



Website Usability Review: tradingtechnologies.com

Web-Mobile User Experience Review Overview		
YOUR SCORE	PASSING SCORE	POSSIBLE RANGE
8	25	-50 – to +50

Company: Trading Technologies
Website URL: www.tradingtechnologies.com
Evaluated by: Madeline Jannotta

Product: TT Website
Browser: Chrome
Date: 2/25/13

Recommendations for improvements to the interaction design follow in the full report.

If there are any questions about the report, please contact:

Madeline Jannotta
Trading Technologies
User Experience Specialist
Madeline.jannotta@tradingtechnologies.com
312.476.2532

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*This checklist was created using Best Practices for Website Usability from Forrester Research
As adapted by Madeline Jannotta*

Recommendations For Improving User Experience of The Trading Technologies Website Through Interaction Design

Some general thoughts...

Though the site excels in many aspects like overall performance/speed and superb search capability, it exhibits a significant lack of organization in its navigational structure and information hierarchy that significantly affects users' ability to successfully complete the goals defined for the TT website. Because navigation plays such a tremendous role in dictating the user's method of finding and ultimate success in achieving their respective goals at just about every point in the experience, the site's "better" features and functionality tend to get somewhat "lost in the weeds". Navigation categories like Products and Support and Training, specifically, prove especially difficult to navigate due to an unintuitive organization of sub-categorical content that is often broken out into multiple "steps" and/or spread across multiple pages on the site.

Visual presentation of text material and copy on the TT site is another potential area of concern. Many pages contain large amounts of plain text copy with no visual breaks in the flow, utilizing font sizes as small as 9pt in several instances (including on the home page), all of which serve to inhibit scanning and readability of content. A simultaneous inconsistency to a standard grid layout also serves as a deterrent to effective scanning, and often appears "skewed" or offset.

As the face of TT, it is important that the website successfully communicate a sense of professionalism, credibility and stability to our customers as an accurate reflection of the TT brand and the company structure. Where possible, any and all instances of sub-optimal visual presentation should be taken into consideration for improvement. Similarly, an effort to isolate potential problem areas within the site's navigation hierarchy and information architecture and make changes wherever and whenever possible – even if done in small manageable chunks over a period of time - would greatly benefit overall experience.

Some ideas for "quick" fixes and food for thought ...

Limiting the amount of text on the home page in an effort to aid scanability and comprehension is perhaps a relatively easy place to start, or at least to consider (**see Appendix figure 4 on page 28**) in which text size, copy length, general layout, and classification of available content could be greatly simplified/improved. The three very similarly styled columns contain extremely disparate, highly semantically and functionally unrelated content – ranging from an interactive list of topical news, to video tours of TT software, links to customer lists, product codes, and ready only parenthetical text blurbs. In order to call attention to the value of any of these components as distinct from the rest, visual styling needs to reflect the respective purpose of each "piece". The news feed, for example, the news feed is (presumably) intended to provide a feed dynamic feed of relevant topical information, and as such should not be styled in any way similar to adjacent content like "Global Distribution" or "Product Codes", as doing so forces the false assumption that the material in the news feed is in some way related to or the same as that in adjacent columns, which is largely static, referential, and product related. As an novel entity on the page, the news feed would benefit from a distinct visual treatment targeted at emphasizing its relevance, immediacy, dynamic nature, and usefulness for the user. Simple things like truncating topic headlines, or allowing for movement within the display or changes in color state to denote updates would greatly affect users' interpretation and utilization of this particular (and arguable important) element on the home page.

Some less easy fixes worth serious consideration:

The site would benefit greatly a clearer and more navigation experience overall, though Products and Support and Training are perhaps the areas that would benefit the most. Specifically, sub-categorical content within these two categories is in dire need of a reassessment of information hierarchy, in an effort to identify ways in which said information may be presented and classified in a more logical manner that would allow the user to more easily navigate necessary content in order to complete their respective goals. To do this, ideally, content on the Product and Support pages should be classified and presented in a logical and concise manner, and should require fewer navigational steps and overall effort on the part of the user.

One potential remedy for avoiding instances of navigation-oriented frustration due to excessive drilling down or across pages in an attempt to collect the pieces of the puzzle needed for users to be able to mentally define the scope of each product is adopting some idea of a kind of “Product Landing Page” specific to each of TT’s main products (X_TRADER, APIs, Server Based Execution and TTSim) which could offer a brief but concise summary at the *Product Level*, perhaps including a few essential pieces of product-specific written documentation, video demos, or other useful visual information. Video material would stress things like innovative and unique product-specific features, written documents would outline detailed functionality and application, and visual materials like charts, tables, and diagrams would offer at-a-glance comparisons of and advantages over existing competition.

As a sort of “intermediate” step between clicking on “learn more” and the current experience of then being presented with a range of often highly complex, detailed sub-product links and information, the Product Level Landing Page could serve as a source of “big picture” information for each product, providing necessary contextual knowledge needed to drill down further into sub-product details as they are currently presented on the TT site. By arming the user with this kind of contextual information, effectively serving as a means of easing one into our more detailed sub-product pages and materials, users are likely to feel more confident and potentially be more willing to navigate and explore page content. Without some kind of Product-Level-specific source of summary information, the current presentation of Product information within the navigation structure makes it extremely difficult for one to answer essential questions like:

“What exactly is this product?”

“What can the product do that I don’t have / that I must have”

“How is this product different or better than what I use now?”

...the answers to which are of course of extreme significant to the user when evaluating TT’s product offerings and/or in measuring it’s value and offerings in comparison to that of a competitor.

At a time when leveraging TT’s brand credibility and authenticity is at it’s most crucial, it is critical that TT be open to the needs of it’s potential customers and be able to meet their respective goals in a way that is both efficient and gratifying. Whether or not the specific suggestions above are taken into consideration, as written in the following report, issues related to overall navigation, function, classification, and communication of essential product information are essential areas of focus in need of immediate attention. In an increasingly web-savvy consumer culture, a company’s website must perform in a manner that is not only intuitive but perhaps more importantly is consistent with the way in which they wish to be perceived. The following assessment is meant as a reference for understanding how these goals might best be achieved through improvements in interaction design according to best practices.

--Madeline Jannotta



Website Usability Review: www.tradingtechnologies.com

Company: Trading Technologies
 Website URL: www.tradingtechnologies.com
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Product: TT Website
 Browser: Chrome
 Date: 2/25/13

Your Total Score: 8
Range of Possible Scores: -50 to +50

A negative score for any of the 25 questions indicates a likely problem that should be addressed, regardless of the overall total.

SCORING FOR INDIVIDUAL QUESTIONS

- Strong fail 2	Two or more major problems, or one major problem and several minor problems
- Fail 1	One major problem or several minor problems
1 Pass	No problems found
2 Strong Pass	Best Practices Followed

EVALUATED USER GOALS

The website should allow current and prospective users to easily find information about all of TT's products, and understand their applications and value.

Users should be able to contact TT via the website with sales inquiries, University Program inquiries and Partner Program inquiries. They should also be able to easily find contact information if they'd prefer to call a local representative rather than email.

The website should provide adequate information and documentation for the traders, risk administrators and network administrators to utilize, upgrade and troubleshoot all of our current products.

OUR VALUES

- We never assume that our users know what we know
- We never assume that our users know what we know
- We create visual Design that is clean, simple, aids understanding and reflects our brand promise.

Each review question is scored on a scale of -2 to +2:

SCORING

W1. Does the landing page(s) provide evidence that the specified user goals can be completed?

2

- 2 The landing page(s) does not provide evidence that users can complete several key portions of their specified goals.
- 1 The landing page(s) does not provide evidence that users can complete a key portion of their specified goals.
- 1 The landing page(s) provides evidence that users can likely complete their specified goals.
- 2 The landing page(s) provides evidence that users can definitely complete their specified goals.

The landing page provides evidence that it's major user goals can be completed. Information about current TT products and their respective application(s) can likely be found under Products within the main navigation. Similarly the Contact heading within the main navigation is visible and clear.

Though perhaps not as explicit as the former two, it is also clear that users can find further information and documentation (under "Support and Training").

Reference:

- Forrester report, *What Do Consumers Expect From Corporate Home Pages?*, March 3, 2006.
- Forrester report, *Expose Value On The Home Page*, August 30, 2005.

W2. Is the content that's required to support the specified user goals available where needed?

-1

- 2 There are several instances (or one major instance) where the content required to complete the specified user goals is not available where needed.
- 1 There is one instance where the content required to complete the specified user goals is not available where needed.
- 1 All of the content required to complete the specified user goals is available where needed.
- 2 As above, plus content exceeds users' minimum needs, delivering added value.

Necessary content is available, but not always where needed or expected. For example, clicking "Products" results in a somewhat unexpected/jarring experience of being led to a page

with a very limited number of actionable navigation options available, (Trading and Analytics, Risk & Administration, Middle/Back Office, Partner Products, and Upcoming Initiatives). Though it is to be understood that the former three all constitute groups of products or “product types”, the latter entity – Upcoming Initiatives – is not a product or product group, and is seemingly not semantically or functionally related to any of the others.

Further, navigating through and among these product group pages is somewhat confusing and at times seemingly redundant. It is difficult to get a sense of the product offering as a whole.

Similarly, though it is clear that a wide array of information and documentation is available to several types of users with respect to all of the TT products, the navigation is not immediately intuitive. For example, the Support and Training Landing Page does not provide a clear method of finding context specific support or help for any one “type” of user, but rather, seems to lump it together into one library. Additionally, navigation on the Support and Training page is similarly unintuitive, combining semantically and functionally unrelated navigation categories like Access Documentation and Support Forums with Product Updates and Upcoming Initiatives.

Contacting Sales with an Inquiry, however, is an intuitive and easy experience.

W3. Is the functionality that's required to support the specified user goals available where needed?

-2

- 2 There are several instances (or one major instance) where functionality required to complete the specified user goals is not available where needed.
- 1 There is one instance where functionality required to complete the specified user goals is not available where needed.
- 1 All of the functionality required to complete the specified user goals is available where needed.
- 2 As above, plus functionality exceeds users' minimum needs, delivering added value.

Essential functionality is available, but is not consistently presented in a manner that is easily available or intuitive to the user, and does not fully succeed at the goal of communicating [various] products and their applications and value, as the navigation experience within the

product category is somewhat disjointed, as product information is presented in the navigation in a manner that is not conducive to overall comprehension of product features, offerings, or overall value.

For example, a trader/end user who wanted to simply find out more information about X_TRADER as a “product” might first logically navigate to that product category via the main header, which contains the XTRADER Logo with a Link to “Learn More”, which one might assume contains some sort of summary /overview information specific to X Trader, as well as a succinct statement of it’s indented applications and value. Rather, clicking “Learn More” brings one to a very detailed, somewhat unintuitive page displaying a large amount of information relevant to various X Trader subcomponents. For A customer who is not familiar with TT terminology, iconography and nomenclature, this might prove daunting, as one is more or less left to “figure it out on their own” via browsing the multitude of product-related links.

Nowhere in the experience described above, or anywhere else on the entire website is it possible for the user to achieve said “easy method of learning about core products, etc., as there is no consistent presence of any sort of main product description page. Instead, it seems as though the site skips a step in the navigation, bring the user from “Learn more” past a hypothetical synopsis product page/section, instead dropping them directly into a detailed breakout of product components and associated highlights, resources, and documentation related to products, which, without proper product-specific contextual knowledge, is too granular in presentation, language, iconography to be of any immediate use or value to a potential user with little prior product knowledge whose goal is to gain a quick “overview” of X_TRADER as a Product.

Additionally, the Categorization of Elements within the Product Navigation hierarchy is not intuitive, as their respective position within the navigational structure is unintuitive in it’s classification of “Products” and “Sub-Products”. Arguably, X_TRADER, as a father-product is the most substantial, comprehensive, and robust – both in it’s offerings to consumers and their respective understanding of it as TT’s primary offering. From an ender user perspective, things like “Server Based Execution” and Trading Simulator” despite in reality also being main TT product offerings, comes across as somewhat out of place in the current navigation (at least to a pair of amateur eyes), due perhaps to the “weight” carried by X_TRADER as a brand name and staple TT product in comparison with the others.

With regard to Goals 2 and 3, the website performs adequately for users to meet their goals.

Navigation

W4. Are menu category and subcategory names clear and mutually exclusive?

-2

- 2 There are two major instances (or one major instance and several minor instances) where category names overlap or are ambiguous.
- 1 There is one major instance (or several minor instances) where category names overlap or are ambiguous.
 - 1 Category names do not overlap and are unambiguous.
 - 2 As above, plus names include trigger words related to the specified user goals.

Though main navigation categories are fairly clear, sub categorization in dropdown menus is confusing and redundant/overlapping in many instances wherein similar or identical subcategories are listed within multiple major categories.

For example, “Upcoming Initiatives” shows up in multiple places throughout the site’s navigational structure, and appears in under both “Products” and “Markets”. Within the main navigation, this subcategory link leads to the same page, which is relevant to both “Products” and “Markets” as categories, but specific to neither.

“Partner Program” as a subcategory also appears in multiple places within the main navigation, though in this case clicking the link in the fly out leads to different places within the navigation -- under company, following the link provides an overview of the Partner Program Initiative, whereas under Contact, “Partner Program” links directly to an application form. Though both serve an important function, their disparate placement within navigation headings and linking to dissimilar content/pages is confusing and cumbersome, especially given the hypothetical goal of attempting to register for a Partner Program Inquiry.... If I navigate through “Contact”, I get the inquiry form (but no context whatsoever), while if I navigate through “Company”, I get a ton of contextual information with a tiny call to action for Inquiry via a small hyperlink in the right hand pane, which links to the same page as does the subcategory heading under “Contact”. Condensing / interconnecting these two “access points” in some way would benefit both clarity within the nav as well as use functionality/ability to find and execute their desired action easily.

Reference:

- Forrester report, [*Site Menus Should Be Clear, Not Cute*](#), February 27, 2003.

W5. Are content and functionality classified logically?

-2

- 2 There are two major instances (or one major instance and several minor instances) where an item is not listed in a category where the specified users would look for it.
- 1 There is one major instance (or several minor instances) where an item is not listed in a category where the specified users would look for it.
 - 1 All items are listed in the categories where the specified users would look for them.
 - 2 As above, plus items are listed in alternative categories that support the specified user goals.

As above, not all content and functionality are classified logically.

“Products”, specifically, suffers from an unclear hierarchical, navigational, and visual classification (see #W3 for example).

Additionally, several sub categorical elements within the main navigation are overlapping and are inconsistent within their function within the overall site navigation (See Partner Programs example above, #W4).

W6. Is the wording in hyperlinks and controls clear and informative?

2

- 2 There are two major instances (or one major instance and several minor instances) where wording in hyperlinks or controls is confusing or vague for the specified users.
- 1 There is one major instance (or several minor instances) where wording in a hyperlink or control is confusing or vague for the specified users.
 - 1 Wording in hyperlinks and controls is clear and informative for the specified users.
 - 2 As above, plus wording in hyperlinks and controls is highly descriptive and free of redundant words.

Where seen, wording within hyperlinks and controls is generally clear and informative.

Reference:

- Forrester report, [*Make Hyperlinks Clear And Informative*](#), January 3, 2006.

W7. Are task flows for the specified user goals efficient?

-2

- 2 There are two major instances (or one major instance and several minor instances) where there are unnecessary steps in the task flow.
- 1 There is one major instance (or several minor instances) where there are unnecessary steps in the task flow.
 - 1 There are no unnecessary steps in the task flow.
 - 2 As above, plus the site provides time-saving elements that make the task flow more efficient.

Task flows for specific user goals are not always efficient. For example, obtaining clear product information (via a system of consistent “product overviews”, etc) and necessary information regarding products’ applications and prospective value is extremely difficult within the existing Product Page navigation. Information is presented in a piecemeal fashion and requires the user to have to navigate their way through a multitude of various sub-pages and related material in order to glean any kind of comprehensive understanding of overall product functionality, application, and value.

Sales Inquiries are made easy for the user to find, and phone contact information is clear and available.

The Support Task Flow is, generally, presented in a clear and consistent manner. However, the task flow throughout “Support and Training”, for example, is not immediately intuitive from the landing page for any one type of user, and requires a bit of clicking around in order to find desired content.

Reference:

- Forrester report, [*How Rich Interfaces Fix Task Flow Problems*](#), April 30, 2008.
- Forrester report, [*Required Registration Lowers Online Conversion Rates*](#), April 15, 2008.

W8. Are keyword-based searches comprehensive and precise?

2

- 2 Search engine fails to retrieve essential information and does a poor job of putting what it does retrieve in order of relevance, or site has no search engine but specified user goals require one.
- 1 Search engine fails to retrieve essential information or does a poor job of putting what it does retrieve in order of relevance.
- 1 Search engine retrieves essential information and does an acceptable job of putting results in order of relevance.
- 2 As above, plus the search engine compensates for common misspellings and accommodates synonyms.

Keyword based searches, when tested, proved to be comprehensive, precise, and accommodating of recovery from potential user errors (misspellings, synonyms, etc.)

A search for “X_RISK”, for example, provided a very clear and logically presented list of returns, classified in order of relevance from highest to lowest on the page.

Additionally, search functionality provides the user with excellent “recovery from error”, accommodating both misspelled search Criteria, such as “X_RIKS (**See Appendix p. 22 Fig. 1a**), as well as synonymous entries like “risk” in an attempt to search for and find links to X_RISK topics (**See Appendix p. 22 Fig. 1b**) . Similar searches proved equally easy, intuitive and consistently precise, such searching for “risk”, which brings up the same relevant set of offerings.

Reference:

- Forrester report, *Best Practices For Search: Query Input Design*, December 18, 2003.

W9. Are search results presented in a useful interface?

2

- 2 Interface does not display user input and the results do not include trigger words, or site has no search engine but the specified user goals require one.
- 1 Interface does not display user input, or users cannot initiate a new search immediately, or results do not include trigger words, or the refinement options do not support the specified user goals.
- 1 Interface displays user input, users can initiate a new search immediately, results include trigger words that set users’ expectations about content, and users can refine results by meaningful criteria.
- 2 As above, plus results display related searches that are meaningful to users’ initial search query.

Search results are presented in a clear and useful way within the user interface, both visually and contextually. Yields are centered and spaced well and laid out nicely in the center of the grid, allowing for clear and quick scanning.

Additionally, all searches performed returned consistently meaningful yields, with the most relevant yields most relevant to search queries listed at the top.

Though the search performed exceptionally well when searching for TT-specific “terms” (product names, navigational topics and elements, etc.), it proved less useful as a tool for very generic search times like “investments”, “derivatives”, or “money”, though this is perhaps a small use case and very minor issue of concern.

Reference:

- Forrester report, [*Best Practices For Search: Presenting The Results*](#), December 19, 2003.

Presentation

W10. Does site content use language that's easy to understand?

1

- 2 There are two major instances (or one major instance and several minor instances) where language is difficult for the specified users to understand.
- 1 There is one major instance (or several minor instances) where language is difficult for the specified users to understand.
 - 1 All language is easy for the specified users to understand.
 - 2 As above, plus short sentences and paragraphs aid comprehension.

Generally, where encountered site language was easy to understand with respect to the specified user.

Though there are some examples of places where the site uses less clear, company-specific terminology, largely the site's use of language was intuitive where encountered.

Descriptive paragraphs were generally useful in aiding comprehension, providing short, concise explanation/summary content. There were a few instances of potentially overly text-heavy paragraph-summaries such as those encountered on the Auto spreader page, (**See Appendix p. 23 Fig. 2**)

Reference:

- Forrester report, [*Write Content With Target Audiences In Mind*](#), August 7, 2003.

W11. Does the site use graphics, icons, and symbols that are easy to understand?

1

- 2 There are two major instances (or one major instance and several minor instances) where graphics, icons, or symbols are difficult for the specified users to understand.
- 1 There is one major instance (or several minor instances) where graphics, icons, or symbols are difficult for the specified users to understand.
- 1 All graphics, icons, and symbols are easy for the specified users to understand.
- 2 As above, plus the appearance of graphics, icons, and symbols saves space or time or otherwise adds value to the display.

Use of graphics, icons, and symbols throughout was appropriate and generally easy to understand.

Graphics and icons are used heavily throughout the site, and at times do border on visual overload, especially on “major” landing pages that contained large amounts of contextual information in one place (**See X_TRADER product page on p.24, Fig 3 in Appendix**).

In the future, given the heavy use of graphics and symbols throughout, attention should be paid to the visual treatment, contextual relevance, and degree of necessity of the use of graphics in general to prevent overuse of visual iconography that could interfere with page scanability, layout, and overall user comprehension.

W12. Is text legible?

-1

- 2 There are several instances (or one major instance) where content required for the specified user goals is not easy to read.
- 1 There is one instance where content required for the specified user goals is not easy to read.
- 1 All content required for the specified user goals is easy to read.
- 2 As above, plus the site allows users to change the text size.

For the most part, text is legible on pages throughout the site, though in many instances, text is small and can be difficult to read (**See Appendix p. 23 Fig. 3**)

Small font on the home page is especially difficult to scan and does not serve to help the user orient themselves on the home page or provide the user with a quick sense of where they are, what is available, or how to go about obtaining it (as is considered to be a standard convention on many web site landing pages). It is worth evaluating the content, value, and placement of the current home page text in an effort to reduce the amount of copy and/or provide helpful orientation and directional cues for users who enter through the home page – on whom the current home page text would be somewhat lost in it’s abundance, complexity, and specificity.

Orange on white text (**See Appendix p. 24 Fig. 4**) is somewhat difficult to scan, due to issues

with contrast as well as font size. Text on the home page appears to be laid out somewhat inconsistently with respect to font size, line spacing, and use of a consistent grid layout.

The home page also utilizes multiple typefaces, which can sometimes be distracting to the eye, especially given the persistence of the constantly rotating hero carousel/gallery (which each use a totally different set of type faces of their own).

*** On A Side Note: Between the five rotating Heroes, A snapshot of the page at any one of these three provides a total of at least 6 different font faces at once (best practices adhere to a maximum use of 3 typefaces simultaneously). Within the heroes themselves, 4 out of 5 utilize 3 distinct typefaces.*

In total, a user who was attempting to visually scan the home page for a full duration of hero rotations would be exposed to a total of an astonishing 24 typefaces during their experience on the TT home page.

Reference:

- Forrester report, [*Design Sites To Work In A High-Resolution World*](#), November 20, 2009.
- Forrester report, [*Design Legible Sites*](#), September 22, 2003.

W13. Do text formatting and layout support easy scanning?

-1

- 2 There are two major instances (or one major instance and several minor instances) where text formatting or layout does not support easy scanning.
- 1 There is one major instance (or several minor instances) where text formatting or layout does not support easy scanning.
 - 1 Text formatting and layout support easy scanning.
 - 2 As above, plus text formatting or layout focuses users' attention on the most relevant content.

There are multiple instances where text formatting does not support easy scanning. As mentioned above in W12, home page text is small and difficult to scan, and layout appears somewhat inconsistent.

Additionally, a majority of main and sub-pages within the navigation exhibit a tendency toward heavy use of copy, small font sizes, and complex column layouts (**See Appendix p. 25 Fig. 5a, 5b.**)

Reference:

- Forrester report, [*Format Text To Support Easy Scanning*](#), January 3, 2006.

W14. Do layouts use space effectively?

-1

- 2 There are two major instances (or one major instance and several minor instances) where content, functionality, or navigation required to complete the specified user goals is buried by nonessential site elements or wasted space.
- 1 There is one major instance (or several minor instances) where content, functionality, or navigation required to complete the specified user goals is displaced by nonessential site elements or wasted space.
 - 1 Content, functionality, and navigation required to complete the specified user goals are prioritized in the display.
 - 2 As above, plus there is no instance of wasted space.

Content and layouts are spaced effectively in most places, and main content and functionality are placed appropriately within the main navigation in order to complete user goals.

However, at the sub categorical level within the navigation (i.e. the Products landing/sub-page), layout of navigation and functional content is not as successful at guiding the user toward a clear path to their intended goals (As discussed re: "Products" page in #W3).

There are a few instances where whitespace could perhaps have been utilized more effectively. The left-hand navigation panel on the Products page contains a number of sub-pages on which there is an instance where space could have potentially been used more effectively in order to reduce white space and visual gaps in the look and feel of the page. For example, the use of a three column structure on some of the X_TRADER subpages more or less forces an under-utilization of screen real estate in the far right column, where "Documentation" and "E-Learning" headers often contain a very short list of information that appears somewhat truncated in comparison to the two columns to the left (**See Appendix p. 26 Fig. 6a-b**). Other subpages within this navigation utilize a two column structure, which though generally more successful at avoiding wasted space are not always successful either (**See Appendix p. 26 Fig. 6c**)

Reference:

- Forrester report, *Design Sites To Work In A High-Resolution World*, November 20, 2009.
- Forrester report, *Give Priority To Essential Content And Function*, August 31, 2005.
- Forrester report, *Page Layouts: Utility Beats Eye Candy*, January 30, 2003.

W15. Are form fields and interactive elements placed logically in the display?**-1**

- 2 There are two major instances (or one major instance and several minor instances) where related interactive elements or form fields are not grouped together or do not flow logically.
- 1 There is one major instance (or several minor instances) where related interactive elements or form fields are not grouped together or do not flow logically.
 - 1 Related interactive elements and form fields are grouped together and flow logically.
 - 2 As above, plus the display layout is free of unnecessary controls and graphics.

At a global navigation level, the site is generally successful in it's placement of interactive elements, and in most instances, form fields are grouped together logically.

As discussed above, at a sub categorical level, interactive elements are not places consistently and/or logically throughout the navigation, do not always flow logically, and often require the completion of several additional steps in order to find an intended item or achieve a specific goal.

W16. Are interactive elements easily recognizable?**1**

- 2 There are two major instances (or one major instance and several minor instances) where it's not clear which elements are interactive.
- 1 There is one major instance (or several minor instances) where it's not clear which elements are interactive.
 - 1 All interactive elements are easily recognizable.
 - 2 As above, plus the placement and design of interactive elements is internally consistent.

Where encountered, all interactive elements are easily recognizable and is generally consistent throughout.

Placement of design and interactive elements, however, is not entirely internally consistent.

W17. Do interactive elements behave as expected?

-1

- 2 There are two major instances (or one major instance and several minor instances) where interactive elements do not behave as expected.
- 1 There is one major instance (or several minor instances) where interactive elements do not behave as expected.
 - 1 All interactive elements behave as expected.
 - 2 As above, plus the behavior of interactive elements exceeds users' expectations by saving time or otherwise adding value.

Overall, major interactive elements behave as expected, with a few exceptions (Discussed above, regarding sub categorical navigational elements and pages).

In several instances, interactive elements on pages like Product sub pages lead to unexpected or undesired results, requiring unnecessary multiple steps in the process of finding desired content.

W18. Does the site accommodate users' range of hand-eye coordination?

1

- 2 Interactive elements are small and tightly spaced, *and* require complicated mouse movements.
- 1 Interactive elements are small and tightly spaced, *or* require complicated mouse movements.
 - 1 Interactive elements are large *or* well spaced and do not require complicated mouse movements.
 - 2 Interactive elements are large, well spaced, *and* provide a visual cue when rolled over.

With few exceptions, interactive elements are successful at accommodating user hand-eye coordination, with a two notable exceptions. First, small font on the home page and various places throughout the navigation does prove somewhat difficult for scanning. Secondly, interaction with the fly out menus in the main nav header is at times difficult, as interactive elements within the fly outs themselves are sized on the small side. **(See p. 27 Fig. 7 in Appendix)**

I myself made several “fat finger” clicks throughout my experience – arguably those with less agile ability - those with arthritis, poor eyesight, etc. would also encounter some significant issues.

Reference:

- Forrester report, [*Rollover Menus Can Work But Usually Don't*](#), January 21, 2004.

Trust

W19. Does the site present privacy and security policies in context?

2

- 2 Links to clear privacy and security policies are not presented anywhere in the display when users are asked for personal data.
- 1 Links to clear privacy and security policies are not presented in context when users are asked for personal data.
- 1 Links to clear privacy and security policies are presented in context anywhere that users are asked for personal data.
- 2 As above, plus a short summary of each policy is presented with the link.

Privacy and security policies are presented in context clearly wherever needed, and provide convenient paragraphs summaries of each section of the policy.

Reference:

- Forrester report, [*Web Users Want Privacy And Security Policies*](#), December 21, 2005.
- Forrester report, [*Make Security Policies Clear And Easy To Find*](#), September 17, 2003.
- Forrester report, [*Privacy Policies: Make Them Available and Useful*](#), September 17, 2003.

W20. Do location cues orient users?

1

- 2 There are two major instances (or one major instance and several minor instances) where page titles or visual changes to navigation elements do not confirm that the correct page loaded.
- 1 There is one major instance (or several minor instances) where a page title or a visual change to navigation elements does not confirm that the correct page loaded.
 - 1 Page titles or visual changes to navigation elements clearly and consistently confirm that the correct page loaded.
 - 2 As above, plus pages consistently show their location relative to the entire site.

Location cues are fairly consistent with orienting users. Page titles are consistently displayed at the top of the page, specifying the users' current orientation within the navigational flow.

However, main navigation tabs do not employ a highlight to indicate hierarchical orientation. Also, pages do not consistently employ any additional visual method of showing users their exact location within the site (i.e. "breadcrumbs, etc.)

W21. Does site functionality provide clear feedback in response to users' actions?

1

- 2 There are two major instances (or one major instance and several minor instances) where the site functionality does not clearly indicate the results of users' actions.
- 1 There is one major instance (or several minor instances) where the site functionality does not clearly indicate the results of users' actions.
 - 1 The site functionality clearly indicates the results of users' actions.
 - 2 As above, plus the site functionality sets expectations about what's needed to complete the process.

When encountered, the site was successful in providing clear feedback with respect to user actions, such as when a form field was improperly entered or a search criteria was misspelled and had been replaced. Automatically accommodating for errors like the latter helps to set users' expectations about what is needed to successfully complete their goals, and serves as an extra "nicety" to the overall experience, and exceeds expectations.

W22. Does the site allow users to reverse completed actions?

2

- 2 There are two major instances (or one major instance and several minor instances) where the site does not allow users to easily undo completed actions.
- 1 There is one major instance (or several minor instances) where the site does not allow users to easily undo completed actions.
 - 1 Users can undo completed actions, or warnings precede actions that can't be undone.
 - 2 As above, plus users can undo individual parts of a multistep process without encountering extra steps.

No issues with irreversible or complicated revision of completed actions was encountered at any point. Form fields allow re-entry, search fields are easily reset, etc. The site does not offer any additionally complex submission functionality or security sensitive navigation, rendering sensitive reversal issues of little concern

W23. Is contextual help available where needed?

1

- 2 There are two major instances (or one major instance and several minor instances) where contextual, task-related help is not available.
- 1 There is one major instance (or several minor instances) where contextual, task-related help is not available.
 - 1 Contextual, task-related help is available where needed to support the specified user goals.
 - 2 As above, plus contact information for other channels like email, chat, or phone is available in context.

Contextual help is available, though it is not always clear where to find it. For example, the multitude of available help-oriented nav elements under “Support and Training” make it difficult to pinpoint where to find help for a specific topic right away without first navigating through their respective content. This is in part due to the nomenclature used to define help categories – “Knowledge Base” and “Help Library” are one example of a seemingly semantically identical pair of terms that serve very different functions within the Support Navigation. While the former is simply a search field that performs a site-wide search for a particular query, The Help Library is a list of TT products, their respective descriptions and links to their subject-specific Help Libraries.

Though navigation is not optimal for efficiency, it appears that essential help is available to users who are successful at locating the appropriate source for their specific query.

Reference:

- Forrester report, *Best Practices For Contextual Help Windows*, September 14, 2005.
- Forrester report, *Poor Contextual Help Erodes Shoppers' Trust*, March 11, 2005.

W24. Does the site help users avoid and recover from errors?

2

- 2 There are several instances (or one major instance) where required fields are not clearly indicated or an error message is not integrated into the display, does not describe what happened and why, or does not suggest how to fix the problem.
- 1 There is one instance where required fields are not clearly indicated or an error message is not integrated into the display, does not describe what happened and why, or does not suggest how to fix the problem.
- 1 Required fields are clearly indicated, and error messages are integrated into the display, describe what happened and why, and suggest how to fix the problem.
- 2 As above, plus error prevention techniques (such as input masks and data validation) help avoid common mistakes.

Where encountered, the site was effective at providing necessary information for the use to require from errors, such as incorrect input of information in form fields, or accidental misspellings in search queries, e

Reference:

- Forrester report, [*Examine Error Messages By Breaking Your Site*](#), March 4, 2004.
- Forrester report, [*Better Error Handling Boosts Site Effectiveness*](#), June 27, 2003.

W25. Does the site perform well?

2

- 2 There are two major system errors (or one major system error and several minor system errors) while completing the specified user goals.
- 1 There is one major system error (or several minor system errors) while completing the specified user goals.
- 1 There are no major system errors while completing the specified user goals.
- 2 As above, plus all screens load without noticeable delay.

Throughout my evaluation of the site's various components, no issues with poor or inadequate "performance" were encountered. The site performed consistently well, with no system errors, no required extra loading time when accessing multimedia material (videos, photos, etc), and superb screen loading performance throughout. My experience indicated a consistently efficient performance across all pages on the site regardless of content (video, text, etc), and at all times of day and night.

Site Performance exceeded expectations and was critical to my ability to thoroughly explore the site's content and functionality quickly and efficiently without a single delay or interruption throughout. This aspect of the site should continue to be leveraged to enhance users'

impressions of the TT brand as consistent, efficient, and reliable through consistently providing a superior performance experience.

Reference:

- Forrester report, [Site Speed: Misunderstood But Important](#), October 28, 2004.

Appendix

Fig 1a-b: Search Functionality: Site corrects for both spelling and synonymous queries.

X_Risk

X

Q

Advanced Search Preferences Feedback

Showing results 1 - 10 of 841 Sort By: Relevance | Date 0.13 second RSS

Year

Query was automatically corrected to X_Risk.

X_RISK®

8/11/2011

Manage risk and positions for traders using the TT platform ... Quickly get an accurate view of each trader's and trading group's current risk exposure. ... Resources X_RISK Product Tour X_RISK Product Advisories X_RISK Alerts Manager Tour Documentation X_RISK Setup Guide X_RISK Online Help System Requirements

Quick View | Details | ☆☆☆ Opened 4 times, February 06

X_RISK Setup Guide.pdf

2/25/2013

31 -iii-Introduction toX_RISK®
X_RISK®7.11offerscomprehensive risk monitoring and trade management tools that are based...
... actions X_RISK 7. ... icon). X_RISK Control Panel (the SODs/Manual Fills ... X_RISK
Control Panel Window Menu The Send Instant Message window is shown below. ... X_RISK
Control Panel Trading Technology...

Quick View | Details | ☆☆☆

By Resource Type

Advisory (316)
Help Library (149)
KB Article (138)
Release Notes (91)
Web Page (13)

Q Search a value

More

By Products

X_RISK® (269)
X_TRADER® (99)
TT User Setup (85)
Eurex Gateway (58)
CME Gateway (54)

Search

risk

X

Q

Advanced Search Preferences Feedback

Showing results 1 - 10 of 1,463 Sort By: Relevance | Date 0.11 second RSS

Year

X_RISK Setup Guide.pdf

2/25/2013

actions X_RISK 7. ...
Perform common tasks using X_RISK (e.g., logging into X_RISK, selecting products, an Aduu ds...
g Pre-execution risk parameters are set outside of X_RISK using TT User Setup. ...
click the Login button. X_RISK is not supported in TT SIM mode. TT Login Dialog Box ...
Using the Audit Trail, you can view X_RISK Control...

Quick View | Details | ☆☆☆

Pre-Trade Risk Checking Changes in X TRADER 7.8.pdf

7/27/2012

... version 7.2.0 or higher, a new risk component is performing the pre-trade risk check. ...
The risk check of Autospreader® orders has been updated to take into account the ... The
following pre-trade risk changes have been made regardless of whether the trader ... In the
current method of risk checking a trader...

Quick View | Details | ☆☆☆ Opened 5 times, Last Tuesday

By Resource Type

Advisory (560)
Help Library (297)
KB Article (270)
Release Notes (120)
Web Page (58)

Q Search a value

More

By Products

X_RISK® (269)
X_TRADER® (262)
TT User Setup (190)
EIX Adapter (84)

Fig 2. Example of heavy use of copy on “Auto Spreader” Landing Page.

TTNET™

TT's fully managed hosting solution for FCMs, trading firms, banks and other institutions that prefer an outsourced solution

Easily distribute trading screens around the world from TTNET hubs in Chicago, New Jersey, São Paulo, London, Frankfurt, Singapore, Tokyo and Sydney. Specially trained technicians handle all responsibilities of network administration, hardware configuration, infrastructure maintenance, data line management, upgrades, backups, security and user support. Leverage TT's vast experience and efficient IT practices to achieve superior availability, security and support so you can focus on trading.

Immediate, scalable, seamless global market access

TTNET allows you to quickly deploy X_TRADER® and X_TRADER Pro worldwide using Internet and private lines. TTNET provides its customers with cost-effective Metro Ethernet connectivity in the Americas, Europe and the Asia/Pacific region. The seamless architecture is fully redundant and highly scalable up to hundreds of servers, allowing you to roll out installations in customer-driven phases and quickly add new traders in various locations as your needs dictate. By going through TT's existing network, you avoid lengthy, disruptive and expensive implementations and take advantage of shared, high-capacity exchange and global inter-datacenter backbone circuits, saving you the considerable time and cost of ordering your own exchange and backbone lines. And since these lines are already in place, there is no waiting for exchange and backbone line installation.

Maximum speed, unparalleled redundancy and disaster recovery

TTNET delivers maximum uptime through fast, highly resilient and fully redundant connections to the world's top futures exchanges through shared facilities in the Americas, Europe and the Asia/Pacific region. Built on a multi-gigabit fiber optic backbone, TTNET provides complete datacenter failover as well as intrasite redundancy of market data. TTNET utilizes a fully redundant, partial mesh cross-connect architecture that can survive dual and often even triple failures, providing higher availability and performance. Hosting at a TTNET data center provides your algorithmic orders exceptionally fast access to the exchanges' electronic matching engines.

TT's network is facilitated by TTNET's extensive global presence and state-of-the-art network operation centers (NOCs). Leading-edge monitoring techniques ensure early detection and prevention of outages. Sizable investments have been made in location and connectivity diversity to provide the most stable, available and disaster-resistant exchange connections possible. TTNET customer equipment is refreshed periodically to ensure you have the latest high-spec, high-performance hardware.

Cost-effective solution, greater operational freedom

TTNET allows you to outsource 24/7 network monitoring, maintenance support and security to TT's industry leading specialists so that you can focus your critical resources on core business functions. It eliminates the need for capital expenditures to pay for additional space requirements, expensive build-outs and in-house IT infrastructure while ensuring your network is always running on the highest quality hardware. You make monthly payments for service without the large up-front investment in servers, routers and other networking equipment and software. By outsourcing to TT, more of your management time can be spent growing and improving the profitability of your trading operations.

Fig 3. Use of icons and graphics occasionally borders on clutter / visual distraction


 <p>Set order-entry price limits. Restrict Time-In-Force use.</p>	<p>Speed matters. But so does reliability. X_TRADER delivers both. Learn more</p>	<p>X_TRADER Product Advisories X_TRADER Product Tour ADL Support Center Futures Magazine Review X_TRADER on Trade Talk</p>	
 <p>Automated trading Output ADL values to X_TRADER. Identify working orders by color. Manage parent orders in Floating Order Book.</p>	<p>Industry-leading features and proprietary technologies From point-and-click to automation, X_TRADER has the best tools to view, analyze and execute. Learn more</p>		
 <p>Autospreader® Create and submit reload orders from Market Window.</p>	<p>Multiple products, asset classes and markets from a single screen One X_TRADER screen can put thousands of contracts across multiple asset classes from dozens of markets at your fingertips. Learn more</p>		
<p>NEW FEATURES IN VERSION 7.11</p>			<p>DOCUMENTATION</p> <p>X_TRADER Setup Guide X_TRADER Setup Guide (Japanese) X_TRADER Online Help System Requirements System Requirements (Japanese)</p>
 <p>ADL™ (Algo Design Lab) Design automated trading programs without writing a line of code. Learn more</p>	<p>Server-side engines, synthetic order types, autotrading tools and APIs X_TRADER incorporates all of these sophisticated technologies to execute complex trading strategies with speed and precision. Learn more</p>	<p>E-LEARNING</p> <p>X_TRADER Overview Staged Orders in X_TRADER Synthetic Order Entry in X_TRADER Autospreader 101 Autotrader 101 Additional E-Learning Modules</p>	
 <p>Order staging Create, manage and execute care orders from X_TRADER or FIX-enabled systems. Learn more</p>	<p>CONNECTIVITY OPTIONS</p>		
 <p>Synthetic orders Create Time/Volume Duration orders. Preview child orders. Apply "With A Tick". Pause/resume synthetic orders. Modify quantity, price offsets and date/time of working orders.</p>			<p>Connect once, trade everywhere through TTNET™ Trade with confidence through TT's fully managed network solution. Learn more</p>
 <p>Create Strategy window Create option strategies faster and more easily identify RFQs.</p>		<p>Or access the markets through your broker's network infrastructure Choose from TT's network of global distributors. Learn more</p>	<div>   </div> <p>What's New Video What's New</p>
 <p>New TT SIM™ Learn X_TRADER, verify API solutions and test custom trading logic against live prices. Learn more</p>	<p>MORE ABOUT VERSION 7.11</p>		
<div>   </div> <p>What's New Video What's New</p>			

Fig 4. Difficulty Reading small Orange Text on Home Page

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- » [Phillip Futures and Trading Technologies Launch Software Solution at CME Group Co-Location Facility](#)
- » [Trading Technologies' X_TRADER® 7.11 Named "Best New Product from a Technology Firm for Trading and Execution"](#)
- » [ADM Investor Services Companies and Trading Technologies Enter into Global Software and TTNET™ Distribution Agreement](#)

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Connect to more than 30 exchanges across the globe on the most robust and reliable backbone available. Multi-gigabit connections between TT's eight TTNET™ datacenters ensure supreme reliability and performance so you can focus on trading, not technology.

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Take a tour of X_TRADER® and get a close-up look at TT's futures trading software:

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-  [Autospreader® Close-Up](#)
-  [MD Trader® Close-Up](#)
-  [Spread Matrix Close-Up](#)
-  [X_STUDY® Close-Up](#)

Product Codes

Locate product codes for all exchange products tradable through TT's futures trading software.


[Search all TT-supported products](#)

Fig 5a-b. Examples of inconsistent 2-3 column layout, instances of wasted white space.

Algo Strategy Engine

Implement high-performance algorithms without writing a line of code

Algo Strategy Engine (Algo SE), in conjunction with TT's award-winning ADL™ (Algo Design Lab), presents a revolutionary approach for deploying simple to complex algorithms without complicated programming. Algo SE is based on TT's Strategy Engine technology, offering high performance with world-class reliability. TT's ADL and Algo SE let you bring your strategies to market quickly, and execute those strategies with sub-millisecond performance on dozens of exchanges worldwide.




Simple and fast algorithm deployment

Algo SE puts an end to complicated code deployment issues. Users with appropriate permissions can deploy algorithms to the Algo SE server of their choice in seconds, whether that server is across town or around the world. Traders can deploy algorithms strictly for their own use, or share them with one or more users without assistance from trading systems administrators or operations staff. Algorithm deployment and updating has never been faster or easier, because with Algo SE, a trader can deploy to a desired market in seconds with only a few simple commands.


DOCUMENTATION

- [Algo SE Online Help \(pdf\)](#)
- [System Requirements](#)
- [System Requirements \(Japanese\)](#)



High-performance algorithms coupled with TT functionality

Your ADL algorithms execute in microseconds on Algo SE, while the powerful TT platform works behind the scenes to control position limits, P&L and self-crossing. Monitor your algorithmic trading using the power and features of TT's award-winning X_TRADER® desktop, while you trade algorithmically with the reliability and control you've come to expect from TT.



Multi-threaded, concurrent architecture

The Algo SE sixty-four bit architecture is based on the highly scalable, multi-threaded design of the TT Strategy Engine family. This means that your algorithms can respond to market prices and fills in small fractions of a millisecond, while hundreds of algorithms are running concurrently. Whether you trade a single strategy in a single market, or hundreds in dozens of markets, Algo SE ensures you capitalize on the superior technology and performance of TT's sixty-four bit proximity servers.

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Your ADL algorithms execute in microseconds on Algo SE, while the powerful TT platform works behind the scenes to control position limits, P&L and self-crossing. Monitor your algorithmic trading using the power and features of TT's award-winning X_TRADER® desktop, while you trade algorithmically with the reliability and control you've come to expect from TT.



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Figure 6: Fly out spacing and text size makes selection difficult for those with less than optimal hand-eye coordination, or when not making a concerted effort.

