Solid Documentation

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About This Document

Who Should Read This

This document is intended for people who are preparing to work with their Toolbox dictionaries and would like to organize their lexicons for export. Very little technical knowledge is required to understand this tutorial.

What You Will Learn

This document covers all the steps necessary to install Solid, import your dictionary, make corrections, and export your dictionary. It also contains tips and features of Solid you might find useful. The last section of this document is a reference that you can use to look up specific features or tasks in Solid.

Document Conventions

In this document you will find three basic conventions that make important notes stand out. There are:

Info signs, which are for clarification or expanding on the topic;

Lightbulbs, which indicate tips and extra information;

and Warning signs, which are for areas of great consequence.

Also, if you come across a set of words in italics, separated by a series of | marks, this indicates a series of steps you need to go through. For instance, *My Documents* | *My Music* means you need to open My Documents and then open the My Music folder.

Installing Solid

Downloading Solid

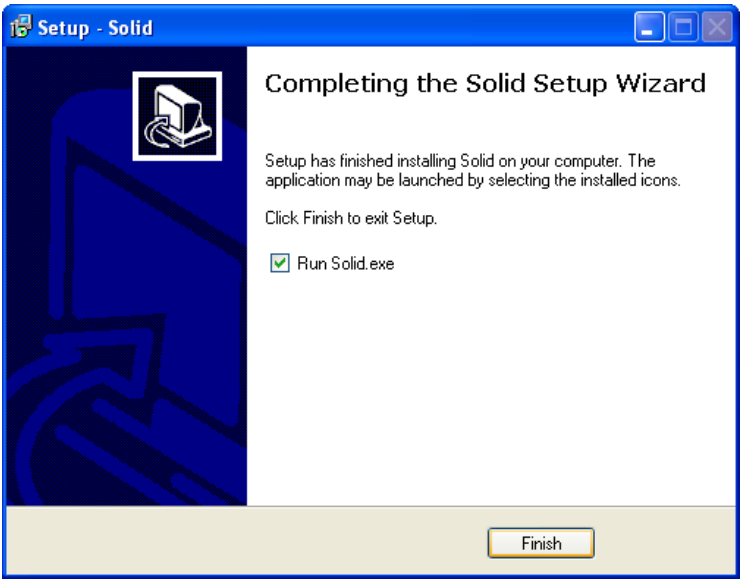
Before you start using Solid you need to get the installer for it. You can find this installer at http://palaso.org/solid, the developers' website. There is a link on that page to the latest version of Solid. Click this link to begin the download.

The link will be 'SolidSetupLatest.exe', and there will be information about that download near the link.

On the page surrounding the link you can find information about Solid, including a list of features, and links to websites mapping the development of Solid.

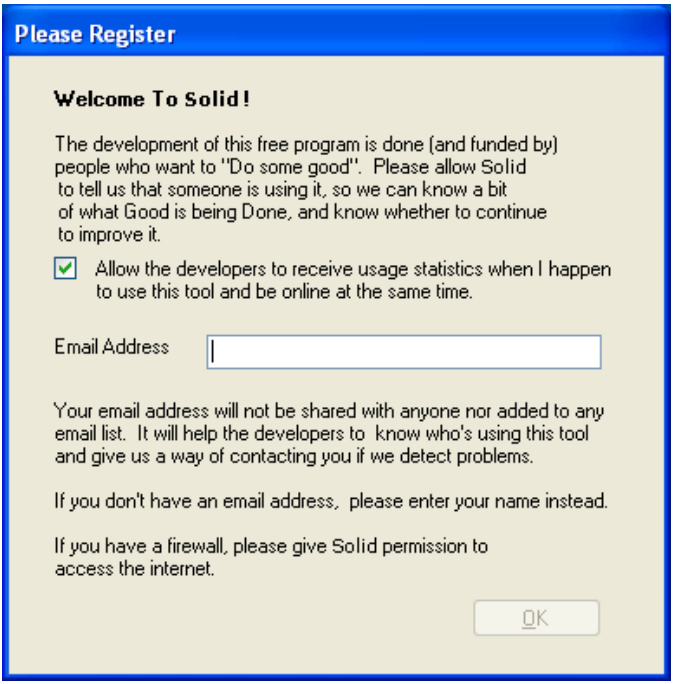
Running the Installer

Once the file has finished downloading, double-click on the icon to start the setup. A menu will appear, asking you to press next. When you press next, the setup will finish the installation without requiring further input.



You can open Solid immediately by pressing Finish without unchecking the 'Run Solid.exe' check box. However, if you want to open Solid later, you can find it in *Start Menu* | *Programs* | *Solid*.

When you open Solid for the first time you will see a message like the one below, asking you to send usage statistics to the developers of Solid. Read this and decide whether or not to share your information, then press OK to continue.



Once you've finished this, Solid will open and you can begin working on your lexicon.

Getting Started

Backing up Your Lexicon

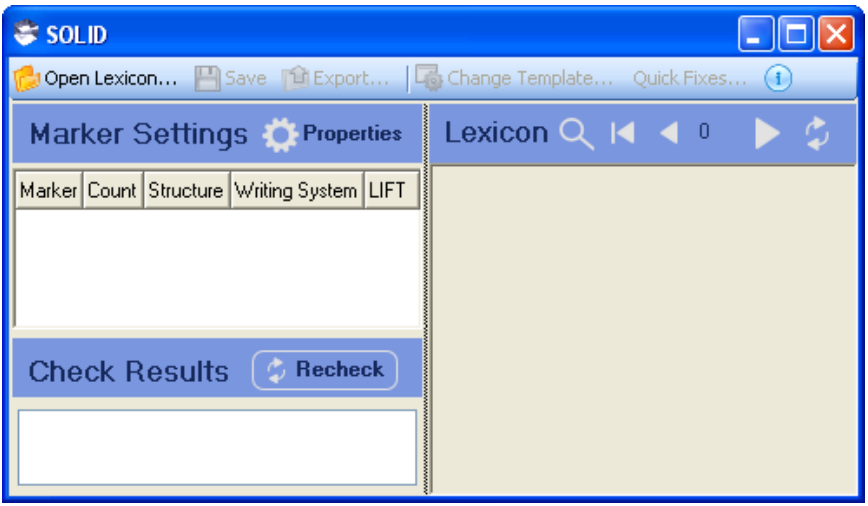
Before you begin anything in Solid, back up your work! Solid affects the entire lexicon you're working on, and lacks an undo button. If you make any mistakes and press Save, your entire lexicon will be ruined.

The easiest way to protect your work is to simply keep a separate copy of your lexicon elsewhere on your hard drive and routinely save your changes to that separate location. That way if you mess up in the lexicon copy you work in, you will have a relatively recent backup available.

Another, more complicated, way of protecting your lexicon is to install TortoiseHg for Windows and use that system to periodically save your lexicon.

Bringing in Your Lexicon

When Solid first opens, everything will be disabled except a button in the upper left corner called 'Open Lexicon...'. Click on this button to choose a lexicon to begin working with.



There are two example lexicons included with Solid that you can choose to open and preview Solid with, named 'BambaraSolidDemo' and 'BambaraTutorial2'. They can be found in *My Documents* | *Solid Examples*. Or, if you already have a Toolbox database

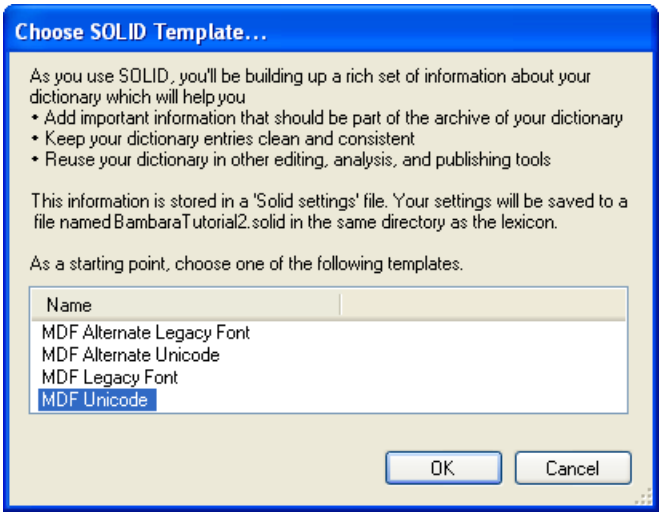
on your computer, you can select it.

Toolbox databases have the extensions '.db', '.txt' or '.lex' at the end of their names.

Note that Solid is not used to create new dictionaries. It only refines and corrects lexicons already created with Toolbox.

Choosing a Template

After you choose a lexicon to open, Solid will show a window like the one below, prompting you to choose a template to use.



The MDF Unicode template is a Solid template that works with lexicons configured for Unicode. The MDF Alternate Unicode is a template that's like MDF Unicode except that the Toolbox marker '\sn' precedes '\ps', whereas in MDF Unicode '\ps' comes first.

The MDF Legacy Font template is the hacked font system.

MDF Unicode is the most common template to use when importing a new dictionary.

Once you decide on the Solid encoding (template) you want to use, press OK to bring your lexicon into Solid.

Configure Encoding

Setting up Markers

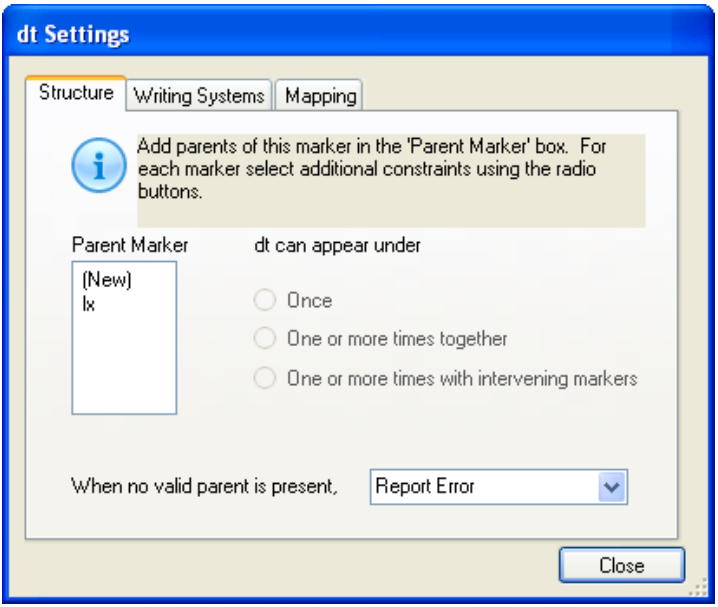
If not all fields use the encoding you chose for the template, for instance if some of your fields are in MDF Legacy Font but you chose MDF Unicode as your template, then you need to go to the pane labeled Marker Settings to fix that.

If you don't do this, Solid will ruin your data when you click Save! The data types must all be correct.

Under Marker Settings, select any fields that are not your selected template. For example, if you chose MDF Unicode, any fields that are not Unicode. Then press the Properties button in the top right of the Marker Settings pane.

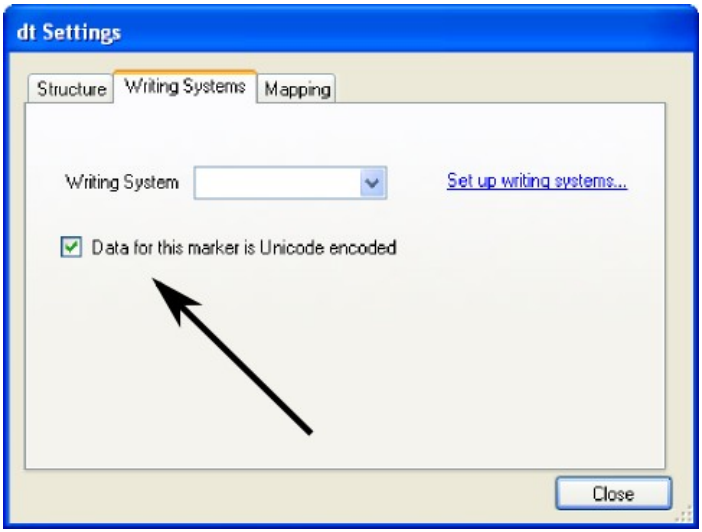
Marker Properties

In the Properties menu, shown below, you can change any settings for the selected marker. In the Structure tab shown, you can change the hierarchy of the marker – what other markers it will appear below.



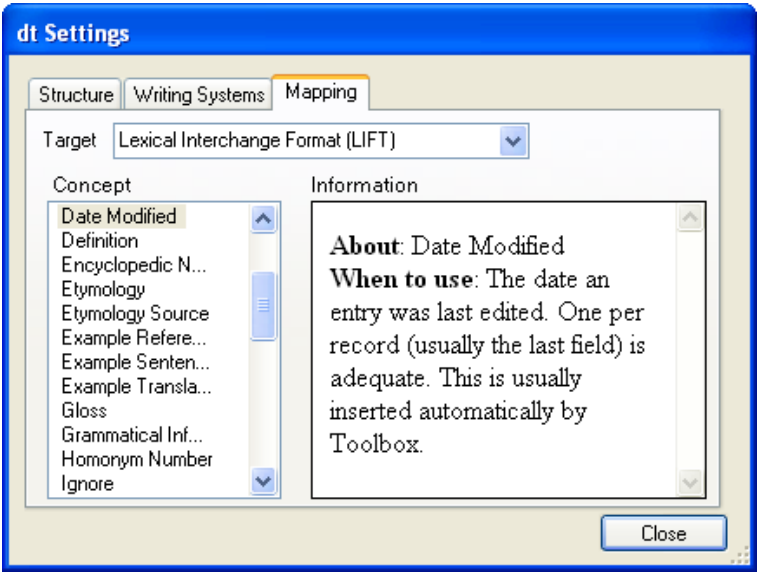
The important tab is the Writing Systems tab, shown below. In this tab you will find an

option to select a writing system, which you probably won't need at first, and more importantly, a check box to choose whether or not the marker's data is Unicode encoded.



If a marker is not Unicode encoded – if it was a hacked font – and the check box stays checked, your lexicon will have errors. To prevent this, uncheck the box.

The last tab in Properties, Mapping, controls the function of the marker. You can decide in this tab whether a marker is for glosses, parts of speech, example sentences, etc.



By using the three tabs of the Properties menu, particularly the Writing Systems tab, you can customize any markers and ensure that they work in your lexicon.

See the reference for more information about the different functions of the Properties menu.

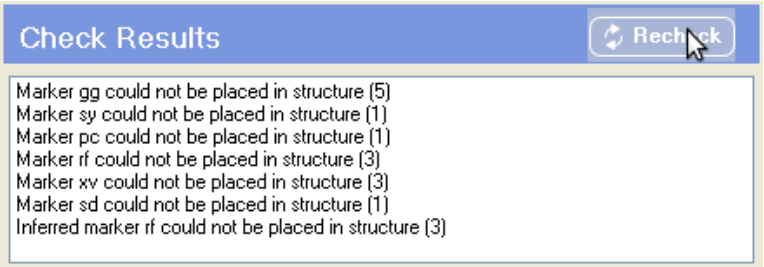
Using Quick Fix

Checking For Errors

Once you have your lexicon set up in Solid with a consistent template, you can use the Quick Fix function to fix your dictionary. However, making corrections is a two step process:

1. Use the Check Results pane to find where the errors are.
2. Use the Quick Fix button to correct the errors by fixing the markers' positions.

To begin, press 'Recheck' in Check Results. This will give you a list of all the current errors in your lexicon.

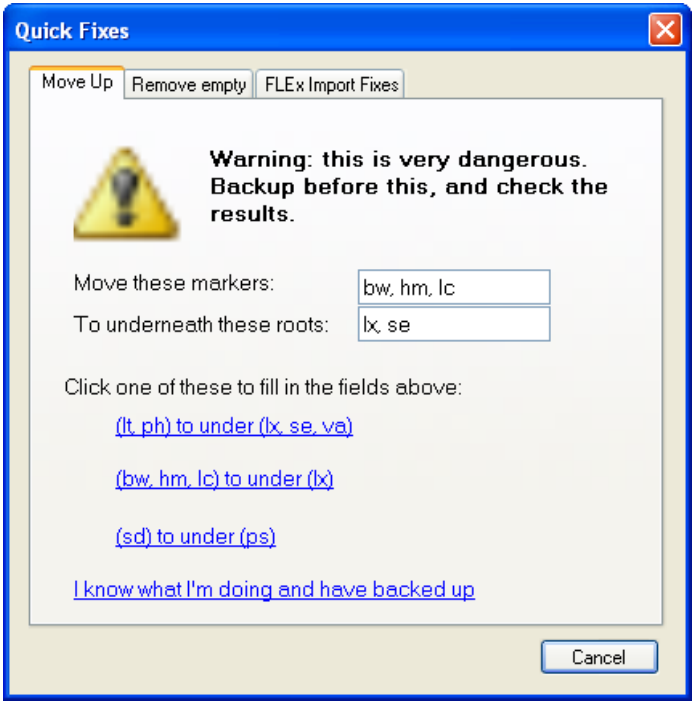


These errors are caused by markers being out of the order your template says they should be in. To fix this you will have to re-arrange your markers to align with the order your template dictates. You can do this manually or you can use Quick Fix.

The manual method of re-arranging the lexicon entries will be covered later.

Activating Quick Fix

To access Quick Fix, click its button at the middle of the top of the window. A menu will then pop up like the following.



In the Quick Fix menu you can choose what markers to move and where to move them. There are three presets included that are often used. Based on the information Solid told you in the Check Results pane, you can decide what markers need to be moved, and where.

Once you've decided on what markers you want to move, and have made sure your lexicon is fully backed up, click on the line 'I know what I'm doing and have backed up'. Quick Fix will then go through your entire lexicon and move all of the markers of the type you selected.

You can find other options for what to have Quick Fix edit in the two other tabs, 'Remove empty' and 'FLEx Import Fixes'.

See the reference for more information about what edits Quick Fix can do.

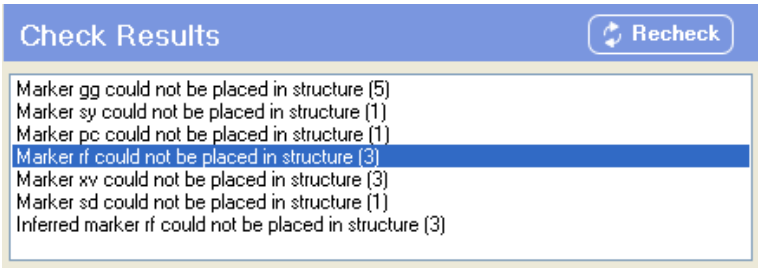
Manually Editing your Lexicon

A Closer Look at Errors

To edit your lexicon without Quick Fix, you will need to use the Check Results pane and the Lexicon pane. The Check Results pane will tell you what errors exist in your dictionary, and you can use the Lexicon pane to correct these errors.

Every line in Check Results is a type of error Solid found in your lexicon. The number in parentheses represents how many entries contain that type of error.

The numbers beside the different errors may look large sometimes, but keep in mind that some entries will appear under multiple error types, so the number in the Check Results pane reflects the amount of total errors, not the number of entries that have errors.

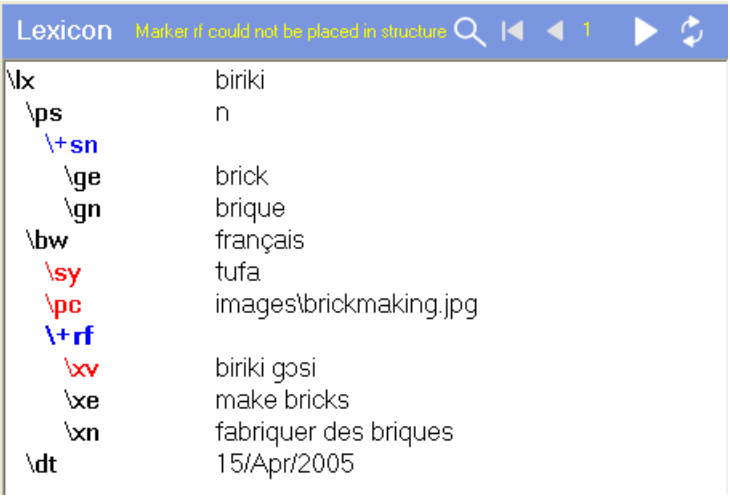


For example, in the above pane there are 5 entries where the 'marker gg could not be placed in structure', as seen by the first line in Check Results.

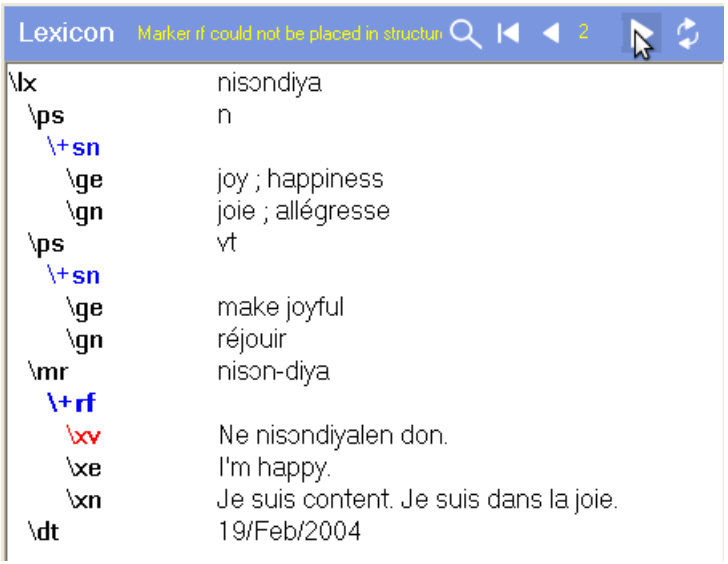
If we wanted to fix one of the errors – in this case, let's say the 'marker rf could not be placed in structure' line that we've highlighted – we need to click on that line and bring up those errors in the Lexicon pane.

Editing Lexicon Entries

When you select a line in Check Results, the Lexicon pane immediately changes to view only errors of that type.



In this pane, the yellow words at the top explain what error is in the entry that you are currently viewing. You can choose to either try to fix the error, or use the arrows on the top right part of the screen to scroll to another entry with the same form of error.



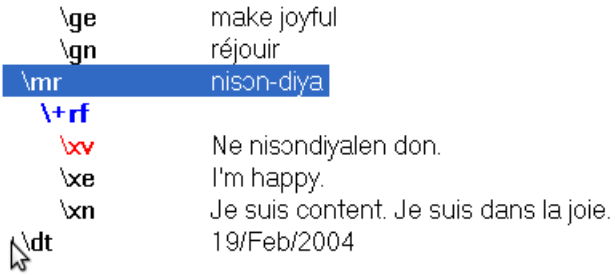
When we press the arrow, the yellow number between the arrows changes. This number represents which entry we are on that contains the selected error.

Notice that the words 'Marker rf could not be placed in structure' are still at the top of the screen.

In order to fix the errors that Solid finds, you will need to have an understanding of how the markers work in Toolbox lexicons. In the above example, the marker '\mr' is in the wrong place. It needs to go just above the '\dt' marker.

In this example, note that although Solid said that the error was with the '\rf' marker, it is the '\mr' marker that we need to move. Often, the errors Solid finds can be corrected by moving nearby markers.

First, click next to the marker you need to move and drag select the entire line. Then you will have two ways to fix the problem. One method is to simply drag the line to where it needs to go, as shown below.



The other way is to press 'CTRL + X' on the selected line, then click where you want it to go and press 'CTRL + V' which will have the result shown below.

If you don't fully select the line you are preparing to move, the formatting may not change correctly and Solid could read the entry wrong.

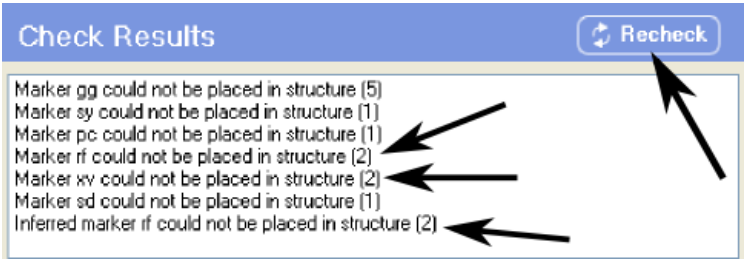
\ge	make joyful
\gn	réjouir
\+rf	
\xv	Ne nisɔndiyalen don.
\xe	I'm happy.
\xn	Je suis content. Je suis dans la joie.
\mr	nisɔn-diya
\dt	19/Feb/2004

Once you have the markers in the right order, press the refresh icon in the top right of the Lexicon pane. If you corrected the problem, all of the red markers will disappear.

Checking Correction Progress

As you fix the problems Solid is showing, you might notice that the Check Results panel still shows the same number of errors. This is because it doesn't automatically refresh as you work. You will have to click 'Recheck' periodically in order to get an accurate picture of your progress.

In this case, after we press Recheck, several error types decrease in number. This is because, as said before, the lines show the number of errors, not the number of entries that have that type of error. Correcting a single entry fixes many errors.



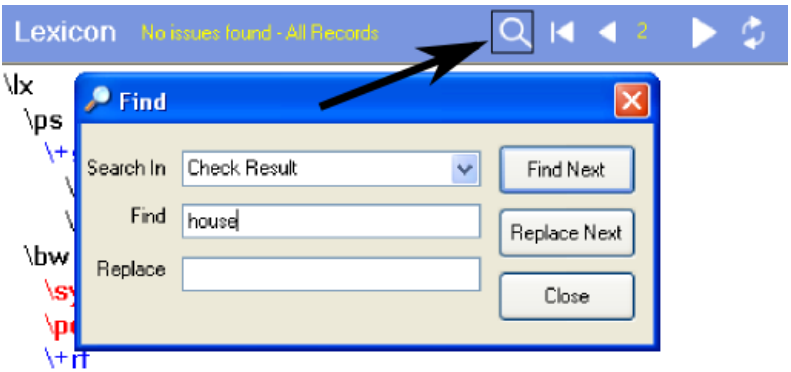
By using the error lines in the Check Results pane, and correcting the problems with the Lexicon pane, you can manually fix your entire lexicon.

Browsing a Lexicon

Methods of Access

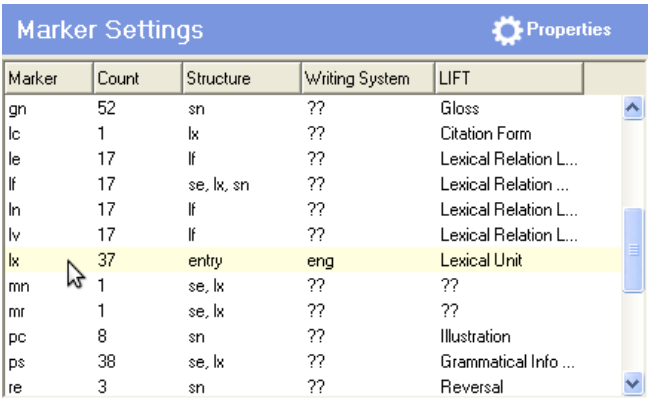
The easiest way to access your lexicon's entries is by selecting an error type in the Check Results pane and browsing through the entries that have that error. However, if you would like to access an entry that has no errors, you will have to use a different method.

There are two ways to view broader categories in your dictionary. The first is to use the search function found on the top of the Lexicon pane.



Type in a keyword to search for and press 'Find Next' to scan through your entries. The search function is first configured to only look through entries that appear in the Check Results pane, but you can change it to look through your entire lexicon by selecting 'Entire Dictionary' in the dropdown menu.

The second way to scan through your lexicon is to click on one of the markers in the Marker Settings pane. The Lexicon pane will then change to display only entries that have that type of marker.



Each entry will have one '\lx' marker in it, so you can select the '\lx' marker type and use the Lexicon pane to scroll through your entire dictionary.

Some marker types have a higher count than the number of entries in your lexicon, like the 'gn' marker in the screenshot above. This is because some markers appear multiple times in a single entry.

Methods of Scrolling

The most obvious way of scrolling through a lexicon is by using the arrows in the Lexicon pane.

The number between the arrows is the entry number. You can press the left arrow to select the previous entry, and the right arrow to select the next entry. You can also press the back arrow with the line on it to skip to the first entry.

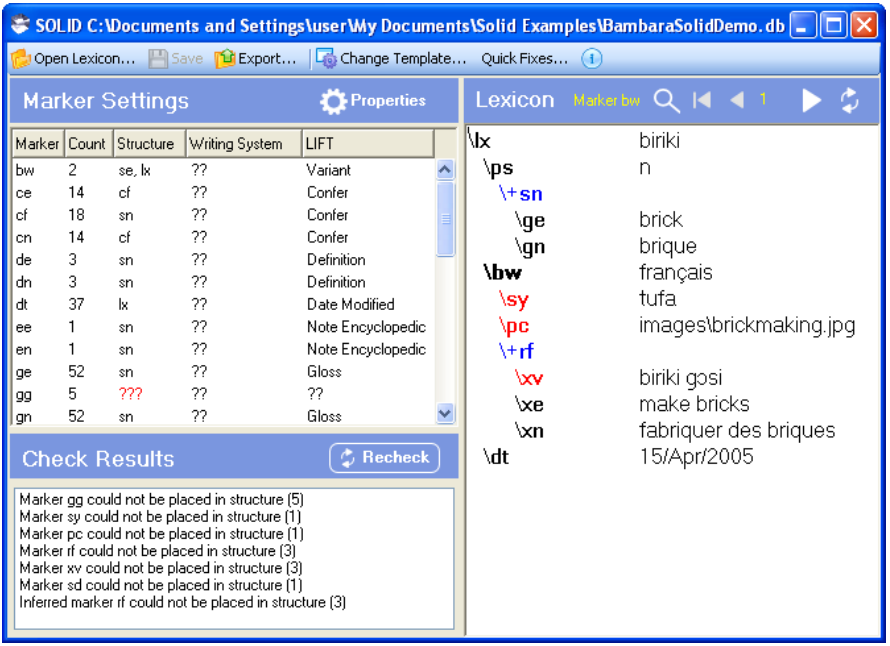
There are also several shortcut keys you can use to peruse your dictionary. Pressing CTRL with Page Up moves to the previous entry. Pressing CTRL with Page Down moves to the next entry. You can also press CTRL + SHIFT and Page Up to skip to the first entry, and CTRL + SHIFT and Page Down to skip to the last entry.

Make sure to click on the text area of the Lexicon pane before you use the shortcut keys.

Reference

Solid Layout

The Solid program is composed of three separates panes – the Marker Settings, Check Results and Lexicon panes.



Lexicon

The Lexicon pane on the right is where you will edit your lexicon entries. It is in this pane that you can scroll through and modify the information in your database. At the top of this pane are the buttons for navigation. Press the arrows to scroll through the entries, and the arrow with the line at the end to jump to the first entry.

For more information about the arrows and navigation, see the section 'Browsing a Lexicon'.

You can also use the search function in the Lexicon pane (the magnifying glass) to scan for selected keywords in either your entire dictionary, or all entries that have errors.

Check Results

The Check Results pane holds a list of all the errors Solid has found in your lexicon. Press 'Recheck' to bring up an updated list of all the errors in your lexicon. Each line shows how many instances of a certain error your lexicon has. Some entries can have multiple errors. Click on a line in Check Results to begin fixing that error in the Lexicon pane.

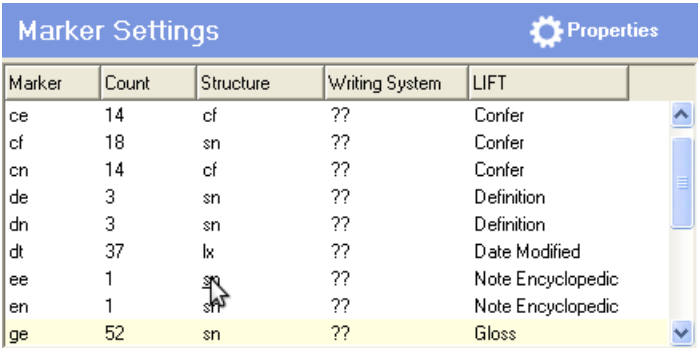
Marker Settings

The Marker Settings pane is where you can change the information about any of the markers in your database. As soon as you load your lexicon, Solid will automatically fill out the entire list of markers based on the template you chose. Each template, MDF Unicode or MDF Legacy Font, will have a slightly different setup of markers.

Marker Properties

You can edit the properties of any marker by selecting a marker in the Marker Settings pane and pressing the Properties button in the top right corner of that panel.

You can also select individual properties to change by clicking on any of the fields in the Marker Settings window, as seen below.



When you open the Properties menu, there are three different tabs to choose from, called Structure, Writing Systems and Mapping.

Structure

Under the Structure tab you can choose what markers the marker you're editing will appear under, by selecting its Parent Markers. For each Parent Marker you can also choose how many times the marker you're editing can appear underneath. There are the options of once, one or more times together, and one or more times when there are markers between the instances. The Structure tab also has the option to choose what

Solid should do when there is no parent for the marker you're editing. You can choose to either have an error appear, or have a parent be implied.

Writing Systems

The most important function here is the check box. If you have chosen MDF Unicode as your Solid template, but one of your marker fields is not Unicode, you must uncheck this box for that marker field. This tab also includes the option to add a new writing system. You can press the 'Set up new writing system...' button to create a new writing system, and then choose that writing system in the dropdown menu.

Mapping

The mapping tab allows you to choose what role the marker you're editing is playing. This is useful for people later on to make better sense of your markers by reading their use. You should select the LIFT target in the dropdown menu. When you've decided on the marker's concept, select it to finish.

Quick Fix Menu

You can have Solid quickly scan through your entire lexicon and make changes to the order of your markers. This will save you tons of time you might otherwise spend manually correcting your entries. There are three different tabs in Quick Fix you can use to set the change parameters.

The changes you make with Quick Fix happen across your entire lexicon and are entirely irreversible. Use Quick Fix cautiously, and back up often.

Move Up

The Move Up function moves all markers of a selected type to just underneath markers of another type. This function has a possible change you might want to make already in the boxes, and three more advisory changes you can select.

Remove Empty

This tab gives you the option to instantaneously remove all empty fields in your entire lexicon, except for specific fields that you choose to exempt. When you press 'I know what I'm doing and have backed up', Solid will remove all empty fields in your lexicon that were not in the text box in the Remove Empty tab. You will want to use this feature before you export your dictionary. It will significantly decrease export time.

FLEx Import Fixes

This tab is important if you are preparing to move your Toolbox lexicon into FLEx, because FLEx is not able to handle the usual Solid rules. You will need to apply these changes to your lexicon first. However, since there is no way to fine tune these changes, you will need to check your lexicon for errors afterward.

Changing the Template

As you go through your marker settings and make changes, the template you are using is updated. So even if you started with the MDF Unicode template, if you make changes to your markers, your template will no longer be the MDF Unicode template.

If you would like to change your template back to one of Solid's presets, you can use the 'Change Template...' button at the middle of the top of the Solid screen.

In this menu you can either select a new template and press OK, or save your current settings under a different name. Later on you can come back and use your saved template setting again.

Export

The export function is not recommended in Solid. You would be better off using the save function and keeping your lexicon in Toolbox database format. However, if you would like to put your lexicon into LIFT or .xml format, you can do so with the export.

The LIFT format that Solid's export uses is outdated. Solid will export in LIFT 10, whereas the current format is LIFT 13. However, LIFT 10 will still work in some programs, like WeSay.

You can find the 'Export...' button in the top left of the Solid screen. After you click it, you can choose the name to export your lexicon as, and the format you would like to save it in. Once you've chosen these, press Save to complete the export.