

This document explains

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What does FTS include?

FTS includes the following (more details on each are below):

- A virtual portfolio management system (the FTS Real Time System), where students manage positions of real world securities at real time prices from financial markets where the emphasis in on the use of analytical tools to guide decision making
- An interactive trading system (the *FTS Interactive Markets*) with price discovery that creates a live dealing room where students trade with each other and lets them experience the dynamics of a trading floor, where orders are submitted, prices are negotiated, activity is fast paced and competitive, and everyone reacts in real time to the actions of others

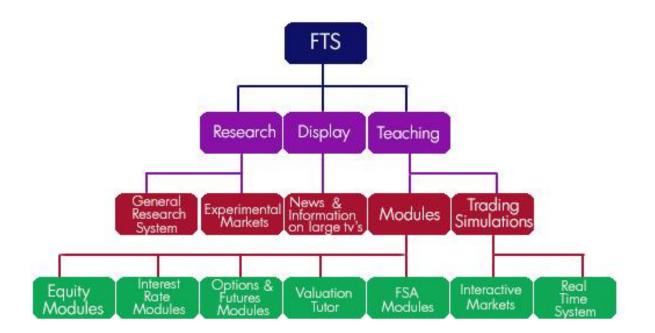
- Various modules that allow students to dig more deeply into practice, such as our *Financial Statement Analysis Module*
- A digital display system that lets you create customized displays on large screen TV's
- A research system that lets you conduct experimental research on markets, behavioral finance, game theory, and many others.

How does it differ from other systems?

- **Cost:** FTS costs less and includes more than any other system:
 - Our entire system costs less than what you would pay for a virtual simulation system alone
 - Our entire system costs less than what you would pay for an interactive trading system by itself
 - No other system includes a research capability, a digital display capability, or anything even close to our modules
 - No other system has the analytical and algorithmic trading support of our systems
- **Approach:** The central difference between FTS and other systems is that *we focus on building the analytical and modeling skills of students in practical settings.*
 - Our teaching guides and projects are uniquely designed to build these skills.
 - The simulations reinforce and extend theory and concepts that are taught in the curriculum, and so have a high pedagogic value.
- Analytics
 - Analytics and algorithms dominate today's financial markets, unlike the markets of twenty years ago. Both our trading simulations let students learn to develop and test trading algorithms in a live setting. This is completely different from back-testing on historical data. It also makes it possible to implement trading strategies that would be almost impossible to do manually (e.g. pairs trading, market-neutral strategies, basket trading, and optimal trade execution).
 - If you want to do a quick comparison, look at the following two documents and ask whether any other system reaches the same level.
 - The <u>Student Case Preparation Guide</u> shows you exactly how students learn and develop skills using the FTS Interactive Markets
 - The <u>Value Investing Project</u> is an example of how a real time project, combined with the financial statement analysis module, lets students develop a deep understanding of intrinsic value models and their implementation in practice. The module makes it easy to conduct a deep fundamental analysis of a large number of companies from first principles.

- Three questions to ask
 - Do you want a trading simulation with price discovery as well as a virtual portfolio system and supporting analytical modules for one low price? If the answer is yes, FTS is your only choice.
 - Do you want students to learn how analytics and quantitative techniques are applied in portfolio management? If the answer is yes, FTS is your only choice.
 - Do you want students to understand how algorithms and high frequency trading have completely changed the nature of financial markets? If so, FTS is your only choice.
- **Support:** Our academic support is provided by Professors who have taught with the system at top business schools.
- **Complete solution:** No one provides everything we do. In fact, to achieve the equivalent of the FTS system, you would have to license several other systems at more than three times the cost.
- Other points to consider:
 - Our entire system was and continues to be designed by professors who have taught and continue to teach with it.
 - It is used by high schools, colleges, universities in over 20 countries
 - You get teaching support directly from fellow professors.
 - Our system has wide applicability; the trading simulations and cases and analytics are designed specifically to reinforce, integrate, and bridge the gap between theory and practice.
 - The combination of interactive trading exercises, the modules, and the real-time position management exercises allow integration of the exercises into a very wide range of courses.

The following graphic summarizes the different FTS products and applications; they are described in more detail below. We can customize a package to meet your needs, please contact us at <u>ftsweb@gmail.com</u>



• The following table lists a selection of what we offer for teaching and makes it easy for you to compare FTS to other systems you may be considering:

FTS	Description
Interactive Trading System:	Over <u>30 trading cases</u> and
trading simulation with	ongoing support for creating
price discovery	customized trading cases.
	Complete back office
	support, including real time
Real Time Trading System:	data feeds, a step-by-step
real world portfolio	teaching guide and built-in
management	analytical support that
	teaches the application of
	the theory to practice
	Teaching <u>system</u> for learning
The Interactive Financial	the contents of financial
Statement Analysis Module	reports, calculation of ratios,
	and how they are used
	A visual presentation of
	Financial Statement Analysis
Valuation Tutor	and Valuation, with a
	complete <u>textbook</u> , <u>lessons</u> ,
	and <u>case studies</u>

Bond Tutor	Our unique "interactive textbook," where visual calculators are integrated into the <u>online textbook</u> . You can change the numbers and see what happens.
The Modules	The modules are described <u>here</u> . They are stand-alone teaching tools that provide a graphical exposition of concepts, covering portfolio theory, bonds, options, and futures. These are complemented by our online texts on <u>portfolio theory</u> and <u>option valuation</u> .
Experimental Research	Experimental research is conducted with the FTS Interactive Markets as well as our general <u>experimental</u> <u>system</u> that allows wide range of experiments to be conducted.

- Notes on the real-time system:
 - In our real time system, all trade execution, including monitoring program trades and limit orders, is done in real time. The analytics, which directly link theory to practice, are also updated continuously. Instructors can pull up the performance of their students at any time (24/7).
 - There are other systems that let students trade at real-world prices, but these systems tend not to have real-time reporting, or any analytics; the lack of analytical support means that your students are basically left with the difficult task of relating the theory to the practice, or spending hours copying and pasting and doing calculations in a spreadsheet.
 - Other systems may let you trade more stocks but have very limited or nonexistent analytics and no capability for developing and implementing quantitative trading strategies.
- Notes on the interactive system:
 - The FTS Interactive Markets can be run at anytime from anywhere, and are easily run by the instructor. In fact, you can even run the system from your home or your office.
 - Our trading cases have been tested in the classroom for over 20 years, and are very extensive, ranging from basic cases to advanced valuation and risk management cases, and covering a wide range of financial securities.

Details of the FTS products

- The trading systems
 - The <u>FTS Real-Time System</u>, is a virtual portfolio management system where students manage positions of real-world securities at real-time prices. We run the entire back office (including handling the real-time data feeds). Projects that define the trading exercises are closely linked with what is taught in the classroom though our analytical support tools. These exercises are typically asynchronous, so students typically manage their trades on their own time. The FTS license includes access to the FTS Real Time Client. The projects bring together different concepts, data, and techniques. An example of a comprehensive project is the <u>Value Investing Project</u>. There is an extensive capability for developing trading algorithms.
 - The <u>FTS Interactive Markets</u> is a trading simulation where students trade with each other. These are true markets where students get to experience what it is like to be in a dealing room. What they trade is defined in a trading case that ties together the concept being taught with its implementation in a market. They learn to <u>develop analytical skills and modeling</u> in Excel. Trading is synchronous, in that all the students have to be connected to the market at the same time to trade with each other (though they don't have to be in the same physical location). It is easy to design your own cases. Students can also design automated trading strategies.
- The Financial Statement Analysis Module The FSA module is a teaching system with four major goals: Developing familiarity with the contents of company financial reports, developing an understanding of the conceptual framework through which financial information can be analyzed, how ratios and other measures of performance are calculated and, finally, how they are used to evaluate and compare company performance
 - The module provides built in resources for instructors, simplifying the task of assigning problem sets and exams, and grading student submissions. It is straightforward to produce your own problem sets and assignments, and we provide two datasets: one for students to practice on, and a test bank that you can assign.
 - The module has an "exploratory" element and a "construction" element. The exploratory element lets students explore actual company filings as well as concepts. We cover the filings of more than 3500 companies at the time of this writing. They can examine the reports and plot time trends. They can conduct common size analysis. They can explore concepts, learn how they are calculated, and how they are used. The construction element requires students to integrate the theory and the practice. We think of this as "taking the practice to the theory." This makes the relationship between the conceptual framework and the practical application very concrete.

 This module has been enhanced to work directly with databases such as Compustat and Morningstar (if you subscribe to them).

o Valuation Tutor

- Valuation Tutor is an *interactive and visual presentation* of Financial Statement Analysis and Valuation. It is designed to help your students:
 - understand how to interpret and analyze the financial statements of a company
 - compare companies along various dimensions relating to efficiency, profitability, and risk, and
 - learn how different valuation models are used to derive the intrinsic value of a company
- Valuation Tutor consists of four parts:
 - An online textbook
 - Software
 - Dataset
- Combined, the four parts let you not only teach the concepts but also teach how to apply them to perform a comprehensive fundamental analysis of a company from the perspective of a financial analyst. The software provides easy and immediate access to the recent interactive SEC filings of publicly traded companies. The dataset lets you compare (large numbers of) companies at the general market and industry levels, so you can develop the intuition and judgment required to interpret the numbers. The dataset covers both us stocks and ADR's filing financial reports under US GAAP and under IFRS. The lesson plan guides you through the understanding and application of the concepts so you develop a deep and practical understanding of each topic.

o The FTS Modules

- The FTS Modules are "stand alone" teaching tools, or tutors, that allow students to analyze real world problems with real world data. The modules perform calculations that are difficult by hand or in a spreadsheet, and also visually illustrate how techniques and concepts are applied in practice. The following modules are included:
 - The Free Cash Flow Module
 - Efficient Portfolio Module
 - Factor Models Module
 - Treasury Calculator
 - Interest Rate Risk Module
 - BDT (Black-Derman-Toy) Module
 - Bond Immunization Lesson
 - Principal Components Lesson
 - Option Payoffs Module
 - Binomial Tree Module

- Limit of Binomial Module
- Option Calculator
- Futures Calculator
- The **FTS Display System** which you can use in trading rooms, lounges, or anywhere a fully customizable news and information display is desired. Our display is not just a data and news ticker; it also includes graphical content from our servers that create a rich information display. Access to the FTS Display System is for moderators only.



What can be taught with FTS?

- FTS is used by high schools, in undergraduate courses, in Master's level and MBA finance courses as well as in quantitative finance courses. It is used to teach accounting, economics, and ethics. It is used in core courses as well as specialized and capstone courses.
- Our software, lessons, and projects focus on security valuation, portfolio selection, and risk
 management across a wide range of securities and markets. So you can use the system in
 virtually any finance course as well as courses in financial statement analysis and financial
 accounting.
- It easily fits into all of the following "standard" courses:
 - Finance:
 - Corporate Financial Reporting
 - Introduction to Financial Markets
 - Financial Management
 - Investments
 - Corporate finance

- Options and futures
- Risk management
- Security Analysis/Valuation
- International Finance
- Fixed Income Securities
- Accounting:
 - Financial Statement Analysis
 - Financial Accounting
- o Business ethics
- It is also used outside the classroom by student finance and investment clubs.

What about research?

The FTS Interactive Markets originally started out as an experimental research system. Our web
site contains links to some papers that have been published using our system. We also have a
separate <u>experimental system</u> that can be used to create a variety of experiments very simply;
please contact us for details.

What about support?

- We provide both technical and academic support:
 - First, we provide technical support all the time; since we operate in about 20 countries, we
 are well aware of time zones; since we operate in over 75 schools, we are fully aware of
 issues with online courses and distance learning courses.
 - Second, we provide extensive instructional support in curriculum integration, faculty-tofaculty. We will analyze your course outlines, suggest various integration strategies, create new trading scenarios, and also modify the system over time to meet changing teaching needs. Our system was designed by professors and *academic support is provided by professors with many years of teaching experience*.

What does it cost?

- We can customize a package designed to meet your teaching needs, and we also have introductory pricing. Please contact us at ftsweb@gmail.com to discuss your needs.
- With FTS, you get both a virtual portfolio management system and an interactive trading simulation for one price. If you obtained these from other vendors, you would pay more than twice what FTS costs.
 - For example, alternate virtual portfolio management systems can cost \$6500 a year and alternate interactive trading simulations can cost \$9500 a year. You could acquire both from FTS at less than half that total, and get unparalleled academic support at the same time.
- You can acquire an unlimited license as well, that includes:

- The use of all parts of the system listed above with no restrictions on the number of students or number of stations.
- Web-based training for instructors and teaching assistants, email and phone support.
 - We also do on-site training of faculty.
 - If we are in the area, there is no fee for the on-site visit. If we have to arrange it specially, we only charge the direct travel costs (airfare, hotel, etc.).
- Other training can be arranged while you are attending any of the major finance conferences.

Do you need a trading room?

- A trading room has many functions, such as serving as a center of attention, bringing access live financial market information, and so on, which can confer many advantages. But essentially, the answer is no, all you really need are computers with high speed internet access. However, a trading room can add a sense of realism that is otherwise hard to replicate. If you do have a trading room, or are thinking of building one, we encourage you to think about how you will get the best return on the investment: how many faculty will be involved, how many different areas will be able to use it, how many different courses will be taught using the room's resources, and fundamentally, how many students will be able to benefit from the room. The keys to success here are faculty training and successful integration into a wide range of courses.
- FTS creates a virtual trading room, accessible to all students anywhere and at any time, and provides the tools needed to successfully teach using trading room resources.

Can I get a demo?

• We can set up a web demo at short notice; all you need is a computer with internet access. Please contact us at <u>fts@ftsweb.com</u> or call 800-967-9897.