

Financial Time Series Toolbox Release Notes

The “Financial Time Series Toolbox 2.0 Release Notes” on page 1-1 describe the changes introduced in the latest version of the Financial Time Series Toolbox. The following topics are discussed in these Release Notes:

- “New Features” on page 1-2
- “Upgrading from an Earlier Release” on page 1-3
- “Major Bug Fixes” on page 1-4

The Financial Time Series Toolbox Release Notes also provide information about the earlier versions of the product, in case you are upgrading from a version that was released prior to Release 12.1. If you are upgrading from a release earlier than Release 12.1, you should also see these sections:

- “Financial Time Series Toolbox 1.1 Release Notes” on page 2-1
- “Financial Time Series Toolbox 1.0 Release Notes” on page 3-1



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New Features

This section summarizes the new features and enhancements introduced in the Financial Time Series Toolbox 2.0.

Support for Time-of-Day Information

Version 2.0 of the Financial Time Series Toolbox provides support for financial time series objects incorporating time-of-day information. The toolbox only supports hourly and minute time series. Seconds are disregarded when the object is created (e.g., 01-jan-2001 12:00:01 is considered to be 01-jan-2001 12:00).

New Functions Added

<code>fetch</code>	Extract data from financial time series object
<code>fintsver</code>	Determine version
<code>ftsnew2old</code>	Convert Version 2 time series object to Version 1
<code>ftsold2new</code>	Convert Version 1 time series object to Version 2
<code>ftsuniq</code>	Determine uniqueness
<code>issorted</code>	Check if dates and times are monotonically increasing

Modified Functions

A large number of functions have been modified to work with financial time series objects containing time-of-day information. See the individual function descriptions for specifics.

The displays produced by `chartfts` and `ftsgui` have been improved.

The object constructor `fints` can construct a financial time series object containing time-of-day information when that information is encoded in the date strings or the serial date numbers are input to the function.

Upgrading from an Earlier Release

This section describes the upgrade issues involved in moving from the Financial Time Series Toolbox 1.1 to Version 2.0.

Converting Financial Time Series Objects

Financial time series objects originally created with Version 1.0 (no time-of-day information allowed) are automatically converted to Version 2.0 (time-of-day information allowed) when processed with a function from Version 2.0. The object can then be saved as a Version 2.0 object.

You can use `ftsnew2old` to reconvert a Version 2.0 object to Version 1.0 provided that the object does not contain time-of-day information.

To convert an object from Version 1.0 to Version 2.0 prior to its use within a function, use `ftsold2new`.

Obsolete Function

The function `flipud` is obsolete, and its description has been removed from the documentation. For compatibility purposes the function remains in the product. Type `help @fints/flipud` at the MATLAB command line for a description.

Major Bug Fixes

Candle Plots Displayed Properly

The candle plot now displays filled or open candles properly.

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New Features

Note The Financial Time Series Toolbox 1.1 was released in Web-downloadable format prior to Release 12.1. Version 1.1 of this product includes some important updates to Version 1.0, as summarized below. The Financial Time Series Toolbox 1.1 distributed on the Release 12.1 CD is the same as the version of the product distributed via the Web prior to Release 12.1.

For an introduction to the product, see “Introduction to the Financial Time Series Toolbox” on page 3-2.

New Functions

Function	Purpose
bar	Plot bar chart
barh	Plot horizontal bar chart
bar3	Plot 3-D bar chart
bar3h	Plot horizontal 3-D bar chart
ftsgui	Display financial time series graphical user interface main window
ftsinfo	Display information about a financial time series object
log2	Base 2 logarithm

Financial Time Series GUI

The new Financial Time Series GUI provides complete access to the full functionality of the Financial Time Series Toolbox.

Major Changes to Functions

Candle plots are now correctly filled or open depending upon price movements.

The **Combine Axes** and **Zoom** operations of chartfts have been enhanced.

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Introduction to the Financial Time Series Toolbox

The Financial Time Series Toolbox for MATLAB is a collection of tools for the analysis of time series data in the financial markets. The toolbox contains a financial time series object constructor and several methods that operate on and analyze the object. Financial engineers working with time series data, such as equity prices or daily interest fluctuations, can use this toolbox for more intuitive data management than by using regular vectors or matrices.

Creating Financial Time Series Objects

The Financial Time Series Toolbox provides two ways to create a financial time series object:

- 1 At the command line using the object constructor `fints`
- 2 From a text data file through the function `ascii2fts`

The structure of the object minimally consists of a description field, a frequency indicator field, the date vector, and a data series vector.

Operations

Several MATLAB functions have been overloaded to work with financial time series objects. The overloaded functions include basic arithmetic functions such as addition, subtraction, multiplication, and division as well as other functions such as arithmetic average, filter, and difference. Also, specific methods have been designed to work with the financial time series object.

Technical Analysis

The technical analysis functions in this toolbox are tools to help analyze your investments. Technical analysis (or charting) is used by some investment managers to help manage portfolios. Technical analysis relies heavily on the availability of historical data. Investment managers calculate different indicators from available data and plot them as charts. Observations of price, direction, and volume on the charts assist managers in making decisions on their investment portfolios.

Learning More About the Financial Time Series Toolbox

The Financial Time Series Toolbox documentation describes the product in detail.

