



**JetTrac Sort™
Installation Guide
User Guide**

**Version 1.3
January 24, 2000**

JETTRAC SORT™ REVISION HISTORY

Revision Number	Date	Comments
1.0	July 17, 1999	- Initial release of JetTrac Sort. Allows one sort key, either ascending or descending and either Numeric or Character Sort Keys
1.2	September 17, 1999	- JetTrac Sort expanded to allow up to three sort keys.
1.3	January 24, 2000	- Added License Manager

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1.0 INTRODUCTION

1.1 Purpose

This document is a guide to installing, configuring and using the JetTrac Sort™ Custom Agent. This document includes detailed instructions for installation and configuration of the JetForm Central Job Management Database and example files to help you see how the program works.

1.2 Overview

A JetForm Central job will print the documents in the same order that they appear in the input data file. If there is a requirement to print the documents in a different sort order, then JetTrac Sort™ can be run in order to re-sort the data prior to printing.

JetTrac Sort™ reads in the Field Nominated File that is created by the JetForm Central Transformation Agent, sorts the file according to the instructions in an INI file, then output a Field Nominated File in the proper sort order. Normally, the next process in the JetForm Central process is to run the Print Agent of JetForm Central to actually print the documents.

JetTrac Sort™ allows you in version 1.3 to sort on three keys, either ascending or descending. You specify whether the sort key is Numeric or Alphanumeric.

JetTrac Sort™ is written in Java so it will run on any platform that supports the Java RunTime Environment (JRE). Instructions are provided in this document for downloading the Java Runtime Environment for your platform.

1.3 Organization of this Document

Section 1: Introduction

Section 2: Installation and Configuration Procedures for JetTrac Sort™

Section 3: Running JetTrac Sort™

1.4 Technical Support

If you need assistance in installing and configuring JetTrac Sort™, call Pro Technology Automation, Inc. at 805-527-1248 or email us at support@protechinc.com. Please note that the JetTrac Sort™ license fee does not cover installation, configuration, implementation or technical support so there may be an additional charge if you need those services. Please ensure you read these instructions carefully before calling for technical support.

2.0 INSTALLATION AND CONFIGURATION OF JETTRAC SORT™

2.1 Installing Java

Refer to the document *JetTrac Java and Licensing Considerations* for installing the Java Runtime Environment (Java) and generating a site code for your site. It is available on the web at www.protechinc.com on the JetTrac page.

2.2 Installing JetTrac Sort

After the JRE is installed, you are ready to proceed to the JetTrac Sort files themselves. You will receive an installation EXE file. Simply double click on the EXE file to unzip it and follow the instructions. The following files will be installed:

<u>Folder name</u>	<u>Filename</u>	<u>Description</u>
C:\jfsrvr\CustomAgents\JTSort	JTSort.jar	Java program
C:\jfsrvr\CustomAgents\JTSort	JTSort.ini	INI file
C:\jfsrvr\CustomAgents\JTSort	JetTrac Sort User Guide.pdf	this document
C:\jfsrvr\CustomAgents\JTSort	RunJTSort.bat	sample batch file to test INI file
C:\jfsrvr\CustomAgents\JTSort	JTSort.dat	sample data file to test

2.3 Configuring the JetTracSort.ini file

A JetTracSort.ini file needs to be built for each JetForm Central application that you want to sort and will contain the instructions for how to sort that application. You can name the INI file anything you want and specify the INI filename in the JetForm Central Job Management Database as specified in this document.

To set up the INI file, open the JetTracSortTest.ini in WordPad. It looks like this:

```
startrec
100
last|AA
first|AA
x|XX
~~
First Field name in each document
max records to sort
Sort key 1 (key field name| [Ascending/Descending] [Alpha/Numeric] )
Sort key 2 (key field name| [Ascending/Descending] [Alpha/Numeric] )
Sort key 3 (key field name| [Ascending/Descending] [Alpha/Numeric] )
Note 1: USE x|XX to not use a key. Uppercase XX MUST be uppercase.
Note 2: Alpha Sort order is numeric/uppercase/lowercase.
```

The part of the file that JetTrac Sort reads is above the ~~ code line. The lines below the ~~ code offer a brief explanation of what the corresponding line above controls.

The fields are set up as follows:

<u>Line #</u>	<u>Description</u>	<u>Sample value</u>
1	First Field Name in each document	VendorNum
2	The maximum number of records possible	1000
3	Sort key field name Sort Order and Data Type	CheckAmount DN
4	Sort key field name Sort Order and Data Type	CheckAmount AA
5	Sort key field name Sort Order and Data Type	CheckAmount DA

Each field is followed by the pipe character and the two-character code for order and type on the same line. If using less than three sort keys, you must fill the extra lines with x|XX in order for JetTrac Sort to run.

Sort Order and Data Type is a two-digit field. The first digit can be either A for Ascending or D for Descending. The second digit can be either N for a Numeric field or A for a Alphanumeric field. Therefore the possible values for Line 3 of the INI file are AN (Ascending Numeric), DN (Descending Numeric), AA (Ascending Alpha) and DA (Descending Alpha)

2.4. Configuring the JetTrac Sort task

Since JetTrac Sort™ is a Java program, Java (the Java Runtime Environment) is run. You specify the following parameters to run JetTrac Sort from the command line (e.g. from a batch file):

```
Java -jar c:\jfsrvr\CustomAgents\JTSort.jar JTSort.dat JTSort.out JTSort.ini  
c:\jfsrvr\jfsserver.log
```

Here is an explanation of each component of the above command line:

- Java -jar – the Java Runtime Environment
- c:\jfsrvr\CustomAgents\JTSort is the folder where the program resides
- JTSort is the jar filename
- JTSort.dat is the input filename (specified as @InFile in the Task Definition)
- JTSort.out is the output filename (specified as @OutFile in the Task Definition)
- JTSort.ini is the fully qualified INI filename for this application
- Jfsserver.log is the fully qualified logfile name

To add the JetTrac Sort custom agent on AS/400 please contact Dan Roth at Pro Technology Automation, Inc. (805-527-1248 ext. 204) for the specific instructions.

To add the JetTrac Sort custom agent in JetForm Control for Windows platforms:

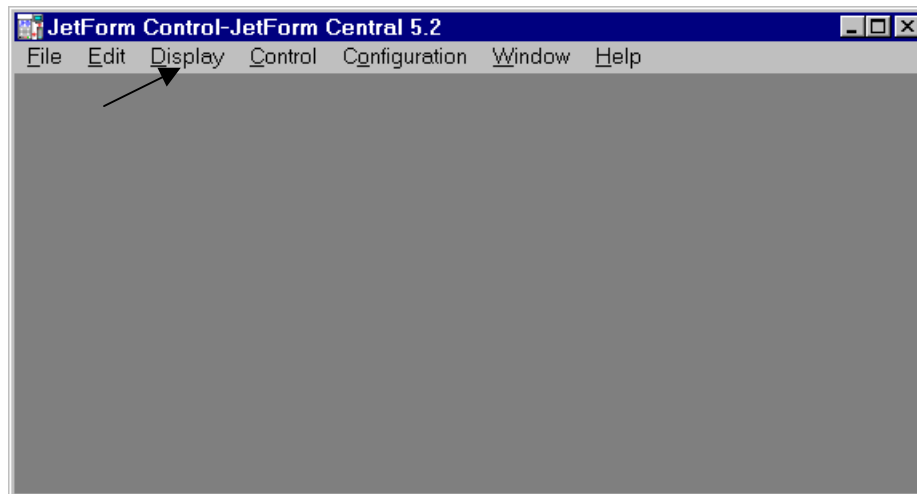
1. Register the JetTrac Sort™ Custom Agent to JetForm Central by going to Windows Explorer, go to the C:\JFSRVR folder (or wherever you installed JetForm Central) and open the file JFSERVER.INI in WordPad. In the section titled “[Processes]”, add a new line at the very bottom of the section as follows:

```
[Processes]
.
.
JetTrac Sort=JetTrac Sort Custom Agent
```

Now, scroll down to the bottom of the JFSERVER.INI file and add a new section as shown here:

```
[JetTrac Sort]
ExePath=C:\jfsrvr\CustomAgents\JTSort
IniFileName=C:\jfsrvr\CustomAgents\JTSort\JTSort.ini
EditCfgRtn=notepad C:\jfsrvr\CustomAgents\JTSort\JTSort.ini
LogFileNme=c:\jfsrvr\jfserver.log
```

2. Start JetForm Control by clicking Start, Programs, JetForm Central, JetForm Control (may be slightly different for your installation). You will get the following screen:



3. Select Configuration, then Configure JetForm Central and Agents, then scroll down to the bottom of the list. You will now see JetTrac Sort Custom Agent. Click once to highlight it, then click the Edit File button. You will see the following file:

```
startrec
100
last|AA
first|AA
zip|AN
~~
First Field name in each document
max records to sort
Sort key 1 (key field name| [Ascending/Descending] [Alpha/Numeric])
Sort key 2 (key field name| [Ascending/Descending] [Alpha/Numeric])
```

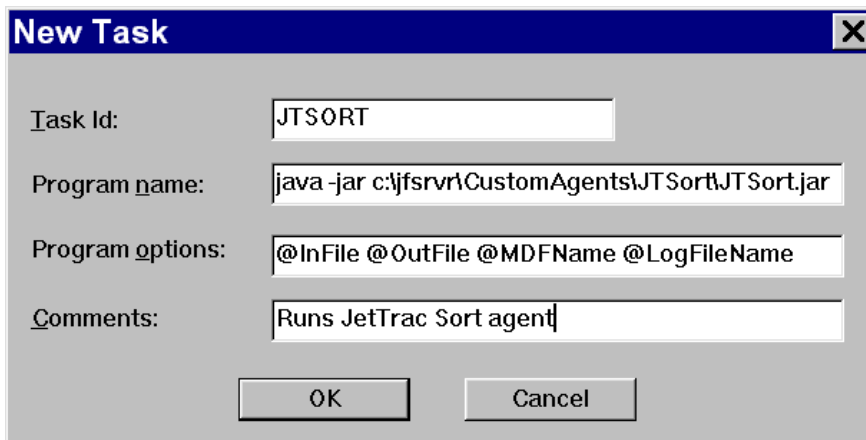
Sort key 3 (key field name| [Ascending/Descending] [Alpha/Numeric])
Note 1: USE x|XX to not use a key. Uppercase XX MUST be uppercase.
Note 2: Alpha Sort order is numeric/uppercase/lowercase.

4. Modify the file for your application per the instructions in this installation guide. Save the file and exit.

Create the JTSort task by clicking on File, Job Management Database, Tasks, then click New Task. You will get a blank screen. Set up the Task Definition with the following information:

Task Id:	JTSort
Program name:	java -jar c:\jfsrvr\CustomAgents\JTSort\JTSort.jar
Program options:	@InFile @OutFile @PreambleName @LogFileName
Comment:	JetTrac Sort agent

Your screen will like the following. Note that the screenshot is not wide enough to show all the program options:



4. Click OK to save the Task Definition.
5. The second part of configuring the Job Management Database is to add a new Job Step to a new or existing Job Definition to run JetTrac Sort™. From the main screen of JetForm Control, click File, Job Management Database, Jobs. You will get a list of all jobs you have set up in JetForm Central. We will assume that you already have a job set up and you are adding a Sorting step. Click on the Job that you want to sort, then click “New Step”. The New Job Step screen will appear. Following are the fields that you need to fill in:

Task ID – from the drop down list, select JTSort

Input File – the value that goes here would be a single letter which is the output from the previous job step. If your current job had two steps, JFTRANS and JFMERGE, then the output from JFTRANS was “A”. If you now want to sort this file, then the Input file for JetTrac Sort would be A. If you have questions about how this works, contact your JetForm Central support person.

Output file – this would be a letter, one higher than the Input File. If the Input File was A, then the Output File would be B

On Error – Select S to Stop the Job if there is an error in JetTrac Sort

Form File – should be blank. Delete the value that appears here

Preamble file – this field would contain the fully qualified INI filename that you have set up for your application, e.g. c:\jfsrvr\CustomAgents\JetTracSort\JetTracSort.ini

Printer Name – leave it at the *

Macro Number – leave it at 1

Load Flag – leave it at T

Comments – type in a description like “Sorting Invoices”

Your screen will like this:

The screenshot shows a 'New Job Step' dialog box with the following fields and values:

- Job name: invoice
- Task: SortTrac (with an 'Add Task...' button)
- Input file: A
- Output file: B
- On error: S
- Form file: (empty)
- Preamble file: c:\jfsrvr\CustomAgents\SortTrac\SortTrac.ini
- Printer: * (with an 'Add Printer...' button)
- Macro number: 1
- Load flag: T
- Comments: Sorting Invoices

Buttons at the bottom: OK, Cancel

6. Close all windows, get back to the main JetForm Control screen and update the Job Management Database by clicking on Control, Reload Job Management DB.

3.0 RUNNING JETTRAC SORT™

3.1. Submitting transaction files to JetForm Central

To submit a transaction file to JetForm Central, you place a data file into the JetForm Central Collector Directory. There are a number of ways to do this depending on the platform that you are running JetForm Central. You can FTP the file, use the JetForm Print Processor, use Named Pipes or simply copy the file.

3.2. How JetTrac Sort™ is triggered

Based on a Job Card or unique characteristic of the data file, JetForm Central will run a specific job. JetTrac Sort™ is run if it is one of the steps in the Job as explained above.

3.3. What JetTrac Sort™ does

When JetTrac Sort™ is run, it reads through the Field Nominated File based on the definition in the INI file. It looks for the record number of the beginning of each document in the input file and places this record number in a temporary sort file. The Sort Key is also stored in this sort file, linked to the record number. Once the complete input file has been read and processed, the sort file is sorted, then the output file is written in the sorted sequence based on the record numbers in the sort file.

3.4. Log File

JetTrac Sort™ conforms to all JetForm requirements as a Custom Agent. It writes a status to the log file and creates the JETFORM.RSP. Here is a sample entry in the log file for a successful match:

```
19990717163615 JetTrac Sort : Status 0, processing completed, 12 records sorted
```

Here is a sample entry in the log file when there is a problem. In this case, the INI filename specified did not exist.

```
19990717163736 JetTrac Sort: Status 1, Unable to access INI file: JetTrac SortTest.ini
```

3.5. JetTrac Sort Operating Parameters

Here are the parameters of JetTrac Sort 1.0:

- a. The number of “documents” JetTrac Sort will produce is limited to 10,000. A document is defined as a logical set of records in the input file that define one document, e.g. a check, invoice, statement, etc.

- b. No data line will look like a field name, e.g. no data lines will start with ^field or ^global
- c. For numeric keys, the number of digits after the decimal point is fixed throughout the file for the key field values, e.g. you can't have one sort key value with 2 digits after the decimal point and another sort key value with 1 digit after the decimal point.
- d. The Sort Key value does not have to have a decimal point if it is a numeric value.
- e. JetTrac Sort™ ignores \$ (dollar signs), spaces and commas in the Sort Key.
- f. JetTrac Sort™ is able to accommodate leading or trailing plus or minus signs.

3.6. Testing JetTrac Sort™ from a batch file

Included with the installation of JetTrac Sort™ is a sample data file (JetTrac SortTest.dat) and a batch file. If you have installed JetTrac Sort™ in the recommended location of c:\jfsrvr\CustomAgents\JetTracSort, then all you need to do is double-click the batch file RunJetTrac Sort.bat. A DOS box will come up and show the processing messages of JetTrac Sort as follows:

```

JetTrac Sort 1.3 - Sort JetForm Central field nominated files
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----- Initialization -----
Input   file: JetTrac Sorttestin.dat
INI     file: JetTrac Sorttest.ini
Output  file: JetTrac Sorttestout.dat
----- Processing -----
Total of 13 records read from input file.  Sorting in progress...
Records sorted, writing output file.
----- Processing Completed -----
JetTrac Sort : Status 0, processing completed, 13 records sorted

```