RADventure IntelliSense
Users manual

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1 Introduction

RADIntelliSense is a product made and owned by Peter Rakké.
It is distributed by RADventure B.V in the Netherlands.
Support is provided by the author by e-mail and in special the
RADIntelliSense newsgroup.

2 Installation

Installation of the RADIntelliSense is almost completely automatic. You
can start the Setup RADIntellisense.exe. This installation program will
install the RADIntelliSense executable en default files and will also
register the RADIntelliSense template in Clarion. When the installation is
done you will find a menu item called RADIntelliSense, a shortcut to the
executable and the documentation in your Start menu.

The files installed are the following:

\RADIntelliSense	AGNTFILE.TPS
	AGNTSET.TPS
	RADIDisabledWindowtitles.dat
	RADIEnabledApplications.dat
	RADIntelliSense.pdf
	RADIntellisense.exe
	RADIntellisenseSourcesColors.dat
	RADIntellisenseSQLWords.dat
	RADIntellisenseVB_dot_NetWords.dat
	RADIntellisenseWords.dat
	RADIntellisenseInstall.log
	RADGlobalExtension.txa
\Template	RADIntellisense.tpl

For updates, questions and support you can use the RADventure newsgroup. Please use the following information to logon to the RADIntelliSense newsgroup:

RADIntelliSense Newsgroup	
New server:	Mail.radventure.nl
Newsgroup:	RADventure.Tools.RADIntelliSense
Account name:	RADsmart
Password:	4LeafClover

3 RADIntelliSense program

When you start the RADIntelliSense a small icon will appear in the taskbar, indicating that the RADIntelliSense has been started.

The RADIntelliSense doesn't only work in Clarion, but can work in any program with editor functionality (so it will also work in Clarion 6 and other versions). The RADIntelliSense enabled applications are listed in the RADIEnabledApplications.dat file. Windows that are excluded for the RADIntelliSense are listed in RADIDisabledWindowtittles.dat file.

The RADIntelliSense can be in one of the following statuses:

- Active, the RADIntelliSense icon will appear in blue colors. This means that the RADIntelliSense is currently active in your application and monitoring keyboard and mouse events.

- Inactive, the RADIntelliSense icon will appear in grey colors. This means that the RADIntelliSense is not active. This is usually the case when you start a application that isn't among the enabled applications, configured in the RADEnabledApplications.dat file or the application or window title is listed in the RADDisabledWindowTitles.dat.

- Disabled, the RADIntelliSense icon will appear in blue colors with a stop sign. This indicates that the user has manually disabled the RADIntelliSense by clicking the icon with the left mouse button. You can click the icon again to enable the RADIntelliSense.

When you are working in an application where the RADIntelliSense is active and you start typing the RADIntelliSense will search through the RADIntelliSense sources and show a list with words that matches the characters of the word you are typing. When you for example type the characters _Mes_, the following window will appear:
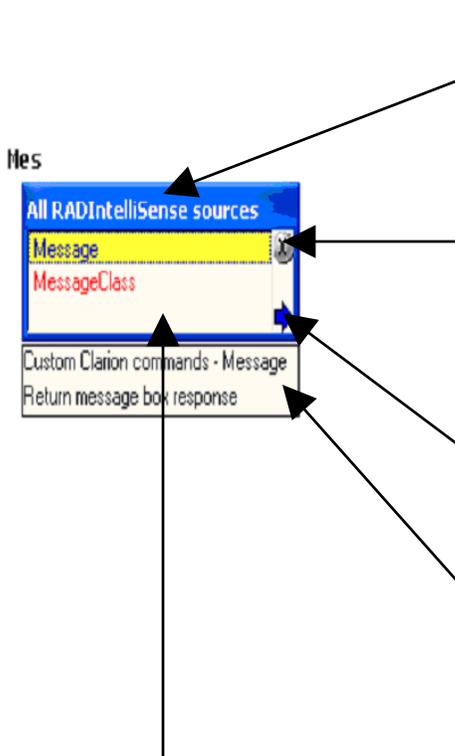
The title bar will display current active RADIntelliSense source. This window can also be opened with the Show RADIntelliSense wordlist (by default F11 key).
You can resize this window, the size will be saved.

With this button you can close the RADIntelliSense window

With this button you can cycle through all the sources. This can also be done with the Reset / switch RADIntelliSense wordlist (default F12 key). When the selected word is from a source of the entity type, you can switch to the attributes modes with the F11 key

This is the prototype window. It will display information about the source it came from and information about the current selected RADIntelliSense word if available.

This list will show all the words matching the characters you just typed. You can navigate through this window with the cursor up and down key, you can also do this with the mouse.
If you want to 'autocomplete' the current selected RADIntelliSense word, you can choose it by either pressing the Enter, Ctrl key or clicking it the left mouse button.
Coloring and font is depended on the source from where the word came from. The coloring and font are per source configurable (see Configure RADIntelliSense sources), this way you can identify by color and font from which source the word came from.

When there's a entity selected (see RADIntelliSense sources for more information) and you press '.' or ':' it will also 'auto complete' the selected word and also switch directly to the attribute modus. When you start typing now the RADIntelliSense will only search through the

attributes of the selected entity. You can also bring up the matching attributes with F11 key.

Words that begin with a dollar sign '$' are macro's (see RADIntelliSense macro for more information).

4 Adding new words to the IntelliSense

When you are working in a RADIntelliSense enabled application and you type a new word, this word can show up as a special tooltip window, with the ability to add this word to the RADIntelliSense.
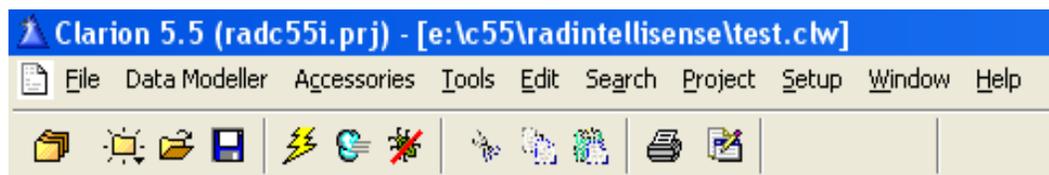
The way this shows and how long is stays visible is configurable in de menu option Configuration. There you can configure if these windows appear, how many characters a new word at least should have before it appears and how long it stays visible. The font and font size used in this window are also configurable in the configuration under prototype window.

When a new word has disappeared, it is still possible to add the last entered new word to the custom RADIntelliSense source. To do this click with the right mouse button the RADIntelliSense taskbar icon and choose Add new word to RADIntelliSense,

New words are always added to the custom RADIntelliSense source (see RADIntelliSense sources for more information).

5 RADIntelliSense option menu

When you click with the right mouse button on the RADIntelliSense icon in the taskbar a menu will appear.

```
RADIntelliSense version 1.09

Start Clarion 5.5

Add  to RADIntelliSense
Add RADIntelliSense template to Application
Reset RADIntelliSense

Reload RADIntelliSense files
Save RADIntelliSense files

Configuration
Configure RADIntelliSense sources

About the RADIntelliSense

Resume

Exit
```

In this menu you will see the following options:

RADIntelliSense version 1.09
> This is just a version indicator. It will show your current version of the RADIntelliSense.

Start Clarion 5.5
> When Clarion 5.5 is not currently started, this option will be enabled and give you the ability to start Clarion 5.5.

Add to RADIntelliSense
> When you type a new word which isn't present in the RADIntelliSense sources, it will be shown here, so you can add it to the custom RADIntelliSense source. You can configure this option with the configuration option.

Add RADIntelliSense template to the application
> The RADIntelliSense will automatically add the RADIntelliSense template to the application when it is created or opened. You can

disable this option in the configuration and do yourself with this option manually.

Reload RADIntelliSense files

This option will reload all the RADIntelliSense sources. Any addition or changes since the last save will be lost.

Save RADIntelliSense files

This option will save all the RADIntelliSense sources.

Configuration

This option will open the configuration window. See RADIntelliSense configuration for more information.

Configure RADIntelliSense sources

This option will open the configure RADIntelliSense sources window. See RADIntelliSense source configuration for more information.

About the RADIntelliSense

This option show the About window of the RADIntelliSense.

Resume

You can click this option when you accidentally have clicked the icon and don't want choose an option

Exit

This option saves the RADIntelliSense sources (if you have enabled this option in the configuration) and closes RADIntelliSense.

6 RADIntelliSense configuration

When you click with the right mouse button on the RADIntelliSense icon in the taskbar and click the configuration option the following window will appear.
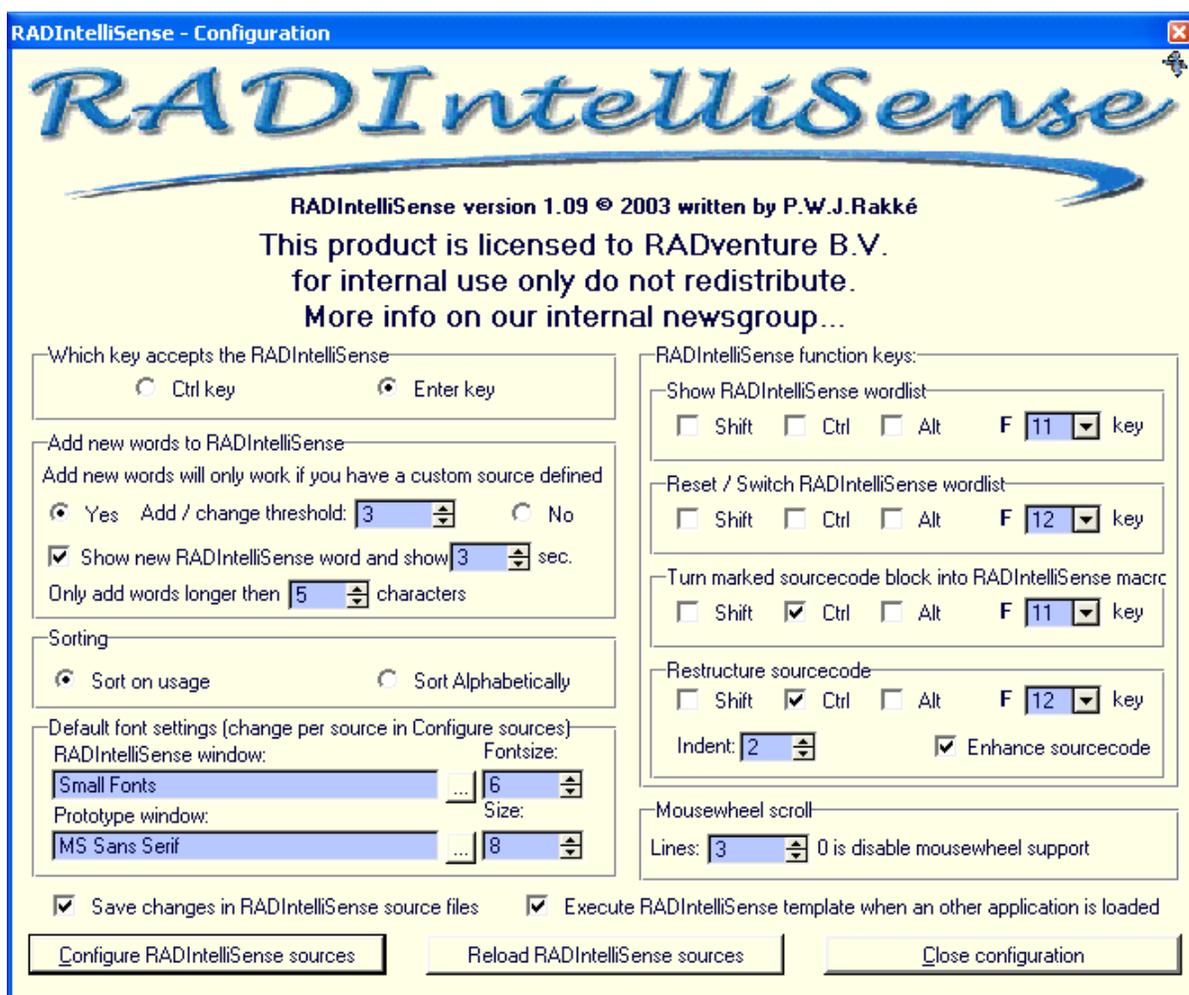
This window is divided into six different groups:

Which key accepts the RADIntelliSense

With this option you can choose which key, the Control key or the Enter key, will 'auto complete' the current selected RADIntelliSense word.

Add new words to RADIntelliSense

You enable this feature with the yes option and disable this feature with the no option.
When you have enabled this option, you can configure several options:

- o Add / change threshold:
  This option determines after how many times a new or changed word is added or updated. If you are like me and make type errors on regular bases your custom RADIntelliSense source will quickly contain a lot of words that you typed with type errors. To prevent this, you can use this option, because additions and changes will only be saved after you have made them the configured amount of times.

- o Show new RADIntelliSense word and show it … seconds
  If you enable this option and you enter a new unknown word, it will popup in a window with the ability to add it to the custom RADIntelliSense source. You can configure in number of seconds how long this window is visible. When the window has disappeared, you can still add the new word manually by right clicking the taskbar icon and choosing Add to RADIntelliSense.

- o Only add words longer then … characters
  To prevent the addition of small new words to the RADIntelliSense, you can set this option. Only new words that are longer then the configure amount of characters are added to the custom RADIntelliSense source.

Sorting

With this option you can configure which sorting method is used when displaying the RADIntelliSense words. This can be either on the usage count of the words or alphabetically.

Default font settings (change per source in Configure sources)

Here you can configure the default font and font size for the RADIntelliSense word list and prototype window. You can use the buttons '…' to select a font. See for more options the Configure RADIntelliSense sources.

RADIntelliSense function keys

Show RADIntelliSense wordlist:

When you press this key in a RADIntelliSense enabled application the RADIntelliSense wordlist will show up. By default this key is set to the F11 key.
If you have an entity word selected in the wordlist and you press F11, the wordlist will switch to the attributes of the selected entity.

Reset / Switch RADIntelliSense wordlist:

This key has two functions, it can reset the RADIntelliSense or it can switch to the next source in RADIntelliSense wordlist.
When there is no wordlist visible you can reset the RADIntelliSense with key. It will drop the keyboard cache, select all sources and clear the internal selections.
When the wordlist is visible pressing this key will switch to the next RADIntelliSense source.

Turn marked source code block into macro:

See RADIntelliSense macros for more information.

Restructure source code:

See Restructure source code for more information.

RADIntelliSense function keys

In the Clarion IDE the mousewheel is by default not working. With the help of the RADIntelliSense you can overcome this limitation. The RADIntelliSense will translate the usage of the mousewheel up and down to Cursor up and Cursor down. The number of lines determines how many times the Cursor key is pressed.

Save changes RADIntelliSense source files

If you enable this option the RADIntelliSense will save the changes in the RADIntelliSense sources. These changes can be additions to the custom source or changes in upper and lower case preference of words. Also the usage count of words are saved.

Execute RADIntelliSense template when an other application is loaded

When this option is enabled each time a new application or a different application is loaded. The RADIntelliSense will check if the Global RADIntelliSense template is present. When this isn't the case the RADIntelliSense will execute the RADIntelliSense template utility automatically. The global RADIntelliSense template is responsible for the generation of the 'Live files' sources, which contain information about local data and window controls. If you want, you can disable this option and do this manually.

7 RADIntelliSense sources

When you are using the RADIntelliSense the sources you configured are being used to fill the RADIntelliSense. These sources are listed in the ASCII file RADIntelliSenseSources.dat. This file will be created automatically in application directory if the file doesn't exist. The RADIntelliSense will make a new RADIntelliSenseSourcefiles.dat file based on the RADIntelliSenseSourcefiles.dat file in the RADIntelliSense application directory. This way it's possible to add source files that are application dependent.
You can maintain these sources with the menu option Configure RADIntelliSense sources or by hand, by editing the RADIntelliSenseSourcefiles.dat and the RADIntelliSenseSourceColors.dat.
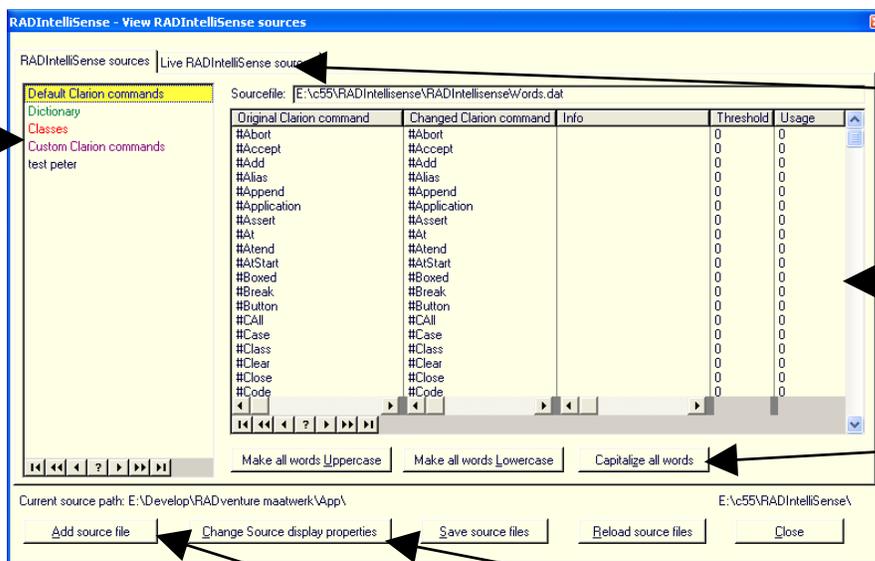
It's also possible to have 'live' sources. These files are read every time and deleted after they are read

This list will show all words that are present in the selected source

With these functions you change the case of the words of a selected source

This list will show all currently active sources in the font and colors as configured for this source. This can be change with the button Change Source display properties.

With this button you can add a new source to the RADIntelliSense

With this button you can configure the way words from this source will appear in the RADIntelliSense wordlist

There are several different kinds of sources:

- **Wordlist sources:**

    These sources just contain a list of words. Words in these lists will look like this:

0,Message   (Return message box response)

    It begins with a number and comma. The number will indicate how many times a word has been used in the RADIntelliSense. This number is optional and doesn't have to be present. Each word can have comments. The comments are placed between the parentheses(). A comment can consist of multiple lines. You mark the starting of a new comment line with a vertical bar '|'. If you want add a normal vertical bar '|' you have to place two vertical bars.

- **Entity sources:**

    These sources contain entity and attributes. Source that uses this structure have a trailing plus sign '+' behind the filename in the RADIntelliSenseSourcefiles.dat. Here's an example of a entry in a entity source:

[Majors:MAJ (FILE TOPSPEED|'majors.tps'|File attributes Create,Thread)]
KeyNumber   (Key   attributes   KEY,Unique,Exclude   nulls,Case insensitive,Primary key|Key fields +Number (LONG @n4)|by Major Number)
KeyDescription   (Key   attributes   KEY,Unique,Exclude   nulls,Case insensitive|Key fields +Description (STRING @S20)|by Major Description)
Number (LONG @n4)
Description (STRING @S20)

    Between brackets '[' and ']' is the name of the entity. In this case a dictionary table. Behind the name of table is the prefix the table. Behind it between the parentheses '(' and ')' is the some info about the table, split into multiple lines with the vertical bars '|'.
    Underneath the table are the attributes, in this case keys and fields. They have the same structure as the normal Wordlist structure.

- **Live sources:**
    This are files with a normal wordlist structure, but they are handled differently. Live Sources have a trailing hash sign '#' behind the filename in de RADIntelliSenseSourcefiles.dat. Each time the wordlist is build these files are quickly checked. If a live source is present, it is read and afterwards deleted.
    Live files are created by the RADIntelliSense template each time you enter a procedure. It will give you information about the Local data and Controls of a procedure.

8 Restructure source code

The RADIntelliSense also has the ability to restructure your source code. When you mark a block of Clarion code in your editor and press Ctrl+F12 (the default key for Restructure source code) it will check the indents, change every dot into a END and put behind every END to what clarion command it belongs to. This is only possible when you have the Editor option: Remove block on copy turned off. If it isn't turned off the RADIntelliSense will warn you and will offer to turn it automatically.
In the configuration you have the ability to turn of the option Enhance source code. If you disable this option the Restructure source code will no longer add comments to END statements. You have to start marking the code block from the first column, otherwise the indent might be incorrect.

So in the editor you mark the peace of code you want restructure:
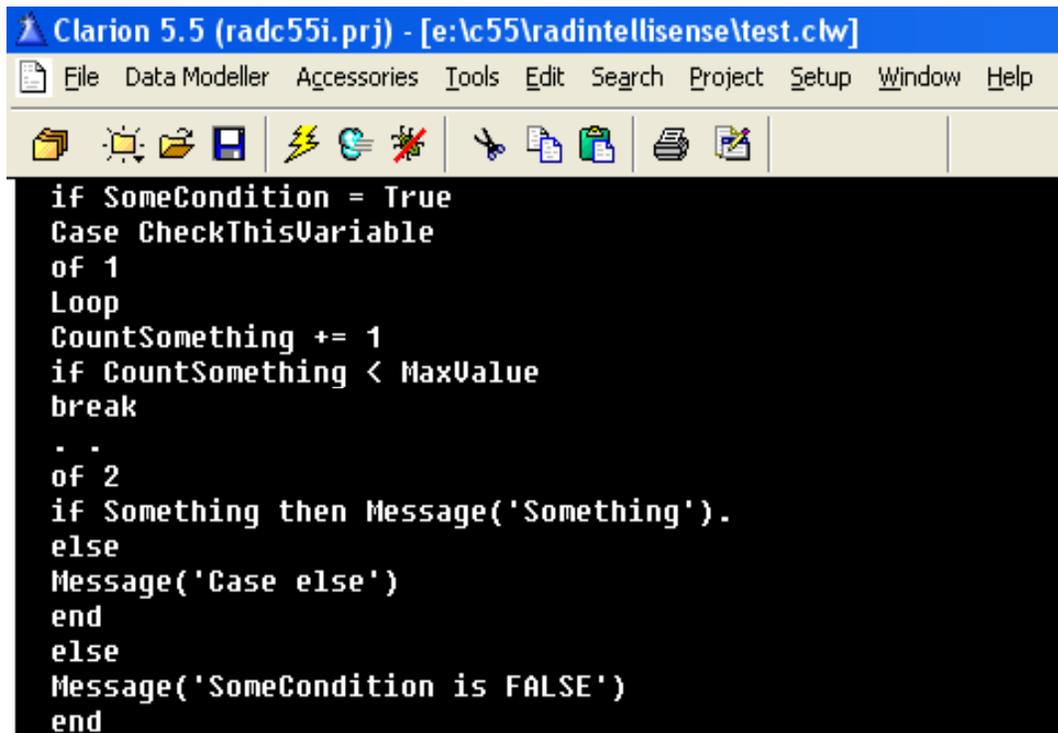
```
Clarion 5.5 (radc55i.prj) - [e:\c55\radintellisense\test.clw]
  File  Data Modeller  Accessories  Tools  Edit  Search  Project  Setup  Window  Help

if SomeCondition = True
Case CheckThisVariable
of 1
Loop
CountSomething += 1
if CountSomething < MaxValue
break
. .
of 2
if Something then Message('Something').
else
Message('Case else')
end
else
Message('SomeCondition is FALSE')
end
```

After that you press Ctrl+F12 (the default key for Restructure source code) and source code will be restructured:

```
if SomeCondition = True
  Case CheckThisVariable
  of 1
    Loop
      CountSomething += 1
      if CountSomething < MaxValue
        break
      End!If
    End!Loop
  of 2
    if Something then Message('Something')
    End!If
  else
    Message('Case else')
  end!Case
else
  Message('SomeCondition is FALSE')
end!If
```

The maximum size of a marked code block is 25000 characters, with a maximum line length of 1000 characters.
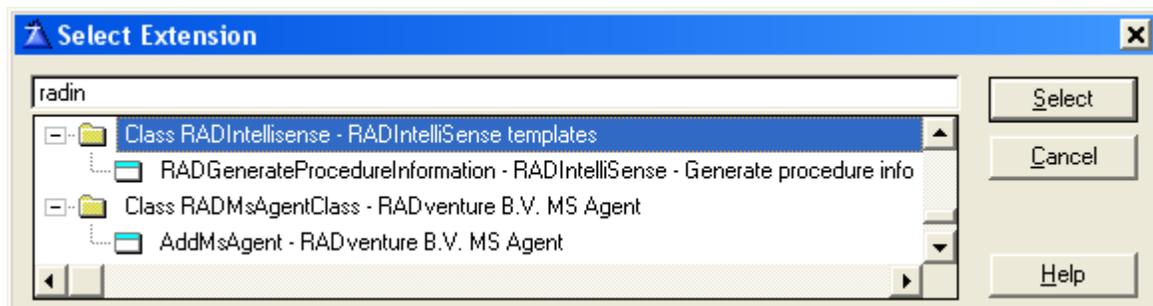
9 RADIntelliSense macros

The RADIntelliSense also has the ability to store pieces of code as macros. When you mark a block of Clarion code in your editor and press Ctrl+F11 (the default key for Turn marked source code block into macro) it will popup a window in which you can enter a new for your macro. You don't have to start the name of the macro with a dollar sign '$', this is done automatically.
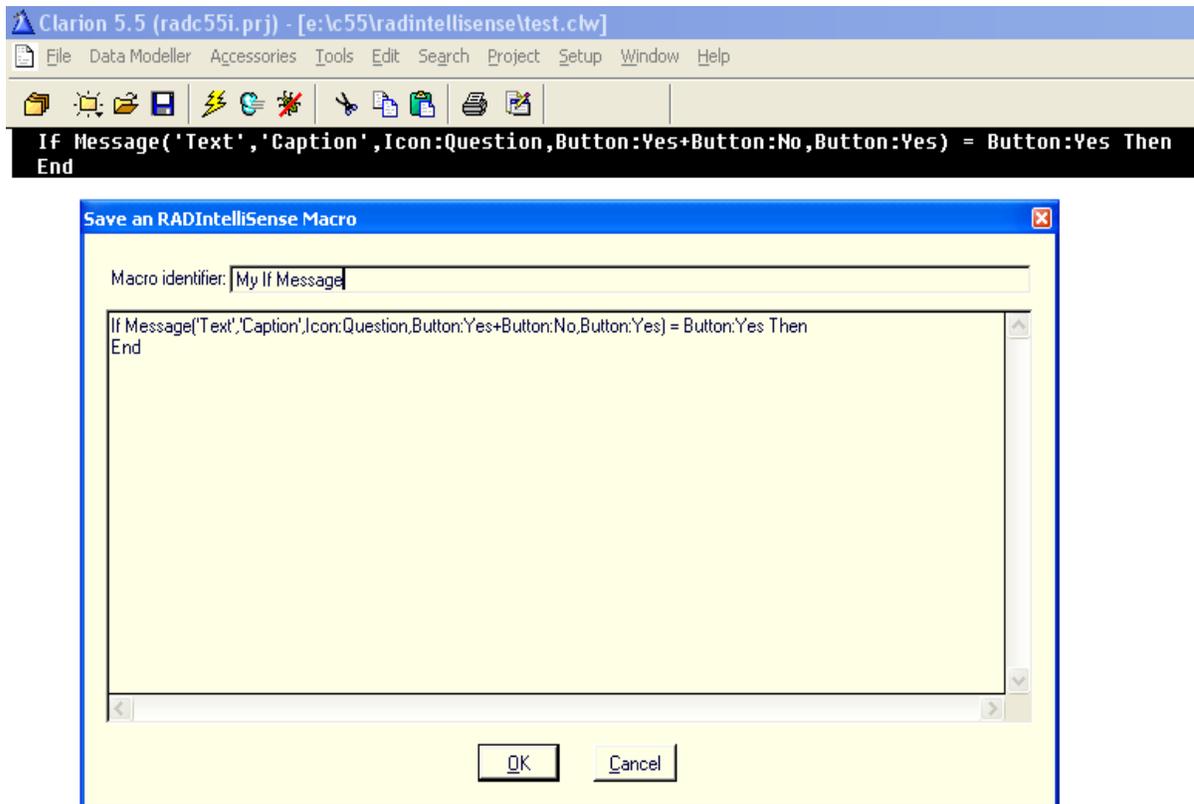

So after you store this macro with the name: My If Message and you start typing: $My If Message, the RADIntelliSense wordlist will show the macro. If you 'auto complete' this RADIntelliSense macro with either the Enter of Ctrl key, it type the complete macro.
Macro's are limited is to a size of 3000 characters.

10 RADIntelliSense Templates

The RADventure RADIntelliSense template contains several templates. The most important template is the global extension template RADGenerateProcedureInformation. This template is added automatically by the RADIntelliSense when it's not present in the application. This template tells the RADIntelliSense which application is opened in Clarion. It also generates files with information about procedure data and window controls.

The RADventure RADIntelliSense template also contains several different utility templates:
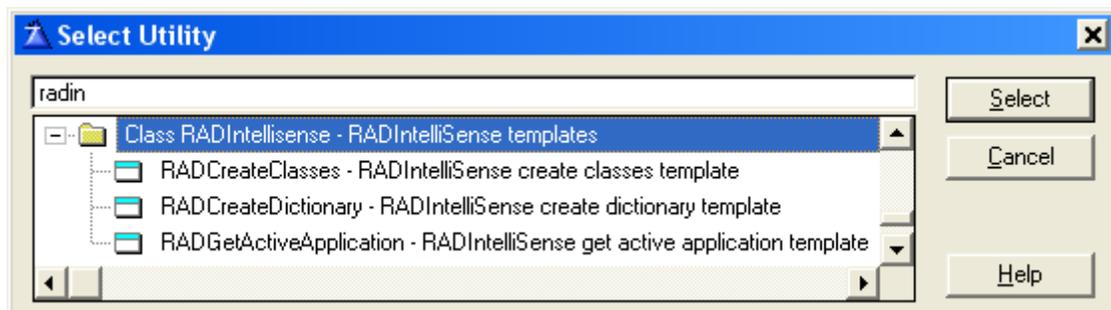
- RADventure IntelliSense create classes template:
  o This template generates a RADIntellisenseClasses.dat file in the RADIntelliSense directory. It contains a layout of all the ABC classes, with there properties and methods.

- RADventure IntelliSense create dictionary template:
  - o This template utility creates a RADIntelliSenseDictionary.dat file from the current Dictionary of the opened Application. This file contains your global data and all the tables, with there fields and keys.
- RADventure IntelliSense get active application template:
  - o This template utility puts the application path in the RADIntelliSense.dat, so the IntelliSense knows where to look for the other .dat files.
    If there isn't a RADIntellisenseClasses.dat file in your application directory, the RADventure IntelliSense create dictionary template is automatically executed. This also happens when with the create classes template, when the RADIntelliSenseClasses.dat is not found.

To use the RADIntelliSense utility template, take the following steps:

1) Open any valid Clarion application that contains a dictionary

    a) Open the Clarion IDE

    b) Open your application

2) Click on the menu '**Application**' then '**Template utility**' and then type '**RADIntelliSense'**

3) Now you can choose one of the utility templates to execute

11 RADIntelliSense Support

For updates, questions and support you can use the RADventure newsgroup. Please use the following information to logon to the RADIntelliSense newsgroup:

RADIntelliSense Newsgroup	
New server:	Mail.radventure.nl
Newsgroup:	RADventure.Tools.RADIntelliSense
Account name:	RADsmart
Password:	4LeafClover

RADIntelliSense Support	
Email:	Peter.Rakke@RADventure.nl
Fax:	+31 (0)346 29 09 05
Post:	PO Box 1069, 3600 BB Maarssen, The Netherlands

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