

TimeValue Software™

TaxInterest Engine™

FIN 48 Excel Add-in V2

Quick Start
And Functions Guide

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What is the Add-in?

TimeValue Software™ TaxInterest Engine™ FIN 48 Excel Add-in is a tool for incorporating interest and penalty calculation functions within an Excel spreadsheet. Excel worksheets that are used to track multiple reserves for FIN 48 purposes can incorporate the functions in order to handle dozens to hundreds of interest and penalty calculations at one time. The TaxInterest Engine FIN 48 Excel Add-in also automatically generates reports as *.txt files that document each interest calculation.

This guide covers the basic installation of the TaxInterest Engine FIN 48 Excel Add-in and provides guidance for the various functions.

Quick Start

Step 1. Close Excel before installation

Step 2. Install the TaxInterest Engine Add-in

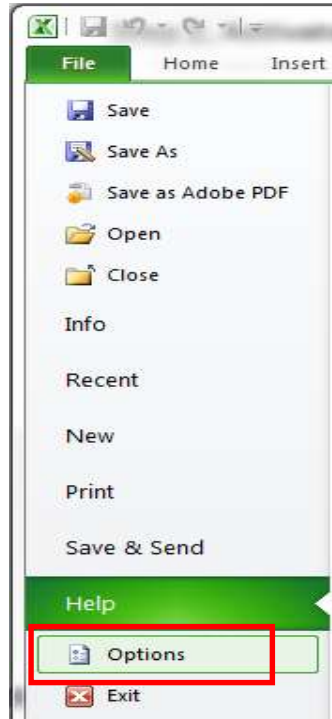
Click on the link provided via email to download, unzip and install the TaxInterest Engine Add-in. Follow the instructions during installation.

We recommend installing the TaxInterest Engine in the default **C:\TXIEngine** directory.

Step 3. Activate the Excel Add-in

(these steps may vary depending on your version of Excel)

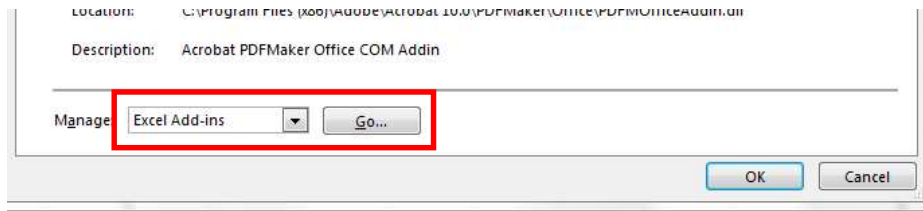
1. Start Excel and go to the **File > Options** to display the Excel Options dialog



2. On the left side of the dialog, click **Add-Ins**



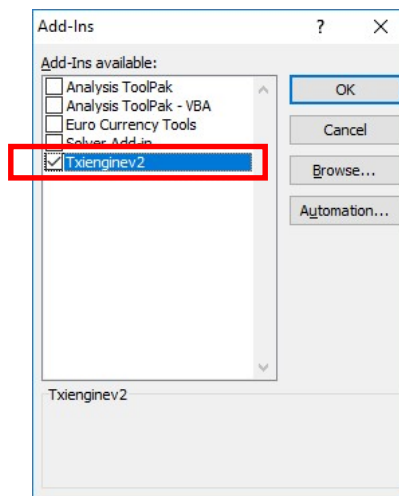
3. In the **Manage** field at the bottom of the dialog, select **Excel Add-Ins** and click **Go**



4. In the Add-Ins dialog, click **Browse** and navigate to the directory where the TaxInterest Engine is installed (e.g., **C:\TXIEngine**)

5. Select **TXIEngineV2.xlam**

The Add-Ins dialog will now show the **TXIEngineV2** add-in active



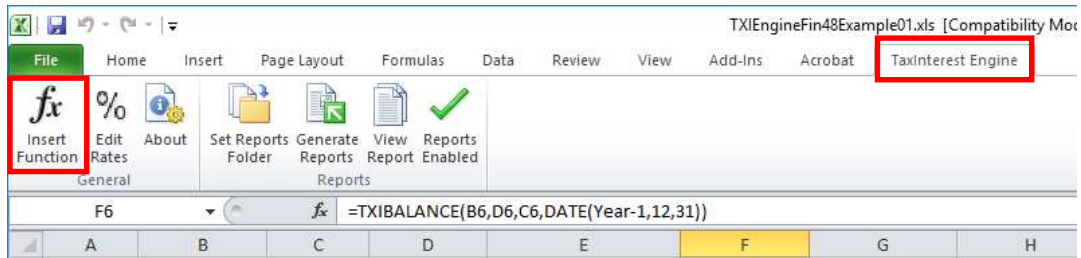
6. Click **OK** to close the Add-Ins dialog

7. You should now see the TaxInterest Engine tab on the Excel Ribbon

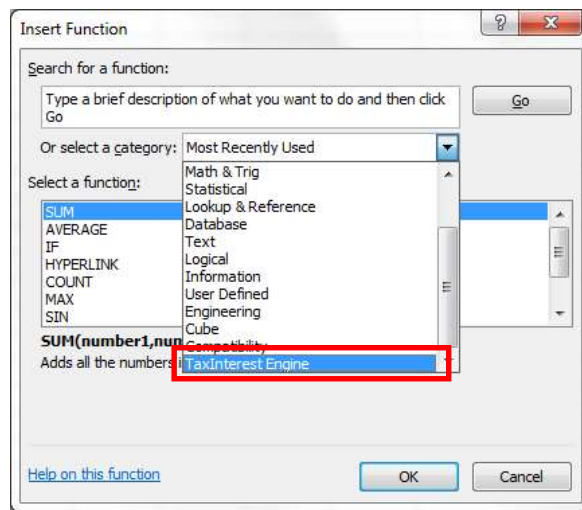
Step 4. Insert Add-in Functions into Your Excel Worksheet

(If you wish to work with the sample worksheet provided by TimeValue Software, see Step 5)

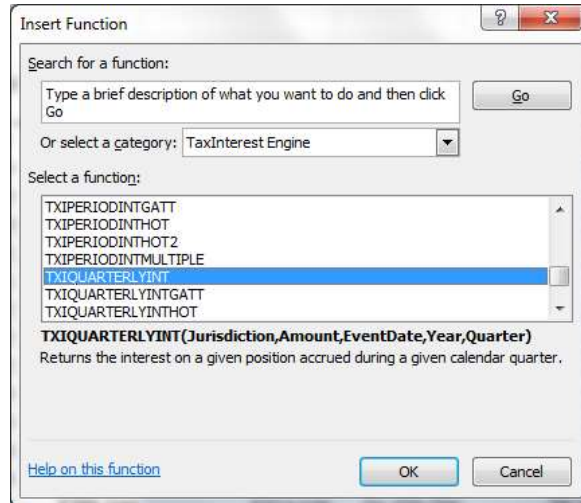
1. Click on a cell in your Excel worksheet and click the **TaxInterest Engine** tab > **fx Insert Function** on the ribbon



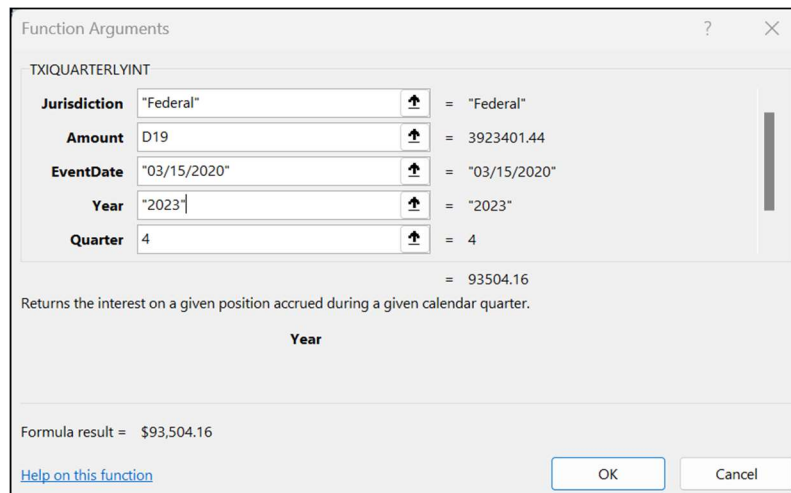
2. Select the TaxInterest Engine category (you may have to scroll down through the list)



3. Select the appropriate function from the resulting list of TaxInterest Engine add-in functions



4. Complete the parameters required to produce the desired calculation. Parameters can be selected from fields in your worksheet or entered directly surrounded by “quotes” as shown in the EventDate field shown below.



Step 5. Using the sample worksheet

A sample worksheet is provided for you to help you become familiar with the TaxInterest Engine FIN 48 add-in. This worksheet shows you examples of some add-in functions within a spreadsheet.

Some customers use this worksheet as a template for a “summary” of their interest calculations.

1. Navigate to the directory where you installed the TaxInterest Engine FIN 48 add-in (e.g., C:\TXIEngine)
2. Open the example spreadsheet titled **TXIEngineFin48Example01.xls**
3. Make changes as needed and save your changes under a new file name.

TaxInterest Engine FIN 48 Add-in Functions

The functions currently contained within the TaxInterest Engine Add-in are listed below along with the required parameters for each function.

Function Name	Function Description	Function Parameters
TXIBALANCE	Returns the balance (principal plus interest) of a given position on a given date	<p>Jurisdiction – Name of jurisdiction to determine rate (also name of .TB3 file)</p> <p>Amount – Initial amount of the position, >0 for tax, <0 for overpayment</p> <p>EventDate – Date of position, starting date for interest computation</p> <p>ComputeDate – Compute date, ending date for interest computation</p>
TXIBALANCEGATT	Returns the balance (principal plus interest) of a given position on a given date, with GATT enabled	<p>Jurisdiction – Name of jurisdiction to determine rate (also name of .TB3 file)</p> <p>Amount – Initial amount of the position, >0 for tax, <0 for overpayment</p> <p>EventDate – Date of position, starting date for interest computation</p> <p>ComputeDate – Compute date, ending date for interest computation</p>

TXIBALANCEHOT	Returns the balance (principal plus interest) of a given position on a given date, with Hot Interest	<p>Jurisdiction – Name of jurisdiction to determine rate (also name of .TB3 file)</p> <p>Amount – Initial amount of the position, >0 for tax, <0 for overpayment</p> <p>EventDate – Date of position, starting date for interest computation</p> <p>ComputeDate – Compute date, ending date for interest computation</p> <p>HotInterestStartDate – Hot Interest start date</p>
TXIBALANCEHOT2	Returns the balance (principal plus interest) of a given position on a given date, with Hot Interest and Hot Interest restart	<p>Jurisdiction – Name of jurisdiction to determine rate (also name of .TB3 file)</p> <p>Amount – Initial amount of the position, >0 for tax, <0 for overpayment</p> <p>EventDate – Date of position, starting date for interest computation</p> <p>ComputeDate - Compute date, ending date for interest computation</p> <p>HotInterestStartDate – Hot Interest start date</p> <p>HotInterestRestartDate – Hot Interest restart date</p>
TXIBALANCEMULTIPLE	<p>Returns the balance (principal plus interest) of a set of given positions on a given date.</p> <p>The Position1Amount and Position1Date parameters may be repeated as needed to describe multiple events.</p>	<p>Jurisdiction – Name of jurisdiction to determine rate (also name of .TB3 file)</p> <p>ComputeDate - Compute date, ending date for interest computation</p> <p>Position1Amount – Initial amount of the first position, >0 for tax, <0 for payment</p> <p>Position1Date – Date of the first position</p> <p>MorePositions – Repeat Amounts and Dates as needed for multiple positions</p>

<p>TXIBALANCEMULTIPLE2</p>	<p>Returns the balance (principal plus interest) of a set of given positions on a given date. Extra parameters are provided to control GATT and/or LCU (hot) interest</p> <p>The Position1Amount and Position1Date parameters may be repeated as needed to describe multiple events.</p>	<p>Jurisdiction – Name of jurisdiction to determine rate (also name of .TB3 file)</p> <p>ComputeDate - Compute date, ending date for interest computation</p> <p>GattEnabled – GATT Interest on/off switch. Use values “1” or “true” to enable GATT; use values “0” or “false” to disable GATT.</p> <p>HotInterestStartDate – Hot Interest start date. Use value “-1” to disable Hot Interest calculation.</p> <p>HotInterestRestartDate – Hot Interest restart date. Use value “-1” to disable Hot Interest restart.</p> <p>Position1Amount – Initial amount of the first position, >0 for tax, <0 for payment</p> <p>Position1Date – Date of the first position</p> <p>MorePositions – Repeat Amounts and Dates as needed for multiple positions</p>
<p>TXIF2FILEPENALTYBALANCE</p>	<p>Returns the failure-to-file penalty balance (principal plus penalty plus interest) of a given position on a given date</p>	<p>Jurisdiction – Name of jurisdiction to determine rate (also name of .TB3 file)</p> <p>Amount – Net tax due</p> <p>ExtendedDueDate – Tax due date with extensions</p> <p>DateReceived – Date on which the IRS received the return, ending date for penalty calculation</p> <p>ComputeDate – Compute date, ending date for interest calculation</p>

TXIF2PAYPENALTYBALANCE	Returns the failure-to-pay penalty balance (principal plus penalty plus interest) of a given position on a given date	<p>Jurisdiction – Name of jurisdiction to determine rate (also name of .TB3 file)</p> <p>Amount – Amount of tax shown on return but not paid</p> <p>DueDate – Tax due date not including extensions of time to file.</p> <p>ComputeDate – Compute date, ending date for penalty calculation</p>
TXIINTERESTTODATE	Returns the interest on a given position on a given date	<p>Jurisdiction – Name of jurisdiction to determine rate (also name of .TB3 file)</p> <p>Amount – Initial amount of the position, >0 for tax, <0 for overpayment</p> <p>EventDate – Date of position, starting date for interest computation</p> <p>ComputeDate – Compute date, ending date for interest computation</p>
TXIINTERESTTODATEGATT	Returns the interest on a given position on a given date, with GATT enabled	<p>Jurisdiction – Name of jurisdiction to determine rate (also name of .TB3 file)</p> <p>Amount – Initial amount of the position, >0 for tax, <0 for overpayment</p> <p>EventDate – Date of position, starting date for interest computation</p> <p>ComputeDate – Compute date, ending date for interest computation</p>

TXIINTERESTTODATEHOT	Returns the interest on a given position on a given date, with Hot Interest	<p>Jurisdiction – Name of jurisdiction to determine rate (also name of .TB3 file)</p> <p>Amount – Initial amount of the position, >0 for tax, <0 for overpayment</p> <p>EventDate – Date of position, starting date for interest computation</p> <p>ComputeDate – Compute date, ending date for interest computation</p> <p>HotInterestStartDate – Hot Interest start date</p>
TXIINTERESTTODATEHOT2	Returns the interest on a given position on a given date, with Hot Interest and Hot Interest restart	<p>Jurisdiction – Name of jurisdiction to determine rate (also name of .TB3 file)</p> <p>Amount – Initial amount of the position, >0 for tax, <0 for overpayment</p> <p>EventDate – Date of position, starting date for interest computation</p> <p>ComputeDate - Compute date, ending date for interest computation</p> <p>HotInterestStartDate – Hot Interest start date</p> <p>HotInterestRestartDate – Hot Interest restart date</p>
TXIINTERESTTODATEMULTIPLE	<p>Returns the interest on a given set of positions on a given date.</p> <p>The Position1Amount and Position1Date parameters may be repeated as needed to describe multiple events.</p>	<p>Jurisdiction – Name of jurisdiction to determine rate (also name of .TB3 file)</p> <p>ComputeDate - Compute date, ending date for interest computation</p> <p>Position1Amount – Initial amount of the first position, >0 for tax, <0 for payment</p> <p>Position1Date – Date of the first position</p> <p>MorePositions – Repeat Amounts and Dates as needed for multiple positions</p>

<p>TAXINTERESTTODATEMULTIPL E2</p>	<p>Returns the interest on a set of given positions on a given date. Extra parameters are provided to control GATT and/or LCU (hot) interest</p> <p>The Position1Amount and Position1Date parameters may be repeated as needed to describe multiple events.</p>	<p>Jurisdiction – Name of jurisdiction to determine rate (also name of .TB3 file)</p> <p>ComputeDate - Compute date, ending date for interest computation</p> <p>GattEnabled – GATT Interest on/off switch. Use values “1” or “true” to enable GATT; use values “0” or “false” to disable GATT.</p> <p>HotInterestStartDate – Hot Interest start date. Use value “-1” to disable Hot Interest calculation.</p> <p>HotInterestRestartDate – Hot Interest restart date. Use value “-1” to disable Hot Interest restart.</p> <p>Position1Amount – Initial amount of the first position, >0 for tax, <0 for payment</p> <p>Position1Date – Date of the first position</p> <p>MorePositions – Repeat Amounts and Dates as needed for multiple positions</p>
<p>TXIPERIODINT</p>	<p>Returns the interest on a given position accrued during a given period</p>	<p>Jurisdiction – Name of jurisdiction to determine rate (also name of .TB3 file)</p> <p>Amount – Initial amount of the position, >0 for tax, <0 for overpayment</p> <p>EventDate – Date of position, starting date for interest computation</p> <p>PeriodStartDate – Starting date of interest period (e.g., 06/30/2023)</p> <p>PeriodEndDate – Ending date of interest period (e.g., 09/30/2023)</p>

TXIPERIODINTGATT	Returns the interest on a given position accrued during a given period, with GATT enabled	<p>Jurisdiction – Name of jurisdiction to determine rate (also name of .TB3 file)</p> <p>Amount – Initial amount of the position, >0 for tax, <0 for overpayment</p> <p>EventDate – Date of position, starting date for interest computation</p> <p>PeriodStartDate – Starting date of interest period (e.g., 06/30/2023)</p> <p>PeriodEndDate – Ending date of interest period (e.g., 06/30/2023)</p>
TXIPERIODINTHOT	Returns the interest on a given position accrued during a given period, with Hot Interest	<p>Jurisdiction – Name of jurisdiction to determine rate (also name of .TB3 file)</p> <p>Amount – Initial amount of the position, >0 for tax, <0 for overpayment</p> <p>EventDate – Date of position, starting date for interest computation</p> <p>PeriodStartDate – Starting date of interest period (e.g., 06/30/2023)</p> <p>PeriodEndDate – Ending date of interest period (e.g., 06/30/2023)</p> <p>HotInterestStartDate – Hot Interest start date</p>
TXIPERIODINTHOT2	Returns the interest on a given position accrued during a given period, with Hot Interest and Hot Interest restart.	<p>Jurisdiction – Name of jurisdiction to determine rate (also name of .TB3 file)</p> <p>Amount – Initial amount of the position, >0 for tax, <0 for overpayment</p> <p>EventDate – Date of position, starting date for interest computation</p> <p>PeriodStartDate – Starting date of interest period (e.g., 06/30/2023)</p> <p>PeriodEndDate – Ending date of interest period (e.g., 06/30/2023)</p>

		<p>HotInterestStartDate – Hot Interest start date</p> <p>HotInterestRestartDate – Hot Interest restart date</p>
TXIPERIODINTMULTIPLE	<p>Returns the interest on a given set of positions accrued during a given period.</p> <p>The Position1Amount and Position1Date parameters may be repeated as needed to describe multiple events</p>	<p>Jurisdiction – Name of jurisdiction to determine rate (also name of .TB3 file)</p> <p>PeriodStartDate – Starting date of interest period (e.g., 06/30/2023)</p> <p>PeriodEndDate – Ending date of interest period (e.g., 06/30/2023)</p> <p>Position1Amount – Initial amount of the first position, >0 for tax, <0 for payment</p> <p>Position1Date – Date of the first position</p> <p>MorePositions – Repeat Amounts and Dates as needed for multiple positions</p>
TXIPERIODINTMULTIPLE2	<p>Returns the interest on a given set of positions accrued during a given period. Extra parameters are provided to control GATT and/or LCU (hot) interest</p> <p>The Position1Amount and Position1Date parameters may be repeated as needed to describe multiple events</p>	<p>Jurisdiction – Name of jurisdiction to determine rate (also name of .TB3 file)</p> <p>PeriodStartDate – Starting date of interest period (e.g., 06/30/2023)</p> <p>PeriodEndDate – Ending date of interest period (e.g., 06/30/2023)</p> <p>GattEnabled – GATT Interest on/off switch. Use values “1” or “true” to enable GATT; use values “0” or “false” to disable GATT.</p> <p>HotInterestStartDate – Hot Interest start date. Use value “-1” to disable Hot Interest calculation.</p> <p>HotInterestRestartDate – Hot Interest restart date. Use value “-1” to disable Hot Interest restart.</p> <p>Position1Amount – Initial amount of the first position, >0 for tax, <0 for payment</p> <p>Position1Date – Date of the first position</p>

		MorePositions – Repeat Amounts and Dates as needed for multiple positions
TXIQUARTERLYINT	Returns the interest on a given position accrued during a given calendar quarter	<p>Jurisdiction – Name of jurisdiction to determine rate (also name of .TB3 file)</p> <p>Amount – Initial amount of the position, >0 for tax, <0 for overpayment</p> <p>EventDate – Date of position, starting date for interest computation</p> <p>Year – Year of interest (e.g., 2023)</p> <p>Quarter – Quarter of interest (1-4)</p>
TXIQUARTERLYINTGATT	Returns the interest on a given position accrued during a given calendar quarter, with GATT enabled	<p>Jurisdiction – Name of jurisdiction to determine rate (also name of .TB3 file)</p> <p>Amount – Initial amount of the position, >0 for tax, <0 for overpayment</p> <p>EventDate – Date of position, starting date for interest computation</p> <p>Year – Year of interest (e.g., 2023)</p> <p>Quarter – Quarter of interest (1-4)</p>
TXIQUARTERLYINTHOT	Returns the interest on a given position accrued during a given calendar quarter, with Hot Interest	<p>Jurisdiction – Name of jurisdiction to determine rate (also name of .TB3 file)</p> <p>Amount – Initial amount of the position, >0 for tax, <0 for overpayment</p> <p>EventDate – Date of position, starting date for interest computation</p> <p>Year – Year of interest (e.g., 2023)</p> <p>Quarter – Quarter of interest (1-4)</p> <p>HotInterestStartDate – Hot Interest start date</p>

TXIQUARTERLYINTHOT2	Returns the interest on a given position accrued during a given calendar quarter, with Hot Interest and Hot Interest restart	<p>Jurisdiction – Name of jurisdiction to determine rate (also name of .TB3 file)</p> <p>Amount – Initial amount of the position, >0 for tax, <0 for overpayment</p> <p>EventDate – Date of position, starting date for interest computation</p> <p>Year – Year of interest (e.g., 2023)</p> <p>Quarter – Quarter of interest (1-4)</p> <p>HotInterestStartDate – Hot Interest start date</p> <p>HotInterestRestartDate – Hot Interest restart date</p>
TXIQUARTERLYINTMULTIPLE	<p>Returns the interest on a given set of positions accrued during a given calendar quarter.</p> <p>The Position1Amount and Position1Date parameters may be repeated as needed to describe multiple positions</p>	<p>Jurisdiction – Name of jurisdiction to determine rate (also name of .TB3 file)</p> <p>Year – Year of interest (e.g., 2023)</p> <p>Quarter – Quarter of interest (1-4)</p> <p>Position1Amount – Initial amount of the first position, >0 for tax, <0 for payment</p> <p>Position1Date – Date of the first position</p> <p>MorePositions – Repeat Amounts and Dates as needed for multiple positions</p>
TXIQUARTERLYINTMULTIPLE2	<p>Returns the interest on a given set of positions accrued during a given calendar quarter. Extra parameters are provided to control GATT and/or LCU (hot) interest</p> <p>The Position1Amount and Position1Date parameters may be repeated as needed to</p>	<p>Jurisdiction – Name of jurisdiction to determine rate (also name of .TB3 file)</p> <p>Year – Year of interest (e.g., 2023)</p> <p>Quarter – Quarter of interest (1-4)</p> <p>GattEnabled – GATT Interest on/off switch. Use values “1” or “true” to enable GATT; use values “0” or “false” to disable GATT.</p> <p>HotInterestStartDate – Hot Interest start date. Use value “-1” to disable Hot Interest calculation.</p>

	describe multiple positions	<p>HotInterestRestartDate – Hot Interest restart date. Use value “-1” to disable Hot Interest restart.</p> <p>Position1Amount – Initial amount of the first position, >0 for tax, <0 for payment</p> <p>Position1Date – Date of the first position</p> <p>MorePositions – Repeat Amounts and Dates as needed for multiple positions</p>
TXITABLEENDDATE	Returns the date of the last valid interest rate in the table.	Jurisdiction – Name of jurisdiction to determine rate (also name of .TB3 file)

Troubleshooting

The table below shows the possible error conditions along with corresponding solution(s). If you need further assistance, contact TimeValue Software support at support@timevalue.com or 800-426-4741.

ISSUE	RESOLUTION
#NAME! appears in the cells where I have functions inserted	<p>Need to initialize or re-initialize the add-in within Excel.</p> <p>Refer to Step 3 of the Quick Start section of this guide.</p>
<p>#VALUE! Appears in the cells where I have functions inserted</p> <p>Entering a Payment amount</p>	<p>A parameter within the add-in function is not recognized</p> <p>Check that data within each parameter is correct. For example, quotes must be around entered data.</p> <p>Enter the amount as a negative number. The add-in will then apply interest at the applicable overpayment rate for the selected jurisdiction.</p>
!Rate Table Not Found Appears in the cells where I have functions inserted	Check that the rate table name used in the function is correct. Refer to the Rate table listing in this guide.

The directory path is appearing in the formula bar along with the function	Data > Edit Links > Change Source > Navigate to the directory where the TaxInterest Engine is installed (e.g., C:\TXIEngine) > Select TXIEngineV2.xlam > Open
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Payments or more than one tax event

You can use ranges of dates and amounts in contiguous cells within Excel in combination with TaxInterest Engine Functions to calculate interest for multiple events. The example pictured below illustrates how to use ranges to calculate interest on an assortment of tax, payment and entered penalty amounts. The ranges are shown in the formula bar next to the TaxInterest Add-in function. Keep in mind that payment amounts should be entered as negative amounts. See Example on following page.

2	Compute Date			9/30/2023		
3						
4		Using Excel ranges				
5						
6	Jurisdiction	Event	Date	Amount	Interest	Balance
7	Federal	tax	3/15/2018	\$189,975.00		
8		payment	3/15/2018	-\$150,000.00		
9		payment	9/15/2018	-\$41,130.47		
10		penalty	11/15/2018	\$15,000.00		
11		tax	3/15/2019	\$201,786.00		
12		payment	3/15/2019	-\$210,000.00		
13					\$2,893.54	\$8,524.07

Notes:
