



JetTrac Calc™
Installation Guide
User Guide

Version 1.3
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JETTRAC CALC™ REVISION HISTORY

Revision Number	Date	Comments
1.0	July 17, 1999	- Initial release of JetTrac Calc. Allows unlimited number of calculations for addition, subtraction, division and multiplication
1.1	August 3, 1999	- Increased maximum length of output fields
1.2	September 25, 1999	- JetTrac Calc expanded to sum field across subforms
1.3	May 2, 2000	- Added option to calculate subtotals only when the value of a certain field changed

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May 2, 2000

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1.0 INTRODUCTION

1.1 Purpose

This document is a guide to installing, configuring and using the JetTrac Calc™ 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

There are cases when calculations need to be performed in a JetForm Central application but the client has not purchased JetForm Central Pro which has the Calculation Agent in it OR calculations need to be performed on platforms like AS/400 that do not support the JetForm Central Pro Calculation Agent. JetTracCalc™ will perform arithmetic calculations based on data in an input file and arithmetic functions in an external definition file. See Section 3.3 for a more detailed explanation of the functionality of JetTrac Calc™.

1.3 Organization of this Document

Section 1: Introduction

Section 2: Installation and Configuration Procedures for JetTrac Calc™

Section 3: Running JetTrac Calc™

1.4 Technical Support

If you need assistance in installing and configuring JetTrac Calc™, call Pro Technology Automation, Inc. at 805-527-1248 or email us at support@protechinc.com. Please note that the JetTrac Calc™ 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 CALC™

2.1 JetTrac Calc™ Installation Procedures

Installing JetTrac Calc™ is a two step process. You will receive an installation EXE file. Simply double click on the EXE file and follow the instructions. The following files will be installed:

<u>Folder name</u>	<u>Filename</u>	<u>Description</u>
C:\jfsrvr\CustomAgents\JTCalc	CalcTrac.class	Java class (program)
C:\jfsrvr\CustomAgents\JTCalc	jfcExitHandler.class	Writes status/log files
C:\jfsrvr\CustomAgents\JTCalc\doc	JetTracCalc User Guide.pdf	This document
C:\jfsrvr\CustomAgents\JTCalc	Input.dat	sample data file to test
C:\jfsrvr\CustomAgents\JTCalc	JetTracCalc.ini	INI file
C:\jfsrvr\CustomAgents\JTCalc	RunJetTracCalc.bat	Sample batch file
C:\jfsrvr\CustomAgents\JTCalc	InputSubform.dat	Subform data file to test
C:\jfsrvr\CustomAgents\JTCalc	JetTracCalcSubform.ini	Subform INI file
C:\jfsrvr\CustomAgents\JTCalc	RunJetTracCalcSubform.bat	Subform batch file

The second step is to install the latest version of the Java™ RunTime Environment (JRE). For Windows 95/98/NT, install JRE 1.3.0.

2.2 Configuring the JetTrac Calc.ini file

A JetTrac Calc INI file will be built for each JetForm Central application that you want to perform calculations and will contain the instructions for the calculations for 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 JetTrac CalcTest.ini in WordPad. It looks like this:

```
StartRec
N|dummy
N
1000
^field Total1|+Value1|+Value2|+Value3|
^field Total2|+Value1|*Value2|/Value3|
~~
First field name for each document
Do Calculations only when value of Line 1 changes
Ignore "field" and do calcs for entire file
Maximum Number of Records to process
```

The fields are set up as follows:

<u>Line #</u>	<u>Description</u>	<u>Sample value</u>
1	First Field Name in each document	StartRec
2	Y = do calculations only when value of Line 1	N/dummy

	changes. N = ignore this option.	
3	Y = ignore “field” and do calcs for entire file.	N
4	Maximum number of records to process	1000
5+	New field name plus calculation logic	

Note: The format of lines 5 and on is the new field name (e.g. ^field GrandTotal or ^global Extended Price) followed by a pipe followed by a + or – or * or / followed by a field name, then repeated for the rest of the calculation. A practical example is:

```
^field TotalPrice|+NetAmount|*SalesTaxPercent|
```

2.3. Configuring the JetTrac Calc task

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

```
Java -jar c:\jfsrvr\CustomAgents\JTCalc JTCalc.jar Input.dat Output.dat JetTracCalc.ini
c:\jfsrvr\jfsrvr.log
```

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

- java – the Java Runtime Environment
- -jar is the java command that a jar file is specified
- c:\jfsrvr\CustomAgents\JTCalc is the folder where the JTCalc.jar file is located
- JTCalc.jar is the Java program
- Input.dat is the input filename (specified as @InFile in the Task Definition)
- Output.dat is the output filename (specified as @OutFile in the Task Definition)
- JTCalc.ini is the fully qualified INI filename for this application
- Jfsrvr.log is the fully qualified logfile name

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

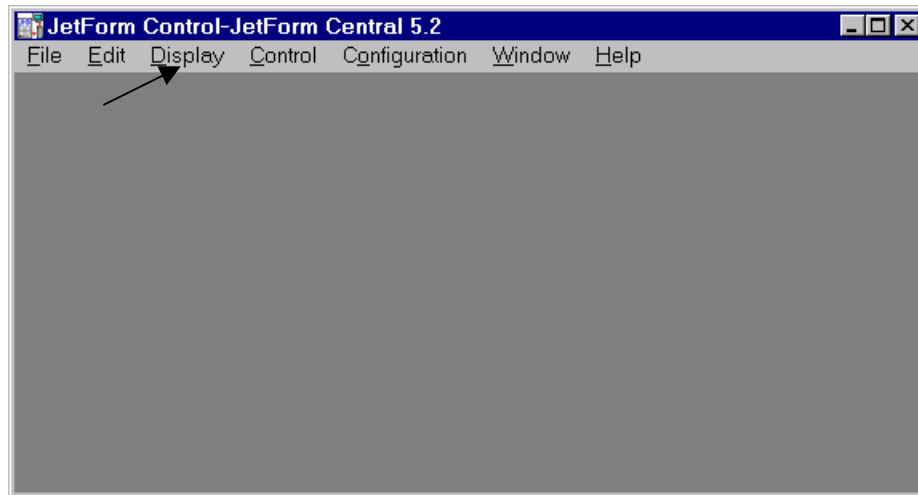
1. Register the JetTrac Calc™ Custom Agent to JetForm Central by going to Windows Explorer, go to the C:\JFSRVR folder (or wherever you installed JetForm Central) and open the file JFSERVER.INI in WordPad. In the section titled “[Processes]”, add a new line at the very bottom of the section as follows:

```
[Processes]
.
.
JetTracCalc=JetTracCalc Custom Agent
```

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

```
[JetTracCalc]
ExePath=C:\jfsrvr\CustomAgents\JetTracCalc
IniFileName=C:\jfsrvr\CustomAgents\JetTracCalc JetTracCalc.ini
EditCfgRtn=notepad C:\jfsrvr\CustomAgents\JetTracCalc
JetTracCalc.ini
LogFile=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 JetTracCalc Custom Agent. Click once to highlight it, then click the Edit File button. You will see the INI file.
4. Modify the file for your application per the instructions in this installation guide. Save the file and exit.

Create the JetTrac Calc 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:	JTCalc
Program name:	java -jar c:\jfsrvr\CustomAgents\JTCalc\JTCalc.jar
Program options:	@InFile @OutFile @PreambleName @LogFileName
Comment:	JetTrac Calc Custom Agent

Notes:

- a. The Program Name of java -jar is the Java program. This will be specified differently for each platform that JetTrac Calc is installed on.
- b. The Program Options are @OutFile, followed by the variable name @PreambleName (which will contain the INI filename), followed by @LogFileName

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 Calc™. 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 new Calculation 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 JT Calc

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 perform a calculation on this file, then the Input file for JetTrac Calc 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 Calc

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\JetTracCalc\JetTracCalc.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 “Performs calculations”

Your screen will look something like this:

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

- Job name: TestJTCalc
- Task section:
 - Task id: JTCalc (dropdown menu)
 - Input file: A
 - Output file: B
 - On error: S (dropdown menu)
- Form file: *
- Preamble file: c:\jfsrvr\CustomAgents\JetTracCalc\JetTracCalc.ini
- Printer section:
 - Printer name: * (dropdown menu)
- Macro number: 1
- Load flag: T (dropdown menu)
- Comments: Performs calculations

Buttons: 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 Calc™

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 Calc™ is triggered

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

3.3. What JetTrac Calc™ does

When JetTrac Calc™ is run, it reads through the Field Nominated File based on the calculation definition in the INI file. It performs the calculations for each line by reading from left to right in the calculation definition file. It writes all the new field names just prior to the next document (based on the field name in line 1 of the INI file).

JetTrac Calc™ also can calculate running totals from data that prints in subforms. An example of this is an A/P Check that has invoice details that dynamically print in subforms but there is no grand total of Gross Amount, Discount Amount and Net Amount. When JetTrac Calc™ runs, it looks for all occurrences of the specified field name(s) and accumulates the totals until the beginning of the next document. Here is an example:

INI file:

```
StartRec  
^field TotalGrossAmount|+GrossAmount|  
^field TotalDiscountAmount|+DiscountAmount|  
^field TotalNetAmount|+NetAmount|
```

Input file:

```
^field StartRec  
  
^field CheckNum  
123456  
^field VendorNumber  
9876  
^field GrossAmount  
100.00  
^field DiscountAmount  
20.00  
^field NetAmount  
80.00  
^field GrossAmount
```

350.00
^field DiscountAmount
0.00
^field NetAmount
350.00
^field StartRec

^field CheckNum
123457
^field VendorNumber
5432
^field GrossAmount
50.00
^field DiscountAmount
5.00
^field NetAmount
45.00

Output file:

^field StartRec

^field CheckNum
123456
^field VendorNumber
9876
^field GrossAmount
100.00
^field DiscountAmount
20.00
^field NetAmount
80.00
^field GrossAmount
350.00
^field DiscountAmount
0.00
^field NetAmount
350.00
^field TotalGrossAmount
450
^field TotalDiscountAmount
20
^field TotalNetAmount
430
^field StartRec

^field CheckNum
123457
^field VendorNumber
5432
^field GrossAmount
50.00
^field DiscountAmount
5.00

```
^field NetAmount
45.00
^field TotalGrossAmount
50
^field TotalDiscountAmount
5
^field TotalNetAmount
45
```

3.4. Log File

JetTrac Calc™ 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 JETFORM.RSP file:

```
^field status
0
^field message
JTCalc : processing completed, 26 records
```

Here is a sample entry in the log file for a successful match:

```
19990925210349 JTCalc : processing completed, 26 records
```

3.5. JetTrac Calc Operating Parameters

Here are the parameters of JetTrac Calc:

- a. Maximum of 50 formulas in the INI file
- b. Maximum of 20 terms in each formula
- c. Maximum line length is 512
- d. All calculated values will print just prior to the start of the next document as indicated by Line 1 of the INI file
- e. When a calculated number is output, the maximum length is 14 digits, then a decimal then six more digits to the right of the decimal.

3.6. Testing JetTrac Calc™ from a batch file

Included with the installation of JetTrac Calc™ is a sample data file (Input.dat) and a batch file. If you have installed JetTrac Calc™ in the recommended location of c:\jfsrvr\CustomAgents\JetTracCalc, then all you need to do is double-click the batch file

RunJetTracCalc.bat. A DOS box will come up and show the processing messages of JetTrac Calc as follows:

```
JTCalc - Calculate fields in JetForm Central field-nominated files  
(c) 2000, Pro Technology Automation Incorporated, Simi Valley, CA
```

```
----- Initialization -----  
Input   file: Input.dat  
INI     file: JetTracCalc.ini  
Total of 2 formulas in INI file.  
Total of 5 terms to extract.  
Output file: Input.cal  
----- Processing -----  
----- Processing Completed -----  
JTCalc : processing completed, 26 records
```