

ReplStr  
By Djundi Karjadi  
Documentation by Joshua Wachs  
© 1988 Natural Intelligence Consulting  
All Rights Reserved.

*ReplStr* is a 4th Dimension External that searches  
and replaces  
up to three sets of different strings, as well as  
returning the number  
of replacements for each string, respectively.

Installation

You can install *ReplStr* in four ways, but we prefer the following two ways:

- A. You can install *ReplStr* directly into your application database or 4D application by using the 4D External Mover. If you only want it installed in a specific database application, choose the respective **databaseName.res** file and install it there. Remember to hold down the option key when opening the **.res** file, otherwise, it will not show up in the choose-file dialog box.
- B. Your other choice is to rename the *ReplStr* file to **Proc.ext** (type it exactly, since 4D specifically looks for that filename) and put it

in the same folder with your application.

Note: Please read the 4D Manual about how to install an external procedure.

## Usage

*ReplStr* (TextVar;FStr1;RStr1;NumRep1;FStr2;RStr2;NumRep2;FStr3;RStr3;NumRep3)

where:

..... TextVar is a 4D text variable  
..... FStr1, FStr2, FStr3 are String Variables/Fields (of up to 255 characters in length) that are the target strings in TextVar that you plan to be replace. FStr2 & FStr3 are optional arguments. If the target string(s) is not found, nothing will happen except that that the NumRep variable(s) will equal zero.  
..... RStr1, RStr2, RStr3 are String Variables/Fields (of up to 255 characters in length) which are the replacement strings. RStr2 & RStr3 are optional arguments.  
..... NumRep1;NumRep2;NumRep3 are Integer variables that return the number of times the respective strings have been replaced in the TextVar. All these arguments are optional. If you don't really care how many times something was replaced, just leave it out.

Examples: *ReplStr*(Letter;"<LastName>";[ClientList]LastName;NumReps)  
Replaces all occurrences of the string "<LastName>" with the value of field [ClientList]LastName and returns the number of replacements to the variable NumReps.

*ReplStr*(Recipe;"Pickles";"Cukes";;"Onions";"Scallions";;"Garlic";"Ginger")

Replaces all occurrences of "Pickles" with "Cukes", "Onions" with "Scallions" and "Garlic" with "Ginger". In this example, the number of replacements for each string is irrelevant so we left off the parameter. Note the two semicolons after "Cukes" and "Scallions".

*ReplStr*(SpyCodeVar;"A";"Z";RepsA;"B";"Y";RepsB;"C";"X";RepsC)

Replaces all occurrences of "A" with "Z", "B" with "Y" and "C" with "X". It also returns the number of replacements for each string in RepsA, RepsB and RepsC, respectively.

This all may look a tad confusing with all the different possibilities of arguments; however, it's really quite simple. In fact, if you want to keep your calls to this procedure short and sweet, just use the first three arguments (TextVar, FStr1 & RStr1) and ignore the rest. If nothing else, this will at least keep your code simple to read. When you do get adventurous, use all the arguments for the utmost speed and power.

An example of where an external such as *ReplStr* can come in very handy is in ACIUS's Dave Dell'Aquila's MINIFans database, which is an excellent example of how to write a great user interface. Although there are some brilliant global procedures in MINIFans, there are certain inherent speed limitations in 4D when doing a procedure of this kind of repetitive searching, replacing, etc. This is where an external procedure can really help.

If you're interested in a sample usage of where *ReplStr* would come in very handy, and you have MINIFans, do the following: After installing the *ReplStr* external procedure (as described above), go to the design mode and replace the contents of *LetterProc* global procedure with the following...

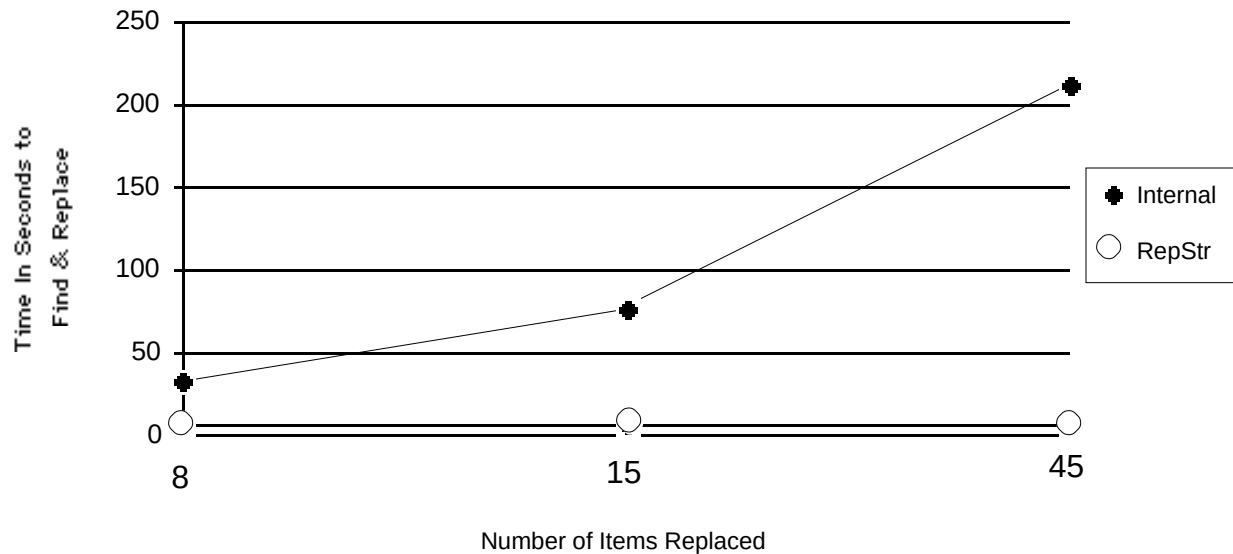
```
` A modified Global procedure "LetterProc" by using
` Natural Intelligence Consulting's ReplStr external instead of
` the global procedure "replace"... It's a lot faster!
Letter:=Text
$date:=FormatDate (Current date;"M")
vAll:=ConcatAddress (SkipSal;SkipCo;SkipTitle)
ReplStr (Letter;"<Current Date>";$date;;"<All>";vAll;;"<Phone2>";[People]Phone2)
ReplStr (Letter;"<Salutation>";[People]Salutation;;"<First Name>";[People]First Name;;"<MiddleInit>";[People]MiddleInit)
ReplStr (Letter;"<Last Name>";[People]Last Name;;"<Company>";[People]Company;;"<Address1>";[People]Address1)
ReplStr (Letter;"<Address2>";[People]Address2;;"<City>";[People]City;;"<State>";[People]State)
ReplStr (Letter;"<Zip>";[People]Zip;;"<Phone1>";[People]Phone1;;"<Extension>";[People]Extension)
```

Goto the Custom Mode, select "Show All" and then "Fans Letter", type in some stuff and Print (preview if you like). You will notice the speed difference.

## Speed Differences

We did some serious benchmarks on our *ReplStr* in the MINIFans database... we found the following info:

### Internal Replace Procedure vs. NIC's RepStr



Basically... it takes about a little less than 7 seconds to complete the external replace procedures in MINIFans, compared to as much as 210 seconds with 45 replacements. Additionally, the 7 second wait-time is more caused by the printing process, and not the *ReplStr* external itself.

### RCWare

ReplStr is not free but falls under a new shareware classification coined by ACIUS known as RCWare. RC stands for radio controlled and RCWare funds go towards the NIC RC race car. This may sound like a silly reason to send in your money, but it keeps us sane and the externals flowing. If you like it and find it useful you should send in an amount of money that you feel is reasonable. Some have sent \$20.00, some more, some less. It's up to you... However, under the license agreement, if you do use it, you should send in something. Externals such as this make the 4D world a better place to work and your support will keep them coming.

You may freely distribute ReplStr, as long as you do not alter the external or this documentation in any way and that you make sure to distribute this documentation file with it. However, you may **NOT** sell this external at any price. For commercial distribution information, contact NIC.

## Addresses

Natural Intelligence Consulting  
41 Lovell Road  
Watertown, MA 02172  
Attn: Joshua Wachs

CIS: 73537,1223 (Djundi) - 72427,177 (Joshua/Natural)  
DELPHI: NATURAL  
MacNet IDs: JUNDI, NATURAL  
MCI Mail: NATURAL  
Genie: D.KARJADI

Have a blast.