

RightFielder Object

RightFielder Object

Quick Start Guide

Melissa Data Corporation

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Introduction

RightFielder Object's powerful entity recognition and identification algorithms allow extraction of contact information from freeform or unfielded textual data. This product can parse a string of input data and dynamically recognizes what type of data a portion of that string represents. This enables you to take poorly formatted and unformatted data and send it to the proper fields in a database.

RightFielder Object can recognize the following data types:

- Up to three lines of street addresses
- City, State and postal code
- Country

RightFielder Object can also recognize and extract multiple instances of the following data types:

- Personal names
- Company and department names
- Email and web addresses
- Phone numbers

Advanced users can even define custom patterns to recognize data types not listed above, such as Social Security numbers or dates.

Trial Versions

The trial version for RightFielder Object can be used with a free 30-day license. During this 30-day trial, RightFielder Object has the full functionality of the paid version. After 30 days, the object must be purchased to continue using the product.

If you wish to purchase RightFielder Object, simply contact your sales representative at 1-800-MELISSA (1-800-635-4772).

Where To Find Help

Reference Guide

The RightFielder Object Reference Guide details the functions available for the various objects. A PDF file of this guide is located on your CD-ROM.

Many Linux versions come with a built-in reader, such as Xpdf, to view the Reference Guide.

To view using other operating systems, you must have Adobe Acrobat Reader installed on your computer. This program can be downloaded from the Adobe website (<http://www.adobe.com>).

Melissa Data Website

Check out the technical support section on our website at www.MelissaData.com, where you can view the current application notes and FAQs. Our website also contains the latest product information for RightFielder Object and other Melissa Data products.

Call Us Toll Free

If you need help using RightFielder Object, please call Technical Support toll free at 1-800-MELISSA

(1-800-635-4772). Our technical support staff is available Monday - Friday from 6 a.m. - 5 p.m. Pacific Standard Time. You can also post a question on our forums at <http://forum.MelissaData.com> or send an e-mail to Tech@MelissaData.com.

System Requirements

RightFielder Object is shipped on a CD. It is recommended that you copy the data files to your local or network hard drive, in order to access the data faster. Because this is a programmer's tool, it should be installed on a system that has a development environment.

The following are additional hardware and software requirements:

- 50MB hard disk space (for data files).
- Microsoft® Windows® users — 64-bit Windows Vista, Windows 7, Windows 8, Server 2003, or Server 2008. Most Windows-based programming languages. .NET Framework 3.5 or better required to register the COM object.
- Linux users — Red Hat 64-bit (x64) distribution. GNU C++ 3.4 or later; glibc 3.2 or later.
- Solaris users — Solaris 8,9,10, SPARC platform, 32 or 64-bit. Sun Work- shop or Sun ONE Studio compiler. G++ 3.3 and later can also be used.
- AIX users — Version 5.2 or 5.3; POWER, rs/6000, PPC, 64-bit. gcc 3.4.6 or Visual Age.
- HP-UX users — Version 11.11, 11.23; PA-RISC or Itanium, 64-bit. gcc 3.4.6 or aCC A.03.70.

The actual deployment system does not require use of the development tools.

Getting Started

Installation

Windows

1. Close all applications that are open, including any anti-virus and e-mail software.
2. Place the RightFielder Object CD in your CD-ROM drive.
3. Click the Start button, and then select Run from the pop-up menu. The Run dialog box opens.
4. Type your CD drive letter followed by `:\SETUP.EXE` in the Command Line box. (For example, `D:\SETUP.EXE`). After typing the path, click OK.
5. Read the license agreement, and then click Yes if you agree to the terms. (To proceed with the installation, you must accept this agreement.)
6. Select the options that you want to install by placing a check mark next to its name and clicking Next.
7. The installer will display a screen showing the install location and the selected options. Click Next again.
8. Click Install.

Linux/Solaris/HP-UX/AIX

You do not need any special privileges when installing RightFielder Object, nor do you have to log in as root. During installation, nothing will be modified outside of the target directory.

To install RightFielder Object:

1. Place the RightFielder Object CD in your CD-ROM drive.

2. From the shell prompt (\$), mount the CD and run the applicable `setup_main.sh` script to install the object(s) to the desired directory.

All of the Unix-based OS sample programs assume that they can locate the required data files and object libraries in the current directory. It is not necessary to modify your `PATH` or `LD_LIBRARY_PATH`. If you prefer, you can run the sample program straight from the CD-ROM — there is no need to install anything.

The final deployment install has to be done manually or by using your system administration utilities. Since the deployment standards vary widely, Melissa Data does not provide any specific instructions. Remember the following:

- RightFielder Object does not require any special privileges
- All files can be made read-only
- There is no need for a `setuid` or `setgid`, neither as file permissions nor anywhere in your application code.

File Locations

Windows

Most of the files are placed in subdirectories of `C:\Program Files\Melissa Data\DQT\`. During the installation process, there may be some files placed in your Windows system directory — these files are required by the Microsoft Visual C++ runtime.

Linux/Solaris/HP-UX/AIX

All files are placed in the target directory that was specified during installation.

Uninstallation

To remove RightFielder Object from your computer, do the following:

Windows

1. Click the Start button.
2. Select Settings from the pop-up menu.
3. Click Control Panel.
4. Double-click Add/Remove Programs.

Linux/Solaris/Hp-Ux/Aix

1. Verify that all files in the target directory can be safely deleted.
2. Type `rm -rf target-directory`.

If the target directory contains files that cannot be deleted without impacting other software, you will need to manually erase only files from RightFielder Object.

Configuring Rightfielder Object

You will need a valid license string to use the RightFielder Object.

The license string should be entered as an environment variable named `MD_LICENSE`. This allows you to update your license string without editing and recompiling your code.

Setting The License String Environment Variable

Windows

Windows users can set environment variables by doing the following:

1. Select Start > Settings, and then click Control Panel.
2. Double-click System, and then click the Advanced tab.
3. Click Environment Variables, and then select either System Variables or Variables for the user X.
4. Click New.
5. Enter the “MD_LICENSE” in the Variable Name box.
6. Enter the license string in the Variable Value box and then click OK.

Please remember that these settings take effect only upon start of the program. You may need to quit and restart the development environment to incorporate the changes.

Linux/Solaris/HP-UX/AIX

Unix-based OS users can simply set their license string via the following:

```
export MD_LICENSE=A1B2C3D4E5
```

If you decide to put this setting in your `.profile`, remember to restart your shell.

Sample Implementations

This section describes the logic behind simple applications using RightFielder Object. The samples are written in pseudocode so they can be easily adapted into almost any language.

Initialization

Declaring and creating an instance of RightFielder Object is followed by the initialization steps to prepare it for use. These steps only need to be performed once per instance of the object in use.

Parsing

The Parse function accepts a string value containing data to be parsed into the correct data types.

Processing

In the processing stage, you'll display or examine the return values of the Parse function.

Termination

This stage involves destroying the current instance of RightFielder Object when you close the application, freeing up memory to be used by other processes.

Rightfielder Object Sample

Step 1 — Instantiation: Create an instance of RightFielder Object.

Begin by declaring the object variable.

```
Create RFPtr as New Instance of mdRightFielder
```

Step 2 — Initialization: Set Data Paths and Initialize

The next step is to tell the RightFielder Object where it can find its data files.

```
CALL SetPathToRightFielderFiles WITH DataPath
```

If all of the above have been set correctly, calling the

`InitializeDataFiles` function should return a value of 0. If it does not, call the `GetInitializationErrorString` function to determine the reason for the failure to initialize.

```
CALL InitializeDataFiles RETURNING Result
IF Result Is Not ErrorNone THEN
CALL GetInitializeErrorString RETURNING
ErrorStr
ENDIF
```

Step 3 — Parsing: Call the Parsing Function

Pass a string containing the data to be parsed and fielded to the parsing function: `Parse`.

Use the `Get` functions shown in the steps below to retrieve the results.

```
CALL Parse WITH InputString
```

Step 4 — Processing: Retrieve Parsed Data

```
CALL GetAddress Returning AddressLine1
CALL GetAddress2 Returning AddressLine2
CALL GetAddress3 Returning AddressLine3
CALL GetCity Returning City
CALL GetState Returning State
CALL GetPostalCode Returning PostalCode
CALL GetLastLine Returning LastLine
CALL GetCountry Returning Country
```

Step 5 — Processing: Retrieve Multiple Instances of Some Data Types

`RightFielder` Object can detect and return multiple instances of some types of data, such as personal names, company names, department names, web addresses, email addresses, and phone numbers. The object allows you to cycle through a pair of functions for each data type until all instances have been retrieved. This example shows the return of personal names but the process is identical for all such data types.

```
CALL GetFullName Adding FullName to FullNames  
Array WHILE GetFullNameNext Returns True  
CALL GetFullName Adding FullName to FullNames  
Array  
END WHILE
```

Step 6 — Destroying the Instance

Be sure to free allocated memory. We do not believe the RightFielder Object leaks allocated resources, however, you must properly destroy the RightFielder Object to force the release of memory.