful result of HQR:



Figure 51: Example of a not-so-successful High Quality Rendering

The screenshot above is from a newsletter, originally sent as a **MIME message** (see "MIME and 822 Text" on page 171). However, List Fields was opened in **easy-mode** (see "List Fields - in easy-mode" on page 176) and thus the Notes API hides a lot of the MIME-stuff and convert the MIME parts to richtext automatically. The result is not good looking and lack images as well.

Follow the links - or - save and open files and OLE objects

Many places in List Fields will you see links, which do various things. Hover the cursor for a little while over a link, and you should see a little tooltip informing you what's about to happen if you click on the link.

For example, most file attachments, OLE objects and graphics can be saved and opened. Read more about that **here** (see "Open or save file-, image- and OLE attachments" on page 111).

The Main Screen

When List Fields has been launched and you have answered the questions about *security* and if you have *saved your Notes document*, you will see the main screen:

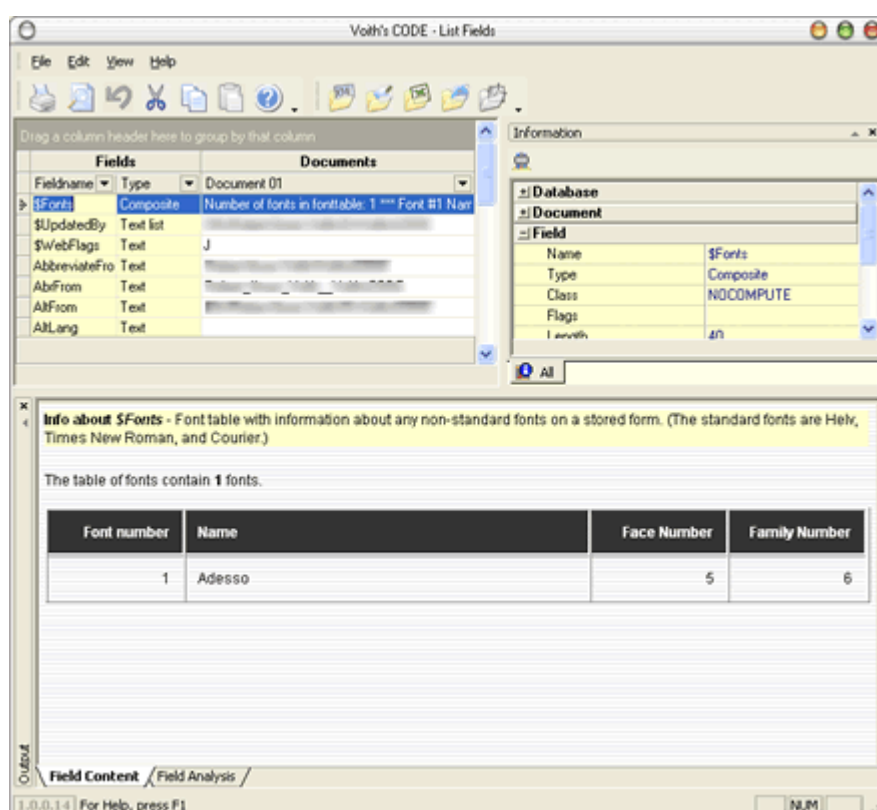


Figure 52: The Main Screen - Advanced view

The screen above has all *areas* enabled. More on those in a second! You see that List Fields looks like a traditional Windows application with menus, toolbars and other traditional Windows application stuff. Read more about Menus, Toolbars and other stuff [here](#).

First and foremost you see the the *Field List Area*.


Drag a column header here to group by that column

Fields		Documents
Fieldname ▼	Type ▼	Document 01 ▼
> \$Fonts	Composite	Number of fonts in fonttable: 1 *** Font #1 Nam
\$UpdatedBy	Text list	
\$WebFlags	Text	J
AbbreviateFro	Text	
AbrFrom	Text	
AltFrom	Text	
AltLang	Text	

It's main purpose is to list fields and show their fieldtype and content. The list can sorted, rearranged and grouped in many ways.

The next area is the *Information Area*:

Information



Database

Title	List Fields Test Database
Server	(Local)
Database	
ReplicaID	
DatabaselD	
Categories	Discussion
Template Name	StdR6Disc
Template Filename	d:\data\discsw50.ntf
ODS version	43.0

Document

UNID	99A06FDA2182BC70C1256D1E00292428
NotelD	2338
Number of fields	19
Size	9.78 kB (10016 bytes)
Created	06.05.2003 09:29:22
Last Modified	06.05.2003 09:30:37
CRC32	6050549

Field

Name	\$Fonts
Type	Composite
Class	NOCOMPUTE
Flags	
Length	40


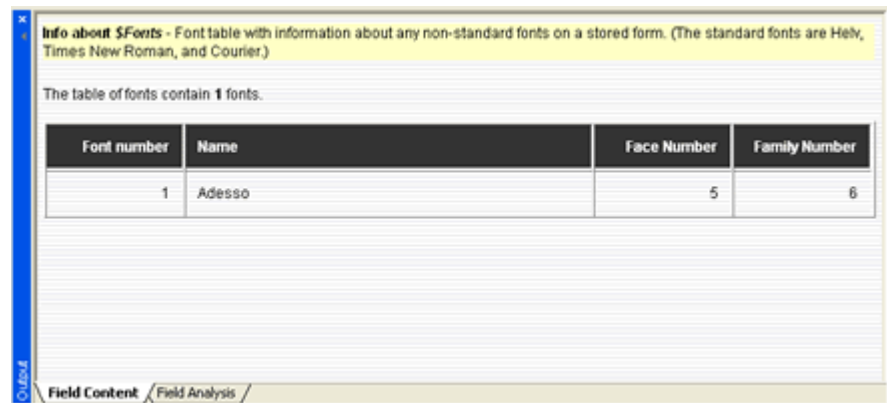
 All

Figure 53: The Output Area

The purpose of the Information Area is to show details about the currently selected Notes database, document and field. Since List Fields has the possibility open more than one document simultaneously, this area can be nice to consult to see real details about the currently selected field.

Note that you also can launch other tools from this area. In the screen above we can launch *NotesPeek* which then will start with the currently selected database and document.

The final area is the *Output Area*:



Font number	Name	Face Number	Family Number
1	Adesso	5	6

Figure 54: The Output Area

The purpose of the Output Area is to display the content of the currently selected field. List Fields will also show additional *nice to know*-information, if the fieldname is a typically used Notes fieldname. In the screen above you see information about the field *\$Fonts*.

The next topics dive into each of these areas.

List Fields will either show the data directly - or - an interpretation of the internal content for you, such as for the internal font-table in the field *\$Fonts*.

Finally, the output area also show the *Field Analysis area* (see "The Field Analysis Pane" on page 109), where field content may be compared between documents if you have selected more than one document.

Menus, Toolbars and other Stuff!

List Fields is a traditional Windows application, albeit started from with Lotus Notes. However, List Fields has many powerful features, such as:

- 1 Move List Fields around and it will start in the same position at successive starts.
- 2 Resize List Fields with the tiny gripper in the lower right hand corner. List Fields remembers it's new size as well.

- 3 The **Information-** and **Output** area can be turned on and off at will, thus making more room for the essential **Field List** area.
- 4 The Information- and Output areas can be moved, resized and dragged outside List Fields! By grabbing the titlebar in these areas, you can easily drag the area off the so-called docked position. List Fields even remember the position and size of these floating areas. You've got the screenspace, we've got the way to fill it!
- 5 All menus and toolbars can be moved and placed at any border of List Fields. You don't like horizontal toolbars, make them vertical - or - even floating.

All this means that you can tailor the look and feel of List Fields to your own taste.

Below you see a sample on how to change the layout:

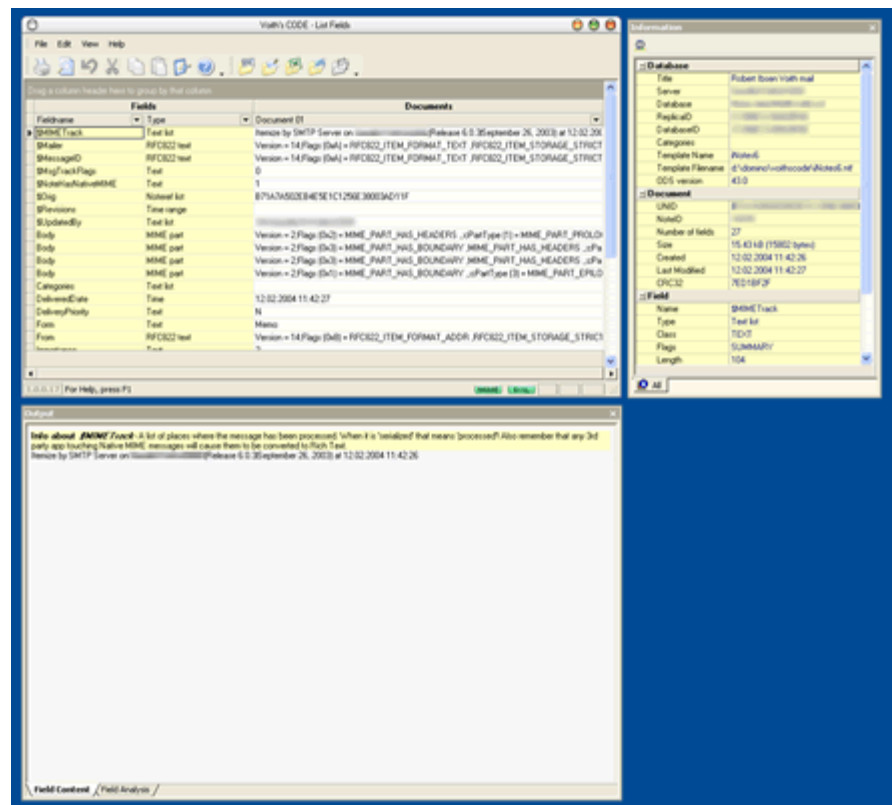


Figure 55: One way to organize the layout

The Menu



Figure 56: The Main Menu

Menus have been around since the first Windows-like operating systems saw the light of dawn. Note that the menus in List Fields are *context sensitive*, meaning that they will react to the place you put your cursor. If you can't export data, the **File->Export** menu will be *disabled*, or *grayed* out.

One cool thing about the menu in List Fields is that the menu can be moved around! Do you like the menu to floating off List Fields-screen? Grab the little handle at the left hand side of the menu and drag it off the List Fields-screen. The menu is now floating, and it will look like this:



Figure 57: The Floating Menu

The menu can also be attached - or *docked* - to any of the borders of List Fields. When the application starts, it just happen to be docked at the top-most border.

The File Menu

The File menu looks like this:

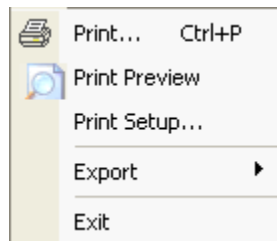


Figure 58: The File Menu

Menu	Description
Print ...	Will print the Field List Area content directly. Note that List Fields can't print any other area at the moment!
Print Preview	Show you how the printed page(s) will be before you actually print them.
Print Setup. ...	Decide how the printer settings should be.
Export	Show the Export sub menu (see "The Export Submenu" on page 73). These menus will export the Field List area to various formats
Exit	Terminate List Fields. This can also be done by using the standard Windows shortcut ALT+ F4, or by clicking on the Exit button in the top-most right corner

The Print Setup Dialog

Below you see how the Print Setup Dialog:

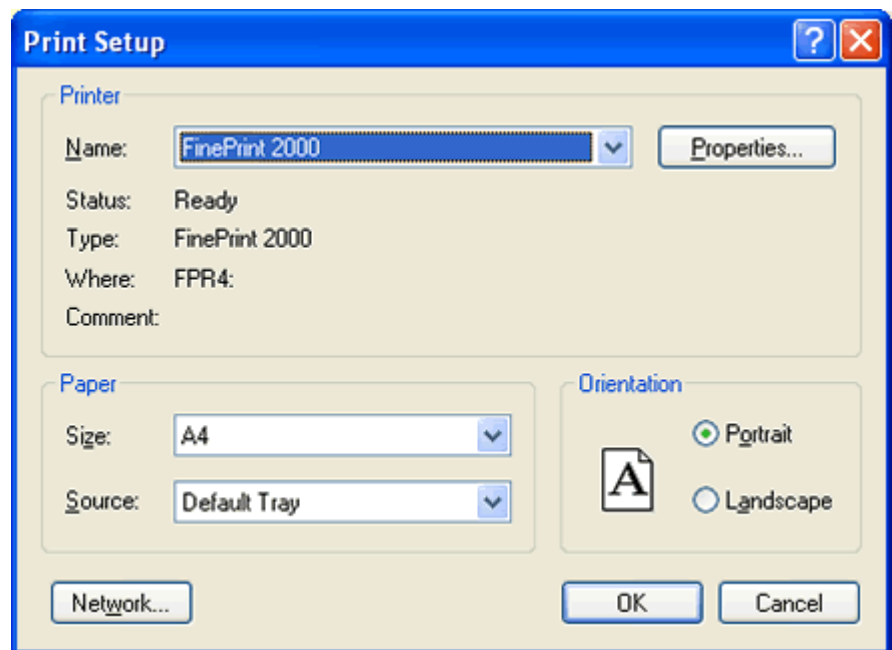


Figure 59: The Print Setup Dialog

From this dialog you can select which printer to use, and set all it's properties.

The Export Submenu

List Fields support export of the Field List Area to several formats. Hopefully you find one you like! The menu looks like this:

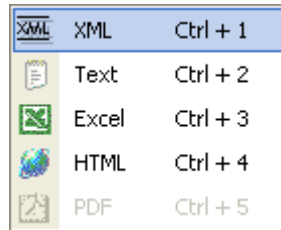


Figure 60: The Export Submenu

You can export to the following formats:

XML	The most versatile data transport format yet! Many modern tools support import from XML directly.
Text	Classical but important
Excel	Do you need a spreadsheet to manipulate the Field List with ? This export option generates a first class Microsoft Excel spreadsheet.
HTML	Generate a HTML page which can be viewed in any internet browser
PDF	NOT SUPPORTED YET! Will generate an Adobe Acrobat document directly.

Common for all export functions are that you must save the exported data to a filename. So if we for example select to export the Field List to a XML file, you will see this dialog box:

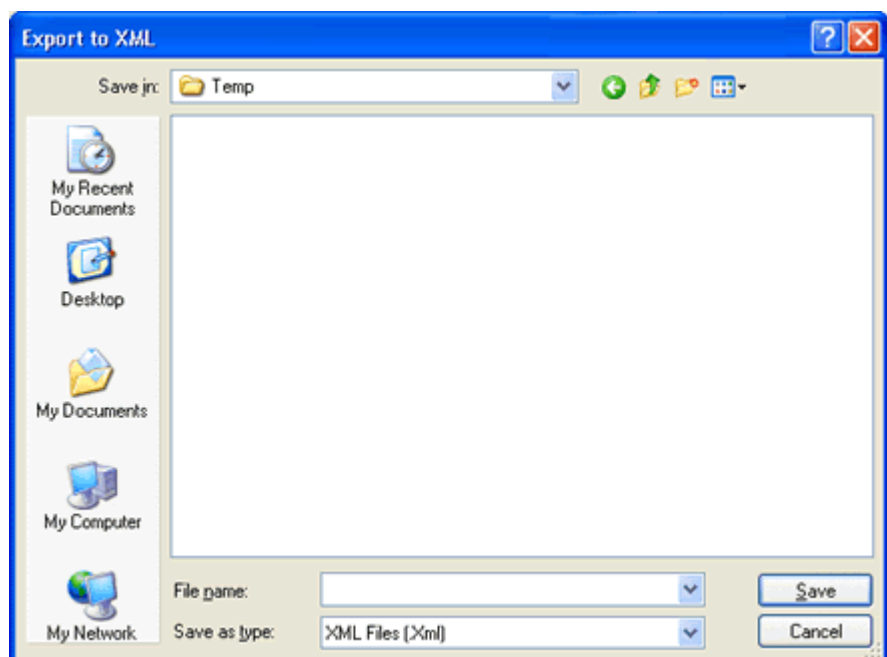


Figure 61: The Export SaveAs dialog

Select a directory and enter a filename. If you don't supply a filetype (such as *.xml* in this case), List Fields will provide it for you.

The Edit Menu

The Edit menu contains traditional *Copy'n Paste* entries, since you can in both the **Field List**- and **Information** Areas, select any text and copy it to the clipboard. The Edit Menu looks like this:

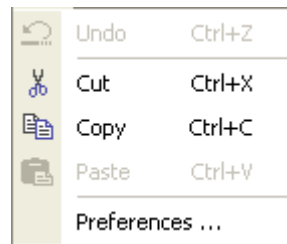


Figure 62: The Edit Menu

Menu	Description
Undo	Undo the last action. Not much used in List Fields
Cut	Will copy the selected content to the clipboard, and delete it from the field. Not used in the standard edition of List Fields
Copy	Will copy the selected content to the clipboard.
Paste	Get the content of the clipboard and paste it (ie. type in) where you have placed your cursor
Preferences	Open the Preferences (see "Preferences Dialog" on page 125) dialog to see or edit the List Fields preferences.

The View menu contains several options to control what you see. The menu looks like this:

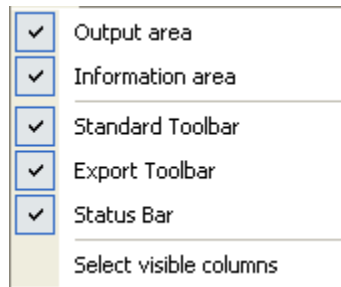


Figure 63: The View Menu

Most of the menu items on this menu are so-called *toggle* menus. This means that you can *turn on- and off* the function behind the menu. You will see this indicated by the check mark. In the sample above, almost all menu-lines are checked, and thus active!

Menu	Description
Output Area	Do you want to see the Output Area ? If you turn off the area by other means, such as pressing the little x-icon at the right-hand topmost corner of the area, this will also deselect the menu item
Information Area	Do you want to see the Information Area ?
Standard Toolbar	Do you want to see the Standard toolbar (see "The Toolbars" on page 77) ?
Export Toolbar	Do you want to see the Export Toolbar ?
Status Bar	Do you want to see the Status Bar (see "The Statusbar" on page 76) ?
Select visible columns	Selecting this menu item, bring up a small dialog, where you can select which columns and so-called bands you want to see in the Field List Area. Read more about that here (see "Select Visible Columns" on page 82).

The Help Menu

The final menu in List Fields is the Help menu. It looks like this:

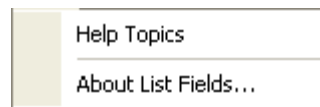


Figure 64: The Help Menu

The **Help Topics** bring up this document!

The **About List Fields** bring up a dialog which look like this:

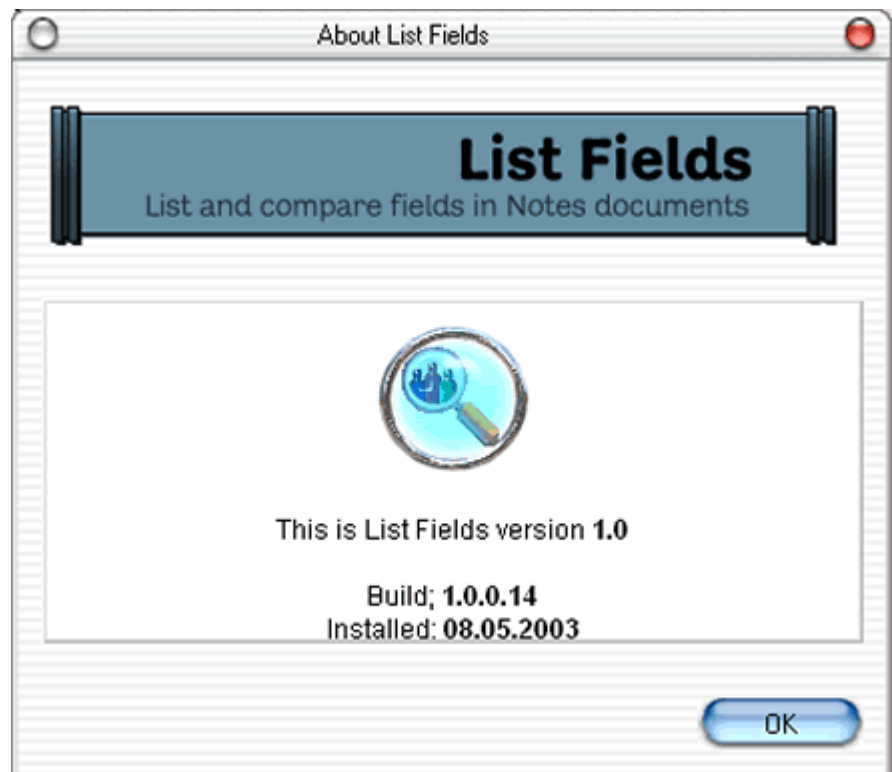


Figure 65: The About List Fields Dialog

In this dialog you'll see some important information about your current version of List Fields. In addition you'll see some copyright notices for components that List Fields use, such as Xalan and Xerces from Apache.org. Finally you'll see some important mail addresses in case you want to convey bug-reports or suggestions about List Fields. Voith's CODE really appreciate such feedback - good or bad!

The Statusbar

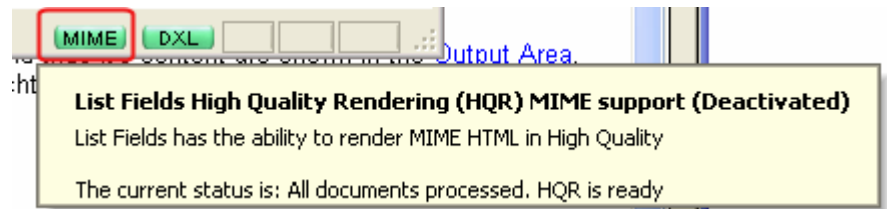


Figure 66: The Statusbar

List Fields makes use of the statusbar to inform you about menu-selection help, progress of operations, and state of the special keys.

- 1 The current build of List Fields

- 2 The status information. Lengthy operations will display the progress in this area. You can also hover the mouse over a menu to see a short help description
- 3 The MIME status button. Read more about MIME in the *MIME* (see "MIME and 822 Text" on page 171) chapter. This button change color to indicate the status of the MIME support. In addition you can click on the button to see the current status:



The different colors are:

1. Gray. The MIME decoding hasn't started yet
 2. Yellow. MIME decoding in progress
 3. Green. MIME decoding finished.
 4. Red. An error occurred during MIME decoding.
- 4 The DXL status button. The logic behind this button is equivalent to the logic of the MIME button above, but now we monitor the the status of DXL processing.
 - 5 The states of special keys such as CAPS LOCK, NUM LOCK and INSERT.

Finally, note the gripper in the lower right corner:



Grab this with your cursor and drag the List Fields window larger! List Fields will automatically remember the new size!

The Toolbars



Figure 67: The Main Toolbar

The Toolbars has also been around for a long time. Their main purpose is normally to be a quick way to enable and do stuff that you otherwise would have use the menus to accomplish. The toolbars are also context sensitive, so if you have placed your cursor in an area that don't support a toolbar operation, it will be disabled.

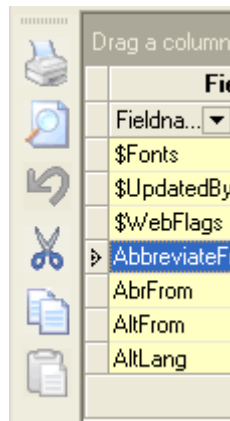
Move the toolbar around

Note that you can use the so-called gripper at the right to drag the toolbar to another location. You can even drag the toolbar off the List Fields-screen, and then we call it a floating toolbar. Below you see a sample of the same toolbar floating:



List Fields remember the position of all your toolbars, even if they are floating.

Below you see the same toolbar *docked* at the left border.



*Figure 68: The Main
Toolbar Docked*

Customize the toolbar

You don't like the content of the toolbar ? Well, remove it, or add new icons to the toolbar! The toolbars have a little down-arrow at the end. Pressing this array reveal the **Customize** menu. Press this and you see this dialog:

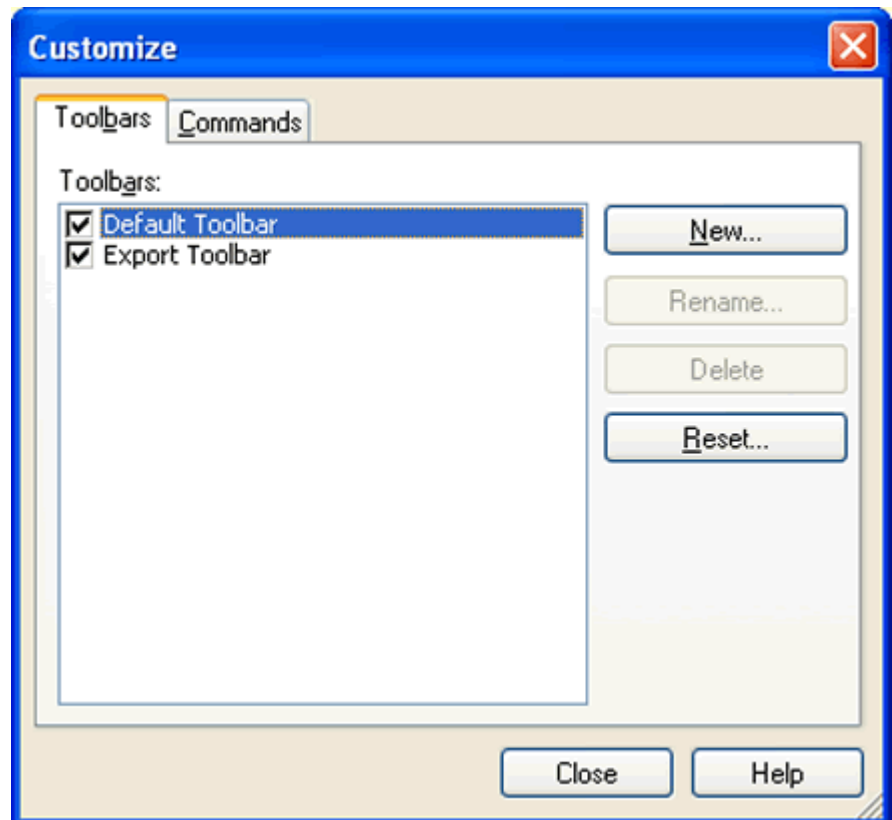


Figure 69: Customize the Toolbar

From this dialog, you can select which toolbars that should be visible or not. You can even create your new, special toolbars! Also note that you can reset all changes back to default.

By selecting the **Commands** tab, you'll see the available menus to choose from:

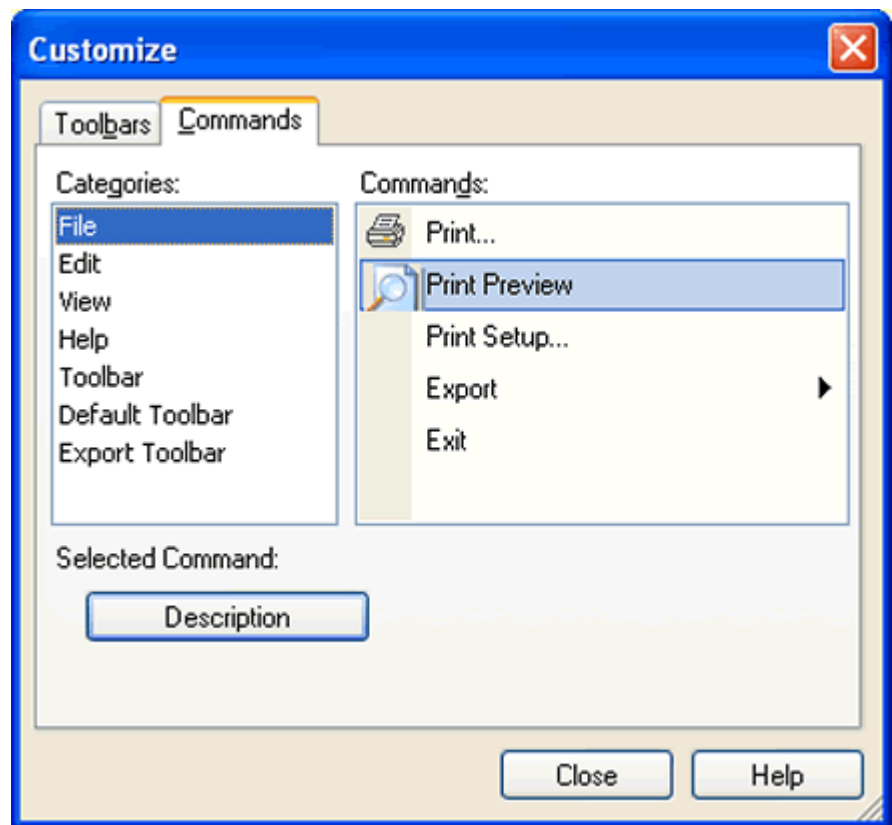


Figure 70: Select content in toolbars

From this dialog, you can select menu- and toolbar operations from the available commands in List Fields. You select an option in the right hand part and just drag it onto your toolbar! List Fields will save your changes automatically, and if you regret anything, you can always delete or reset the content back to original.

The Field List Area

The Field List Area is the main area in List Fields. In this table, you will see the fields of the documents. Below you see how it looks:

Drag a column header here to group by that column

Fields		Documents
Fieldname ▾	Type ▾	Document 01 ▾
> \$Fonts	Composite	Number of fonts in fonttable: 1 Font #1 Name
\$UpdatedBy	Text list	
\$WebFlags	Text	J
AbbreviateFro	Text	
AbrFrom	Text	
AltFrom	Text	
AltLang	Text	

Figure 71: The Field List Area

You see that the field list is separated into two main **bands** (see "Select Visible Columns" on page 82), *Fields* and *Documents*. The Fields band has by default a yellow background, while the Document band has a white background. The Fields band contain key information about the field, while the Documents-band contain the content of the field in a given document. If you look at multiple documents at once in List Fields, you will see multiple columns in the Documents-band, with headers like *Document 01*, *Document 02* ... *Document nn*.

You have the following features in the field list area:

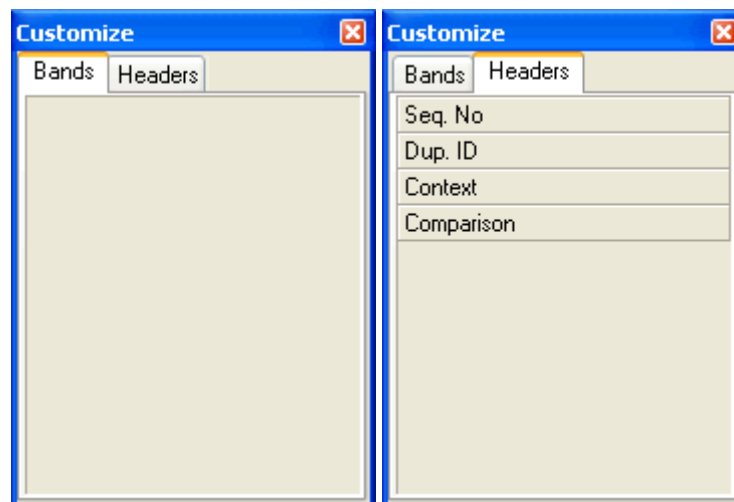
- Select a field and see information about the field in the **Information area**, and see it's content in the **Output area**.
- **Sort** (see "Sort any column in any direction - even multiple columns at the same time" on page 86) any column in any direction
- **Reorder** (see "Reorder columns in any order" on page 88) the list, by moving the columns
- Show- or hide columns from the list with **Select visible columns** (on page 82).
- **Filter** (see "Filter any column to show only what you want" on page 89) the list, so see only certain information
- **Group** (see "Group on any column" on page 92) the list by any column - or multiple columns
- Print the list
- **Export** (see "The Export Submenu" on page 73) the list into text, XML, HTML and other formats
- Change the looks of the field list. The fonts, fontsize, foreground and background colors can be changed in the **Field List Area Preferences** (on page 134) dialog box.

You can perform the following actions from the list:

- Right-click on the Document column Header (such as "Document 01" in the screenshot above) to see the context menu for the document. You can for example *show this document in the Notes client* (see "Show this document in Notes" on page 93), or you can designate this document as the winner in a replication- or save conflict.
- Right-click on any field to see the context menu where you can add- or delete fields. This is only visible if you have author rights to the currently selected document.

Select Visible Columns

Since List Fields contains a list of fields and their values, what is more natural than having you control what to see ? The Field List Area shows some field attributes, but you can choose more! By selecting the menu View->Select visible columns, you will see this dialog:



In this dialog you can select between two tabs, first the *Bands*, and then the *Headers*. But first some information about bands!

What is a band ?

In the Field List Area you see the columns divided into two main columns, where the background of the first is yellow and the background of the second is yellow. Below you see this emphasized:

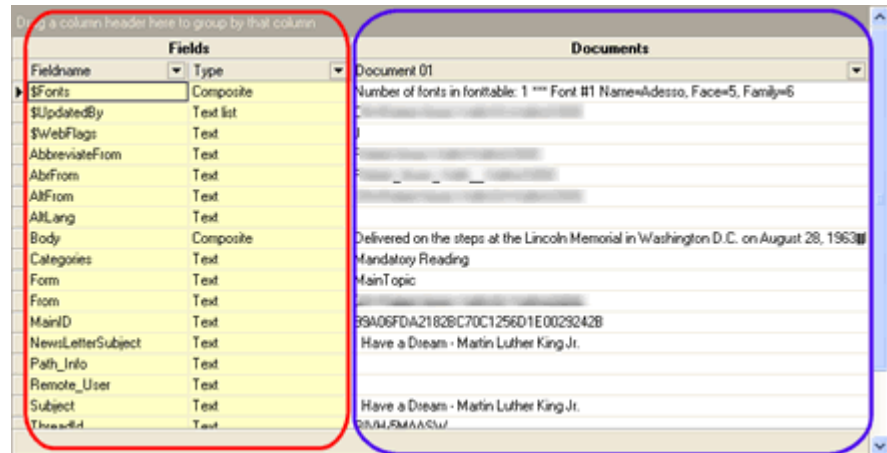


Figure 72: Field List Area - The Bands

The red square represent the band named *Fields*, while the blue square represent the band *Documents*. The bands have titles and those band names can reordered and removed the same way as you reorder or remove individual fields. The important part to remember is that band-titles are placed above the individual field names, and thus *contains* one or more columns. In the sample above, the band *Fields* contains the columns *Fieldname* and *Type*.

How do you remove a column in the Field List Area ?

The key is drag and drop! In the first sample we want to remove the column *Type* from the Field List Area. To do this, you follow this procedure:

- 1 Open the **Select Visible Columns** dialog from the **View** menu. This show the **Customize** dialog as shown above. Ensure you select the tab *Headers*.
- 2 Point the cursor at the title of the column to remove.
- 3 Press and hold down the left mouse key
- 4 While holding down the mouse key, drag the column to the **Customize** dialog
- 5 Release the mouse key.
- 6 You should see that the column is removed from the Field List Area and placed in the **Customize** dialog.

Below you see a sample of this operation:

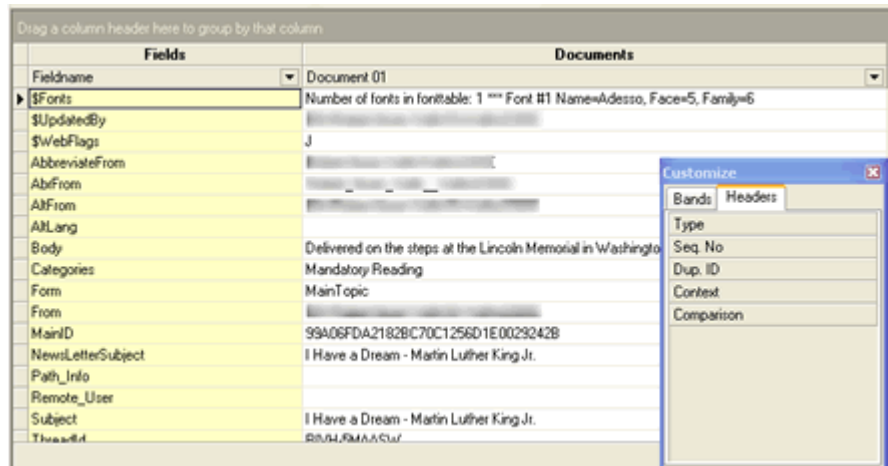


Figure 73: Field List Area - Removing a column

How do you add a column in the Field List Area ?

The key is again drag and drop! Follow this procedure to add a column to the Field List Area

- 1 Open the **Select Visible Columns** dialog from the **View** menu. This show the **Customize** dialog as shown above. Ensure you select the tab *Headers*.
- 2 In the *Headers* listbox, point the cursor at the column you want to add.
- 3 Press and hold down the left mouse key
- 4 While holding down the mouse key, drag the column onto the Field List Area. Note that the Field List indicate with two small arrows where the column will be placed.
- 5 Release the mouse key
- 6 You should see that the new column is added to the Field List Area, and removed from the *Headers* listbox in the **Customize** dialog.

Below you see a sample where several columns has been added:

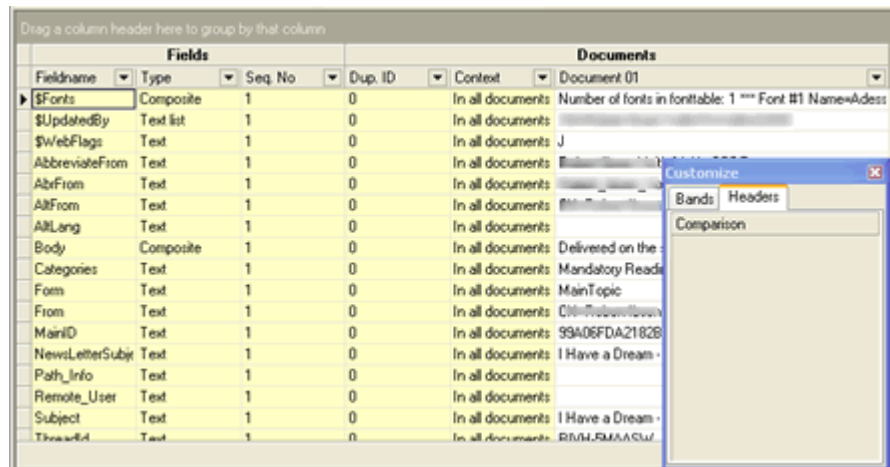


Figure 74: Field List Area - Added Columns

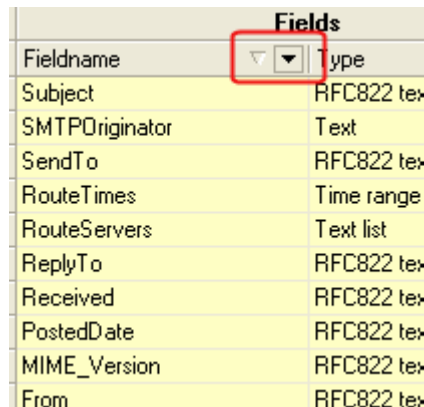
How to remove or add bands ?

The logic is completely identical to how to remove and add individual columns. Instead do this:

- 1 Point cursor and hold down the left mouse key on the band names, such as *Fields* or *Documents*
- 2 Drop the band into the Band listbox - instead of the Header listbox and vice versa.

Sort any column in any direction - even multiple columns at the same time

You can sort any column in the Field List Area just by clicking on it. You will instantly see that the content of the field list is sorted according to your choice. A small arrow in the column header indicates the sorting direction. Below you see a field list sorted descending on the column Fieldname. Note the little arrow!



Fields	
Fieldname	Type
Subject	RFC822 text
SMTPOriginator	Text
SendTo	RFC822 text
RouteTimes	Time range
RouteServers	Text list
ReplyTo	RFC822 text
Received	RFC822 text
PostedDate	RFC822 text
MIME_Version	RFC822 text
From	RFC822 text

Figure 75: Field list sorted descending on Fieldname column

Note that List Fields will try to "hold on to" the current column. When you sort the list, you might need to scroll up or down to get to the top or bottom of the list.

You can even sort more than one column!

Hold the SHIFT button down while you click on the column headers to sort. Do this on as many columns as you like to create a sorted list completely after your taste!

Fieldname	Type
Body	MIME part
Body	MIME part
Body	MIME part
Body	MIME part
\$Orig	Noteref list
\$MessageID	RFC822 text
From	RFC822 text
MIME_Version	RFC822 text
PostedDate	RFC822 text
Received	RFC822 text
ReplyTo	RFC822 text
SendTo	RFC822 text
Subject	RFC822 text

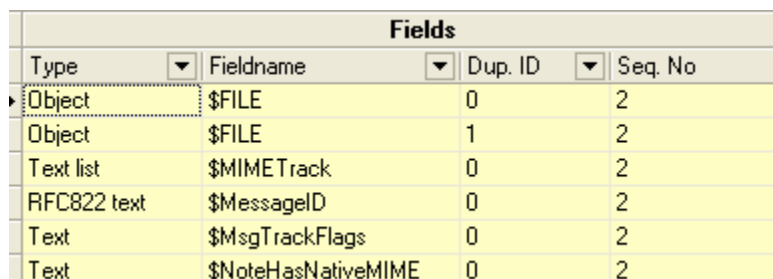
Figure 76: Field list sorted on multiple columns

In the screenshot above, we sorted multiple columns starting by pressing down the SHIFT key. While holding down the SHIFT key, we clicked on the *Type* column twice to sort it ascending. And still holding the SHIFT key down, we click twice at the *Fieldname* column to sort that ascending. The result is that the *Type* column is sorted ascending, and the fieldnames are also sorted ascending *within* the Types (Check out \$MessageID, From, MIME_Version, PostedDate etc.).

When you combine column sorting with **column reordering** (see "Reorder columns in any order" on page 88), **column grouping** (see "Group on any column" on page 92) **and column filtering** (see "Filter any column to show only what you want" on page 89), you can create almost anything

Reorder columns in any order

All columns in the Field List Area can also be reordered, meaning that you can choose the sequence of columns in the list. You don't want to see the fieldname column first ? Well, make it the second column then!

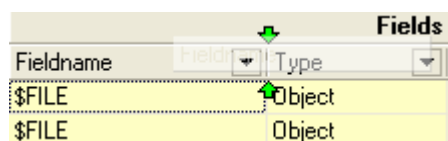


Fields			
Type	Fieldname	Dup. ID	Seq. No
Object	\$FILE	0	2
Object	\$FILE	1	2
Text list	\$MIMETrack	0	2
RFC822 text	\$MessageID	0	2
Text	\$MsgTrackFlags	0	2
Text	\$NoteHasNativeMIME	0	2

Figure 77: Reordered columns in the field list

In the screenshot above, the Fieldname column has been reordered as column 2 after the Type column.

You reorder columns by clicking on the column header and while you hold the mouse button 1 down, drag it to its new position. Below you see this in action:



Fields	
Fieldname	Type
\$FILE	Object
\$FILE	Object

Figure 78: Drag a column to its new position

Here the Fieldname column is being dragged. When we hover, with the mouse button still pressed, at possible positions, you see small green arrows indicating the new position if you drop (or, release the mouse button) it.

When you combine column reorder with **column sorting** (see "Sort any column in any direction - even multiple columns at the same time" on page 86), **column grouping** (see "Group on any column" on page 92) and **column filtering** (see "Filter any column to show only what you want" on page 89), you can create almost anything

Filter any column to show only what you want

Every column in List Fields has the ability to *filter* information. This means that you can select a *subset* of the complete list to narrow down the list. For example, you have a field list with many field types, as seen below:

field	
Fieldname ▼	Type ▼
\$FILE	Object
\$FILE	Object
\$MIMETrack	Text list
\$MessageID	RFC822 text
\$Orig	Noteref list
\$UpdatedBy	Text list
Body	MIME part
Body	MIME part
Body	MIME part
Body	MIME part
Body	MIME part
Body	MIME part
Body	MIME part
Body	MIME part
Categories	Text list
From	RFC822 text
MIME_Version	RFC822 text
PostedDate	RFC822 text
Received	RFC822 text
Received	RFC822 text
RouteServers	Text list
SendTo	RFC822 text
Subject	RFC822 text
X_EMR_ID	RFC822 text
X_EM_Registration	RFC822 text
X_EM_Version	RFC822 text
X_OriginalArrivalTime	RFC822 text
X_Sender	RFC822 text

Figure 79: Field list with many field types

Instead of working with the complete list, you can click on the "fat little arrow" on the *Type* column.

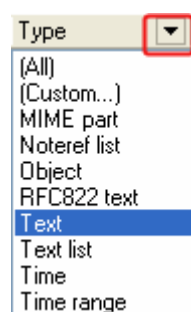


Figure 80: Access the filter for a column

You will see a list of available values, starting with **(All)** and **(Custom)**. The rest of the values in this list is automatically created by List Fields and contains all unique values for this column.

If you want to see only the Text fields, click on the "Text"-filter as shown above. The result is that the list instantly shows only Text fields:

Fields			
Fieldname	Type		Dup. ID
\$MsgTrackFlags	Text		0
\$NoteHasNativeMIME	Text		0
Form	Text		0
RoutingState	Text		0
SMTPOriginator	Text		0

Figure 81: See only Text fields in Field List

Note that the "fat little arrow" turned blue, to indicate that a filter is active.

Help, get all my rows back please!

To revert back to all rows, click the little arrow again and select **(All)**. The blue arrow will revert back to black, to indicate that no filter is activated.

Set filter on multiple columns if you like!

Activate filters on any visible row to create just the selection you want!

And finally, set a custom filter ...

If the filter list, you will always see **(All)** and **(Custom)**. Pressing **(Custom)**, brings up this dialog box:

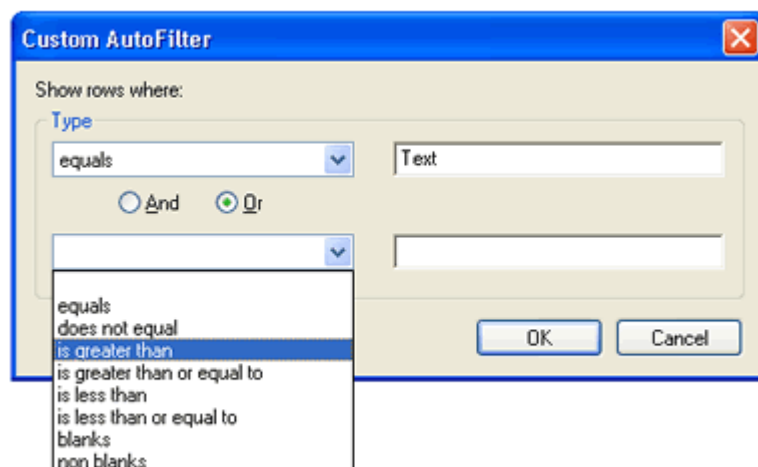


Figure 82: Custom filter dialogbox

You can set any combination of two filters, and as you see from the screenshot above, you can create fairly advanced filters to extract exactly what you want!

When you combine column filtering with *column sorting* (see "Sort any column in any direction - even multiple columns at the same time" on page 86), *column grouping* (see "Group on any column" on page 92) and *column reordering* (see "Reorder columns in any order" on page 88), you can create almost anything

Group on any column

One of the cooler things to do in the field list area is to group the list. Below is a screenshot showing how the *Type*-column is being dragged to the group panel:

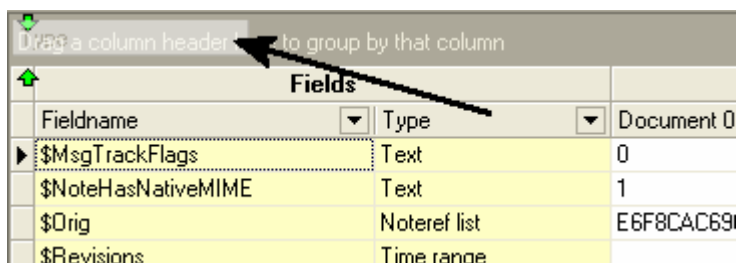


Figure 83: Drag a column to the group panel

Click on the column header and hold the mouse button 1 down to start the drag-operation. While holding down the mouse button, drag the column up to the group panel. Release the mouse button, and List Fields will instantly group the list according to the columns you choose to group on. Below is a sample of a field list when we have grouped on the *Type* column.

Type		
Fields		Documents
Fieldname	Document 01	
* Type : MIME part		
* Type : Noteref list		
* Type : Object		
\$FILE	TopLogo.gif (size: 3102 bytes, created 12.02.2004 11:38:58, last modified 12.02.2004 11:38:58) Object Type = OBJEC	
\$FILE	Compuware.gif (size: 5082 bytes, created 12.02.2004 11:38:58, last modified 12.02.2004 11:38:58) Object Type = OBJ	
* Type : RFC822 text		
* Type : Text		
\$MsgTrackFlags	0	
\$NoteHasNativeMIME	1	
Form	Memo	
RoutingState		
SMTPOriginator	compuwareinc@emal@action.net	
* Type : Text list		
* Type : Time		
* Type : Time range		

Figure 84: A field list grouped on the *Type* column

The list above shows both collapsed and expanded rows.

Sort the groups!

Sort the groups just like ordinary column sorting! Just click on the group header (*Type* in the screenshot above) to sort. Each click change the sort direction. You can even sort multiple groups in any directions!

Group more columns!

The screenshot above shows a list grouped on just one column. You can group on as many columns as you like! Just drag the columns up to the group panel, and pay attention to the green arrows indicating the position in the group panel.

Reorder any group!

If you have grouped a list on more than one column, you can change the order of the group-columns just by dragging the group-columns to a new position!

Combination!

When you combine column grouping with **column sorting** (see "Sort any column in any direction - even multiple columns at the same time" on page 86), **column reordering** (see "Reorder columns in any order" on page 88) and **column filtering** (see "Filter any column to show only what you want" on page 89), you can create almost anything!

Show this document in Notes

You may open any of the selected documents in List Fields in Notes. This is especially handy if you have opened several documents in a **replication or save conflict** (on page 144), and don't see the documents directly.

By right-clicking on the document title ("Document 0x"...), you will see the **Show this document in Notes** menu.

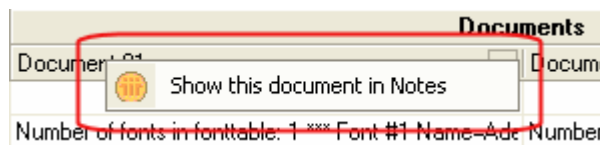


Figure 85: Show this document in Notes

When selected, List Fields will open the selected document in Lotus Notes.

Add- or delete fields

If you have author rights to the selected document, you can right-click on any field in **the Field List Area**, to see the following context menu:

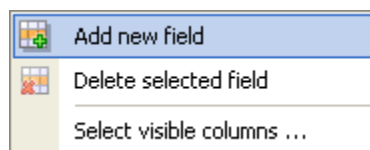


Figure 86: Field List Area Context Menu

From this menu you may add new fields to the document, or delete the selected field from the document.

To change field name, type, flags or content, you do that by the ordinary **change** (see "How to edit fields" on page 115) methods.

Add field

After you select the **Add new field** menu from the Field List Area context menu, you will see this dialog box:

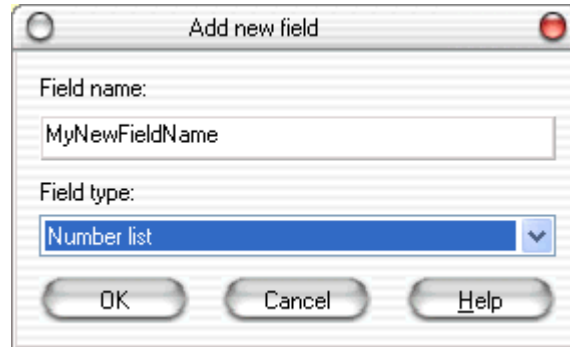


Figure 87: Add new field

From this dialog box you specify:

- The field name.
- The field type

List Fields will create an field of the specified name- and type with no content. Use List Fields's *standard editing* (see "How to edit fields" on page 115) possibilities to fill the field with values.

As soon as you press **OK**, a new *change log* (see "The Change Log" on page 124) will be created. The field will only be created when you explicitly request to save the active changes in the change log. You therefore has the ability to regret this action at any time.

If you have selected multiple documents, you change will be processed on all selected documents.

Note that List Fields does not verify the data content carefully at this stage. You can for example specify that you will create a new number field with the content "This is a test". The change will however not succeed when you try to save the data.

Delete field

After you select the *Delete selected field* menu from the Field List Area context menu, you will see this dialog box:

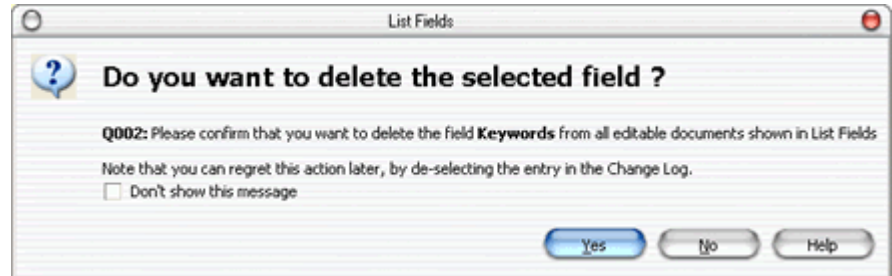


Figure 88: Delete selected field

Confirm that you want to delete the selected field.

As soon as you press OK, a new *change log* (see "The Change Log" on page 124) entry will be created. The field will only be deleted when you explicitly request to save the active changes in the change log. You therefore has the ability to regret this action at any time.

If you have selected multiple documents, you change will be processed on all selected documents.

The Information Area

The Information Area is one of the details areas in List Fields. It consist of several *panes*.

- 1** All values, see details about database, document and field.
- 2** Change Log. This pane contains a record of all changes that will be processed when you are explicitly asked.
- 3** Access. See your *real* access to both the database and to the documents in List Fields.

First of all it will show several details on the currently selected database, document and field level. The content of this area will change automatically as you select or navigate to other fields in the field list in the **Field List Area**.

Below you see an screenshot from the All values-pane in the Information area:

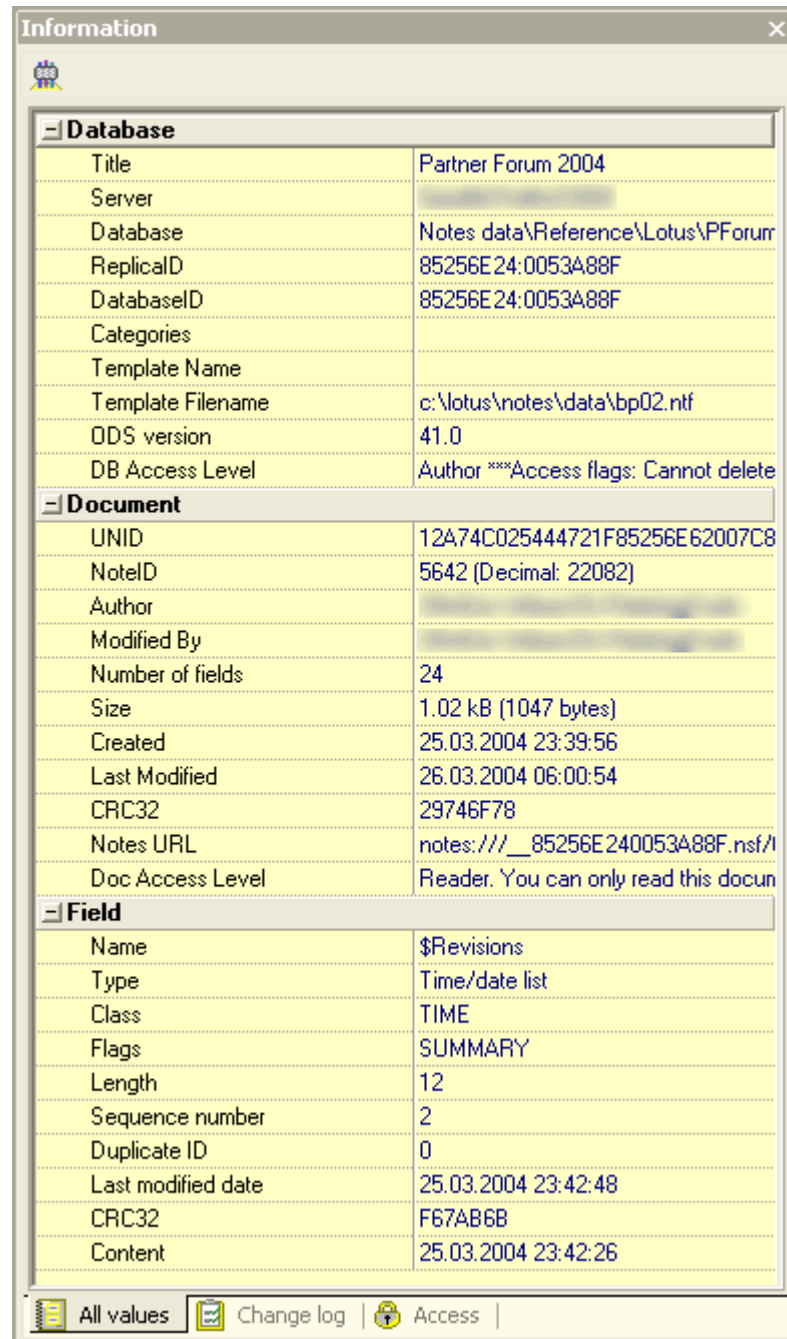


Figure 89: The Information Area

Hide the Information Area if you don't need it

By clicking the little x-icon at the top right corner of this area, the area will hide. You can make it visible again in several ways. You can use the menu **View -> Information Area** to toggle the visibility, or you can access the same menu by right clicking anywhere on any toolbar in the application.

.. or move it somewhere else

Just as many other areas in List Fields, you can also move the area "outside" List Fields. Grab the titlebar of the Information Area, and while holding mouse button 1 down, drag the Information Area wherever you want it. As soon as you start dragging the area, the borders of the area will change, indicating the new placement. All features within the area works like before, it is just being moved! List Fields will remember the layout of all your areas from run till run.

By double-clicking on the titlebar of the area, you will instantly move the area back "within" List Fields. Double-clicking again, will quickly move the area out, so the double-click action act as a toggle.

All values

The All values-pane in the Information Area consist of collapsible and expandable sections for *database*, *document* and *field*. Just click on the plus or minus sign to expand or collapse each section respectively. List Fields will remember your selection from previous runs of the application.

You can also change the position of the divider-line by dragging it to the left- or right.

List Fields aims at making some of the more "hard to get" information in Notes databases visible here. In this version you'll find the *template filename* of this database. Normally is this information hidden in the icon-document of the database, for some strange reason! Again an easy way of finding, and making info for the clipboard a snap!

Copy the content to the clipboard

You can select any text, such as the database replica id in the screenshot above, and copy it to the clipboard. No need to create a dummy Database Synopsis just to get the replica ID anymore.

You can launch NotesPeek from here

Notice the little NotesPeek icon in this area. By clicking that, you will launch the NotesPeek application with the currently selected document pre-selected! Check out this *topic* on how to use this feature!

Change Log

The *Change Log*-pane in the Information Area contain a list of all changes done to any of the selected documents. List Fields does not save or modify existing Notes data without explicitly asking you for permission to do so. Below you see a screenshot of the change log before you have done any changes:

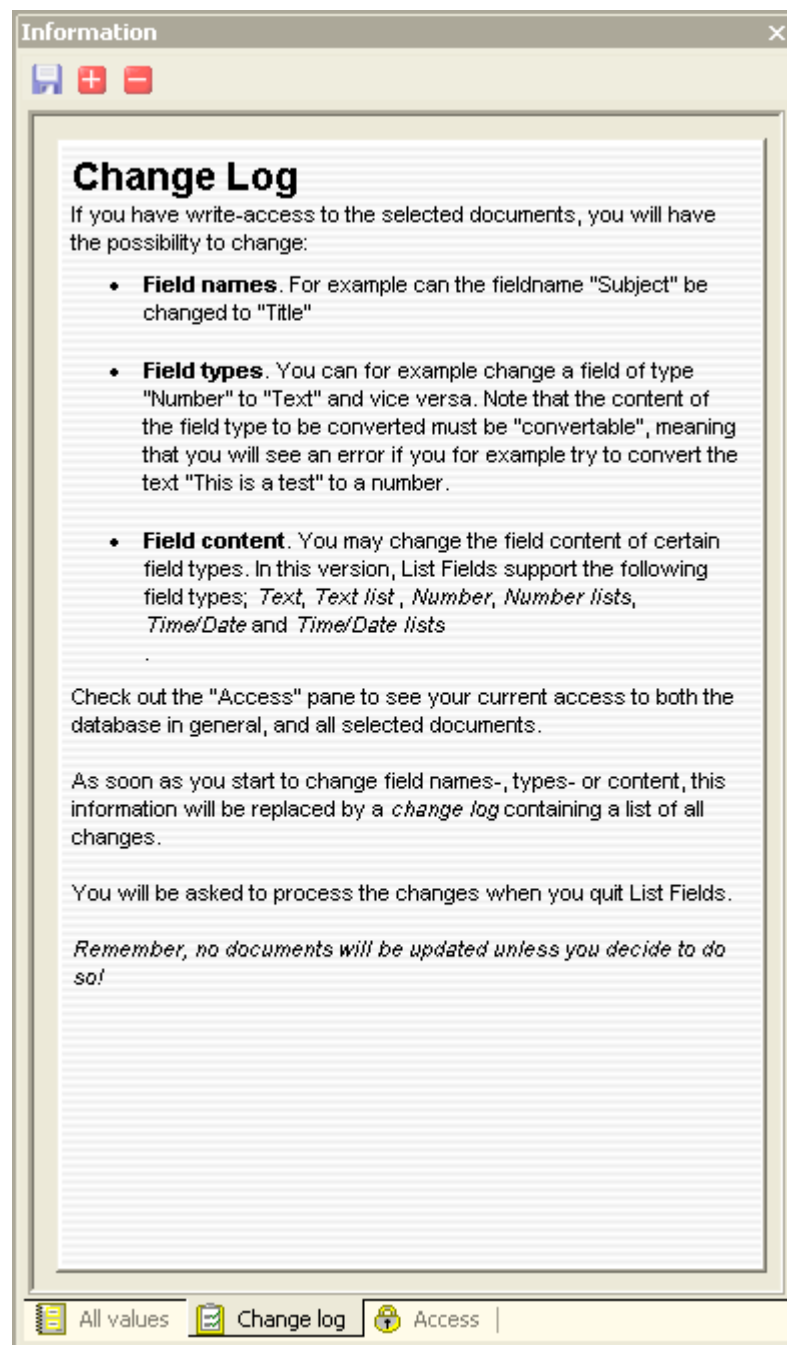


Figure 90: Change log - before changes

Note the buttons in the toolbar. The buttons are:

- Save active changes
- Select all change log entries

- De-select all change log entries

As soon as you change anything in List Fields the *change log entries* will be listed here. A change log entry can either be active or non-active, meaning that they will be processed or not. Use the **Select all** or **De-select all** buttons on the toolbar to select- or de-select all entries in one operation. Below you see the Change Log with some change log entries registered;

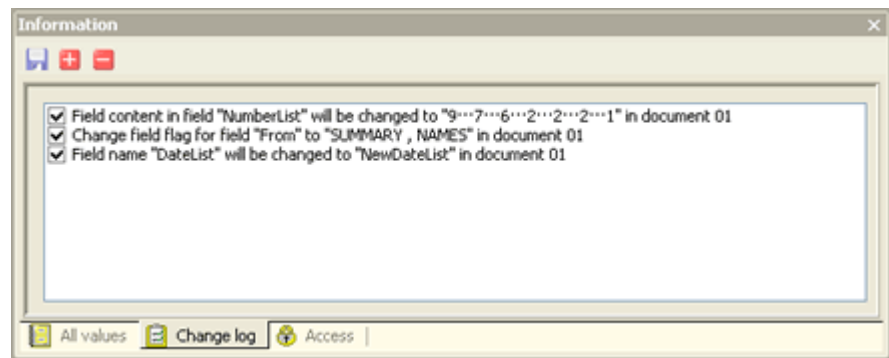


Figure 91: Change Log - with some active entries

Note that you can select and de-select any change log entry. Each entry also inform you about the requested change, and in what document or documents the change will be processed. This is important to see if you have selected multiple documents in List Fields.

Do you regret changes ?

The Change Log let you de-select any change log entry so it won't be processed when you save the changes. This logic may therefore act as a simple undo-system where you can select exactly what to do.

Save you changes

As you do changes in List Fields, the number of change log entries will increase. There are two ways to save your active (ie. selected) change log entries:

- Use the **Save** button on the toolbar.
- Wait until you quit List Fields. List Fields will detect that you have active change log entries.

The changes won't be saved until you confirm the following question:

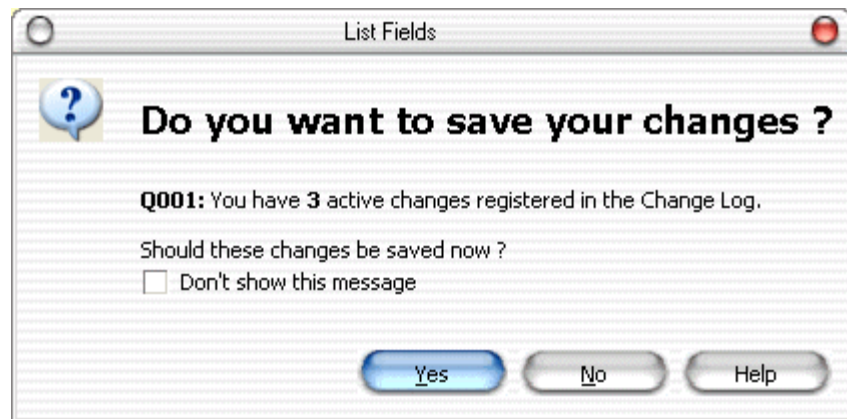


Figure 92: Do you want to save your changes

If List Fields has any problems with saving you changes, you will see the **Save Error Report** (see "Save Errors" on page 103).

Note that List Fields creates **backups** (see "Backup and work database created" on page 59) of the involved documents before making any changes!

Save Errors

When you attempt to save your registered field changes, List Fields might encounter errors. For example you try to convert an existing *text* field with the content "This is a test" to a *number* field. The conversion won't succeed since "This is a test" can't be converted to a number.

If the save operation encounter any errors, you will see this dialog box:

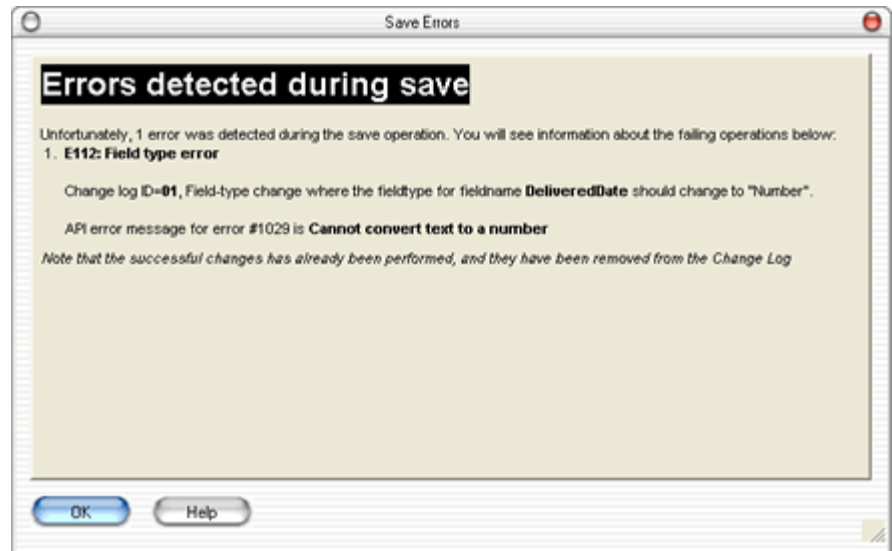


Figure 93: Save Error Report

Note that List Fields will process all change log entries sequentially, and all previous successful changes has been saved.

Access

The Access-pane in the Information Area show your real access to both the database and all selected documents in List Fields.



Figure 94: Your Access

Remember that List Fields won't let you change data in documents where you haven't requested write access rights.

List Fields show you the *real document access*, which is the result of looking through all reader- and author fields in the document.

The Output Area

The Output Area is one of the main areas in List Fields. It contains two different so-called *panes*, which show:

- The *Field Content*, or output of the currently selected field.
- The *Field Analysis* of two compared fields, if you have selected more than one document - or resolving a replication conflict.

Below you see a screenshot of how the Output area look:

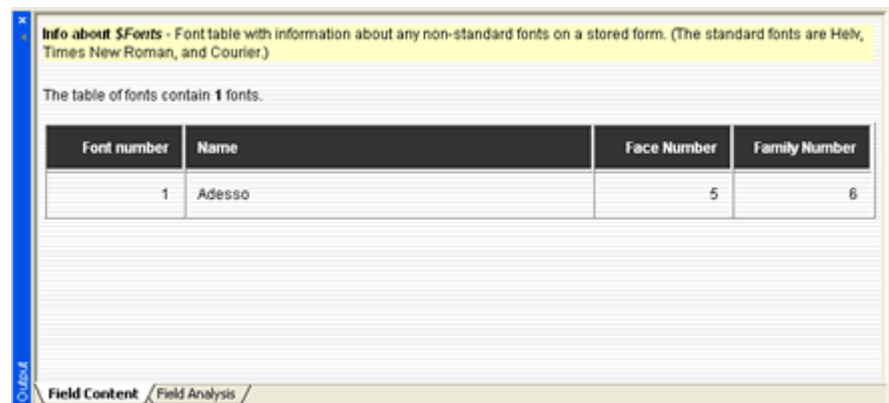


Figure 95: The Output Area

Hide the Output Area if you don't need it

By clicking the little x-icon at the top left corner of this area, the area will hide. You can make it visible again in several ways. You can use the menu **View -> Output Area** to toggle the visibility, or you can access the same menu by right clicking anywhere on any toolbar in the application.

.. or move it somewhere else

Just as many other areas in List Fields, you can also move the area "outside" List Fields. Grab the titlebar of the Output Area, and while holding mouse button 1 down, drag the Output Area wherever you want it. As soon as you start dragging the area, the borders of the area will change, indicating the new placement. All features within the area works like before, it is just being moved! List Fields will remember the layout of all your areas from run till run.

By double-clicking on the titlebar of the area, you will instantly move the area back "within" List Fields. Double-clicking again, will quickly move the area out, so the double-click action act as a toggle.

The Field Content Pane

The Field Content pane shows the content of the currently selected field. Below you see a sample of this pane:

Info about \$Fonts - Font table with information about any non-standard fonts on a stored form. (The standard fonts are Helv, Times New Roman, and Courier.)

The table of fonts contain 1 fonts.

Font number	Name	Face Number	Family Number
1	Adesso	5	6

Figure 96: The Field Content Pane

As you see in the example above, the field content is not necessarily the exact content of the field. The \$Fonts-field is a special Notes fields containing font information used in the currently selected document. List Fields will interpret and explain the content in a more presentable fashion.

Note how you also see some information about the field itself. List Fields will display such information if the field is known to be a special or reserved field-name in Notes.

Below you see the Field Content pane when it displays the content of an ordinary text field:

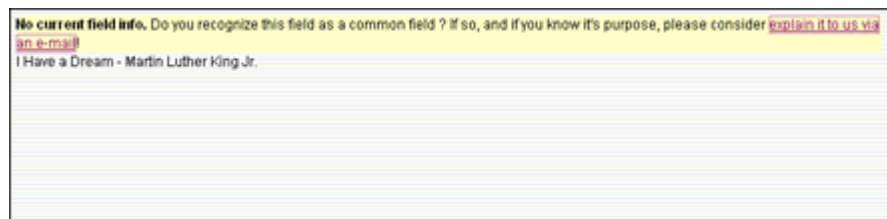
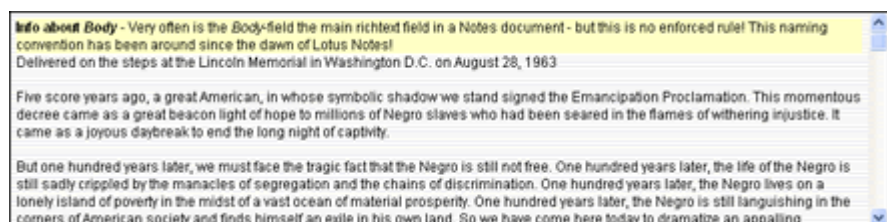


Figure 97: The Field Content pane with an ordinary field

The field in the screenshot above wasn't known to List Fields as a special- or reserved field in Notes, and then the field info shows *No current field info*. If you disagree that this field isn't a special nor reserved field in Notes, you can inform Voith's CODE about this by clicking the link. List Fields will then open your preferred e-mail program with a filled in e-mail address to Voith's CODE.

Rich text fields

List Fields read richtext information in two stages. The first stage is to read the plain text. Until the second stage is finished, only the plain text is the available. Below you see a screenshot of a rich text field display:



*Figure 98: The Field
Content Pane with the
content of a richtext field*

The second stage, the so-called **High Quality Rendering** (see "High Quality Rendering of richtext" on page 64) (HQR), will show a much higher quality of the richtext.

The Field Analysis Pane

The Field Analysis Pane will show the comparison between two fields in two different documents. If you launch List Fields on an **replication conflict** (see "Replication or Save conflicts" on page 139) document, this pane will automatically be displayed. If you launch List Fields on only one document, the pane will just contain this information message:

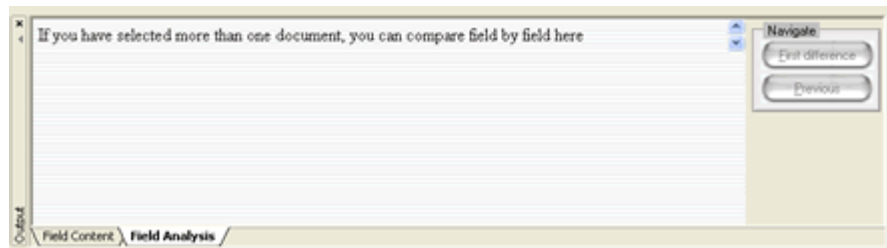


Figure 99: The Field Analysis Pane - Empty

To enable this feature, you must open at least two documents with List Fields. Do this by selecting two or more documents from any Notes view and launch List Fields. Since the idea of this pane is to compare fields with differences, select one of the red-line fields. Below you see a sample of this selection:

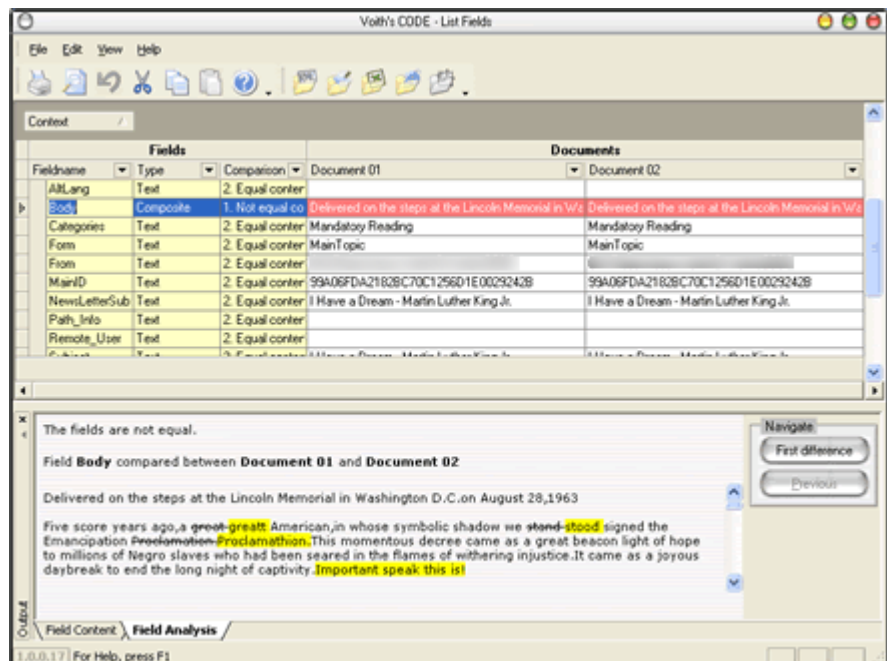


Figure 100: The Field Analysis - comparing two fields

After selecting the red-lined Body-field, we manually choose the Field Analysis pane. Note how the analysis points out where the differences between the two fields are. Below you see the Field Analysis area zoomed in:

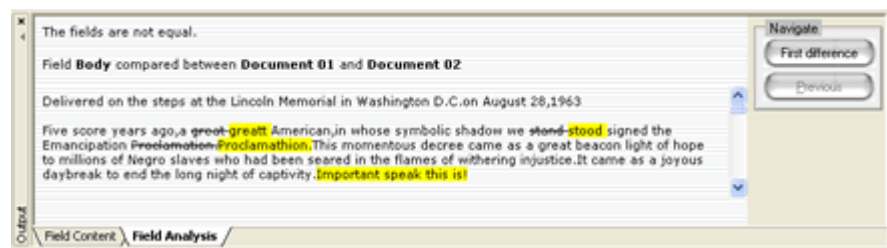


Figure 101: The Field Analysis - Comparing two fields - Zoomed in

First of all, note that the pane informs you which documents the field belongs to. In the sample above, the Body field belongs to *Document 01* and *Document 02*. This is important to know if you load more than two documents. Remember that List Fields always will compare Document 01 with whatever document you select in the Field List Area.

The basic idea of the comparison is to show you what changes have to be made if you would make document 02 from document 01 manually. All text that is struck out, should be removed, while all yellow text should be inserted. In the sample above, you see a couple of typing errors, and finally some text (*Important speak this is!*) that didn't exist in the original document at all.

If the content of the fields are larger than you can see at the screen, you can either scroll down by using the vertical scrollbar at the right-hand side - or- you can use the **First/Next-** and **Previous** difference buttons at the right. List Fields will automatically locate the respective change in the text for you, so you don't have to wade through pages of text.

What do I do with this information ?

In this version of List Fields you can't do much more than spot the differences. This may however be useful if you have a replication conflict, but doesn't really know why the conflict has arisen.

Future versions may include features to actually resolve the differences between the fields in the two documents.

Open or save file-, image- and OLE attachments

If your Notes document contain file-, image or OLE attachments, you may open and save these directly from within List Fields! You may even be able to open attachments not directly available in Lotus Notes, such as if you receive the dreaded *More than 64 columns in HTML table* error - see more on that below.

The Open- and Save support are available directly in the Output area. Click on on any \$FILE-field to see details about file attachments. Click on the title to see the Open- and Save menu.

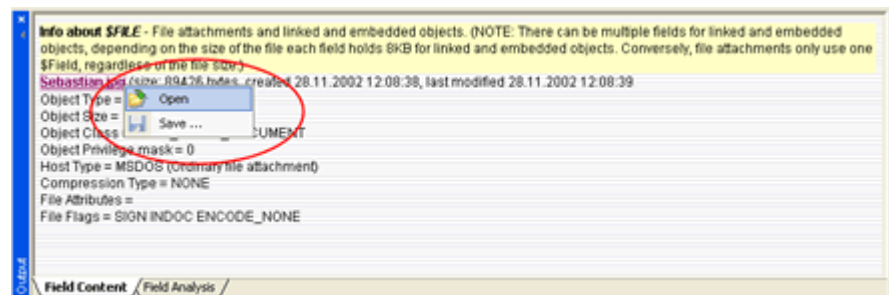


Figure 102: The Open and Save menu on a file attachment

In the screenshot above you see the content of a \$FILE-field. Click on the filename to show the Open and Save context menu. Select the option you want to perform.

Open

List Fields will automatically detach the file to your temporary file area, with a prefix of *VCLF_* in the filename. Then List Fields will launch the file with your default application for this file extension. If no association between the file extension and application exist, you will be informed about that in an error message. List Fields will not delete the file after an Open operation.

Save ...

List Fields will prompt you for a filename:

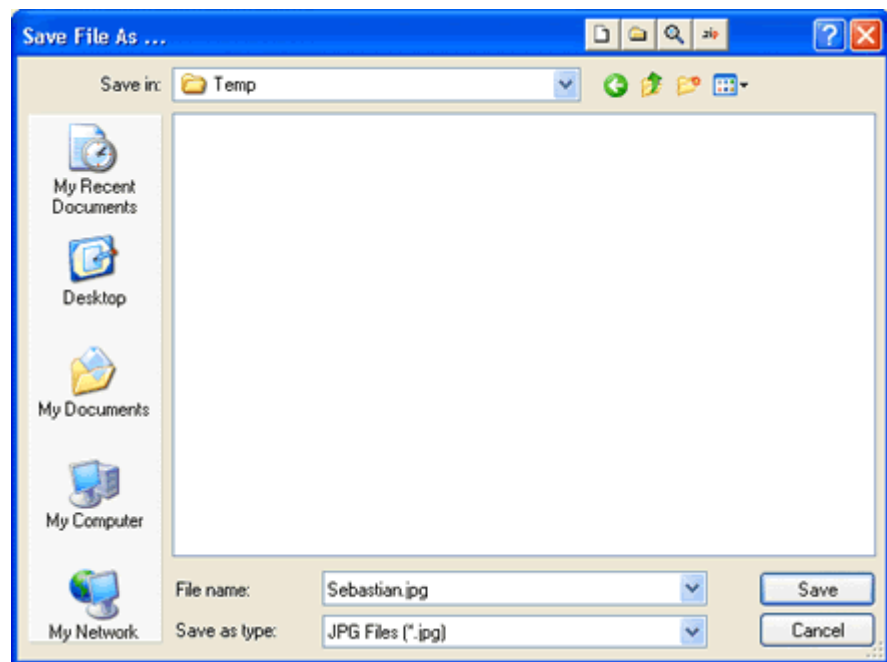


Figure 103: Save File Attachment dialogbox

The filename from the Notes attachment itself is used as a default filename. Choose filename and where to save the attachment and press the **Save**-button.

List Fields will save the file attachment to the desired location.

More than 64 columns in HTML table error!

Have you ever seen this error message in Lotus Notes ?

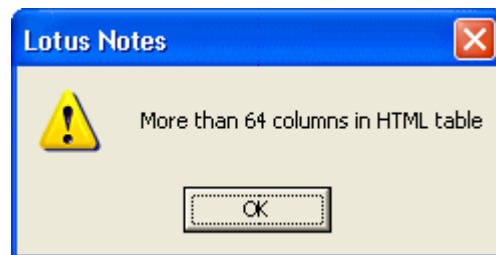


Figure 104: More than 64 columns in HTML table error

One way to get this error is if you receive an MIME encoded e-mail with a HTML table with more than 64 columns, you will see this error (in release 6.0.1 of the Notes client). The e-mail is impossible to open in Lotus Notes - but not with List Fields. Just open the document in List Fields and click on the \$FILE-field, and then open or save the attachment as described above!

Even Open and Save of OLE attachment are supported!

If you have documents with imbedded OLE objects, such as Word- or Excel spreadsheets, you normally can't save these objects to files. This is actually a limitation in the OLE standard itself, and not in Lotus Notes.

With List Fields you will have the option to open and save most OLE attachments, just as if they were normal file attachments!

Click on any \$OLEOBJINFO-fields in a document. You will see an Output-area similar to this;

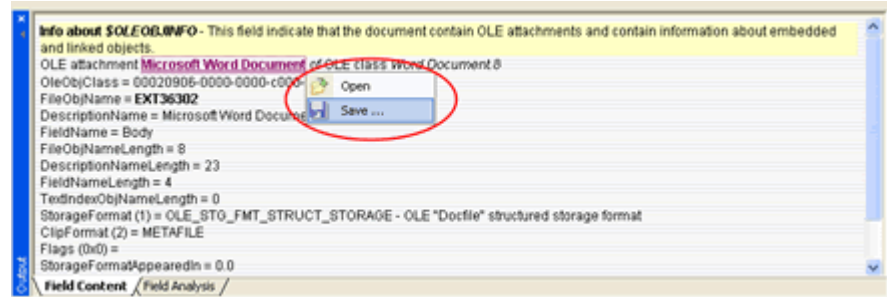


Figure 105: The OLE Attachment in the Output area

Just as for ordinary file attachments, you can click on the OLE attachment name, to see the **Open** and **Save** content menu.

Open

OLE objects does not know about filenames when they are imbedded, so List Fields will create a dummy filename composed on the following format:

```
VCLF_<OLE Attachment Name> (<FileObjName>).<File
extension registered to OLE Class on your
machine>
```

The FileObjName in the screenshot above is *EXT36302* and is one of many internal filename that Lotus Notes assigns to the OLE object during imbedding. Finally List Fields determine what file extension the OLE Class (*Word.Document.8* in the sample above) is associated with. On most computers with Microsoft Word or Microsoft Office installed, this will be *.doc*.

Now that List Fields know the filename, it is saved to your temporary directory, and the file is launched with it's default application, just as for file attachments.

If you either don't have a association between the OLE Class and application, or file extension and application, you can't open the OLE object automatically. But you can try to save it, and use other applications to open- and/or convert the file.

Save

When you select Save, you will be prompted for a filename;

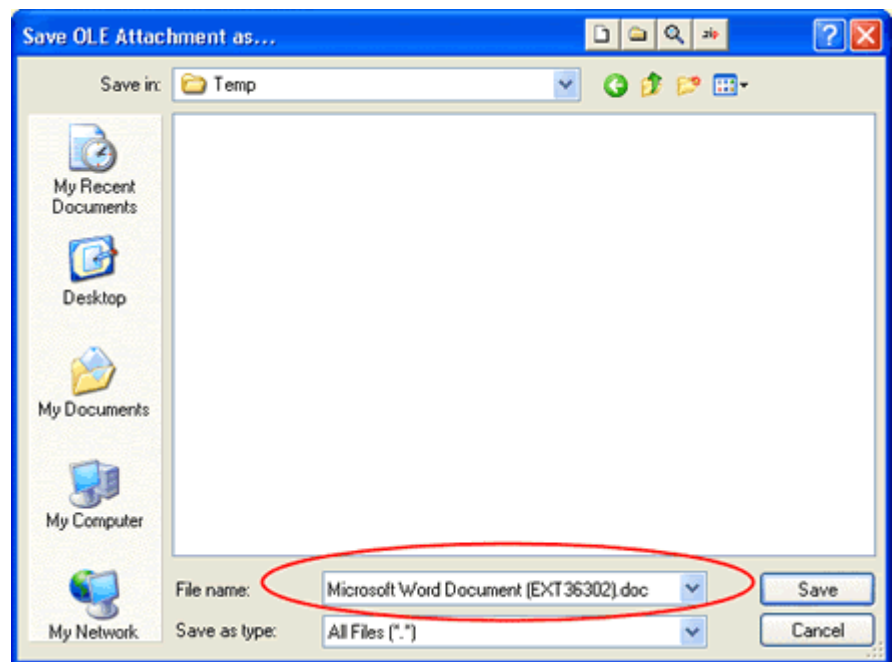


Figure 106: Save OLE Attachment dialogbox

In the screenshot above, you clearly see the constructed default filename. Choose whatever filename and location you want to save your OLE object to, and press the **Save**-button.

How to edit fields

List Fields has the ability to edit fields! You can:

- Change field names.
- Change field types.
- Change field content.
- Create new fields
- Delete fields

The editing is done directly in the Field List Area, just by changing- or editing directly in the list. If you have selected multiple documents in List Fields, the changes might be processed on all selected documents.

List Fields supports the following field types for editing:

- Text
- Text list
- Number
- Number list
- Time/date
- Time/date lists

This version of List Fields does not support other field types.

Note that List Fields honor the Access Control Lists (ACL) for both the database and the selected documents. If you don't have proper access to the documents, you won't be able to change the data! Check out the ***Your Access*** (see "Access" on page 104) pane in the Information Area to see your real access!

Change field names

Sometimes you realize that a field name should be changed. For example you have a Notes database with a Database Script *PostDocumentDelete*-event specified. If this LotusScript react on specific form-names, you can easily change the form name field with List Fields and thus bypass the scripted action in the *PostDocumentDelete*-event!

In order to change a field name, just type the new field name directly into the field list. List Fields only validates that the field name is valid in Lotus Notes (for example max length 32 characters, no spaces etc). You may even specify an existing field name, which effectively will lead to that the original field with the selected name is replaced by the current one!

If you have selected multiple documents, the field name change will be processed on all selected documents.

As soon as you press **Enter**, a new ***change log*** (see "The Change Log" on page 124) entry is created. Remember that List Fields doesn't process any changes unless you explicitly ask it to save the changes.

Press **ESC** to abort the field name change.

Change field types

Click on the down-arrow in a field type field to see available field types to convert to:

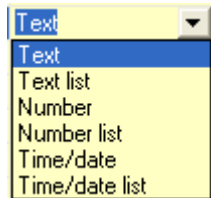


Figure 107: Change field type

Change the *field type* of a field at any time! List Fields will attempt to convert the original content of the field to the new field type. If this conversion fails, you will be prompted a detailed **Save Errors** (on page 103) report.

The supported field types are:

- *Text* and *Text list*
- *Number* and *Number list*
- *Time/Date* and *Time/date list*

If you have selected multiple documents, the field type change will be processed on all selected documents.

As soon as you press **Enter**, a new **change log** (see "The Change Log" on page 124) entry is created. Remember that List Fields doesn't process any changes unless you explicitly ask it to save the changes.

Press **ESC** to abort the field type change.

Change field content

List Fields let you change the field content directly within the field list in the **Field List Area**! If the field type of a record is one of the following ...

- Text
- Text list
- Number
- Number list
- Time/date
- Time/date lists

..you can edit the data directly in the list. You can enter whatever you want as new field content and List Fields will attempt to save it as the specified field type.

Important note about editing lists! When you edit lists, note that List Fields uses the *triple dots* (...) as a list separator. If you select to edit the values directly in the list-lines, you must copy these dots your self. It is much easier to use the built-in **list editor** (see "The list editor" on page 120).

No strict field content checking! Note that List Fields doesn't enforce strict field content checking. This means that you can enter text in number fields, and numbers in date fields. It is eventually up to Lotus Notes whether to accept a change or not. If you have save errors, you will see the **Save Error Report** (see "Save Errors" on page 103).

The text editor

To edit plain text, you can either type the text right into the lines in the Field List Area, or you can use the built-in text editor. Click on the down-arrow at the far right of the line, or click **CTRL+ENTER** to invoke the text editor. Below you see a screenshot of the editor:

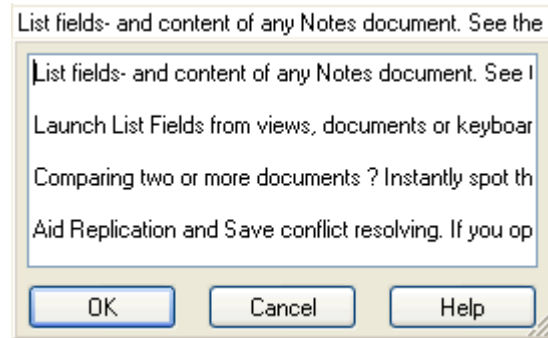


Figure 108: The Text Editor

You can grab the size-gripper at the lower right corner to resize the editor. As you see in the sample above, the editor support multiple lines. Note that this is *not* the same as a list or multi-value list field. It is just newlines in the data!

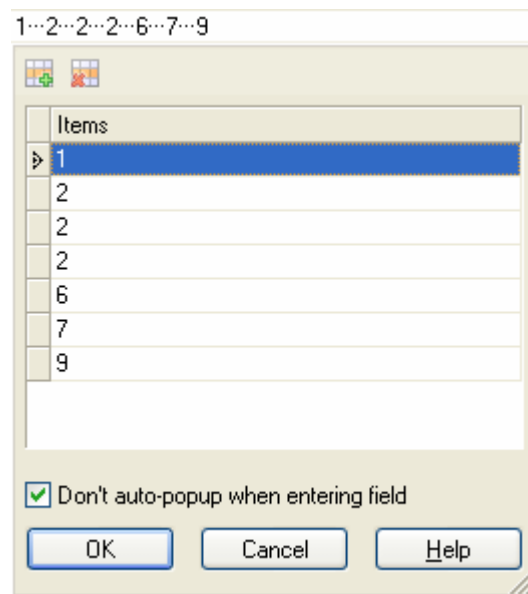
Press **OK** to accept changes or **ESC** to abort. If your press **OK**, and the content differ from the existing content, a **change log** (on page 100) entry is created. Remember that List Fields won't save the changes until you explicitly confirm to **save changes** (see "Save you changes" on page 102).

The list editor

Many fields in Lotus Notes documents are so-called *multi value fields*, or simply lists. If you select to edit list data directly in the lines of the Field List Area, you must ensure to use the *triple dots* (...) to separate list items. This can easily be erroneous!

In order to easily edit lists, List Fields has a built-in list editor. By using this editor, you can forget about triple dots!

You access the list editor by clicking on the down-arrow at the far right in the field, or press CTRL+ENTER. You will see this dialog box:



If you need a larger list, grab the size-grabber at the lower right corner and resize the dialog as large as you want.

Use the **Add** or **Delete** buttons at the toolbar add- or delete items in the list.

The list can be sorted by clicking on the *Items*-column header.

To rapidly enter data, you can use the **DOWN ARROW** to append data to the end of the list, or use the **INSERT**-button to insert rows before the currently selected row.

Press **OK** to accept changes or **ESC** to abort. If you press **OK**, and the content differ from the existing content, a **change log** (on page 100) entry is created. Remember that List Fields won't save the changes until you explicitly confirm to **save changes** (see "Save you changes" on page 102).

The calendar editor

If the field content belongs to a time/date field, you can click on the down-arrow at the far right, or press **CTRL+ENTER** to see the built in calendar:

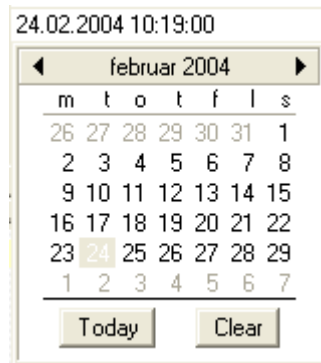


Figure 109: The Calendar Editor

You can use the calendar as an aid to find a correct date.

Note that the calendar editor doesn't support *time-value* editing. In the sample above, the calendar will only change the date-value (24.02.2004), and the time-value (10:19:00) will stay the same when you press **ENTER**.

The calendar editor can't handle time/date ranges either. You have to edit them manually directly in the line!

Change field flags

Click on the down-arrow at the far right of a flag-column, and you will see this dialog box:

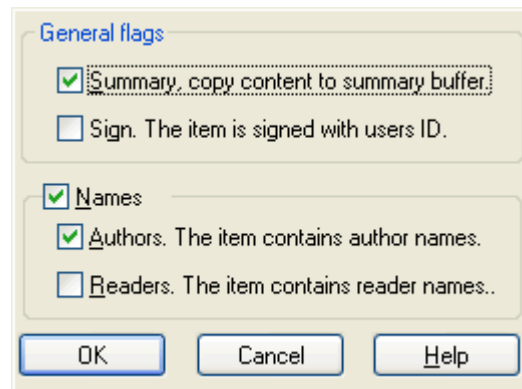


Figure 110: The Flags Editor

All fields has so-called *field flags* among their attributes. In Lotus Notes, these flags control different field behaviour. List Fields let you set or un-set the following flags:

- **Summary.** As you may know, Lotus Notes saves the data separate from the presentation. List Fields looks at the document data without using a form, and thus looks at the **back-end data** of the document.

In order to be able to show the document data in views, Lotus Notes must copy that data to a special memory buffer, the summary buffer. This means that only items that have the Summary-flag set can be shown in views. The Summary-flag also controls whether a field can be used in @Formulas etc.

Richtext fields cannot have the Summary-flag set, and thus can't be shown in views.

You can use this flag to optimize space-usage in databases, if you know that a field won't be shown in views or used in formulas.

- **Sign.** The item is signed
- **Names.** The item contain names. Note that Readers and Authors flags cannot be set unless you also set the Names flag

- **Readers.** The item contain reader names, and thus participate in controlling the *read-access* to the document. You can have multiple reader and/or author fields controlling access to a document, and the real access to the document is a union of all such fields. You can check out your real database- and document access in the ***Access*** (on page 104)-pane in the ***Information Area***.

The content of a reader-field can be combinations of individual user names, server names, group names, and access roles. Remember that roles always are enclosed in square brackets, such as *[Group Name]* and that names always must use fully canonical names such as *CN=Jon Done/O=ACME*.

The presence of a Readers-flag implies presence of a Names-flag.

- **Authors.** The item contain author names, and thus participate in controlling the *write-access* to the document. Just as for the Readers-fields, multiple authors-fields may exist, and your real access is effectively a union of all author-fields.

The naming rules of the readers-field also apply to authors-fields.

The presence of a Authors-flag implies presence of a Names-flag.

Create new fields

See ***Add field*** (on page 94)

Delete fields

See ***Delete field*** (on page 95)

The Change Log

List Fields will never change Lotus Notes documents without asking you explicitly.

In order to keep that promise, List Fields maintain a *change log* containing every change you do. As soon as you do anything that might lead to a change of the original document, the change log pops up automatically. For each change you do, List Fields creates at least one so-called *change log entry*. For example will List Fields create 1 log entry when you add a new field. If you solve a replication conflict, List Fields will create several log entries.

You find the change log as a pane in the **Information Area**. Read more about the **Change Log** (on page 100) [here](#).

Preferences Dialog

Voith's CODE strive to make List Fields behave the way you want it to!

Many settings are automatically saved each time you run your application, such as position and size of screen elements. Other settings are more hidden, and these settings can often be modified through the Preferences Dialog:

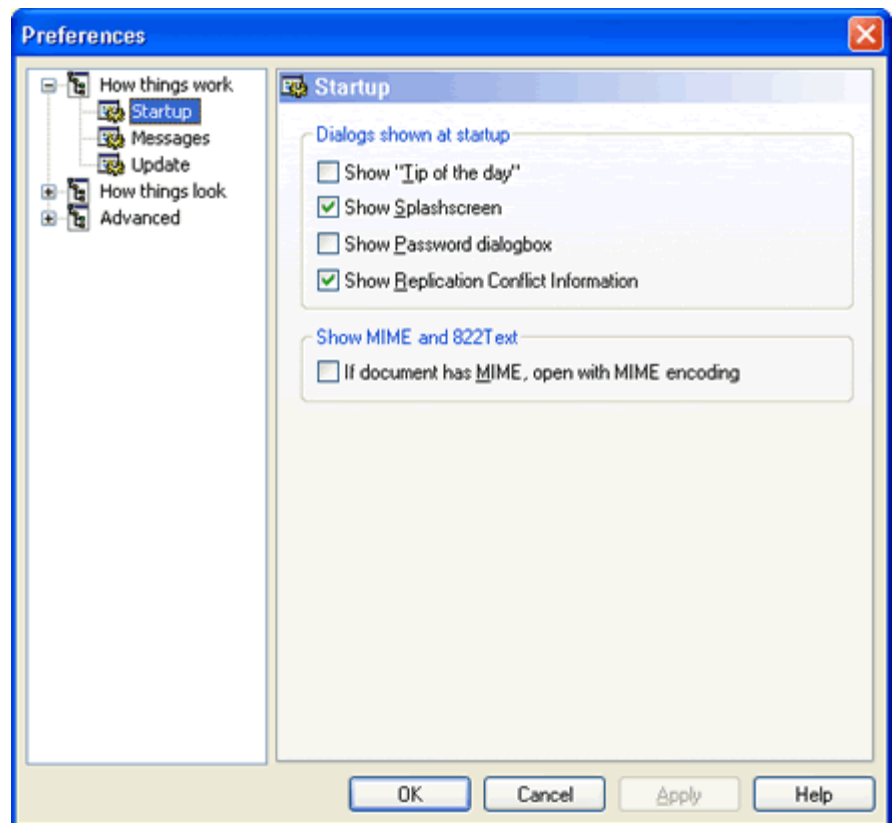


Figure 111: Screenshot of the Preferences dialogbox

The Preferences dialog contains several pages. Select a page from the items in the list at the left hand side.

See the following topics for the description of each page

How things work

The preferences pages in this section define how different things in List Fields *work*. You can control which dialog boxes to see at startup, hide or unhide different messages and control how you want List Fields to update itself.

Startup Preferences

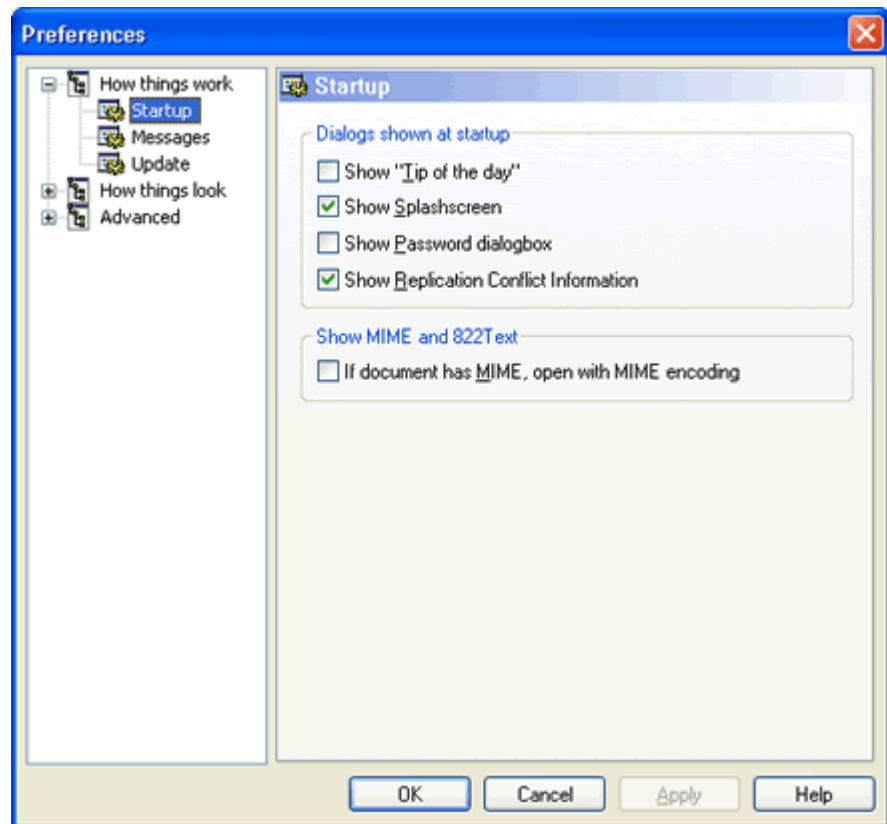


Figure 112: Screenshot of the Preferences dialogbox

List Fields will pop up several dialog boxes at startup. You have probably already seen both the *Unregistered Version* (on page 49)- and *Lotus Notes Password* dialog boxes.

As a user you can select which dialog boxes to see or not, and those dialog boxes that support hiding contain a **Don't show me this again**-message.

This Preference page let you control which dialog boxes to see during start up. You can control the following:

- **"Tip of the day"** (see "Tip of the day" on page 60). Small, practical tips each time you start List Fields
- **Splashscreen**. Note that the splashscreen can't be turned off in the trial version of List Fields.
- **Password dialog box**. This is the dialog box where you select how to treat Lotus Notes passwords in List Fields.
- **Replication Conflict Information** (see "Replication or Save Conflict detected" on page 61). This is the dialog box that pop up when you run List Fields on a document that participate in a replication conflict.

Show MIME and 822 Text

Read much more on what this option do in *this* (see "MIME and 822 Text" on page 171) extensive topic.

Messages Preferences

Many messages in List Fields can be turned off, if you feel you don't need to see them. The purpose of this is not to annoy you with unnecessary messages.

In order to be able to retrieve the *once hidden* messages, you can control all messages from this preference page:



Figure 113: Preferences
- How things work -
Messages

The messages has been grouped together in *Error*-, *Warning*- and *Debugging* messages.

Error messages:

- **E005** (see "E005: The Notes database can't be opened" on page 166): The Notes database can't be opened
- **E006** (see "E006: The Notes document hasn't been saved yet!" on page 166): The Notes document hasn't been saved yet

Warning messages:

- **W001** (see "W001: Have you saved the Notes document ?" on page 167): Have you saved the Notes document ?

- **W002** (see "W002: The size of all attachments combined is too large for high quality rendering" on page 168): The size of all attachments combined is too large for high quality rendering
- **W003** (see "W003: The size of one of the attachments is too large for quality rendering" on page 168): The size of one the attachments is too large for quality rendering
- **W004** (see "W004: Can't save or open attachments right now!" on page 169): Can't save or open attachments right now

Editing data messages:

- **Q001** (see "Q001: Do you want to save your changes ?" on page 170): Do you want to save your changes ?
- **Q002** (see "Q002: Do you want to delete the currently selected field ?" on page 170): Do you want to delete the currently selected field ?

Debugging messages:

- **I003** (see "I003: List Fields Debug Session database is about to be created" on page 169): List Fields Debugging Database about to be created
- **I004** (see "I004: List Fields Debug Session database created" on page 170): List Fields Debugging Database has been created.

To understand what each message mean, please see each message.

Update Preferences

List Fields has the ability to update itself via internet. You can either start this feature manually via the menu **Help -> On the web -> Check for new version**, or you can have List Fields automatically check for new updates for you. The latter feature is turned off by default.

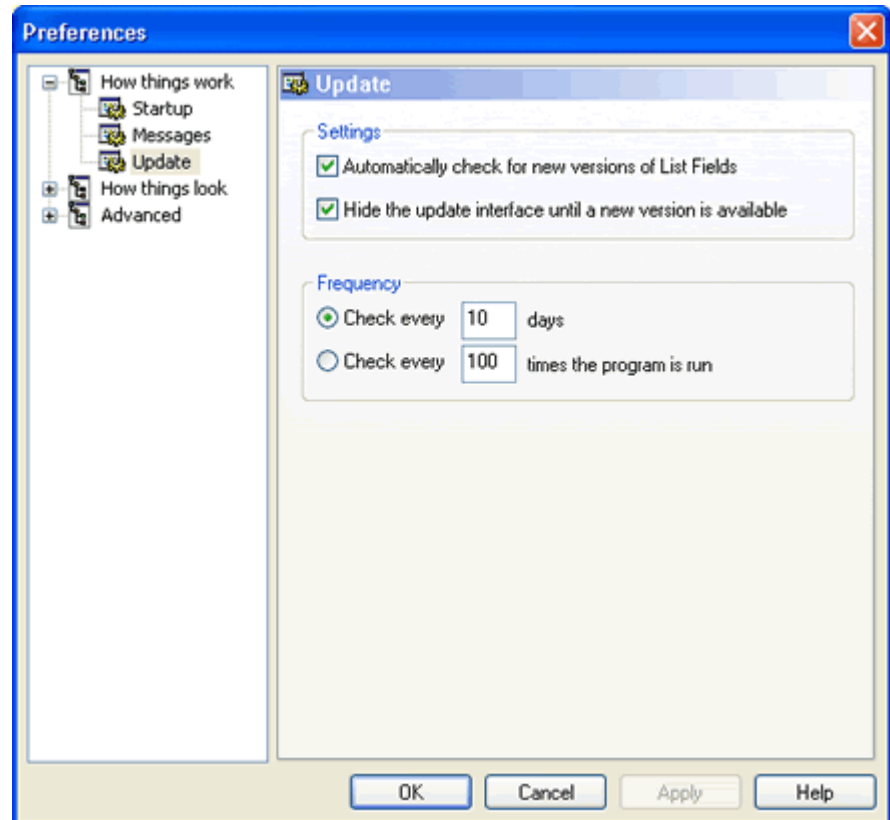


Figure 114: Preferences
- How things work -
Update

You control the following options:

Settings:

- *Automatically check for new versions of List Fields.* By enabling this option, List Fields will automatically connect to internet and check for updated versions of List Fields. It will do so according to the *Frequency* settings below.

You will see the progress of the check in a separate dialog box, and can cancel the operation at any time.

If a new version is available, you will be prompted what to do next. See below.

If you haven't got a valid internet connection at the time of the launch, you will be prompted for a network configuration dialog box, where you can configure proxies etc.

- *Hide the update interface until a new version is available.* If the option above is enabled, you will see a progress dialog box during the check for new version. By enabling this option, you can hide the progress dialog box, and thus make the check for new version completely hidden.

If a new version is available, you will still see all the dialogs from this point on.

Frequency:

- *Check every n days.* You can select an check interval in days. Note that this is calendar days and not work days. The default value is 10 days.
- *Check very N times the program is run.* This option will count how many times you run your program before checking for a new version. The default value is 100 times.

What happens when a new version is present ?

First of all, you will always see a dialog box, informing you about the further process. You can abort the process at any time!

The "updater" will automatically download the new version.

The installer of the new version will shut down the current running version of List Fields. List Fields can't be running at the same time as an update, due to locked application files. The installer will install the new version.

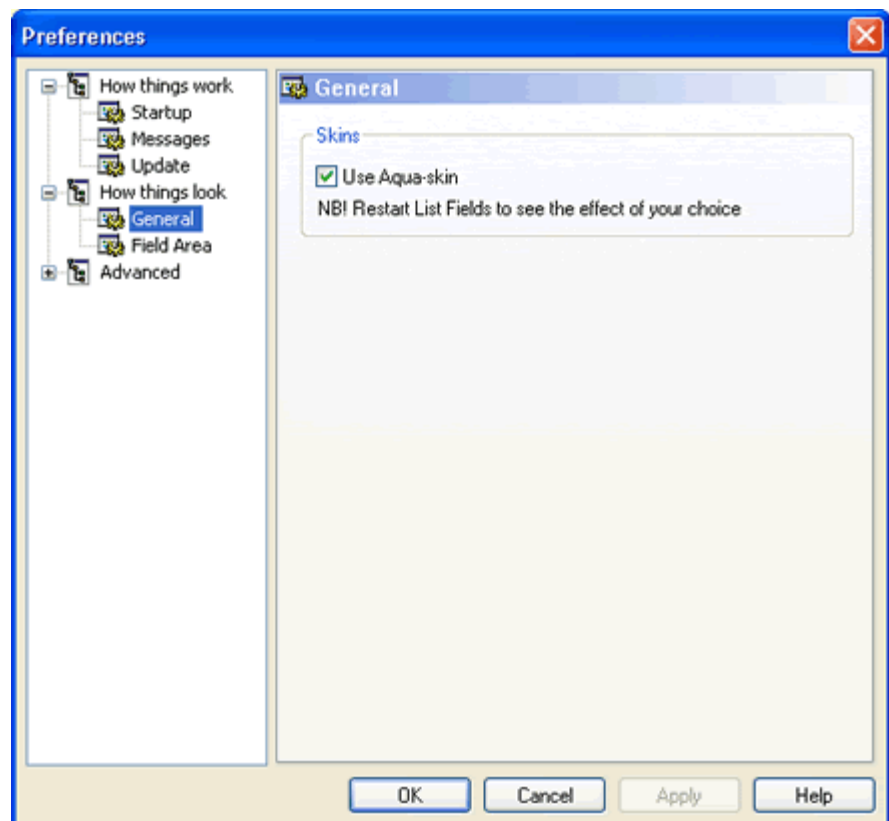
You will typically have to restart List Fields yourself.

Why is it important to be updated ? The updates contain fixes for known problems found in earlier versions. The newer versions will therefore presumably be more stable and have less problems. In addition, the newer versions might also contain new features or new way of doing things. Hopefully you want those!!

How things look

The preferences pages in this section define how different things in List Fields *look*. You can control the fonts, colors and skins of the applications.

General Preferences



*Figure 115: Preferences
- How things look -
General*

List Fields contain a possibility to use skins to change the looks of the application. This version of List Fields only have one skin, namely the *Aqua* skin, looking much like Macintosh operating systems. Future versions might be able to use more skins, which will be downloadable from the **List Fields homepage** <http://www.listfields.com> .

If you un-select the Use Aqua-skin, List Fields will behave just like any other Windows application.

Note that you must restart List Fields in order to see the effect of your choice.

Field List Area Preferences

You can control how List Fields displays it's fields and values in the *Field List Area* from this dialog box:

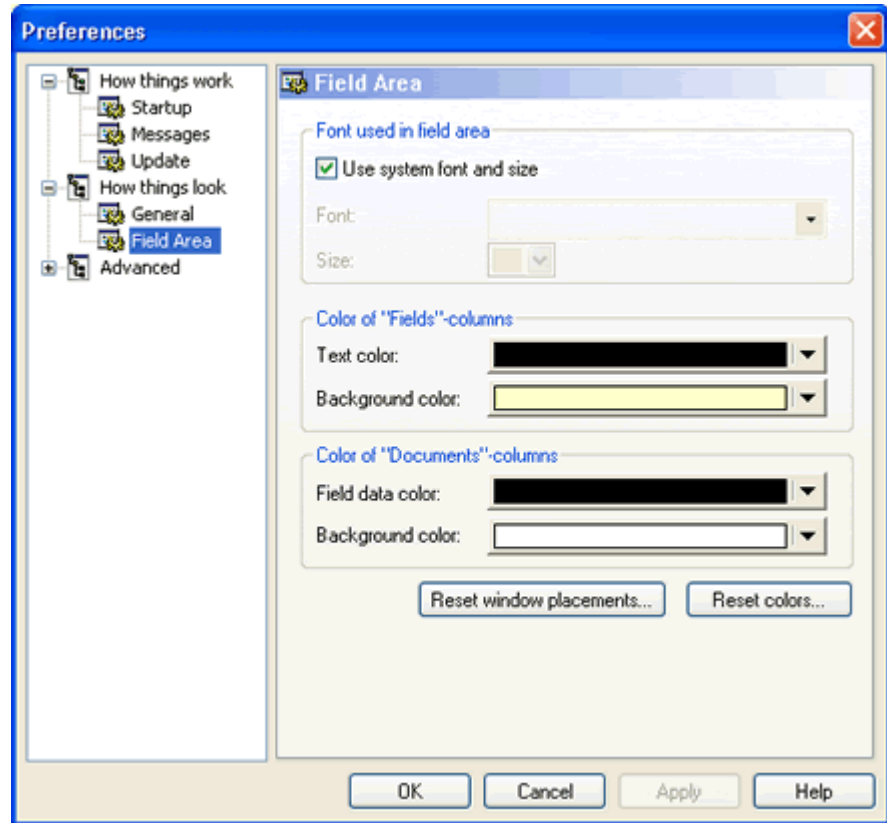


Figure 116: Preferences
- How things look - Field
List Area

Font used in the field area:

- *Use system font and size.* If this option is enabled, List Fields will use the standard system font and size for it's display. This is the default option, and also the fastest.

If this option is de-selected, the fields *Font* and *Size* will be enabled. Select a font and a size from the drop down lists. Please note that fonts larger than 16 points tend to be messy in List Fields.

- *Color of "Fields"-columns.* You can change both the *Text* (foreground) and *Background* color. Note that you can revert back to original default colors by pressing the **Reset colors...** button. This button will ask for confirmation before it executes!
- *Color of "Documents"-columns.* Also here you can change the text- and background colors. The **Reset colors** button also revert these colors

What is Fields- and Documents columns ?!?

When you change the colors in this preferences page, List Fields refer to Fields- and Document colors. See this screenshot:

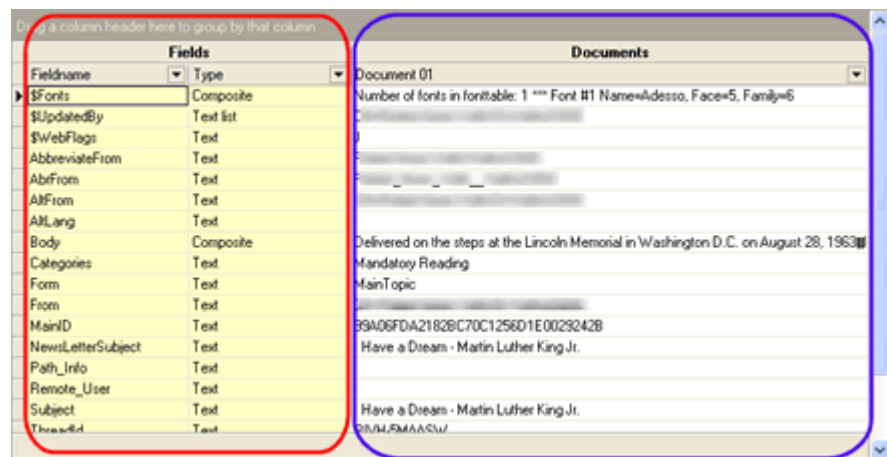


Figure 117: Field List Area - The Bands

The fields in the red box are the Fields columns, while the blue box covers the Document columns

You can Apply the colors at any time

When you have selected a font, size and any colors, you might test them out instantly. Press the **Apply** button to see your choices in effect! Don't like it ?? Press **Reset colors** again ...

Reset windows placements

The Reset windows placements button will revert all window positions in List Fields back to original state. This feature is included to make you able to come back to the original state, if you have lost track of where all the windows are. In addition, List Fields sometimes experience small problems with window positions. A press on this button remedy that problem. All *layout files* (see "List Fields saves all layout changes" on page 150) will also be removed.

The button will ask for confirmation before it executes!

Advanced

Preference pages in this section typically cover more advanced settings in List Fields.

DXL Preferences

In the *Advanced* section of the Preferences dialog box, you find this page, DXL. DXL is an abbreviation for Domino XML, where XML again is another abbreviation for eXtensible Markup Language. In short, DXL is the XML variant for describing Domino data.

List Fields use DXL to parse Domino information during **High Quality Rendering** (see "High Quality Rendering of richtext" on page 64) (HQR).

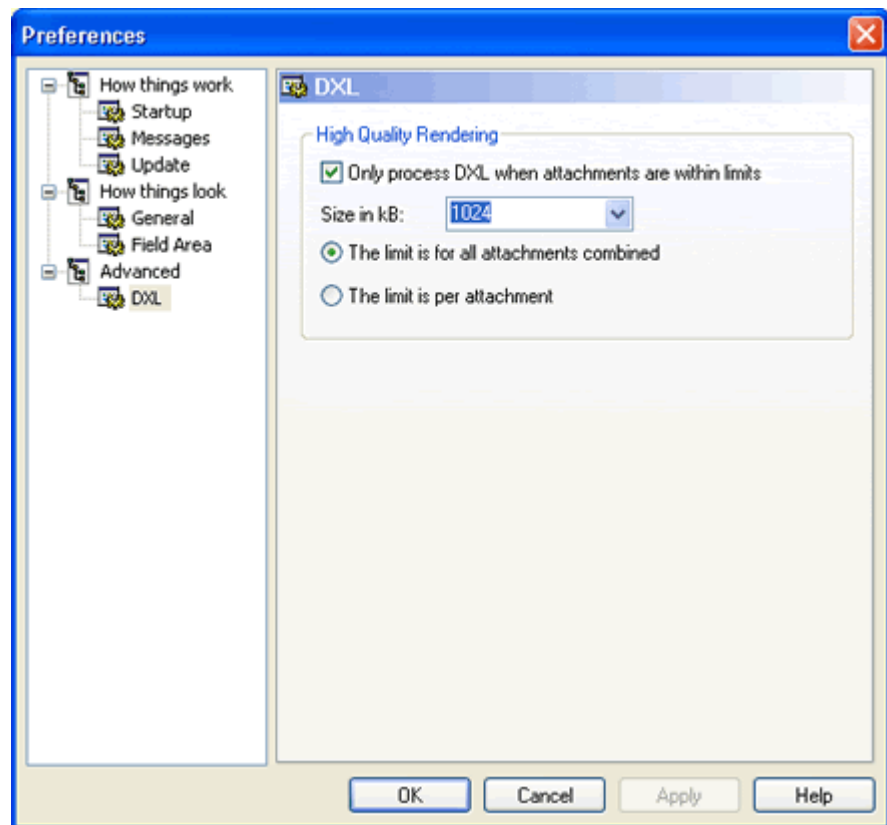


Figure 118: Preferences
- Advanced - DXL

The DXL processor in Lotus Notes can be quite slow, especially if the Notes document contain large images or attachments. Since it try to decode each one of them into Base64-code, the DXL process itself make take a while.

In order to speed up the user experience in List Fields, data from Domino is parsed in several stages. The first stage is to get a plain text representation of the content. This process is normally very quick and will therefore quickly show text data in List Fields. The second stage is to render richtext content with better quality, so called *High Quality Rendering*. This process involve DXL to parse attachments and images.

If you experience slow results in List Fields, the reason might therefore be that the document contain large attachments or images, and that DXL takes a long time to process them.

To avoid this slow processing, you might set some thresholds for the High Quality Rendering.

- *Only process DXL when attachments are within limits.* This option control whether all other options are activated or not. When disabled, as the default setting are, List Fields will process any document with DXL, and thus be slow. When enabled, you can set the threshold size in kiloBytes
- *Size in kB.* The threshold size in kiloBytes. In our experience DXL has trouble when attachments exceeds 1 MB, so try to keep the threshold below that.
- *The limit is for all attachments combined.* Select this option to set a total threshold for all attachments combined. For example, if the threshold is set to 1024 kB, and you have a document with 5 attachments, each at 250 kB, this threshold will stop DXL processing since the total size of attachments is 1250 kB.
- *The limit is per attachment.* Or, select this option if you want to have a maximum size per attachment. If we have the same example as above, List Fields will process the document normally with DXL, since none of the individual attachments exceeds 1024 kB.

Note that you can abort List Fields at any time, even if the DXL processing hasn't finished. List Fields is a true multitasking application, and you can at all times operate the user interface, even if hefty processing happens in the background!

Replication or Save conflicts

List Fields can be used to aid resolving of replication or save conflicts. If a replication or save conflict occur, you will often see them as so-called diamond rows (due to the black diamond icon at the very left) with the text *Replication or Save conflict*. Below you see such a document in a view

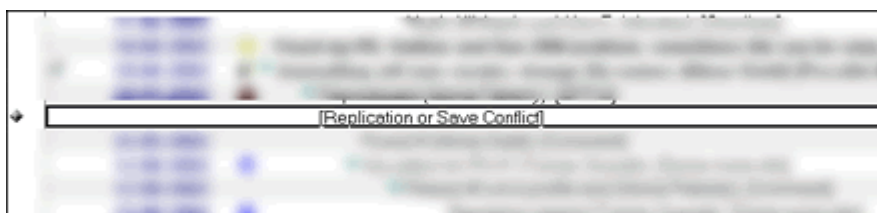


Figure 119: Replication Conflict as often seen in a view

If you have multiple replication or save conflicts, they may look like this:

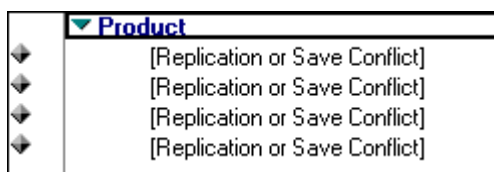


Figure 120: Multiple replication conflicts

Some databases may also contain special views displaying only replication conflicts, in order to keep the other main views clear from conflict documents. The screenshot above has grouped the replication conflicts after their Notes Form-name, and thus you don't see all participants in the conflict.

What is replication ?

In order to understand why a replication conflict occurs, we have to understand *replication* itself.

Lotus Notes allows databases to synchronize between different machines. This means that each machine have a synchronized copy of a database stored locally. The process of synchronizing the databases is called *replication*. There are many benefits from this capability:

- Users can work off-line with databases, such as with their own mail database. Even if the user doesn't have connection with a network or central Notes server, the user can easily continue to work with his mail, such as creating new mail, editing mail, replying to mail or deleting or reorganize mail. All changes done on the local database will be synchronized to the central copy on the server as soon as the user has connection with the server. Likewise will any changes done on the central copy synchronize "down" to the local copy.
- The capability to replicate databases goes for any database that the user has at least read access to!
- Servers can also synchronize databases between themselves. The main benefit of this is to use network resources efficient. The replication process is very quick and efficient compared to using the database on-line. If you have dial-up telephone lines, ISDN or any other slow network connection, replication may be a very efficient way to synchronize data.

In addition, replication also fail-safes the database. If the central server in a company goes down, the database may still be available on any of the spoke-servers. This helps keeping the up-time of the database at a maximum rate!

What is a Replication Conflict ?

Let's explain replication conflicts by using an example.

A customer contact database exist on a central Domino server at the head quarters of a company.

An employee has made a local replica copy of this database on his own computer. This enables the user to work with customer contacts while he's off-line. In our example, the user replicate the database and goes on a short business trip.

On the trip, our user discover that the telephone number of customer *Voith's CODE* is wrong, so he corrects it.

At the same time, the same error is discovered at the head quarters by one of the secretaries. The secretary also update the telephone number - now in the central customer contact database.

If we take a birds view, we now see that the telephone number of *Voith's CODE* has been updated in both the users local replica copy of the customer contacts database - AND - in the central customer contact database by the secretary.

When the user comes back to the head quarters, he replicates the customer contact database. This operation involves sending all local changes to the central database, and vise versa, receiving all changes done to the central database while he was away.

Since the exact same document now has been updated in both replica copies, Domino can't really decide which update is the most important. Is the change that the employee did on his local replica copy the correct change ? Or is the change that the secretary did on the central replica copy the correct one ?

Domino will instead create a replication conflict! This means that both versions of the change will be saved, and no information is lost.

Domino will decide which of the two changes that are most recent, and make that document the "winner" of the replication conflict. The other document will be made a direct response-to-response document of the winner, and thus be the "looser". Since it is a real response document, it will often show up in a view as an indented response document, such as in the sample below:

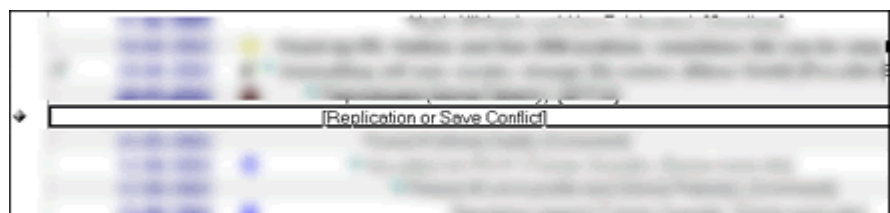


Figure 121: Replication Conflict as often seen in a view

Note how the Replication or Save conflict-document is indented below it's parent.

If you open the parent document, you will see the the winner-version of the replication conflict, and if you open the document with the title Replication or Save conflict, you will see the looser-version of the document.

How to manually resolve replication conflicts

Traditionally it's up to *you*, to decide what caused the replication conflict. You would normally open both documents, and try to figure out which fields contains the differences. When the fields has been identified, you must decide which of the versions to keep. Refer to the example in the previous section; which of the telephone numbers is correct ? When all this is done, you would update the winner with the correct data, and finally delete the looser documents. The conflict is solved!

The benefit of having replication conflicts is that no data is lost, while the challenge is to resolve the conflicts later.

Remember that Domino has the possibility to have automatic resolving of replication conflicts enabled. This feature enable Domino to automatically resolve conflicts if the changes has all been done to different fields. Refer to the example in the above section; If the employee changed the postal address, while the secretary changed the telephone number, Domino would be able to merge all changes into one document, since the changes was done to different fields.

What is the "Save" part in Replication or Save conflict ?

In all the sections above, you have seen *Replication or Save conflict*. So far we have only described *replication conflicts*. What is then a *save conflict* ? Basically it's the exact same thing, and Domino treat a save conflict in the exact same manner as a replication conflict. How can a save conflict occur ?

A save conflict would occur if multiple users can edit the *exact same document at the same time* on one replica copy of the database.

An example illuminate this concept: We have a customer contact database on a Domino server, and the database allow several users to edit the contact information.

Secretary A opens the customer document of Voith's CODE at 09:45, and modifies the telephone number.

Another employee opens the same customer document at 09:50. The document is already opened by secretary A, but this employee can't detect that. This employee updates the postal address of *Voith's CODE*

Secretary A saves the customer document at 09:55. The customer document is still open in edit mode at the employee's machine, but neither the secretary nor Domino detects this at this moment.

The employee saves the customer document at 10:00. Domino will detect that the document has already been saved while this employee was editing the document, and Domino will inform the user that this document will be created as a save conflict if he proceeds with the save-operation:

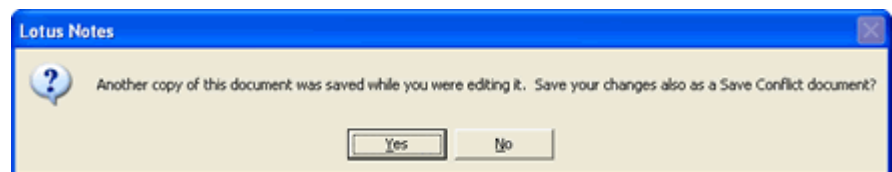


Figure 122: Save Conflict Warning Dialogbox

The reason for this behaviour is that Domino can't decide which of the updates to keep. The changes done by the secretary could be just as important as the changes done by the employee, even if it was saved first.

Again we see how Domino preserves data, and ensure that no data is lost. And again we see that we have to manually resolve a conflict.

First of all, List Fields will automatically detect if one of the selected documents are a so-called member of a replication conflict. You will see this dialog if this is the case:

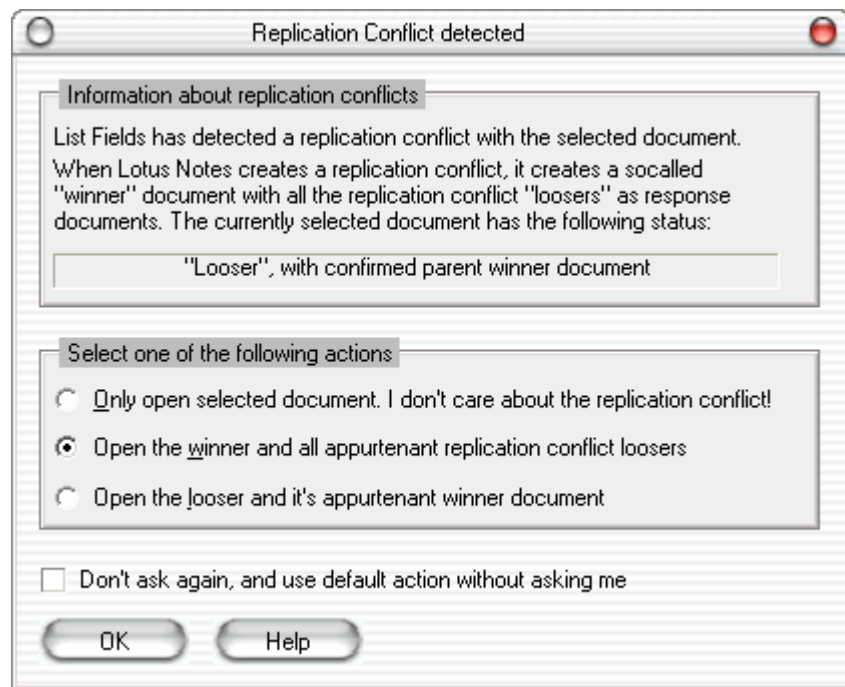


Figure 123: Replication-or save conflict detected

The dialog box is divided into two parts, an informal part and a *select one of the following actions*-part.

Information about replication conflicts - and the current status of the selected document

Just below the information you can see if the currently selected document is a "winner" or "loser" in this conflict. If it is a loser, it means that the selected document is the response document with the *Replication or Save conflict*-text. If it is a winner, it means it is the parent document *having* loser documents as responses.

Select one of the following actions

List Fields let you decide which document or documents to open - and this is one of the cooler features of List Fields!

- *Open only selected document.* Even if List Fields has decided that the current document is participating in a replication conflict, you may choose to open only the selected document. Select this option if the replication conflict really doesn't care.
- *Open the winner and all appurtenant replication conflict losers.* If the currently selected document is a winner- or loser, you can open *all* participating documents in the replication conflict. This is handy if you have multiple replication conflict documents!
- *Open the loser and it's appurtenant winner document.* This option is available if the currently selected document is a loser. It will open the immediate parent winner document in addition. It will not open any sibling loser document!

This ability to open replication conflict participant documents makes it easy to both find the fields with differences, and where the differences in those fields are!

If you don't want to have this question every time you encounter a replication conflict participant document, then you may choose to let List Fields decide for you the standard action by activating *Don't ask again, and use default action without asking me.*

Aid resolving the conflict

List Fields has two small tools to aid you when resolving replication- or save conflicts. **Right-click** on the *document-column headers* (the column headers with the names *Document 01 (Winner)*, *Document 02 (Looser)* etc.) to see the document context menu:

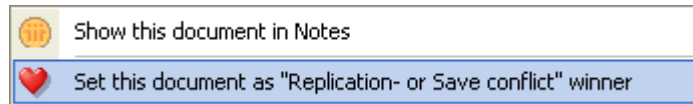
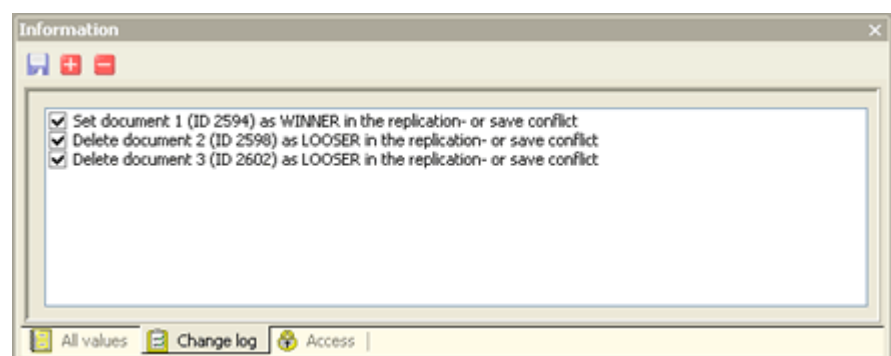


Figure 124: Document Context Menu

The menu items are:

- **Show this document in Notes.** By selecting this menu item you will launch the currently selected document in Lotus Notes. The idea is that you might operate List Fields from a special view (read more about such views in **Replication Conflicts** (see "Replication or Save conflicts" on page 139)) showing only the conflict-documents and not the complete conflict-hierarchy. It can sometimes be handy to see the original document before acting on it!
- **Set this document as "Replication- or Save conflict" winner.** By selecting this menu item, you will force this document to be the winner of the conflict. All other participating conflict-documents may be deleted. As for any other changes in List Fields, several **change log** (on page 100) entries will be created, and no actual conflict resolving will be processed until you explicitly **confirm** (see "Save you changes" on page 102) List Fields to do so.

Below you see a screenshot of the change log after this menu item has been selected:



Note that List Fields split the conflict resolving into several entries, so you freely can choose exactly what to do.

Remember that List Fields will **back up** (see "Backup and work database created" on page 59) the original documents before any changes are processed.

How to avoid replication or save conflicts

Replication or Save conflicts occur when the same document has been edited multiple places at the same time.

Avoiding replication or save conflicts can be a daunting task, due to the disconnected nature of Notes databases. We divide the task of avoiding such conflicts in two:

- 1 If a database is placed only on one server, and all users access the database via the network, you can implement a *document locking* logic. If a document is about to be opened for editing, the locking logic will first check if the document already has been locked (ie. someone else is editing the document right now). If the locking logic determine that the document isn't locked, it will allow the current user to open the document in edit mode. At the same time the locking logic activates a lock on the document, for the current user. This lock will prevent any other user from editing the document now. If they tried, they would be informed that the document is currently being edited by the current user.

When the current user is finished editing the document, and close the document, the current document lock will be removed, and thus allowing anyone else to edit the document again.

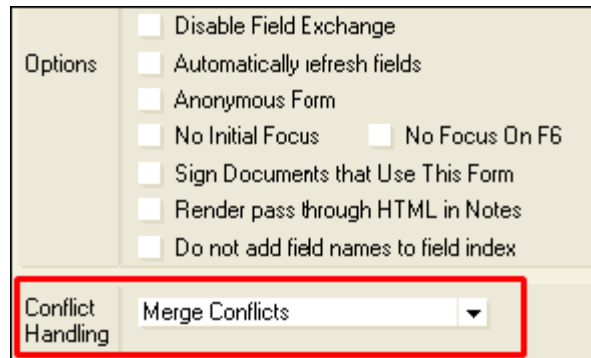
This logic works fine as long as everybody is working on the exact same database, and you will avoid *Save conflicts*, since nobody can save the same document at the same time.

- 2 If the database is replicated, either to users local workstation or to other servers, the locking logic above wouldn't work. The replica copies of the database is not aware of each other, and they may not even be on-line. If a user or server edit the same document now, a *replication conflict* would be the result.

Basically it's hard to avoid replication conflicts if too many people or servers has access to the document. One possible way to control this scenario is to have different Readers- and Authors access to the documents, and ensure that the ACL is held consistent on the replica copies. The idea is to keep the number of potential simultaneous authors to a document to a minimum.

Technically the database designer can also help avoiding replication conflicts:

- If the designer enable Conflict Action on the Form Properties, as below:



The screenshot shows the 'Form Properties' dialog box. The 'Options' tab is selected, and the 'Conflict Handling' section is highlighted with a red rectangle. The 'Conflict Handling' section contains a dropdown menu set to 'Merge Conflicts'.

Options
<input type="checkbox"/> Disable Field Exchange
<input type="checkbox"/> Automatically refresh fields
<input type="checkbox"/> Anonymous Form
<input type="checkbox"/> No Initial Focus <input type="checkbox"/> No Focus On F6
<input type="checkbox"/> Sign Documents that Use This Form
<input type="checkbox"/> Render pass through HTML in Notes
<input type="checkbox"/> Do not add field names to field index

Conflict Handling
Merge Conflicts

By default this property isn't set. In Notes 6 you have several options on how to react if a conflict occur.

Remember what merging conflicts do; Domino will only resolve conflicts automatically if the differences are in different fields.

- The designer can enable versioning so that each document save create a new version.

None of the techniques above will eradicate the probability for replication conflicts completely. The designer therefore has to balance the features available with the probability of conflicts.

Stopping List Fields

How to stop List Fields

List Fields operates like a traditional Windows application, and you can stop it several ways:

- Select the menu File -> Exit.
- Click the X-button in the upper right corner
- Press the key combination ALT+F4

Do you want to save your changes

If you have active change log entries in your **Change Log** (on page 100), List Fields will ask you if you want to save these changes or not:



Figure 125: Do you want to save your changes

If you acknowledge this message, List Fields attempt to save your changes. Note that you will see a **Save Error Report** (see "Save Errors" on page 103) if anything goes wrong during the save operation!

List Fields saves all layout changes

When List Fields terminates, it will save all changes done to the **Field List Area**. All column **grouping** (see "Group on any column" on page 92), **sorting** (see "Sort any column in any direction - even multiple columns at the same time" on page 86), **reordering** (see "Reorder columns in any order" on page 88) and **filtering** (see "Filter any column to show only what you want" on page 89) will be preserved.

When you exit List Fields for the first time, List Fields will ask you where to store the so-called *layout files*. You will see this dialog box:

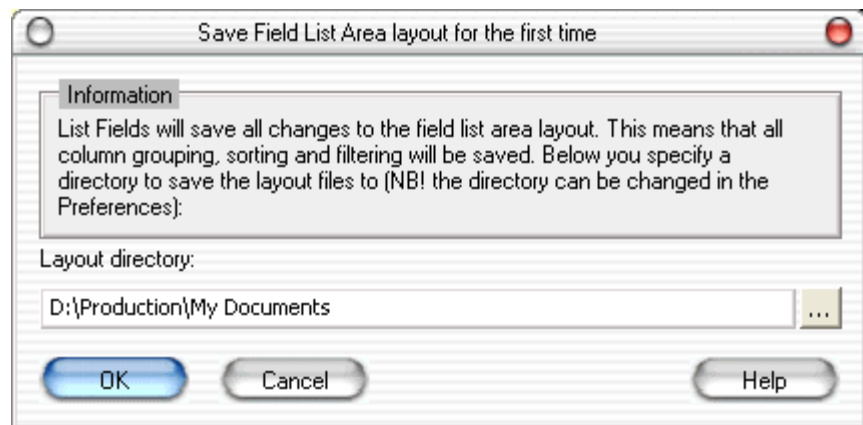


Figure 126: Save Field List Area Layout Question

List Fields has by default chosen your personal directory. You can select any other directory, and List Fields will remember the directory. You can also change the layout directory at any time from the Field List Area **Preferences** (see "Field List Area Preferences" on page 134).

CHAPTER 4

Appendixes

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The NotesPeek application

For years, NotesPeek has been the de facto standard application to dive into the inner details of Notes databases. The name with the suffix "peek" reminiscence the old days when programmers frequently had to read content at memory locations by "peeking", and writing to memory locations with "poking". In addition the icon x-raying the "Notes-folks" identify the purpose of NotesPeek quite good:



NotesPeek was written by Ned Batchelder, a former Lotus employee. The user interface is clean and intuitive using the treelist to navigate in databases, documents and fields. The content is shown in the main area to the right. Below you see a screenshot of NotesPeek.

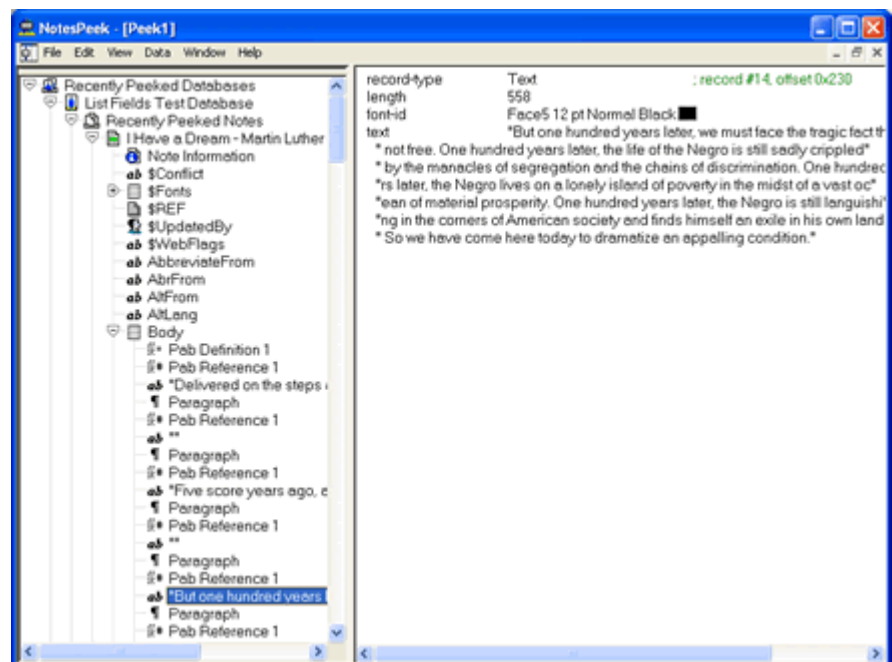


Figure 127: NotesPeek main screen

You will find all sort of information here, and as you see from the screenshot above, you can really dive into richtext to see how the CD records are sequenced and what they contain.

How does List Fields interact with NotesPeek ?

List Fields has the ability to launch NotesPeek and make it open the currently selected document in List Fields. This makes it very quick and easy to dive into the document with NotesPeek if you don't find the information you're looking for in List Fields.

You launch NotesPeek from the **Information Area** toolbar by clicking on the NotesPeek icon.

The first time you launch NotesPeek, List Fields want you to specify where your NotesPeek application is located. You do this from the dialog box shown below:

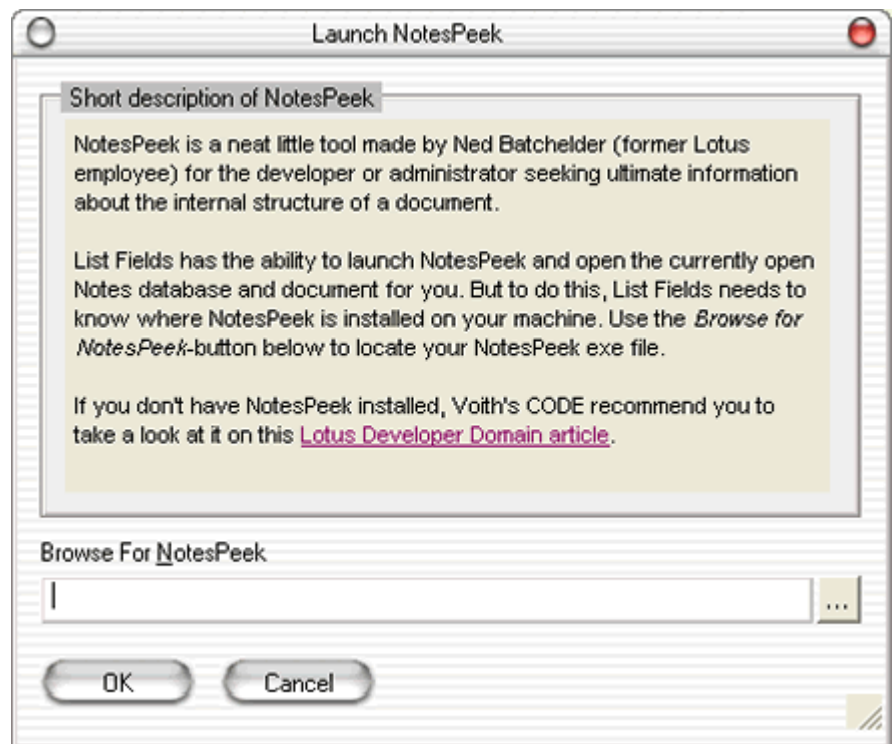


Figure 128: Where is NotesPeek located

The filename of NotesPeek is `Ntspk32.exe`. Press the ...-button to bring up a find-a-file dialog box.

More information on NotesPeek

Voith's CODE encourage you to check out NotesPeek on your own, and you should check out this ***Lotus Developer Domain article*** <http://www-10.lotus.com/ldd/today.nsf/0db661345413ad1d852567ba006bb090/23d24ec8a4c568e9852566320058521d?OpenDocument>.

Unfortunately NotesPeek isn't a "directly supported tool" by IBM, and even if the Lotus Business Partner Community has heard some beeps about a new version for Notes and Domino 6, nothing has been committed nor promised by IBM.

Solving problems - debugging

Voith's CODE sincerely tries to make applications as robust as possible. However, there will probably be times when List Fields fail, or even worse - crash!

Determining the cause of a problem may be very hard, since there are some many possibilities! Think of all the different kinds of Notes documents you work with every day!

In order to determine the cause of the problem or crash, often dubbed *debugging*, various techniques have been implemented in different applications. Some applications implement *logging*, where intermediate results and data are recorded. By examining the log post operation, the application developers may be able to spot the problem. Voith's CODE has also used this approach in other applications, with mixed results.

List Fields implement another technique. It collect the document or documents that causes the problem into a separate Notes database, along with various system information. The database containing the "problem document" may be sent to Voith's CODE for analysis. Voith's CODE will run List Fields in debug-mode on the problem documents. This technique will often reveal the exact cause of the problem, enabling Voith's CODE to fix the problem more quickly.

How to start List Fields in debug-mode ?

Hold the SHIFT button down when you launch List Fields. After a short while you will see the the **Information about debugging** dialog box.

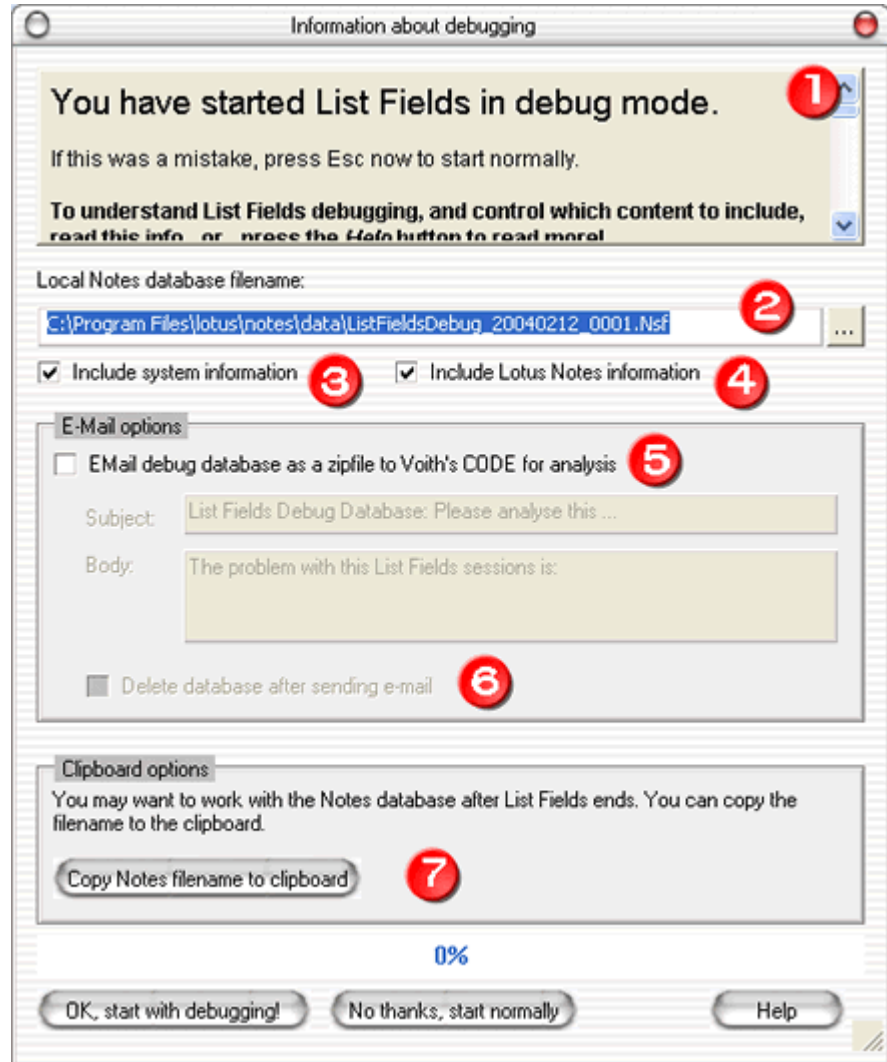


Figure 129: Information about debugging Dialogbox

From this dialog box you control what to include in the so-called *List Fields Debug Session Database*.

The debug database database is a normal Lotus Notes database which contain:

- The document(s) you are about to work with in List Fields.
- A List Fields Information document, with information about your List Fields installation
- Optional System Information document, see more about this document below
- Optional Lotus Notes Information document, see more about this document below

These are the areas to control in this dialog box:

- 1 *The information area.* If this is the first time you try to debug List Fields, please read the short description here. It contains the short-version of this text!
- 2 *Lotus Notes database filename.* You must give the debug database a filename. By default List Fields will calculate a filename based upon the date and time right now, and place the default filename in your **Notes data directory** (on page 36). The last part of the filename is a counter if you have multiple debug databases on the same date. Click the ...-button to select another directory.

List Fields will remember the directory you put the debug databases into, so you can for example create a separate debug database directory below your standard Notes data directory.

- 3 *Include system information.* If this option is enabled, a separate *System Information* document will be created in the debug database, containing different information about your system, operating system, LAN and so forth. Please read **this** (see "System Information" on page 159) topic for details about the content of the system information document.
- 4 *Include Lotus Notes information.* If this option is enabled, a separate *Lotus Notes Information* document will be created in the debug database. This document will in essence contain the content of your NOTES.INI file. Please read **this** (see "Lotus Notes information" on page 163) topic for details about the content in this document
- 5 *Email debug database as a zipfile to Voith's CODE for analysis.* The debug database won't be mailed anywhere by default, so you have to manually enable this support. If enabled, List Fields will zip the debug database and automatically mail it to Voith's CODE as soon as the database has been finalized (all documents copied and all information documents created).

You have the possibility to add a *Subject* and *Body* to the e-mail. Please give a short description of the problem for later reference.

- 6 *Delete database after sending e-mail.* If the EMail support is enabled, you also have the ability to cleanup after the database has been sent. Use this feature if you don't want debug database lying around on your file system.
- 7 *Copy Notes filename to clipboard.* You might want to work with the debug database after List Fields has finished it. You can therefore copy it to the clipboard, so you can keep record of it later.

When you have set all the options and are ready to go, press the **OK, start with debugging!** button. Since the creation of the debug database might take a while, you will be reminded about this in the message **I003** (see "I003: List Fields Debug Session database is about to be created" on page 169). You can turn this message off if you want to. As soon as the database creation start, you can see the progress in the debug dialog box.

As soon as the debug database has been created, List Fields will copy the document(s) to the debug database. It will also, based upon your selections above, create the information documents. When these operations has finished, the database will either be;

- ...E-mailed automatically to Voith's CODE for analysis, if this option was selected
- ...or you will be prompted the informal message **I004** (see "I004: List Fields Debug Session database created" on page 170), which also contains a link to the database itself.

If you have a crash or hang with List Fields it would be most valuable for List Fields to fix the problem. As described *here* (see "Solving problems - debugging" on page 155), this approach has proved most successful for bug-hunting ever. Voith's CODE therefore hopes you will take the time to send the debug database for analysis.

How to control what information to include ?

From the main debugging dialog box you can control whether to include System- and Lotus Notes Information or not. If you choose to include such information, List Fields will by default include many details about your system and Lotus Notes installation.

For many reasons, you might not want to expose some of this information to Voith's CODE. We fully respect that, and have therefore created a system which fully let you control what information to expose or not.

You may control what goes in the System- and Lotus Notes Information documents by adding keywords to a registry entry. In the subsequent topics you will see complete lists over all available keywords to exclude.

How to exclude keywords ?

- 1** Open the registry with a registry tool such as REGEDIT or REGEDT32. Remember, exercise extreme caution when modifying the registry!
- 2** Navigate to the HKEY_CURRENT_USER\SOFTWARE\Voith's CODE/List Fields\Settings\Doer\Dialog\Debug.
- 3** Modify (or add a new string value keyword if entry isn't found) the following keywords:

1. **SYSExcludeKeywords**. This keyword contains a comma-separated list of keywords to exclude in the System Information document. See *here* (see "System Information" on page 159) for a complete list of keywords.
 2. **LNExcludeKeywords**. This keyword contains a comma-separated list of keywords directly from your Notes.ini file. Check out your Notes.ini file and add any of the existing keywords.
- 4 Remember to separate the values with commas.

Below you see a Regedit sample screenshot:

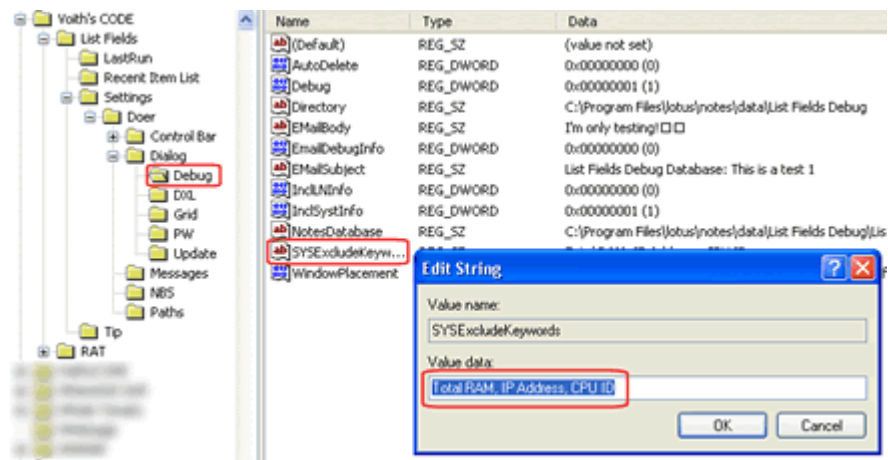


Figure 130: How to add a new 'exclude keyword' entry in registry

Notice how the three System Information keywords *Total RAM*, *IP Address* and *CPU ID* are separated with a comma.

System Information

You can control the following keywords in the System Information document

Keyword	Description
Total RAM	How much RAM do your computer have. Typical output is: Installed RAM: 511MB Memory Available: 129824KB Percent of used RAM: 75%
Free RAM	How much RAM are free on your system ? Output are measured in percent.
User Name	Your login User Name on your machine. This is typically your name, shortname or even computer name, see below.
Computer Name	Your machine name as it is known to your network

IP Address	Your local IP address on the typical dot notation x.x.x.x
Number of CPUs	How many CPUs does your machine have ?
CPU Speed	How fast are your CPUs, measured in MHz ?
CPU ID	The ID of your CPU. Typical output: Vendor ID: Intel Corporation CPU Type ID: 0 Family ID: 6 Model ID: 11 Stepping Code: 1 Brand ID: Pentium® III (0.13 µm) With 256 Or 512 KB On-Die L2 Cache
CPU Vendor ID	The vendor ID of your CPU. This information is also included in the <i>CPU ID</i> keyword above, so this keyword can be regarded as a trimmed down version of <i>CPU ID</i> . Typical output: Vendor ID: Intel Corporation Brand ID: Pentium® III (0.13 µm) With 256 Or 512 KB On-Die L2 Cache
Resolution	The screen resolution. Typical output: Screen resolution: 1600x1200 Width: 1600 pixels Height: 1200 pixels
Pixel Depth	Screen resolution, color depth and screen refresh rate. Typical output: Color depth: 32 Bits per pixel. Pixel Width: 1600 Pixel Height: 1200 Refresh frequency: 60 Hz
OS	The root directory of your Operating System Files. Typically <i>C:\WINDOWS</i>
System	The directory of the system files of your Operating System. Typically <i>C:\WINDOWS\System32</i>
Personal	Your personal directory. This is equivalent with <i>My Documents</i> below. Typical output: <i>C:\Documents and Settings\username\My Documents</i> .
My Documents	Your virtual personal directory. On older systems this is equivalent to <i>Personal</i> above.
Program Files	The root directory of your installed programs, typically <i>C:\Program Files</i> .

Startup	The folder contains typically links to programs that will be launched at OS startup. I typically contains: <i>C:\Documents and Settings\username\Start Menu\Programs\Startup</i>
Desktop	Contain the links, applications and other content shown on your desktop. Typically <i>C:\Documents and Settings\username\Desktop</i>
Cookies	The folder acts as a repository for internet explorer cookies. Typically <i>C:\Documents and Settings\username\Cookies</i>
Start Menu	The folder contain links and applications shown in your Startup program group. Typically <i>C:\Documents and Settings\username\Start Menu\Programs\Startup</i>
Favorites	The file system directory that serves as a common repository for the user's favorite items. A typical path is <i>C:\Documents and Settings\username\Favorites</i>
Fonts	A virtual folder containing fonts. A typical path is <i>C:\Windows\Fonts</i>
Internet Cache	The file system directory that serves as a common repository for temporary Internet files. A typical path is <i>C:\Documents and Settings\username\Local Settings\Temporary Internet Files</i>
Local Application	The file system directory that serves as a data repository for local (nonroaming) applications. A typical path is <i>C:\Documents and Settings\username\Local Settings\Application Data</i>
Program Group	The file system directory that contains the user's program groups (which are themselves file system directories). A typical path is <i>C:\Documents and Settings\username\Start Menu\Programs</i>
Recent	The file system directory that contains shortcuts to the user's most recently used documents. A typical path is <i>C:\Documents and Settings\username\My Recent Documents</i> .
Send To	The file system directory that contains Send To menu items. A typical path is <i>C:\Documents and Settings\username\SendTo</i>
Templates	The file system directory that serves as a common repository for document templates. A typical path is <i>C:\Documents and Settings\username\Templates</i>
Administrative Tools	The file system directory that is used to store administrative tools for an individual user. Typically <i>C:\Documents and Settings\username\Start Menu\Programs\Administrative Tools</i>

History	The file system directory that serves as a common repository for Internet history items. Typically <i>C:\Documents and Settings\username\Local Settings\History</i>
NetHood	A file system directory containing the link objects that may exist in the My Network Places virtual folder. A typical path is <i>C:\Documents and Settings\username\NetHood</i> .
Profile	The user's profile folder. A typical path is <i>C:\Documents and Settings\username</i> .
Common Startup	The file system directory that contains the programs that appear in the Startup folder for all users. A typical path is <i>C:\Documents and Settings\All Users\Start Menu\Programs\Startup</i> . Valid only for Windows NT systems.
Common Programs Group	The file system directory that contains the directories for the common program groups that appear on the Start menu for all users. A typical path is <i>C:\Documents and Settings\All Users\Start Menu\Programs</i> . Valid only for Windows NT systems.
Common Desktop	The file system directory that contains files and folders that appear on the desktop for all users. A typical path is <i>C:\Documents and Settings\All Users\Desktop</i> . Valid only for Windows NT systems
Common Favorites	The file system directory that serves as a common repository for favorite items common to all users. Valid only for Windows NT systems. A typical path is <i>C:\Documents and Settings\All Users\Favorites</i>
Common StartMenu	The file system directory that contains the programs and folders that appear on the Start menu for all users. A typical path is <i>C:\Documents and Settings\All Users\Start Menu</i> . Valid only for Windows NT systems
Common Administrative Tools	The file system directory containing administrative tools for all users of the computer. A typical path is <i>C:\Documents and Settings\All Users\Start Menu\Programs\Administrative Tools</i>
Common Application Data	The file system directory containing application data for all users. A typical path is <i>C:\Documents and Settings\All Users\Application Data</i>
Common Documents	The file system directory that contains documents that are common to all users. A typical paths is <i>C:\Documents and Settings\All Users\Documents</i> . Valid for Windows NT systems and Microsoft Windows® 95 and Windows 98 systems with Shfolder.dll installed.

Lotus Notes information

List Fields will by default list every keyword in your **Notes.ini** file. You can specify any keyword from the Notes.ini you want to exclude!

Messages

This topic describe the messages you might occur in List Fields.

E000: Lotus Notes client is not running!

List Fields reads Notes documents, and the Lotus Notes client has to be active in order to use List Fields.

This cause of this error is that the Notes client is not running. A probable cause is you started List Fields without using the **Action-menu** (see "How to start List Fields via the Action menu" on page 45), and instead launched List Fields from the **operating system** (see "How to start List Fields from the operating system" on page 46) via an icon or system wide short-cut.

Restart Lotus Notes and try again!

E001: The Lotus Domino Designer is on top

If you launch List Fields via the **Actions-menu** (see "How to start List Fields via the Action menu" on page 45), you will automatically have the Notes client "on top", and this error will never appear!

But, if you launch List Fields from the **operating system** (see "How to start List Fields from the operating system" on page 46), such as via an icon or short-cut, List Fields must have the Notes client "on top of" other Notes clients, such as Lotus Domino Designer or Domino Administrator.

Right now the Lotus Domino Designer is on top! Ensure that the ordinary Notes client is on top and try again.

E002: The Domino Administrator is on top

If you launch List Fields via the **Actions-menu** (see "How to start List Fields via the Action menu" on page 45), you will automatically have the Notes client "on top", and this error will never appear!

But, if you launch List Fields from the **operating system** (see "How to start List Fields from the operating system" on page 46), such as via an icon or short-cut, List Fields must have the Notes client "on top of" other Notes clients, such as Domino Administrator or Lotus Domino Designer.

Right now the Domino Administrator is on top! Ensure that the ordinary Notes client is on top and try again.

E003: Is List Fields installed correctly ?

When List Fields start up, it will check the presence of certain registry settings, and if these settings aren't there, this message will pop up. The setting that is required at this stage is the *Version*-string. Read more about it's exact location *here* (see "Necessary modifications in the Registry" on page 37).

The only option is to acknowledge the message and watch List Fields abort operation completely. Inspect your installation and re-install List Fields if necessary.

E004: Can't determine which document to work with

This error occur if List Fields can't decide which document to work with. Most likely has List Fields been started without using the **Action-menu** (see "How to start List Fields ?" on page 45) in Lotus Notes.

Unfortunately List Fields can't continue, and will terminate.

E005: The Notes database can't be opened

List Fields can't open the database! This indicate a serious error, either with the database itself, the network connection or the database Access Control (ACL).

Since List Fields can't open the database, it's not much left for List Fields to do, so it will unfortunately terminate

E006: The Notes document hasn't been saved yet!

You launched List Fields on a document that hasn't been saved yet!

List Fields can only read the Notes documents after they have been saved. Read much more about so-called front-end and back-end documents *here*.

The only thing to do right now is to terminate List Fields and save the Notes document before you launch List Fields again.

Tip: Use the Notes short-cut CTRL+S to save the document quickly!

E007: The document couldn't be read!

This error typically occur if you try to launch List Fields on a category- or total row in a Notes view. You will also see the error message returned from the Notes API in this error.

E008: Notes.ini could not be found in any PATH directories

The main configuration file for Lotus Notes is named NOTES.INI. This file contains many configuration parameters for Lotus Notes and any Notes API based application must be able to locate this file in order to function properly. If you install Lotus Notes via its standard installation program, NOTES.INI will be placed in the *Notes program directory* (on page 34).

The installation program for List Fields automatically ensure that the NOTES.INI is found and that the directory is specified in the PATH environment variable on your computer.

List Fields has however detected that the NOTES.INI file no longer is available in any of the PATH directories.

This may indicate that you have multiple Notes clients installed at the same computer. A traditional trick to make this happen, is to have multiple NOTES.INIs, one for each installation. Each Notes client is started with the `=<path and filename of NOTES.INI>` parameter, and thus have their own INI file. In such scenarios, the problem can be avoided if you copy the currently selected INI file to a directory specified in the PATH variable, such as the Notes program directory.

Please refer to *How to do a manual installation* (on page 33) chapter to learn more about manual installation of List Fields

W001: Have you saved the Notes document ?

List Fields can only access the back-end document! This implies that a potential challenge may arise if you launch List Fields on a document in edit mode which haven't been saved immediately before List Fields-launch. List Fields will read the back-end document and show those values to you, and you might not see the most current values!

Read much more about front-end and back-end documents *here*!

W002: The size of all attachments combined is too large for high quality rendering

List Fields attempt to do a so-called *high quality rendering* of the rich text fields in the document. This process is done by extracting the content of the rich text field with DXL. (Domino XML Language). If the document contain large binary objects such as file attachments, images or OLE attachments, this process will be very slow and potentially hinder other functionality in List Fields.

You receive this message when the combined size of all attachments (files, images, OLE attachments etc) exceed the specified size threshold in List Fields.

You may choose to experiment with the size threshold, since the speed of your computer may impact on how much data DXL can process. In addition, people are different regarding patience, and you may be willing to wait a little longer in order to get high quality rendering !!? You can manipulate the size threshold *here* (see "DXL Preferences" on page 136).

W003: The size of one of the attachments is too large for quality rendering

You receive this message when the size of one of the attachments exceed the specified size threshold in List Fields.

The explanation is otherwise similar to the *W002-message* (see "W002: The size of all attachments combined is too large for high quality rendering" on page 168).

W004: Can't save or open attachments right now!

List Fields attempt to do a so-called *high quality rendering* of the rich text fields in the selected Notes documents. This is done with the Domino XML Language (DXL). Unfortunately, it's not possible to detach any attachments during DXL processing.

If the document contain large- and/or many attachments, DXL may be occupied with data processing when you try to save or open an attachment. Unfortunately the Notes C/C++ API won't allow more than one active application-thread accessing the Notes database at any given time.

This message informs you about this issue, and you may wait and retry the save or open action again later.

You may also control the so-called *size thresholds* that List Fields use to determine if it should process documents with DXL at all. In other words, if the document contains too large- or too many attachments, you may hinder List Fields from processing the document with DXL. The disadvantage with this option is that you won't be able to see the high quality rendering of rich text fields. The advantage is that you may save or open your attachments quicker! You can manipulate the *size threshold* (see "DXL Preferences" on page 136) in the Preferences dialog box.

I003: List Fields Debug Session database is about to be created

If you have selected to start List Fields in *debug mode* (see "Solving problems - debugging" on page 155), you will see this message just after you have pressed the **Ok, continue with debugging** button.

The creation of the *List Fields Debug Session Database* will take some moments (typically 3-5 seconds on a 1 Mhz Pentium processor), and you should just know about this.

I004: List Fields Debug Session database created

When you have started List Fields in **debug mode** (see "Solving problems - debugging" on page 155), you will create a *List Fields Debug Session Database*. After the database is created, List Fields will copy the document(s) in question and fill in the information controlled from the Debug dialog box. When these operations are finished, you might see this message, if you have selected not to automatically send this database to Voith's CODE.

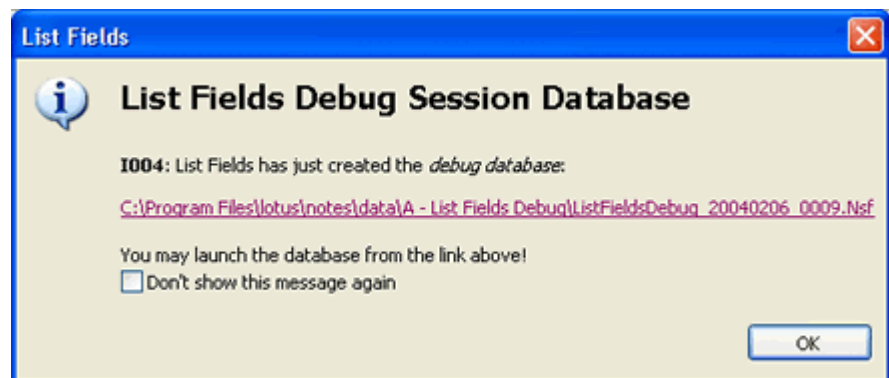


Figure 131: I004: The List Fields Debug Session Database has been created

Note that this message contains a hyperlink to the List Fields Debug Session Database itself. By clicking this link, you will launch the database in the Lotus Notes client. You can then check out the documents in question, and see all the information put into the debug database.

Q001: Do you want to save your changes ?

This question is shown either if you have any active change log entries in your **change log** (on page 100), or you press the Save button in the *Change Log* pane in the Information Area.

Q002: Do you want to delete the currently selected field ?

You will see this question when you attempt to **delete a field** (see "Delete field" on page 95) in List Fields.

If you confirm the deletion, a new **change log** (see "The Change Log" on page 124) request will be created. This means that you still can regret the delete-action by simply de-selecting the change log entry before saving the changes.

Note that List Fields will delete the field in all the editable documents shown in List Fields. You must have author access for the documents in order to delete fields.

MIME and 822 Text

From the *Startup preferences page* (see "Startup Preferences" on page 128), you can control the following; *If document has MIME, open with MIME encoding.*

Background

MIME is an abbreviation for *Multipurpose Internet Mail Extensions*. Behind this rather cryptic expression lies an internet standard describing how to send messages containing data other than plain text across internet. For links to the standards themselves, read *this* (see "The standards" on page 179) topic.

Back in time, it was only possible to send plain text. MIME was invented to allow messages to contain enriched content, such as graphics, HTML, sound, video etc.

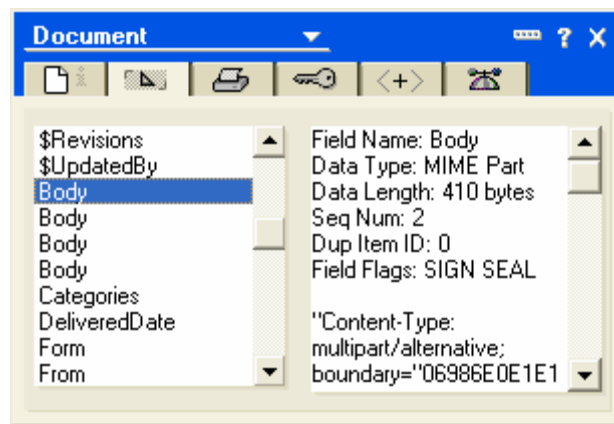
A MIME message, as opposed to a plain text message, contain one or more *parts*. Each part has a *content type identifier*, saying something about what the part contains. You have probably stumbled across content types such as *text/plain*, *text/html*, *image/gif*, *image/jpeg* or *audio/mpeg*. A simple e-mail reader can for example only read plain text messages, and will automatically choose the part with content type *text/plain*, while a more advanced e-mail reader would choose *text/html* in order to see the mail with more rich experience. One of the cool things with MIME is therefore the ability to incorporate different content for different readers. One thing to remember, is that imbedded graphics is always stored as separate parts, with content-types such as *image/gif* or *image/jpeg*. The MIME standard define the order of- and how each part should be linked together.

All modern mail clients can read and write (or de- and encode ...) MIME messages nowadays, including Lotus Notes.

How Lotus Notes support MIME

The Lotus Notes client will by default try to simplify and hide some of the cumbersome MIME details. When you for example open a MIME mail, Lotus Notes will automatically distill the MIME parts into normal ordinary richtext. You can see this behavior if you follow these steps:

- Open your mail database, and select a message that looks like an internet mail. Don't open the message, just select it.
- Right-click on the message and select the menu line **Document Properties** from the context menu (alternatively press ALT+ENTER).
- In the Document Properties, look for several Body fields, such as in the example below:



Note that the Body field is of data type *MIME Part*. You can also see the content-type identifier in the data area. Have a look at the other fields as well, and you will see different parts with different data. Also look out for fields containing data types *RFC822 Text*.

- Open up the mail message, and take a look at the Document Properties again.

The Domino server has something to say ...

How MIME messages should be treated on your system, can be controlled by changing different settings throughout your system. First and foremost can the Domino server convert incoming MIME messages to Notes richtext before you even see them in your inbox.

Go to your *person document* in the public directory (formerly called Name and Address book), and look for the mail settings. In Domino 6 the part looks like this:

Mail	
Mail system:	Notes
Domain:	
Mail server:	
Mail file:	
Forwarding address:	
Internet address:	
Format preference for incoming mail:	Keep in senders' format
When receiving unencrypted mail, encrypt before storing in your mailfile:	No

Figure 132: Setting the preferences for incoming mail in the person document in the NAB

Look at the field **Format preference for incoming mail**. Valid options are;

- *Keep in senders' format*. The Domino server won't touch the format in the incoming mail at all, and if it is MIME, it will stay MIME. This is probably the most flexible option.
- *Prefer MIME*. All non-MIME messages will be converted to MIME, so you will only see MIME messages in your inbox.
- *Prefers Notes Rich Text*. All incoming mail will be converted to Notes Rich Text format, and you won't see MIME messages at all.

In Domino R5 and R4 environments, the option *No Preference* is equivalent to *Keep in senders' format*.

And your Lotus Notes client preferences have something to say ...

You can further instruct your Lotus Notes client to treat MIME. Look at the Lotus Notes client Preferences below (select **File -> Preferences -> User Preferences**):

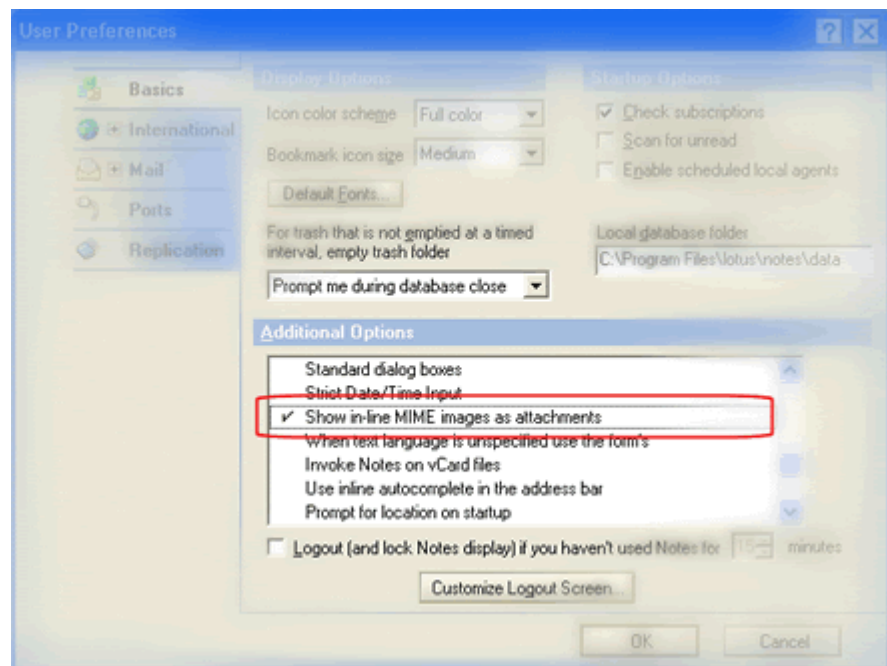


Figure 133: Setting some MIME preferences in the client

You can also control how your Lotus Notes client will *send* e-mail, and this is controlled from the **Mail -> Internet** page of the same Preferences dialog. It looks like this;

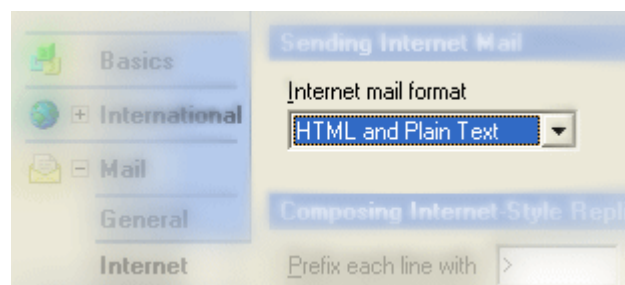


Figure 134: Setting the outgoing internet mail format

The valid options are:

- **HTML only.** Your outgoing message will be converted to the most rich experience, typically as content type text/html with other parts for imbedded graphics, attachments etc, Note that older e-mail reader might not be able to read these messages!
- **Plain text only.** Ensure you send your mail with content type text/plain. All e-mail readers can read your messages.
- **HTML and Plain Text.** Create a multi-part MIME message, containing both plain text and more rich experience parts. In effect, you will be creating a larger outgoing e-mail, that will be readable by almost every e-mail reader out there. This is generally the best option, even if it creates larger e-mails.
- **Prompt when sending.** When you send an internet e-mail, Lotus Notes will ask you how to format it with the options above. You can, based on your knowledge of the receiver, or more precisely, your knowledge of your receivers e-mail client, select the most appropriate e-mail format. This will generate the most trimmed e-mail format for your receiver.

The programming interface (API) way of doing it ...

Via it's APIs, application developers can choose if they want MIME support or not. This is done by selecting a document *mode*.

The first mode, which I nickname *easy-mode*, hides much of the difficult details for the programmer. For example, will the raw MIME fields be converted into ordinary richtext fields which are simpler to work with.

The other mode, which I nickname *raw-mode*, doesn't aid the programmer with anything. Now all MIME fields are present, and a programmer needs to parse the data very differently compared to *easy-mode*.

List Fields - in easy-mode

List Fields will by default operate in easy-mode, and thus automatically convert all MIME fields into richtext. This means that you won't see the real MIME fields since the programming interface on a low level convert the MIME fields into richtext before clients, such as List Fields, can see them.

Below you see how a MIME message looks in the Lotus Notes client:

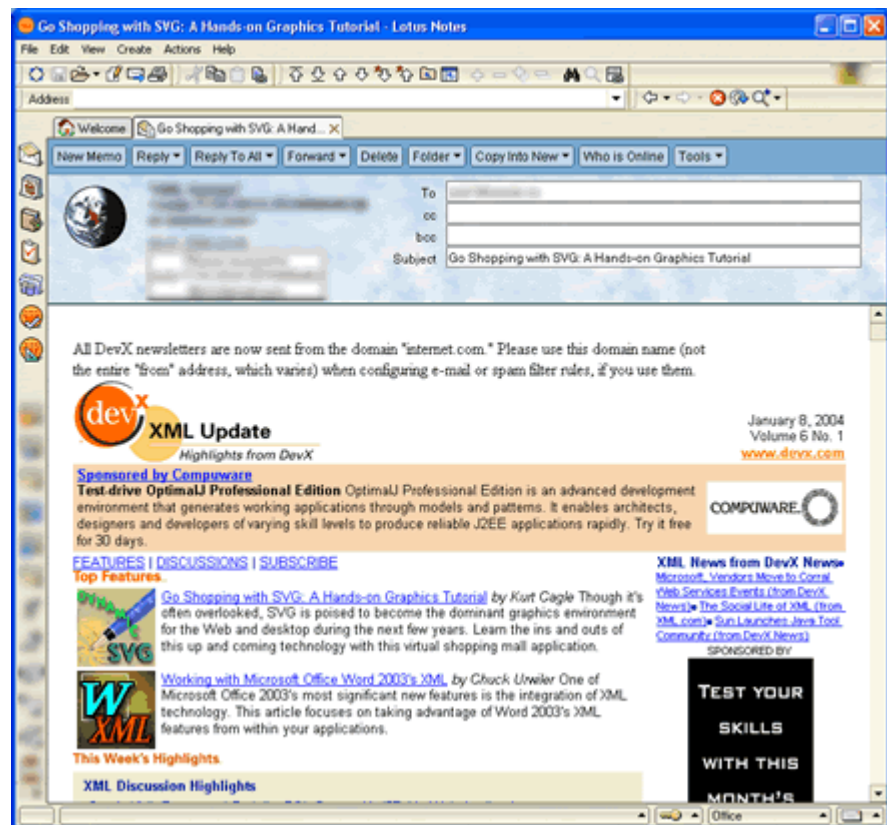


Figure 135: How a MIME e-mail look in the Notes client

And now we take a look at this document in List Fields, in easy-mode:

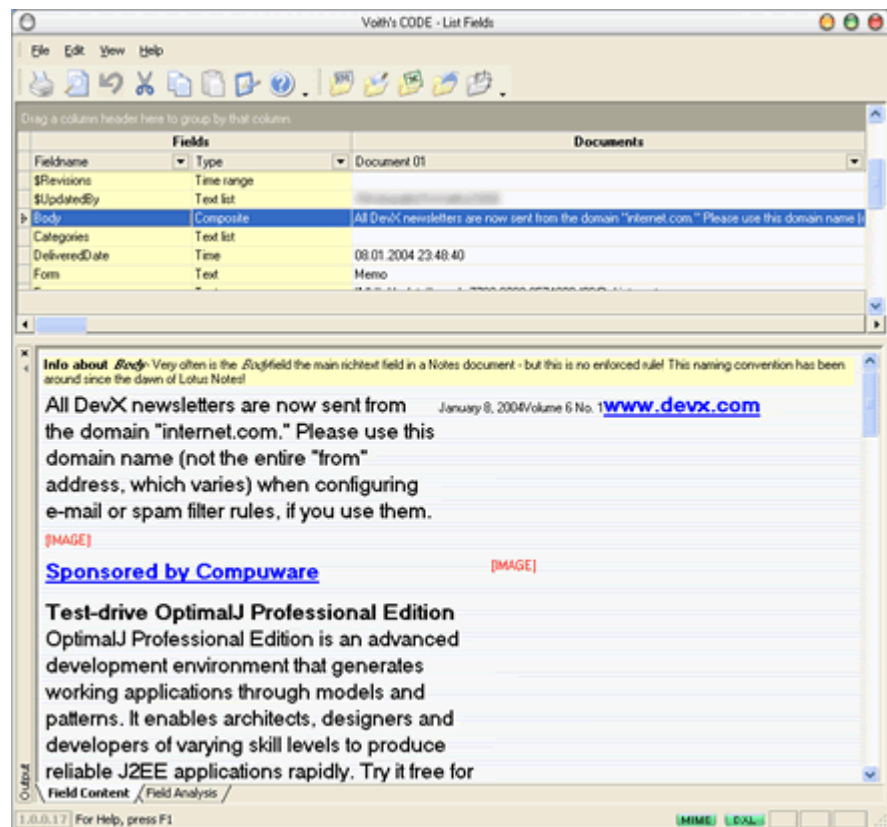


Figure 136: A MIME message in easy-mode

In the screenshot above the *Body* field has been selected in the **Field List Area**, and thus its content is shown in the **Output Area**. Note that we only have one Body field, and that the content obviously is of type richtext. Also note that the imbedded images from the MIME message are stripped out and replaced with [IMAGE]. Lotus Notes has aided the programmer by making it much easier to access the content of the message, as opposed to accessing the different MIME parts individually. The result is however sometimes not completely satisfactory.

Also note that you can see the status of the MIME processing by clicking on the MIME button in the statusbar:

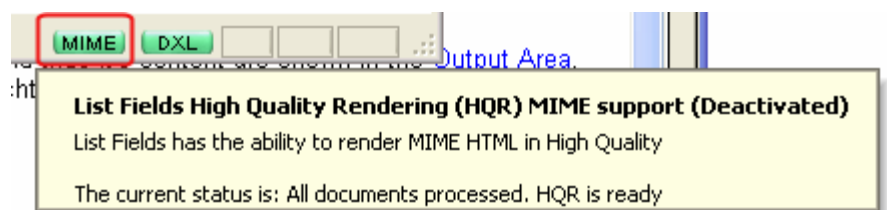


Figure 137: The MIME status button in the statusbar

List Fields - in raw mode

You, as a user, can however instruct List Fields to operate in raw-mode. This will make List Fields do the following:

- Exposing all the MIME fields with all it's data.
- Emphasize certain fields and data in the MIME fields, making it easier to spot the data.
- Format, colorize and pretty-print HTML.

Below, you see a screenshot from List Fields after we have enabled the MIME support in List Fields's *Startup preferences* (on page 128):

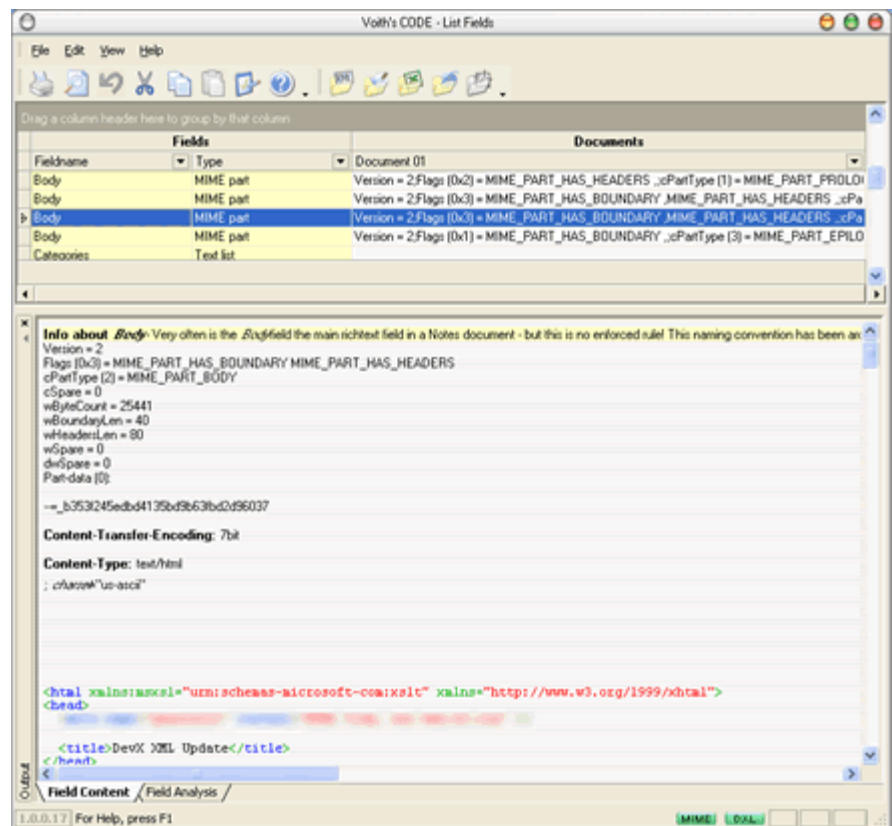


Figure 138: A MIME message with MIME parts exposed

Compared to the List Fields screenshot in easy-mode, you now see multiple *Body* fields. Each *Body* field typically contain a separate MIME part, and in the screenshot above we look at the text/html part.

Notice how List Fields format and colorize the HTML in this part. If you want closer look at any part in List Fields, why not copy the content to the *clipboard* (see "Copy to clipboard" on page 62) ?

The standards

This is only a short-list of the most important standards in the MIME and 822 Text sphere:

- **RFC 2045** <http://www.faqs.org/rfcs/rfc2045.html> - Multipurpose Internet Mail Extensions (MIME) Part One: Format of Internet Message Bodies.
- **RFC 822** <http://www.faqs.org/rfcs/rfc822.html> - Standard for the format of ARPA Internet text messages

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