

Weather Message

WxDataSave

Version 3.6

Weather Alerting Software for your network.

© 2010 Weather Message Software

Weather Message - WxDataSave

© 2010 Weather Message Software

All rights reserved. No parts of this work may be reproduced in any form or by any means - graphic, electronic, or mechanical, including photocopying, recording, taping, or information storage and retrieval systems - without the written permission of the publisher.

Products that are referred to in this document may be either trademarks and/or registered trademarks of the respective owners. The publisher and the author make no claim to these trademarks.

While every precaution has been taken in the preparation of this document, the publisher and the author assume no responsibility for errors or omissions, or for damages resulting from the use of information contained in this document or from the use of programs and source code that may accompany it. In no event shall the publisher and the author be liable for any loss of profit or any other commercial damage caused or alleged to have been caused directly or indirectly by this document.

Printed: May 2010 in Dadeville, Alabama.

Publisher

Weather Message Software

Editor

Danny Lloyd

Special thanks to:

All of the Weather Message users that have helped with the development of this software. I have listened carefully to your requests. Without your continued devotion, this version would not be possible.

Also to the people that make reporting and responding to severe weather a priority. Your dedication saves lives.

Our Goal:

"To provide users with software that can help save lives. If one life is saved through our combined efforts the value is immeasurable."

Table of Contents

Foreword	0
Part I Introduction	4
1 Overview	4
2 Data Warning	4
3 Obtaining Help	4
4 Installation	5
Part II WxDataSave - Data Archiver	8
1 Overview	8
2 Menu Options	9
3 Setup	9
4 Register Software	11
5 Database Structure	11
Microsoft Access	11
SQL Server	13
6 Database Options	15
7 Asp Samples	15
8 Windows Service	15
Part III Software License	18
Index	0

Part



1 Introduction

1.1 Overview

Weather Message's WxDataSave is a standalone database archival utility. WxDataSave receives weather text files and stores them in a database. It runs quietly as a Windows service or in your system tray processing files as they are received.

WxDataSave requires that another program received the weather text files from a NWS data stream and store them in a directory for processing. We recommend Weather Message for this purpose. The Weather Message Ingest programs can store received weather files in multiple directories.

As the text files are received they are stored in a database. WxDataSave is installed with support for a Microsoft Access database. Any OLE compatible database server can be used. You can use the database to provide data to a website or for local archiving. WxDataSave can store a number of copies of the same product identifier.

Weather Message – WxDataSave can be downloaded from the Internet and has a 60-day evaluation period. You can download it at <http://www.wxmesg.com>.



Copyright © 2010 Weather Message Software

1.2 Data Warning

Warning

Due to the nature of the **EMWIN**, **Weather Wire**, and **NOAAPORT** data streams, it is possible, on rare occasions, for weather messages to be missed or not processed. This can be caused by satellite black out, technical problems, weather conditions, poor Internet connections or corrupted messages. *Weather Message* makes deliberate attempts to process all received messages, even those that may have been corrupted. Because of this, the expiration times of some messages may be set to a default of 30 minutes or 72 hours. With any watch or warning, you should read the text of the message to validate the expiration time.

1.3 Obtaining Help

Email Support

If you need help with Weather Message, send an email to help@wxmesg.com.

Mail Support

You can reach the program author by mail to Weather Message Software, 203 Old Shepard Road, Dadeville, Alabama 36853.

Weather Message Website

You can check for software updates and information on the [Weather Message Website](#).

Discussion Group

A Yahoo Discussion Group has also been established for users to exchange ideas and help each other. You can join this group at <http://groups.yahoo.com/group/WxMesg/join>.

1.4 Installation

Weather Message WxDataSave can be purchased on CD or downloaded from the website. The CD will automatically load the installation program. If you download the software from the Internet, you will need the full installation executable. It contains all of the files necessary for a full installation.

Updates to the software can also be downloaded from the Internet. The program updates only contain changes to the Weather Message programs. It cannot be used for a full installation.

Weather Message WxDataSave can be uninstalled using the standard Windows Add/Remove Programs facility. The uninstaller will not delete files created while running Weather Message. After uninstalling the software, you can safely remove the WxMesgNet directory.

Weather Message WxDataSave features a full 30 day fully functional evaluation. During the evaluation period, all aspects of the software function normally. At the end of the 30 day evaluation, the software will display an message, asking you to register the software.

Note: *If your installation will use multiple user login names/profiles, we recommend that you install Weather Message using the administrator login. This will insure that all users have access to the programs.*

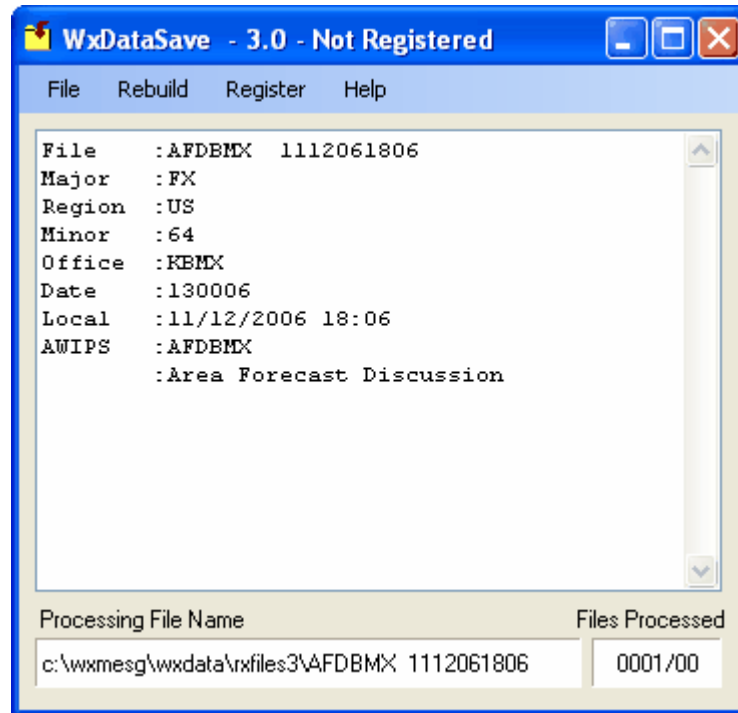
Note: *It is not necessary to uninstall a previous version of Weather Message WxDataSave before installing an updated software version. Uninstalling the software will delete your operating setup information.*

Part



2 WxDataSave - Data Archiver

2.1 Overview



After the initial setup, the program will run quietly in your system tray. As each new product is received, it will be stored in the database. Other applications can then access the database to process the messages.


Each night at midnight, the program will automatically compress the Access database. Any third-party software that uses this database will need to release the database during this rebuild.

See the Database Structure section for the structure of WxRecProd.mdb

Note: *If WxDataSave is stopped with the window minimized, the next time it is started, it will start minimized.*

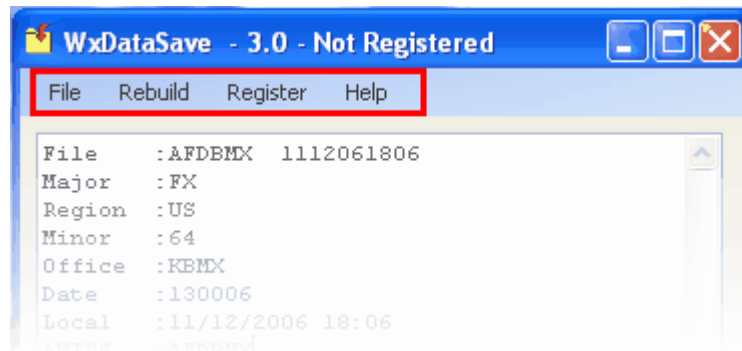
To run WxDataSave as a Windows Service, see the [Windows Service](#) setup.

System Tray

When WxDataSave is minimized, you can restore the main screen by right clicking on the system tray icon  then select open.

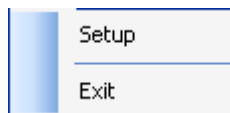
Copyright © 2010 Weather Message Software

2.2 Menu Options



The menu buttons on this screen perform these functions:

The **File** menu allows you to setup this program, view logfile, print the current radar image and exit the program.

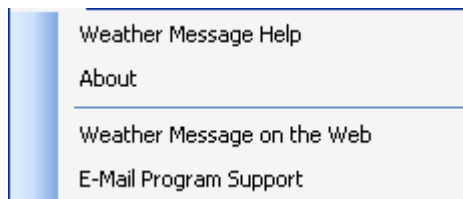


- The **Setup** option opens the [Setup window](#).
- The **Exit** option shuts down WxDataSave.

The **Rebuild** menu forces the application to rebuild the database.

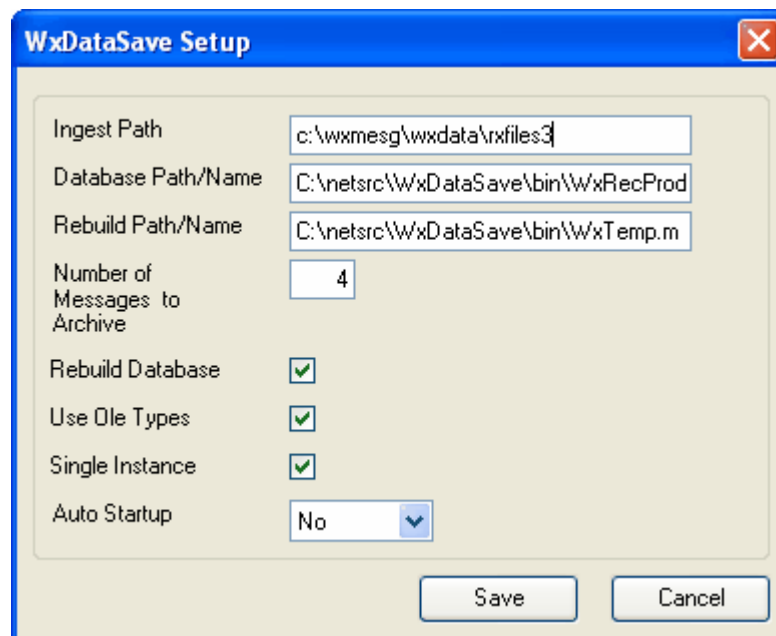
The **Register** menu allows you to [register](#) WxDataSave. This button does not appear if the software is registered. Note: If the software is not registered after 60 days, it will stop functioning.

The **Help** menu allows you to see this manual, and display information about the program.



2.3 Setup

The Setup window allows you to set general program operations.



The **Ingest Path** field is the path to the directory that contains the weather data files to process. This is the same directory that you setup in WxIngest or WxByte as an additional ingest directory.

The **Database Path/Name** is the path to the Access Database that will store the weather messages. The system defaults this to the installation directory. The default database name is WxRecProd.mdb.

The **Rebuild Path/Name** is the path to a temporary database that is used when rebuilding the main database. The default rebuild database name is WxTemp.mdb.

The **Number of Messages to Archive** is the number of messages to archive for each product received. This number indicates how many of previous versions of a product that will be kept in the database.

Note: *The system defaults to 2, which indicates that only on version of each product will be stored in the database.*

Warning: *Increasing the Number of Messages to Archive requires more computer processing power. Storing additional messages requires more disk access and computer processing time. We have found that a 2.5 Ghz computer with a standard IDE drive, storing the full EMWIN data stream can archive a maximum of 7 old products. Increasing the number above 7 resulted in a backlog of products in the ingest directory.*

Hint: *You can use the archive option of weather message to store only the products that you desire in the ingest directory of WxDataSave. Using this option will allow you to increase the number of messages to archive.*

The **Rebuild Database** option, when checked, causes the application to rebuild the supplied access database. If you are using another database engine, you should uncheck this option.

The **Use OLE Types** option specifies whether the program uses OLE types when it communicates with the database.

The **Single Instance** option specifies whether the program will only start one instance. Checked

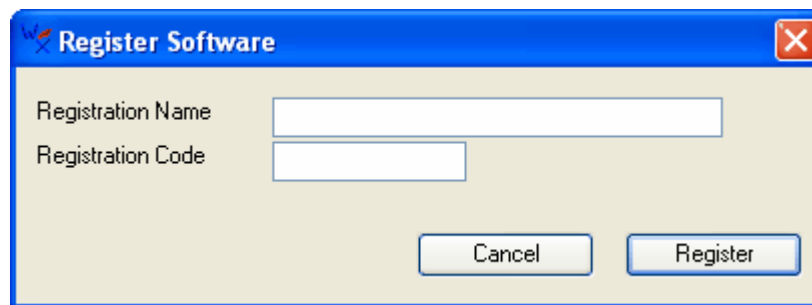
is the default option. Unchecking this option will allow you to run multiple copies of WxDataSave from different directories.

The **Auto Startup** option allows you to specify whether WxDataSave is automatically started when Windows starts. The options are No; Yes, for the current user; and Everyone, for any user.

Note: The options available for **Auto Startup** are based on your user permissions. Administrator and Power users will have all of the options. Other users may only have the Yes option.

2.4 Register Software

The Register menu option allows you to register your software.



When you purchase Weather Message, you will be supplied with a **Registration Name** and **Registration Code**. Enter these exactly as they are printed. These fields are case sensitive.

After the software is registered, we recommend that you stop and restart the software.

To purchase the software go to <http://www.wxmesg.com/purchpay.htm>.

2.5 Database Structure

2.5.1 Microsoft Access

The WxRecProd.mdb Access database contains 3 tables; Messages, Product, and WFO.

The Messages table contains the received weather products. The structure of the table follows:

Messages : Table			
	Field Name	Data Type	
🔑	MsgNbr	AutoNumber	
	FileName	Text	File Name
	FileSequence	Number	File Name Sequence Number
	DateReceived	Date/Time	Date/Time Last Received
	DateOriginal	Date/Time	Date/Time Originally Received
	WMO	Text	WMO Type
	WFO	Text	Forecast Office
	IssueDate	Date/Time	Issue Date/Time
	AFOS	Text	AFOS Type
	MsgText	Memo	Text of Message
	MsgBinary	Memo	Binary Data

Note: The MsgBinary field is not currently populated.

The index for this table follows:

Indexes: Messages			
	Index Name	Field Name	Sort Order
▶	FileKey	FileName	Ascending
		FileSequence	Ascending
🔑	PrimaryKey	MsgNbr	Ascending
	WFOKey	WFO	Ascending

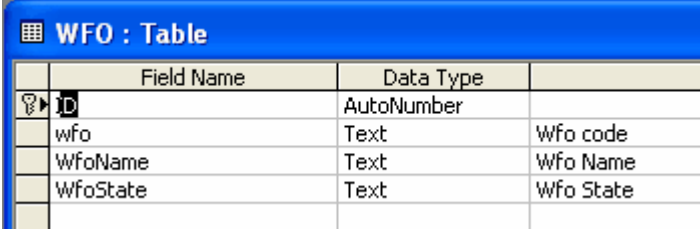
Index Properties	
Primary	No
Unique	No
Ignore Nulls	No

The name for this index. Each index can use up to 10 fields.

The Products table contains the AWIPS product identifiers and descriptions. This table can be used to retrieve the product descriptions. The structure of the table follows:

Product : Table		
	Field Name	Data Type
🔑	ID	AutoNumber
	AWIPS	Text
	WMO	Text
	Desc	Text

The WFO table contains the weather forecast office identifiers and names. The structure of the table follows:



	Field Name	Data Type	
PK	ID	AutoNumber	
	wfo	Text	Wfo code
	WfoName	Text	Wfo Name
	WfoState	Text	Wfo State

2.5.2 SQL Server

If you want to use Microsoft SQL Server, the following TSQL script will create a SQL Server database for use with WxDataSave. You will need to modify the database path for your installation.

```
CREATE DATABASE [WxRecProd] ON (NAME = N'WxRecProd_dat', FILENAME = N'C:\Program
Files\Microsoft SQL Server\MSSQL\data\WxRecProd.mdf' , SIZE = 2, FILEGROWTH = 10%) LOG
ON (NAME = N'WxRecProd_log', FILENAME = N'C:\Program Files\Microsoft SQL
Server\MSSQL\data\WxRecProd.ldf' , SIZE = 1, FILEGROWTH = 10%)
COLLATE SQL_Latin1_General_CP1_CI_AS
GO
```

```
exec sp_dboption N'WxRecProd', N'autoclose', N'false'
GO
```

```
exec sp_dboption N'WxRecProd', N'bulkcopy', N'false'
GO
```

```
exec sp_dboption N'WxRecProd', N'trunc. log', N'false'
GO
```

```
exec sp_dboption N'WxRecProd', N'torn page detection', N'true'
GO
```

```
exec sp_dboption N'WxRecProd', N'read only', N'false'
GO
```

```
exec sp_dboption N'WxRecProd', N'dbo use', N'false'
GO
```

```
exec sp_dboption N'WxRecProd', N'single', N'false'
GO
```

```
exec sp_dboption N'WxRecProd', N'autoshrink', N'false'
GO
```

```
exec sp_dboption N'WxRecProd', N'ANSI null default', N'false'
GO
```

```
exec sp_dboption N'WxRecProd', N'recursive triggers', N'false'
GO
```

```
exec sp_dboption N'WxRecProd', N'ANSI nulls', N'false'
GO
```

```
exec sp_dboption N'WxRecProd', N'concat null yields null', N'false'
GO
```

```
exec sp_dboption N'WxRecProd', N'cursor close on commit', N'false'
GO
```

```
exec sp_dboption N'WxRecProd', N'default to local cursor', N'false'
GO
```

```
exec sp_dboption N'WxRecProd', N'quoted identifier', N'false'
GO
```

```
exec sp_dboption N'WxRecProd', N'ANSI warnings', N'false'
GO
```

```
exec sp_dboption N'WxRecProd', N'auto create statistics', N'true'
GO
```

2.6 Database Options

WxDataSave supports different database servers. It is configured, by default, to use a Microsoft Access database. It can be configured to use other databases by manually configuring the connection string.

The default connection string is:

```
Provider=Microsoft.Jet.OLEDB.4.0;Data Source=c:\Program
Files\WxMesgNet\WxRecProd.mdb;Persist security info=false
```

The connection string can be changed by adding an entry to the WxDataSave.ini file. Add a line like the following, below the [Settings] section:

Access Database

```
ConnectionString=Provider=Microsoft.Jet.OLEDB.4.0;Data Source=c:\Program
Files\WxMesgNet\WxRecProd.mdb;Persist security info=false
```

Sql Server Database (native client)

```
ConnectionString=Provider=SQLNCLI;Data Source=localhost;Integrated
Security=SSPI;Initial Catalog=WxRecProd
```

Sql Server Database (oledb)

```
ConnectionString=Provider=SQLOLEDB;Data Source=localhost;Integrated
Security=SSPI;Initial Catalog=WxRecProd
```

If the assigned database does not contain the [Messages](#) table, the program will attempt to create that table.

2.7 Asp Samples

The distribution contains two sample asp scripts. These scripts can be used to display the messages contained in the database.

The recprod.asp displays a list of products for a specific WFO. The showprod.asp displays the text of a message selected from the list of products.

A discussion of the operation of these scripts is beyond the scope of this manual. If you want to use this option, you will need to consult someone familiar with asp and web programming.

2.8 Windows Service

WxDataSave can be configured to run as a [Windows Service](#). When running as a service, WxDataSave will run in the background with no user interface. To make changes to the WxDataSave configuration, you will have to first uninstall the service before accessing setup.

Service Installation

To install WxDataSave as a service, stop the program if it is currently running. Click Start then Run.

In the Run dialog box type **c:\program files\wxmesgnet\wxdatasave.exe installservice** and click OK.

You will see a message box indicating that WxDataSave has been installed as a service. You will be further instructed to start the WxDataSave service. To start the service, you can reboot your computer or type the following command. Click Start then Run. In the Run dialog box type **Net Start WxDataSave**. This will start the WxDataSave service.

Uninstall Service

To uninstall the WxDataSave service. Click Start then Run. In the Run dialog box type **c:\program files\wxmesgnet\wxdatasave.exe uninstallservice** and click OK.

You will see a message box indicating that the WxDataSave service has been uninstalled.

Part



3 Software License

LICENSE AGREEMENT

I. LICENSE GRANT.

Danny Lloyd, hereafter referred to as Author, grants you a non-exclusive license to use the software known as WxMesg, or Weather Message, hereafter referred to as Software.

II. DISCLAIMER OF WARRANTY.

Software is provided on an "AS IS" basis, without warranty of any kind, including without limitation the warranties of merchantability, fitness for a particular purpose and non-infringement. The entire risk as to the quality and performance of the Software is borne by you. Should the Software prove defective, you and not Author assume the entire cost of any service and repair. In addition, the security mechanisms implemented by Author software have inherent limitations, and you must determine that the Software sufficiently meets your requirements. This disclaimer of warranty constitutes an essential part of the agreement. SOME JURISDICTIONS DO NOT ALLOW EXCLUSIONS OF AN IMPLIED WARRANTY, SO THIS DISCLAIMER MAY NOT APPLY TO YOU AND YOU MAY HAVE OTHER LEGAL RIGHTS THAT VARY BY JURISDICTION.

III. SCOPE OF GRANT.

You may:

- use the Weather Message Server on one computer;
- use the Weather Message Message Client and Map Client on any number of computers, up to the capacity of Weather Message Server.
- copy the Software for archival purposes, provided any copy must contain all of the original Software's proprietary notices.

You may not:

- permit other individuals to use the Software except under the terms listed above;
- modify, translate, reverse engineer, decompile, disassemble (except to the extent applicable laws specifically prohibit such restriction), or create derivative works based on the Software;
- rent, lease, grant a security interest in, or otherwise transfer rights to the Software; or
- remove any proprietary notices or labels on the Software.

IV. TITLE.

Title, ownership rights, and intellectual property rights in the Software shall remain in Author. The Software is protected by copyright laws. Title and related rights in the content accessed through the Software is the property of the applicable content owner and may be protected by applicable law. This License gives you no rights to such content.

V. TERMINATION.

The license will terminate automatically if you fail to comply with the limitations described herein. On termination, you must destroy all copies of the Software.

VI. LIMITATION OF LIABILITY.

UNDER NO CIRCUMSTANCES AND UNDER NO LEGAL THEORY, TORT, CONTRACT, OR OTHERWISE, SHALL AUTHOR OR ITS SUPPLIERS OR RESELLERS BE LIABLE TO YOU OR ANY OTHER PERSON FOR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES OF ANY CHARACTER INCLUDING, WITHOUT LIMITATION, DAMAGES FOR LOSS OF GOODWILL, WORK STOPPAGE, COMPUTER FAILURE OR MALFUNCTION, OR ANY AND ALL OTHER COMMERCIAL DAMAGES OR LOSSES. IN NO EVENT WILL AUTHOR BE LIABLE FOR ANY DAMAGES IN EXCESS OF THE AMOUNT AUTHOR RECEIVED FROM YOU FOR A LICENSE TO THE SOFTWARE, EVEN IF AUTHOR SHALL HAVE BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES, OR FOR ANY CLAIM BY ANY OTHER PARTY. THIS LIMITATION OF LIABILITY SHALL NOT APPLY TO

LIABILITY FOR DEATH OR PERSONAL INJURY TO THE EXTENT APPLICABLE LAW PROHIBITS SUCH LIMITATION. FURTHERMORE, SOME JURISDICTIONS DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THIS LIMITATION AND EXCLUSION MAY NOT APPLY TO YOU.

VII. HIGH RISK ACTIVITIES.

The Software is not fault-tolerant and is not designed, manufactured or intended for use or resale in computer systems, in which the failure of the Software could lead directly to death, or personal injury. Author specifically disclaim any express or implied warranty of fitness for High Risk Activities.

VIII. MISCELLANEOUS.

This Agreement represents the complete agreement concerning this license and may amended only by a writing executed by both parties. If any provision of this Agreement is held to be unenforceable, such provision shall be reformed only to the extent necessary to make it enforceable. This Agreement shall be governed by the laws of the state of Alabama.