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PBToday Analysis and Redesign

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PBToday Analysis and Redesign

A Major Qualifying Project Report

Submitted to the Faculty

of the

WORCESTER POLYTECHNIC INSTITUTE

in partial fulfillment of the requirements for the

Degree of Bachelor of Science

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Abstract

The Prime Brokerage Division at Morgan Stanley is going to redesign their web portal, PBToday. The goal of the redesign is to improve the user experience by enhancing functionality and organizing the content better. We executed a survey and combined the analysis of the results with the knowledge gathered from user interviews to form recommendations for process improvement. These include incorporating usability methods and best practices in the redesign, adapting functional design, finding a better data presentation way and additional training.

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Executive Summary

Since their inception, enterprise intranet portals evolved to include more than mere information snippets and combined these with mini applications. Integrating these types of technological tools into the business operations is especially critical in the highly competitive financial services sector. Many Wall Street firms like Morgan Stanley, Goldman Sachs and Deutsche Bank integrate ground breaking technologies into their daily operations to raise predictability in a highly volatile environment.

Morgan Stanley continually invests over \$100 million annually in Prime Brokerage technology to improve the business and serve their clients more efficiently. PBToday is the web portal that is used mainly by Morgan Stanley Prime Brokerage employees, as well as some employees outside the department. PBToday is the key information hub for PB news, accounts, and client information. The site has over 1,100 individual users and receives over 40,000 hits per month. The Scale Team within the Prime Brokerage Division at Morgan Stanley is going to redesign PBToday. The goal of this initiative is to improve the user experience by enhancing usability and functionality, organizing the content better and eliminating unnecessary information. Our project marked the beginning of this significant effort by providing insight into users' needs and by creating redesign recommendations.

Since there was such a large and diverse user base, it was essential for us to conduct an initial survey to gather information on PBToday usage. After analysis of the survey results, the team conducted targeted interviews of the key user groups. The purpose was to validate the survey results and develop use cases that will be the basis for the new design.

After the data analysis, we understood that International Prime Brokerage did not utilize PBToday as much as North America Prime Brokerage does. The usage differs greatly between different teams. Client Service and Business Consulting are amongst the heaviest users, whereas some teams outside Prime Brokerage have access to it, but their

usage is very limited. Although PBToday usage differs depending on the functional team of the user, some modules are used much more often than others, for example: Client Coverage, Client Profile, Accounts, and Client Contacts. These results helped us see the importance of functional design, thus we concluded that the redesign should be more role oriented. Our findings include specific complaints and suggestions from various users. Most users wanted to avoid scrolling and they requested the site to be customized for their own needs. They also found it challenging to understand the relationships between clients, their accounts, the legal entities, and the third parties that are relevant. The lack of training they had on PBToday was obvious and they were very eager to receive more.

Combining the analysis of the survey results with the knowledge gathered from interviews, we formed recommendations for process improvement. Our main recommendations include incorporating usability methods and best practices in the redesign, adapting functional design, providing the users with more training, and finding a better way to present the data.

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Chapter 1: Introduction

Intranets are firewall protected web pages that typically contain non-public information and tools for a targeted audience. As intranets started to become increasingly popular, companies began to integrate them to support their internal operations. Enterprise intranets then evolved to include more than mere information snippets and combined these with mini applications. The ideal enterprise portal today offers the user all the functionality they need to fulfill their job role.

Integrating technological tools into the business operations is especially critical in the highly competitive financial services sector. Many Wall Street firms like Morgan Stanley, Goldman Sachs and Deutsche Bank integrate ground breaking technologies into their daily operations to raise predictability in a highly volatile environment. The markets are often unpredictable and it becomes crucial in the fierce competition to provide the best possible service to the clients. As a result, there are several divisions in these types of Firms that are dedicated solely to developing and scaling new technologies to support the internal users in their client-facing roles.

Our sponsor, Morgan Stanley has several portals designed to offer employees the critical information and functionality they need. One of these portals is the Prime Brokerage platform called PBToday. The Scale Team within the Prime Brokerage Division at Morgan Stanley will be redesigning the key information hub for Prime Brokerage, PBToday. The portal is widely used by approximately 1100 users both within and outside of Prime Brokerage, and it has evolved greatly since its launch in 2000.

There is a definite need for a redesign initiative as the portal has evolved in a somewhat arbitrary, less systematic manner. There are issues around the layout as well as the quality of the content. The portal provides a massive amount of information related to client contacts, coverage, accounts, legal entities and third parties. This information, however, is not being utilized and maintained at an optimal level.

The goal of this MQP is to start an initiative to develop a new user centric portal by developing redesign suggestions for PBToday. The purpose of the redesign is to improve the user experience by enhancing usability and functionality, organizing the content better and eliminating unnecessary information. The new redesign will be aimed at accommodating the primary user groups and their needs.

Chapter 2: Background

2.1. Morgan Stanley

Morgan Stanley is a top financial services provider and was founded in 1935. Since its inception as an investment bank, Morgan Stanley has helped the global expansion of capital markets and continues to serve individual and institutional investors. Morgan Stanley has more than 600 offices in 32 countries. The institutional services provided by the Firm are: Sales and Trading, Investment Banking, Investment Management, Prime Brokerage and Research.

2.2. Prime Brokerage

Prime Brokerage is a service offered by investment banks to the hedge funds. The term prime brokerage was introduced by Furman Selz in 1970s and shortly after, most major investment banks started offering the Prime Brokerage Services. The “core services” of Prime Brokerage (PB) to the clients are financing, clearing and custody, risk management and technology support.

Morgan Stanley is the market leader in Prime Brokerage industry. The firm has launched its Prime Brokerage division in 1984, and since then opened global offices in New York, San Francisco, Chicago, London, Hong Kong, and Tokyo. Morgan Stanley Prime Brokerage (MSPB) is organized in seven main groups: Sales, Marketing, Capital Introductions, Client Consulting, Client Service, Risk Management and Technology.

The functions of each team are summarized below:

- **Sales** team consists of start-up, organic growth and take-away teams. They form and maintain relationships with possible clients and current clients.
- **Marketing** team focuses on increasing profits by building sales and relationship strategies.

- **Client Consulting Services** (also referred to as Business Consulting) has three subgroups: Project Management, Start-up & Infrastructure and Best Practices. The team works with clients through all stages of growth to provide assistance in launching with Morgan Stanley platforms, in operating infrastructure and supply technological solutions as well as best practice advice.
- **Capital Introductions** team introduces investors to hedge funds to help the clients raise funds.
- **Risk Management** team reviews client's characteristics and maintains margin requirements, governs Morgan Stanley's risk, and negotiates the necessary documentations from the clients.
- **Client Service** team focuses on relationship management, answers daily needs of clients, performs reporting and addresses operational issues.
- **Technology** team develops the necessary applications for MSPB. The team is organized in three main groups: Portfolio Analytics, Internal Applications, and Custody Positions& Balances.

Morgan Stanley continually invests over \$100 million annually in Prime Brokerage technology to improve the business and serve the clients more efficiently. PBToday is the web portal that is used mainly by Morgan Stanley Prime Brokerage employees, as well as some employees outside the department. PBToday is the key information hub for PB news, accounts and client information. The site has over 1,100 individual users and receives over 40,000 hits per month.

2.3. Portal Technology

The purpose of a portal is to create a single point of access to information by collecting and presenting information obtained from different sources. Apart from the well-known internet portal examples such as Yahoo and Google, there are many more types of portals including specialized portals, enterprise portals, workspace portals and knowledge portals. Most of these portals allow for customization of the content and apply a personalized filter to the available content.

According to the guidelines presented on the SAP Design Guild, a portal has some key features including search function, transaction management, providing access to different types of data, publishing content and holding personalized content. The SAP Design Guild also refers to a study conducted by Ovum, an analyst and consulting company. The study is titled "Enterprise Portals: New Strategies for Information Delivery", 2000, and outlines the areas of functionality on which the ideal portal is based on. These areas include search and navigation, information integration, personalization, notification, task management and workflow and lastly, infrastructure functionality.

Search and Navigation:

The portal should support the users to search for content within the portal. This functionality also allows the users to search for information that they may need outside of what would be typically relevant to their role.

Information Integration:

A portal should effectively integrate the information obtained from disparate sources and present these in a meaningful way.

Personalization:

A good portal should give the user the freedom to personalize the content and layout in line with the user's needs and preferences.

There are several types of personalization:

- Design Personalization the initial appearance of the portal, which may be 'pre-personalized' according to the user's role
- Voluntary Personalization where the user is offered a menu of personalization options to choose from

- Involuntary Personalization where the system itself unilaterally makes decisions for the user according to ‘guesses’ about user preferences

Personalization can be made in several areas:

- Navigation e.g. shortcuts to specific information, mostly known as bookmarks or favorites
- Data/ Content e.g. which stocks do I want to see in my stock ticker
- Layout e.g. what information appears where on the screen, in which format, color or size

Notification:

Notification represents “push technology”, where the user automatically receives information from a server. The user does not have to actively request information to receive it. The user can therefore pick active information sources to be updated automatically when new documents are uploaded or maintained.

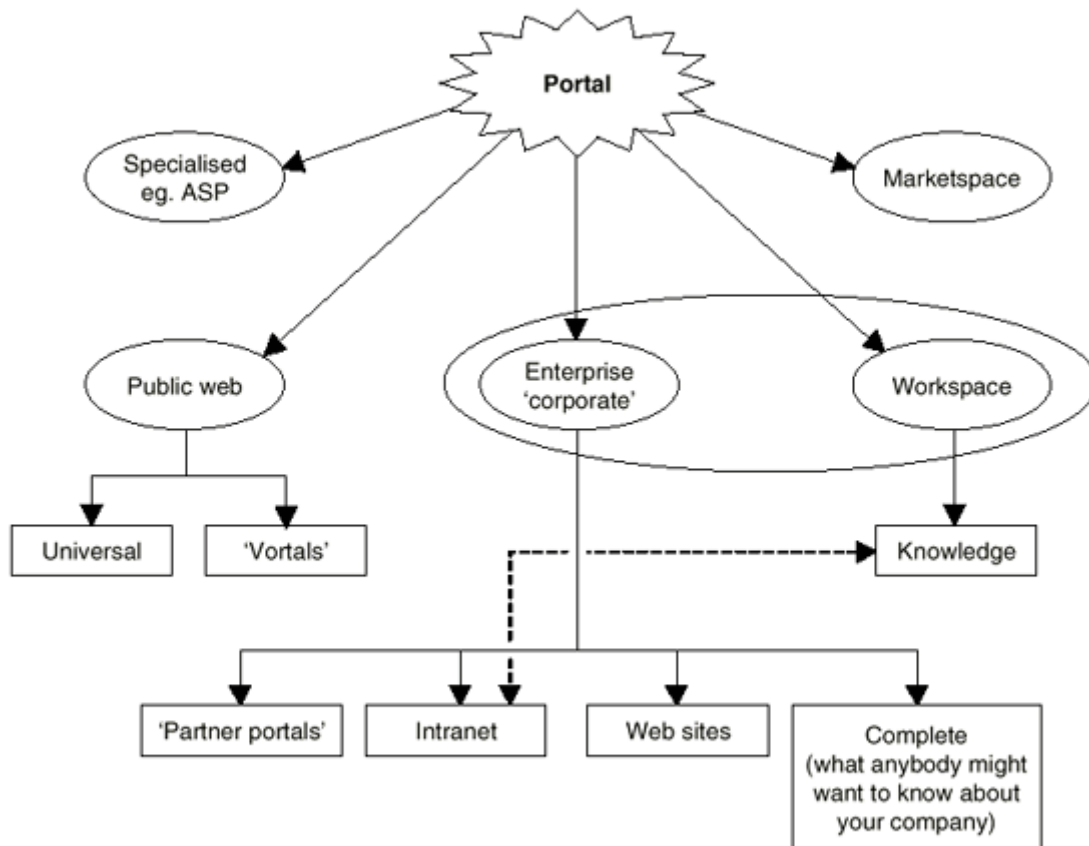
Task Management and Workflow:

The task management and workflow functionality can enable users to manage business processes and automate the process largely.

Infrastructure Functionality:

The Infrastructure functionality of the portal is crucial in determining the performance of the other functionalities mentioned above. Manageability, scalability, security and availability of the portal all depend on how the infrastructure supports the portal.

A hierarchy of portal types



Source: Ovum (*Enterprise Portals: New Strategies for Information Delivery/Chapter C*)

Figure 1: Ovum's taxonomy of portals¹

As listed on the SAP Guild, the consulting company Ovum has identified several types of portals, some with overlapping functionality. These can be listed as Specialized Portals, Marketspace Portals, Public Web Portals, Enterprise Portals, Workspace Portals and Knowledge Portals.

Following are the explanations for each portal type along with some examples.

- a. **Specialized Portals:** These portals are designed for a very specific purpose; an example for this can be Expedia.com for travel planning.

¹ http://www.sapdesignguild.org/editions/edition3/portal_definition.asp, Viewed 11/10/2007

- b. **Marketplace Portals:** These portals are geared towards facilitating e-commerce transactions.
- c. **Public Web Portals:** These portals provide a wide range of information for a wide user base. Examples for these are plenty; Yahoo, AOL and Google are just a few instances of this type.
- d. **Enterprise Portals:** These type of portals are designed to provide enterprise-specific information to employees, managers, suppliers, clients and third party providers. Not every company website can be considered an enterprise portal, unless they have customization and navigation functionalities. An enterprise portal with effective personalization and the relevant information for a user's job role is a candidate for a workspace portal (SAP Design Guild).
- e. **Workspace Portals:** This type of portal represents the ideal situation of a user having everything that they need to fulfill their job role on a digital workspace. Enterprise Resource Planning solutions like SAP and Oracle provide this type of role oriented, customizable web space with relevant information, analytics (graph, chart and report creation) and mini applications.
- f. **Knowledge Portals:** These portals provide easy access to specific types of information and have overlapping functionality with others such as enterprise and workspace portals. An example for a knowledge portal is Bloomberg.

Main Portal Elements

The main portal elements are news, system indicators, workspace organization, action items, information, services, communication platforms and collaboration tools.

Table 1: Design Considerations

News	System Indicators
<ul style="list-style-type: none"> - Short text - Different fonts - May include images and links - May include filter function according to topic and date 	<ul style="list-style-type: none"> - Analog Displays - Qualitative displays with colors
Workspace Organization	Action Items
<ul style="list-style-type: none"> - Hierarchical structures should be simplified or broken into pieces to avoid deeply nested content areas to show under shallow content areas - The hierarchical structure should only be partially revealed to the user, showing the user only the relevant information 	<ul style="list-style-type: none"> - Action Items should distinguish between one-step (simple, one-click type tasks), procedural (tasks following a strict sequence of steps) and parallel tasks (monitoring combined with action) - Have toolbars, checklists, workflow inboxes
Information	Services
<ul style="list-style-type: none"> - Information should be presented in a way that makes it easier to read it off a computer screen - Stand-alone information should be presented separately, in separate windows if possible 	<ul style="list-style-type: none"> - Services include self-service applications like creating new reports - Applications should have few fields and functions to keep things simple -
Communication Platforms	Collaboration Tools
<ul style="list-style-type: none"> - Platforms can include shared documents, mailing lists, discussion boards and chat rooms - Shared document authors and discussion board participants should be encouraged to be brief and concise 	<ul style="list-style-type: none"> - Collaboration may involve people working in parallel on a shared document or joint project. Individuals can be single parts of a workflow chain to complete a task. - Collaborating people should be informed on the status of the workflow or project plan

2.4. PBToday

PBToday is the key information portal for Prime Brokerage. The portal was launched 7 years ago and has evolved greatly since then. It constitutes of news snippets, mini applications, links, shortcuts and analytics tools. The portal contains

- Referential information
- Constantly Updated information- published under Notice Board, Headlines, All Client Visits
- Links and shortcuts
- Mini applications for content upload.

The portal is structured on two levels: tabs and modules. The tabs are Home, My Client Content, My Client Financials, Legal Entity, Accounts, Third party, Rel Mgmt, Key and Products/ Content. The modules under each tab are listed in Table 2:

Table 2: PBToday Tabs and Modules

Home	My Client Content	My Client Financials
Global CIA MS Resources My Client Suggest Notice Board Coverage Events Global References Corp Actions Notices Sharepoint RSS Links All Client Headlines System Shortcuts All Client Visits Daily Interest Rates Sharepoint RSS Docs	Suggest Clients Headlines Documents Feedback & Goals Coverage Notes GCIA Update Links Profile Alternate Names Legal Entity TP Relationships Marketing Coverage Team Accounts Client Visits Firm Coverage Contacts Usage Reports	Suggest Client Alternate Names Market Share MM Balances Margin Summary MSPM Interest Balance Rates Revenue RBC
Legal Entity	Accounts	Third Party
Suggest legal Entity Profile Detailed Profile Relationships	Suggest Account Profile Accounts Coverage Team Relationships	Suggest Third Party Third Party Profile Accounts Alternate Names TP Relationships TP Contacts
Rel MGMT	Products/ Content	Key
MSPM Perg Summary XL to WQ HF Bus Mgmt Study Focus Templates Employee BCP CIA Admin Tool	Industry Content White Papers Financing Products Event Recaps Research Library	

The tabs are listed on the horizontal blue bar at the top of the page. Clicking on each tab takes the user to a different view, with different modules and landscapes of information. Figure 2 shows the Home tab. For the screenshots of the other tabs, please refer to Appendix F.

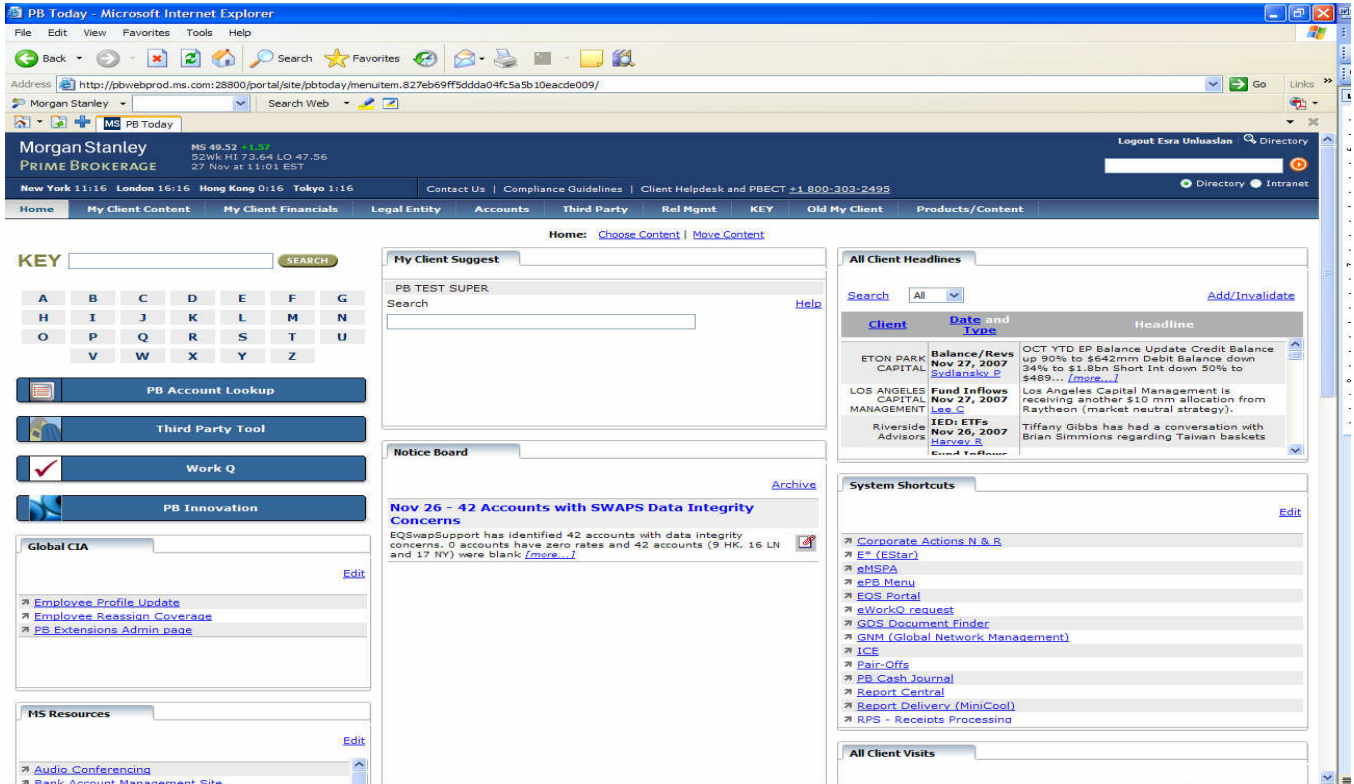


Figure 2: PBToday Home Tab Screenshot

2.5. Portal Usability Principles

There are some essential usability principles that should be taken into consideration during a re-design process.

1) Attention

Attention is distributed in the following way within a single view of a page:

40%	20%
25%	15%

Figure 3: Attention Distribution

Left half of the page combined gets 65% of the user's attention. Of this, the top-left hand side of the page gets the most attention from the user. Information grouped on the bottom right hand side of the page is easiest to oversee, as this part of the page gets the least amount of the user's attention.

2) Scrolling

There are potential problems related to accessing certain pieces of information only through scrolling. This holds true especially for "landscape-oriented" pages, where information is organized within sub-sections of a page, or within modules. When the whole page consists of simple text, it is evident to the user that they would need to scroll down to read on. With modules, the user feels that what they see is what they get and do not always consider scrolling, hence missing potentially important pieces of information to complement their view of the page.

3) Navigation Patterns

There is a certain intuitive way with which a user navigates a page. In this regard, the way the information dependencies are structured are highly relevant to how effectively a user performs a given task on the page. The natural flow of activity follows an intuitive pattern similar to that of reading (left to right, top to bottom). The current PBToday design does not necessarily provide this intuitive pattern, as the information gets grouped in disparate modules randomly displayed on the page.

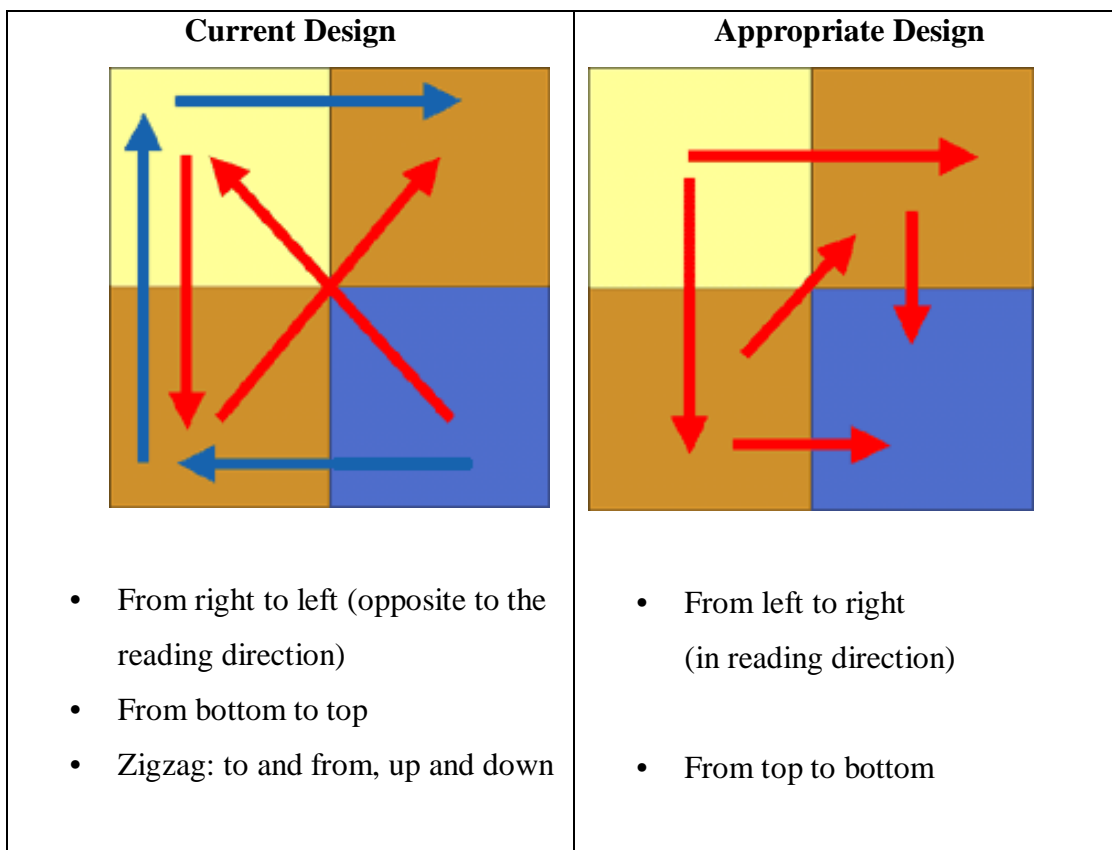


Figure 4: Navigation Patterns²

In short, a good layout should take care of the mentioned design considerations. The most important information snippets or most commonly used applications should be placed on the upper left hand corner of a page, similarly, modules and mini applications should be

² http://www.sapdesignguild.org/editions/edition3/portal_usab.asp, Visited 11/10/2007

arranged on the page in a way that complies with the general navigation pattern. Lastly, scrolling should be minimized to avoid overseeing information on the page.

2.6. Usability Methods in Portal Redesign

Usability methods include elements of inquiry, inspection and testing.

a. Inquiry

Surveys, Surveying is a practical method to gather quantitative and qualitative information and can be used at any stage of the design process.

Interviews and focus groups, Interviews and focus groups can be utilized to determine functional and business requirements prior to an initial design attempt.

Card sorting, this method involves using paper cards to have the users sort the main items into piles and bigger groups. Card sorting can help developers understand different users' mental models on how they organize the information. This knowledge can help design better menus and modules in the new user interface.

b. Inspection

Pluralistic walkthrough, people with diverse sets of skills and roles (user, developer, product managers) get together to walk through a task scenario and evaluate each step of the interaction.

Cognitive walkthrough, evaluators construct task scenarios for early prototypes and ask the users to role play the interaction with that preliminary interfaces. The users act as if the system they are interacting with is real and provide feedback on convoluted task paths, potential problems or general usability of the system.

Formal usability inspection, this method applies software inspection methodology to usability evaluation. A cross-functional group of people and an actual inspector walk

through the tasks and scenarios to discuss and discover the defects. The emphasis of the walkthrough process is more on detecting defects and issues with the system. This technique is required to detect defects on a tight production schedule.

c. Testing

Performance Measurement- the purpose of this method is to gather quantifiable data. ROI metrics are identified for the design process and are measured during the initial phases of the design process for benchmarking purposes.

Co-Discovery Method- this is a usability testing method involving two participants attempting to perform a task together during observation. This method might give more insight for users who work in team environments, as they are used to interacting with each other while performing their daily job functions.

The 10 winners of the Norman Nielsen Group Intranet Design Annual applied an average of 4.5 usability methods to the intranet redesign process.

The **10 best-designed intranets (internal portals) for 2007³** were:

1. American Electric Power (AEP), United States
2. Comcast, United States
3. DaimlerChrysler AG, Germany
4. The Dow Chemical Company, United States
5. Infosys Technologies Limited, India
6. JPMorgan Chase & Co., United States
7. Microsoft Corporation, United States
8. National Geographic Society, United States
9. The Royal Society for the Protection of Birds (RSPB), United Kingdom
10. Volvo Group, Sweden

Usability methods were found to expedite the redesign process as well as ensure user acceptance of new technology.

³ http://www.useit.com/alertbox/intranet_design.html, Visited 11/21/2007

The graph shows that the more usability designs are implemented, the less time it takes to complete a redesign project: Redesign cycle has sank from an average of 11-13 months in the previous years to 7.6 months recently through usability method utilization.

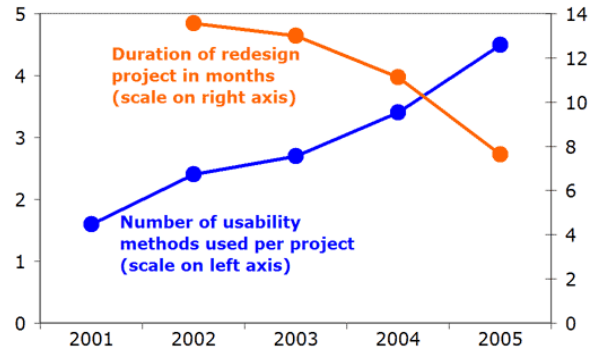


Figure 5: Decreased Redesign Cycle⁴

⁴ <http://www.useit.com/alertbox/20050228.html>, Visited 11/21/2007

Chapter 3: Objectives and Methodology

Our methodology was determined on the basis of how we could achieve the objectives that we set to fulfill the goal of our project.

Our first objective was to get a higher level understanding of PBToday usage. To achieve this, we executed a survey. The survey questions are included in Appendix A. We had a total of 149 participants across different teams within and outside Prime Brokerage. The survey questions include location of the employee, his/her team and function, main purposes of PBToday use, which modules and tabs they use, and if they had any recommendations to improve the portal. The data gathered from this process is analyzed in the next chapter. The survey helped us to understand how different teams use PBToday and which functionalities of the portal is utilized most often.

Our second objective was to determine the portal usage of each functional group and obtain detail level usage information. For this purpose, we scheduled 35 interviews with employees in different teams. We covered all the teams within PB and interviewed teams outside PB who use the portal. The results of the interviews helped us to solidify our suggestions. The users gave us valuable feedback; they explained their usage of the portal, shared their frustrations with it, made wish lists, asked for new modules and made recommendations for the new redesign. The quantitative input gathered from survey was supported by the qualitative results of the interviews. We observed that there are certain patterns that each team uses the portal and the complaints were repetitive across different teams.

Our third objective was to determine areas of optimization to accommodate different functional groups. We did research on portal best practices and learned the industry standards to design web portals. Comparing the current design with the best practice, and adding the data from the survey and our observations during the interviews, we decided to redesign PBToday by team. Our recommendation is to build tabs to answer the needs of the teams which use the portal most heavily. We attempted to solve the complaints of

the users and recommended a more useful design by customizing the portal per functional team usage and by eliminating the clutter in the current design.

These objectives helped us meet our project goal of starting an initiative to develop a new user centric portal by developing redesign suggestions for PBToday.

Chapter 4: Data Analysis

4.1 Survey

Before starting the work on the site at Morgan Stanley, the team sent a survey to 1100 users of PBToday. Our aim was to understand the general usage of the portal cross-divisionally. We received response from a total of 149 survey participants.

Survey questions were geared towards determining the users’:

- Region
- Team
- PBToday Usage Frequency and Purpose
- Rating of Individual Tabs and Modules
- Comments and Suggestions

Data was analyzed by regions, by tabs for teams and by modules for the given teams. A copy of the survey as well as detailed data gathered from the results are added in the appendices.

4.1.1 Regional Usage

From the results of the survey, we noticed that PBToday usage is noticeably greater in North America in comparison to other regions. As the graphs below indicate, 82% of the survey participants in New York said they use PBToday daily, where as this number is only 52% in Europe. We did not include the results from Asia in the report, because we did not find a total of seven participants representative enough. Initially PBToday was intended for New York usage, and it still needs to be utilized more for International Prime Brokerage (IPB).

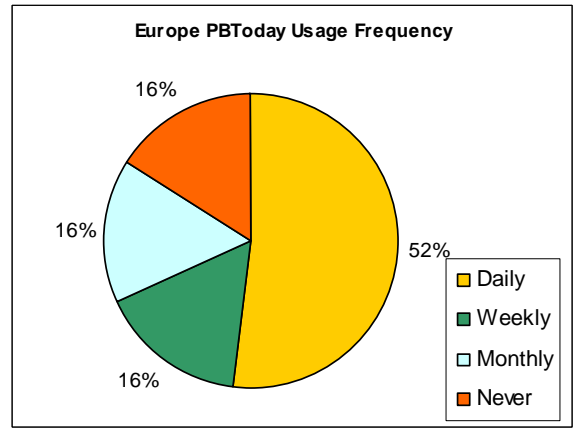
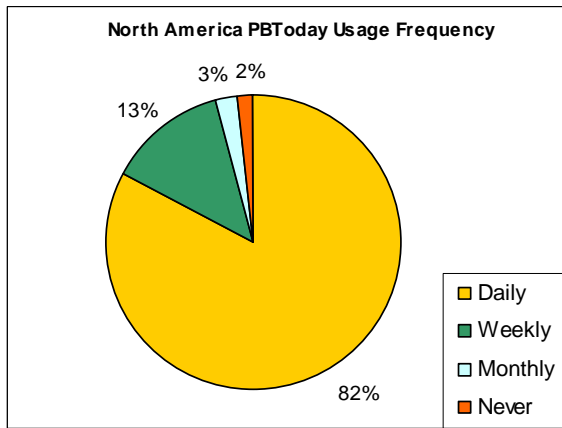


Figure 6: Regional Usage Frequency

4.1.2 Tab Usage

After analyzing the regional usage, we looked into the tab usage between different teams. Below is an example amongst many to illustrate this distinction:

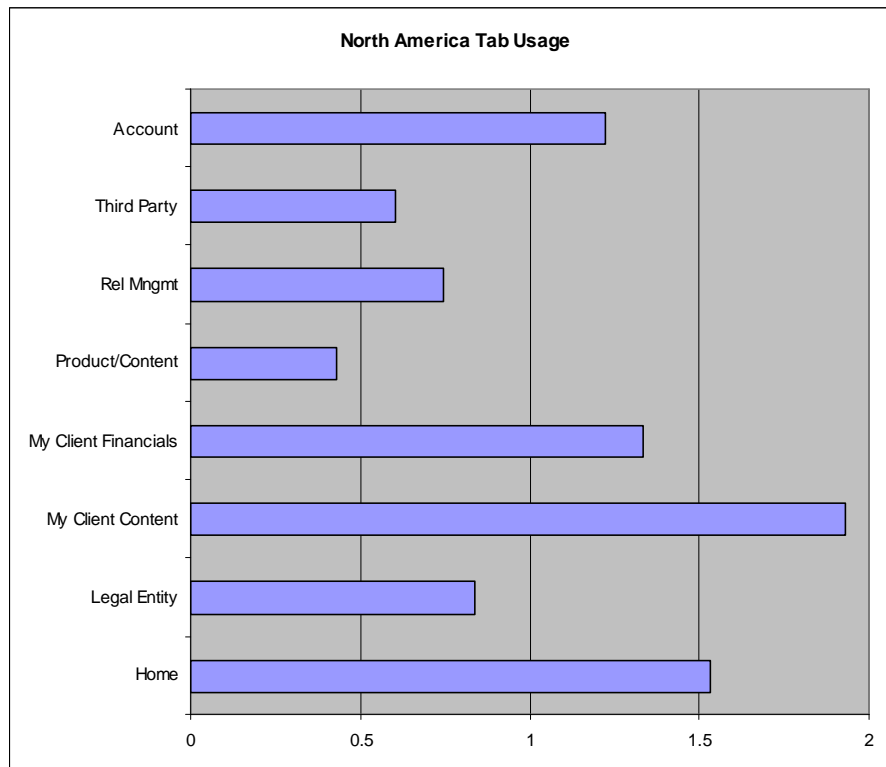


Figure 7: North America Tab Usage

The scale reflects the participants' tab usage frequency rating:
Never- 0 Rarely-1 Often- 2

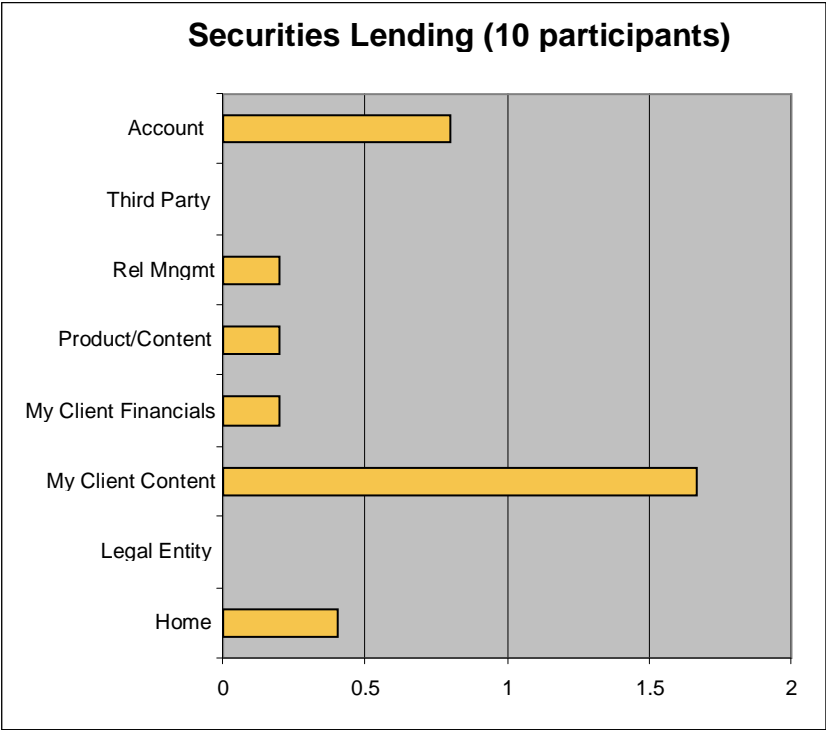


Figure 8: Securities Lending Tab Usage

The scale reflects the participants' tab usage frequency rating:
Never- 0 Rarely-1 Often- 2

We chose to include North America Client Services and Securities Lending here, because their usage is very diverse from each other. Both teams use My Client Content most often, but Securities Lending does not use Third Party or Legal Entity tabs at all.

After these analysis, it is obvious that role based design is essential since the usage of the portal varies significantly between different cost centers. More tab level analysis is included in Appendix D.

4.1.3 Module Usage

Although PBToday usage differs depending on the functional team of the user, some modules are used much more often than others, for example: Client Coverage, Client Profile, Accounts, Client Contacts.

The sample graphs below display the similarity of the most often used modules between two very different cost centers: North America Client Service and Securities Lending.

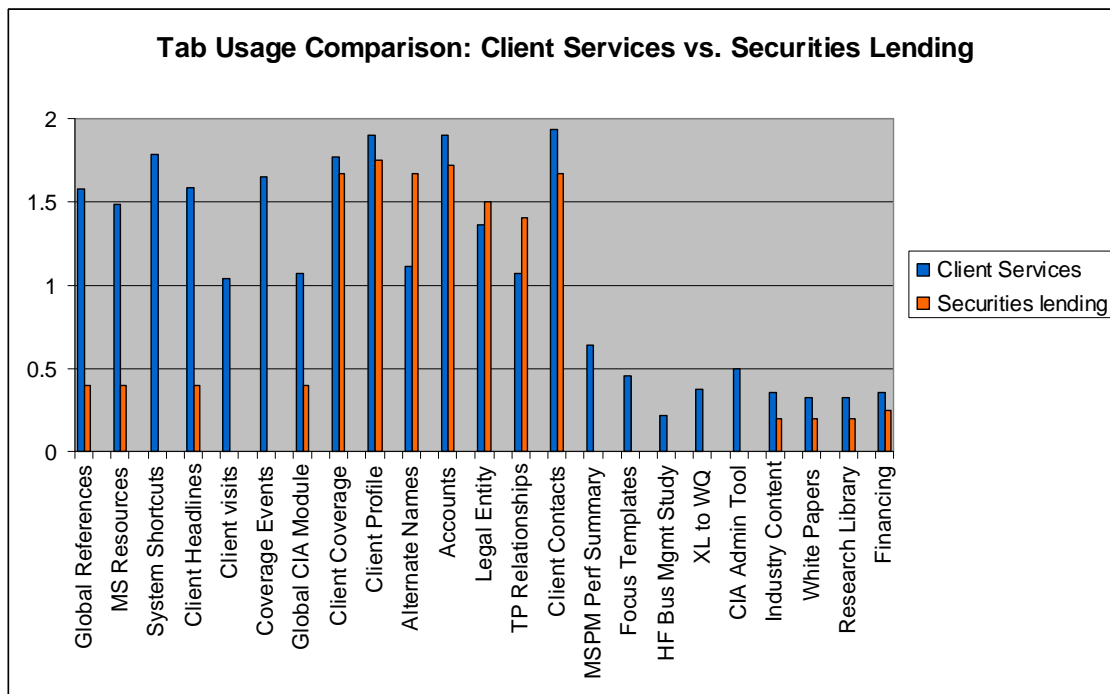


Figure 9: Tab Usage Comparison

The scale reflects the participants' module usage frequency rating:
Never- 0 Rarely-1 Often- 2

More module based analysis is included in Appendix E.

4.2 Interviews

To determine functional groups' portal usage and obtain detail level usage information, we interviewed 39 PBToday users across different teams. Initial interviewees were selected from the survey participants. The second round interviewees were chosen to have representation from the remaining groups. We aimed to interview junior employees as well as senior management.

The interviews were structured to gain an understanding of the users':

- Team functions
- Portal usage purposes

- Routines on PBToday, if any
- Frustrations with the current system
- Ideas on which modules or functions they would include if they could design their own view
- Suggestions

The interview framework is included in Appendix B.

Overall, we noticed that PBToday is used very often and is an essential component of the job for many employees. The interviewees were supportive of a redesign and they were willing to share information and asked for more training on the portal.

The common complaints of the users we interviewed were that:

- The portal is too cluttered.
- There is too much scrolling.
- Data presentation doesn't enable the user to understand the relationships between clients, legal entities and third parties.
- Contact information (Roles, Addresses, etc.) is not updated often.
- Some financial information (Rates, Market Share, etc.) is not updated often.
- Limited training is available.
- The site is not customizable enough.
- The back up note module needs to be utilized more.
- Basic entitlements should be more granular on the basis of what users need.

Also, the technical issues that we realized were:

- The system should be faster.
- Falcon support tickets must be named "help" instead of "contact us".
- Users wish to maximize modules.
- PBToday does not comply with the firm web standards from the shared libraries.
- PBToday is not compatible with Firefox.

Top Issues with Each Tab

We could analyze the top issues that were brought up by users in the following list:

Home tab

- The nomenclature should be more intuitive, as some of the names are misleading in the current system
- Links to query different applications for the given client (client performance numbers and exposure information from MSPM, exceptions and positions from MSPA) are requested.
- The users complained that global references are very disorganized. It should be organized by the team posting the document and include an inter module search function. In the current design, there is a search function only for intra module queries.
- Headlines should be organized by time they were uploaded and by client. Some users requested to see visits older than 90 days. Currently, the “add/ invalidate” button also can export to excel. The nomenclature should be changed.
- The users want the freedom to choose their own system shortcuts. They should be able to add and delete shortcuts in their home page.
- The interviewees requested edit, maximize and print functionalities to client headlines.

My Client Content tab

- The accounts module should be better organized and importable to excel. The users should be able to produce a report as well as to retrieve a modifiable excel sheet. There is an existing import to excel function but the resulting excel file is not good for sorting and analyzing data.
- Firm Coverage and contact info must be maintained by CSR's. Most teams want the permission to update the contacts information. Some teams request additional information on firm coverage, such as more comprehensive sales and trading coverage. Documentations mostly need Sales Coverage for different type of products, IED and FX Sales were brought up as examples.
- Documents module should be organized better by including a search function. It should also feed from different SharePoints depending on the team of the user logged in. A link could be provided to GDS, which is more comprehensive.
- Client visits should be updated on the portal rather than through WG since WG access is very limited. There should be a search function according to date and client. The search should go back further than just 90 days.
- The users asked to be able to add the contact information to their outlook through the contacts module under my client content.

My Client Financials tab

- Financial data needs to be updated more often. PBToday pulls interest rates, interest balances and revenue information from WIRE. This process is automated, however if the data is not updated from the day before, a notice informing the users should be added.

- The portal should include more visual presentation of the data (like graphs) and historical track record for the client. All financials should be made easy to export to excel.
- Post mortem analysis for clients balance information was requested.
- The market share module should allow for intra-quarter updates.
- The users want to see the tiers and thresholds for the rates.
- PBToday should include a function to query rates like the EPB Menu.

Legal Entity tab/ Accounts tab/ Third Party tab

- As it will be discussed in the next chapters, relationship level data between clients, legal entities, accounts and third parties should be presented in a better way. Most users indicated that they liked the hierarchical tree view in CIA.
- Contact names and addresses should be updated more often. An effort from Client Services to update contact information regularly is necessary.
- CSR's should confirm with the client who their third party providers are and update these periodically. It is not obvious which third party a contact works for.

Relationship Management tab

- Some users indicated that they would like to see information on client usage of Swift, Risk Analytics and MSPM. CSM's, SCSM's and Sales also want to see the P&L link for the clients.

During the interviews, we also noticed that the Products/ Content tab is not used very often except for focus reports. Similarly, the Key tab was not used very often either. Most

users preferred to launch Key directly from Internet Explorer instead of going through PBToday. The users who use the Key Tab requested Key to open in a different browser than the one they were using PBToday on.

Below, Table 3 summarizes the top issues within each tab identified through the interviews. This is a module level analysis of what could be improved.

Table 3: Top Issues with each tab

Home Tab	My Client Content	My Client Financials	Legal Entity/ Accounts/ Third Parties	Others
<ul style="list-style-type: none"> * Reorganize Global references module * Reorganize Headlines by client. Change the “add/ invalidate” button. (Throughout the portal, try to make nomenclature as intuitive as possible) * Give user the ability to customize the shortcuts * Add links to query different applications with the selected client * Add edit, maximize and print functions for Client 	<ul style="list-style-type: none"> * Redesign the accounts module in an excel friendly way * Start an initiative to maintain Firm Coverage and contact info by CSRs. * Add a search function in Documents module – provide links to Sharepoints * Create a uniform way of updating Client Visits between teams * Give use the ability to export Contacts in Outlook Adressbook 	<ul style="list-style-type: none"> * Sum up interest rate balances, margin details, roll-up margin, sum the interest rate balances, include export to excel functionality in each numerical module, the margin balances should be summed up at the bottom of each account and presented better * Include more graphs and historical track record. All financials should be made easy to export to excel * Include Post mortem analysis for clients balance informationAllow for intra-quarter updates in the market share module * Show the tiers and thresholds for the rates: check the entitlementsInclude notes on information feed from WIRE. 	<ul style="list-style-type: none"> * Legal Entity, Accounts and Third Party Tab could be combined similar to the hierarchical tree view in CIA * Update contact names and addresses *CSRs should confirm with the client who their third party providers are and update these periodically. It is not obvious which third party a contact works for 	<ul style="list-style-type: none"> * Relationship Management tab: Add information on client usage of swift, risk analytics, MSPM, P&L link * Products/ Content tab: Focus reports are often used. They could be placed in a more convenient location than Producs/Content tab * Key: Open Key in a different browser

Headlines		* Add a function to query rates like the EPB Menu to PBToday.		
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4.3 *Functional Usage*

The interviews gave the team an opportunity to observe and directly ask PBToday usage purposes. Supporting this data with the survey results, we summarized the usage of each functional team below. As it could be seen in Table 4, the purpose of usage differs greatly between different teams. However actions such as looking up coverage information, account information and contact information as well as accessing shortcuts, client visits and headlines are utilized by many different teams. Some of the key actions taken in the current system can be described in the following way:

1) Looking up Account Information

The user has several alternative ways of doing this-

- a. Home Tab> PB Account Lookup tool

The user can access this information by clicking on the “PB Account Lookup” shortcut on the home tab. A screen pops up to prompt the user to suggest an account number. After an account has been selected, two modules for “Client Profile” and “Coverage” appear. The user can retrieve information related to the order placer, account type, account number, trading name id, account name, phone, fax number, status as well as the coverage team’s contact information.

- b. My Client Content tab> Accounts module> Show all

The user can access a listing of all accounts for a given client by first suggesting a client through the “Suggest Client” module on this tab. Next, the user can go to the Accounts module to use the “Show All” function for Open or Closed accounts from the dropdown menu. A pop-up screen appears to display all accounts by the following titles Management Accounts/ Separately Managed Accounts/ Main Accounts. This data can be

sorted by Product/ By Account Rollup/ 038/ 04F or both by 038 and 04F. Filter by Swaps/ Futures/ FX/ CDS/ Commodities/ Repo/ Stock Loan/ or Show All. The user can also sort the list of accounts to excel for further analysis or export it in a PDF format. The user cannot retrieve coverage information.

c. Accounts tab

The user can similarly use the accounts tab to retrieve account level information under this tab by suggesting an account under the “Suggest Account” module. The user can retrieve information related to client profile, coverage team and an overview of Legal Entity and Third Party information.

2) Updating Client Visits

The user goes under the My Client Content tab to read and record Client Visits. The user needs to go under the Contacts module and choose the client contact that they corresponded with. When they hover over a name with their cursor, the appearing list shows the option “New Call Report”. The user then files the details of the client visit through the form to display it under Client Visits.

3) Launching Applications

The user goes under the Home Tab to reach shortcuts to launch several applications such as the PB Account Lookup tool, Third Party Tool, Work Q and PB Innovation by clicking on the clearly visible buttons. The user can also launch other applications such as E*, MSPA, EPB Menu by clicking on the relevant links under the System Shortcuts menu.

4) Updating Market Share Data

The user clicks on the My Client Financials tab to access the Market Share module. The suggested client ID is carried over to this tab through the My Client Content if the client was already selected. The user can also suggest the client through the Suggest Client module under this tab to see the relevant financial information. The user then needs to click on the “Update” link next to the BU Client name to retrieve the market share update form.

5) Looking up coverage info

The user suggests a client under the Home tab or the My Client Content tab by entering the name of the client in the “Suggest Client” module. Under My Client Content, the user can retrieve the coverage team information (Coverage type, name, Phone and coverage level) from the “Coverage Team” module.

Alternative Path:

a. The user knows the account number and would like to lookup the coverage information. The user clicks on the Home tab and clicks on the PB Account Lookup shortcut button. This launches a pop-up window where the user is prompted to start entering the numbers of the account. Once the user has selected the correct client, two modules appear on this page to show the client profile as well as the Coverage Team information. The Coverage team module on this pop-up window is the same one the user would see under My Client Content.

6) Updating Coverage info

The user suggests a client under the Home tab or the My Client Content tab by entering the name of the client in the “Suggest Client” module. Under My Client Content, the user can update the displayed information by clicking on the “Edit” link on the module (given that the user has the proper entitlements to do so).

Table 4: Functional Usage

Client Services	Client Data Management	Business Consulting	Sales and Marketing
<ul style="list-style-type: none"> * Looking up coverage info * Updating coverage info * Launching Applications * Looking up Contact info (phone numbers, addresses etc) * Calling Contacts * Looking up account information * Sorting account numbers * Looking up Interest Balances and margin numbers * Updating market share * Accessing Shortcuts * Updating Client visits * Looking up Headlines * (CSMs) Producing focus reports * Accessing KEY * Searching Documents on Global References * Looking up HF Mnemonics or K codes for referral to get information on trades 	<ul style="list-style-type: none"> * Referencing account information to confirm correct setup * Checking that data migration is fulfilled correctly * Updating and maintaining Third Party information (TP tool) * Looking up Third Party contact information * Updating employee profile * Accessing Shortcuts (WorkQ, TP Tool) 	<ul style="list-style-type: none"> * Accessing Shortcuts (MSPA, E*, EQS, WorkQ, GDS, GNM, Report Central and Transaction Manager) * Looking up daily interest rates * Looking up account information to get familiarity with a newly assigned client * Looking up coverage information * Looking up contact information (phone numbers, addresses) * Accessing information on how big a client is for the Firm (market share and marketing tier information) * Emailing coverage team * Calling coverage team members * Looking up HF Mnemonics to retrieve old trade files from MSPA * Retrieving K codes for expense reports * Retrieving existing general and account level information to set up a new business obtained from an existing client (organic) 	<ul style="list-style-type: none"> * Looking up information on an ad hoc basis * Producing focus reports * Accessing white papers, products/content information * Looking up legal entities * Looking up coverage team information

Risk Management	Financial reporting	IT Support	Other
<ul style="list-style-type: none"> * Access to contact information * Calling contacts * Looking up K codes * Retrieving coverage team information* Accessing policies and procedures * Accessing Shortcuts * Looking up fund level information* Looking up account information 	<ul style="list-style-type: none"> * Cross referencing the accounts* Accessing client contact details * Retrieving forms * Looking up the WIRE client ID * Looking up account information * Looking up coverage team information * Retrieving MS Resources * Checking the Notice Board * Uploading announcements * Publishing financing information 	<ul style="list-style-type: none"> * Updating the notice board * Looking up account information 	<ul style="list-style-type: none"> * Looking up account numbers * Reading headlines * Retrieving client profile information * Looking up contact information * Looking up coverage team information * Looking up client visits * Retrieving market share data * Producing focus reports

Chapter 5: Recommendations⁵

5.1 *Functional Design*

Noticing that usage of PBToday differs greatly between different teams, we decided to redesign the site according to the functional team usage. Our recommendation is to have three main views: Home, Client Relations and Data Management. During the interviews and the surveys, we noticed that the users were not very willing to explore different tabs in the current design, so grouping most of their needs into one page would be a more effective design. More views could be added to give different teams content ownership, either to access specific information or to publish content cross divisionally. Business Consulting showed important initiatives on this purpose, and more views could be added if other teams have specific needs.

The main idea behind the layout of the redesign is to avoid scrolling, eliminate the crowded look of the current PBToday and to help users find what they need more efficiently. Having only three views instead of ten tabs and eliminating scrolling should diminish the overwhelming effect the current crowded design have on the users. All users will be able to see all the views within limitation depending on their entitlements. However, most users will only need to use one view while performing their daily tasks. Since, the modules are grouped under functional views, this design will minimize searching for information. Teams have specific functions, so most of the information a user in a specific team will need will be accessible to the user under one view.

Below, Table 5 summarizes the functions of each view:

⁵ The screenshots included in this section are intended to express required functionality and characteristics. They do not reflect the final product.

Table 5: Functional Views

Views	Function
1. Home	Non-client specific information for all users
2. 1. Client Relations - Client Content	Client Specific Contact, Coverage, Profile Information
2. 2. Client Relations - Client Financials	Client Financial Information
3. Data Management	Display of Relationships between Accounts, Clients, Third Parties and Legal Entities

5.1.1 Home view

Home view is intended for general usage, it will be utilized by all teams and it will serve as a common ground cross-divisionally. The home view presents information which is not client specific. The view will include the search module for the users to access all the modules they might need. To allow for greater customization, they will be able to select and add a module presented to their home view. PB Account Lookup will be included to access coverage and account information. The interviews and survey indicated that PB Account Lookup is all what some teams, for example Operations- Equities Swap Support need. System shortcuts will be included, since it is widely used. Notice Board will be included on the top left corner, since our best practices researched showed us that the top left corner is the location 40% of the attention is concentrated on. Global References will be included in the home view, because it is widely used between different teams. All Client Visits and All Client Headlines will be included as well to give general information to the users.

Figure 10 below represents a sample User Interface Design for the Home View. More changes need to be made in each module, but the below is designed to illustrate the layout of each module within the view. The reader should acknowledge that Figure 10 does not reflect the final product and the final design could be significantly different than this view.

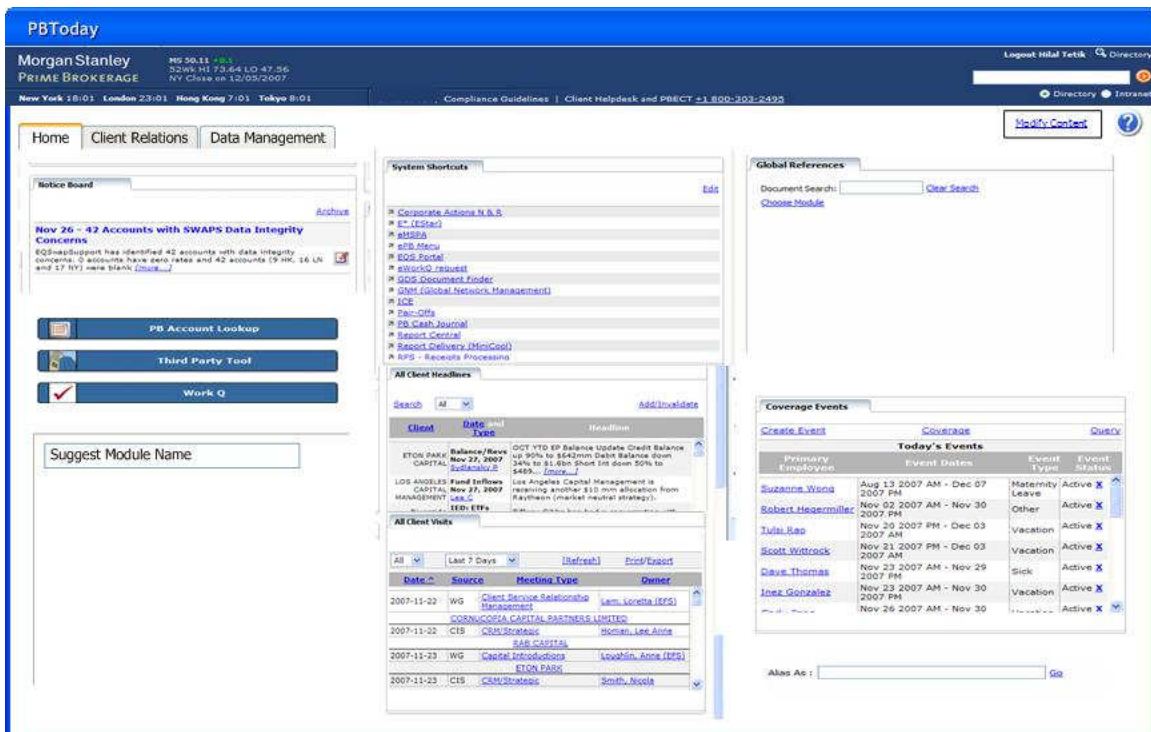


Figure 10: Home View

5.1.2 Client Service View

Client Service View is designed to communicate client specific information. The intended audience is Client Services, Business Consulting, Sales, Marketing and Financial Reporting.

Client Service View has two subviews: Client Content and Client Financials. Client Content has Client Specific Contact and Coverage information, Account and Profile information for the selected Client, whereas Client Financials concentrated on the Financial Data. CSR's and CSM's will use Client Content Subview more than any other view, where as Client Financials will be utilized more by senior management, Sales and Marketing as well as Financial Reporting.

Client Content

Figure 11 represents the sample user interface for Client Content subview. Suggest Client is placed in the top left corner, since the information on the other modules in Client

Content and Client Financials Views will be generated according to the specific client selected from Suggest Client Module. Focusing on the importance of navigation patterns, we aimed to avoid the zigzag pattern CSR's follow while using the My Client Content in current PBToday. Client Content sub view in the new design presents all the coverage and Contacts information vertically in the middle of the page. Profile, address and alternate names are grouped in the left side. On the right hand side additional information about the client is provided: Headlines for the selected clients, Visits to the client and the accounts of the client. The accounts module is included for the users to reach account information for the selected client. This module however needs to be better organized to answer the users' needs: it needs to serve a report and it needs to be exportable to excel and allow for sorting information.

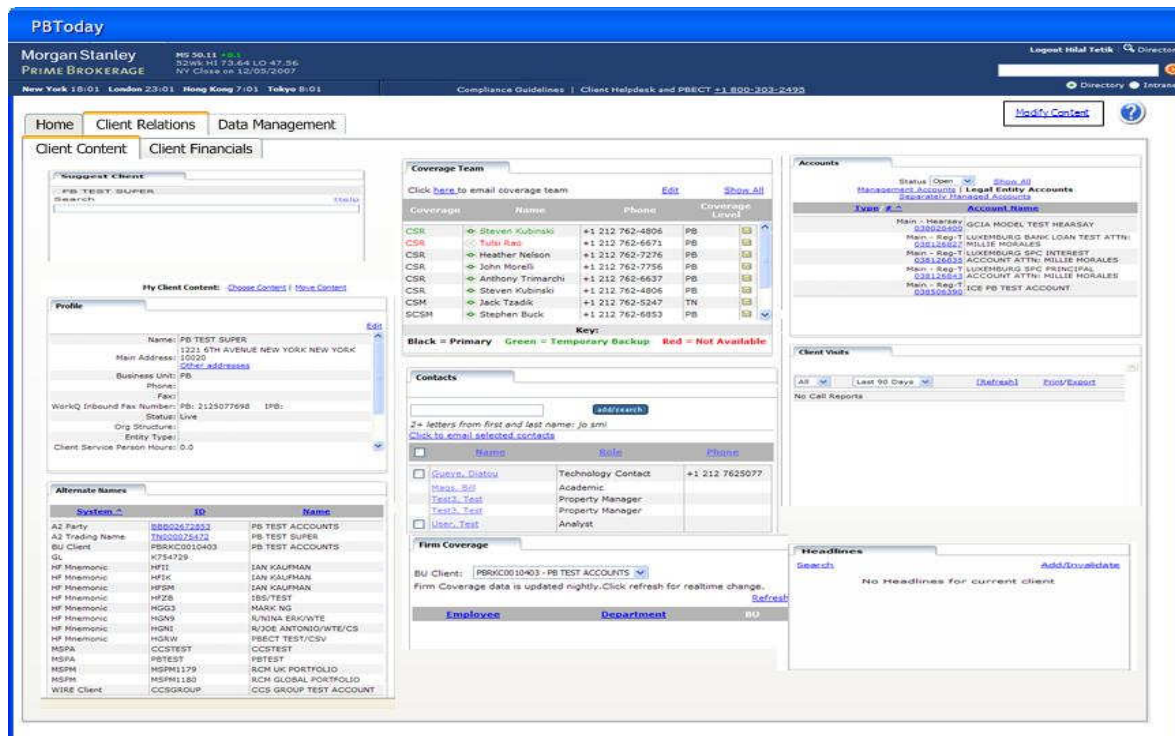


Figure 11: Client Content View

Client Financials

Client Financials is similar to My Client Financials in the current design of PBToday. Interest Balance, Rates, Market Share, MM Balances, Revenue RBS, Margin Summary and MSPM data is presented in this sub view. More financial information could be added

depending on the users needs. Some users requested graphs of historical track record of the client, and functions to query rates like EPB Menu. The users should also be able to export the information in each module to Microsoft Excel. Figure 12 represents the sample user interface for Client Financials sub view.

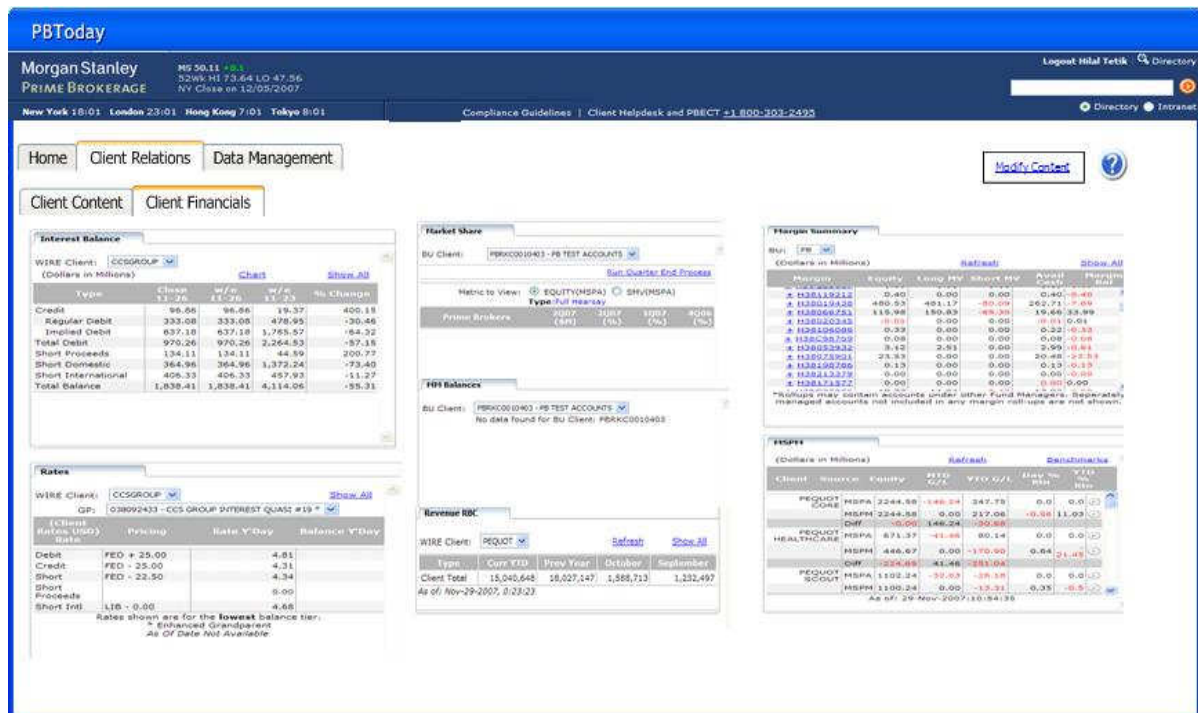


Figure 12: Client Financials View

5.1.3 Data Management View

Interviewing the users, we noticed that most did not know what the names of the tabs in the current PBToday design meant. Terms “legal entity” and “third party” did not mean much. Similarly, they were confused about the relationships between accounts, clients, legal entities and third parties. CSR’s knew this information for their own clients, but they didn’t understand it from the way it is presented in PBToday. Users who have access to CIA all preferred the layout in CIA to present such a complicated structure. Given the fact that Morgan Stanley Prime Brokerage is moving to Global CIA and PBToday will be the interface for it, we need to make sure PBToday presents the relationship level information thoroughly.

For the data management view, we suggest a design similar to the layout in CIA to present these relationships. EPB menu could be implemented in this view and users could be offered to choose an account to see its relationships with legal entities and third parties. Similarly, a client could be chosen to view its relationships with legal entities and third parties. A client's account, third party and legal entity could be selected to see the existing relationships among each other.

We refrained from designing a sample user interface for this view after our meetings with Technology team. After talking to Niranjana Kanade and Laurence Gold, we understood the complexity of the data and the fact that there are many different ways to present it. Initiatives such as PBMind are attempting to organize data in a better way. Data organization is a very vital issue, which surpasses the scope of this project. Presenting the relationship level data in a user-friendly way in PBToday should be one of the main goals of the redesign process.

5.2 Search Module

One of the most common complaints from the users was that the portal was too crowded and they didn't want to scroll down to see all of the content. They were also reluctant to explore the tabs in the current design. Most of the information was repetitive and different users in different teams developed their own ways to scroll and navigate through different modules and tabs to do their job. To eliminate all this, in our new design we included only the necessary modules and the modules that were used most often. For the users to reach the modules that were not be displayed in the new design, we will include a search modules function. When the user types in the first couple of letters to suggest the module he/she is looking for, the search module function will give the names of several modules for the user to choose. When the user hovers over the names of the suggested modules, he will be able to see the descriptions of their functions. The user can add the module to his home page if he uses it often. This design avoids scrolling and makes the layout of the portal less busy. It is customizable, but everyone shares three common views to make the communication between different teams easier.

Similarly, we would like to add search functions within some modules such as Global References, Documents, Headlines and Client Visits. This would help the user execute detailed search (by year, by client, by employee, etc.) within the module.

5.3 Training

Another observation we had during interviews was the lack of complete training on the portal. Some were unaware of the PB Account Lookup Tool, whereas many have never noticed that they could customize the tabs. Most did not know what Products/Content tab was about and many were not familiar with relationship management or third party tabs. The next step of redesign should be to organize trainings and workshops customized for each functional team. Users were very supportive of receiving training and they even asked for training videos to be uploaded on PBToday.

5.4 Expected Gains of the Portal Redesign

Combined with training workshops and training videos, we expect the following benefits from the recommended redesign:

- Increased utilization of the portal across the board.
- Cost savings through decreased help desk and mail group inquiries.
- Increased submissions to certain sections like Headlines, Client Visits and the Notice Board: better information quality.
- Improved and easier access to Information (especially documents).
- Increased User efficiency- highest impact on Client Services.

Chapter 6: Conclusions

In conclusion, our recommendations can be summarized in four main points.

1. Usability methods and best practices should be paid attention during the process of redesign. Further research on industry standards and best practices are essential.
2. PBToday should adapt a functional design. Role based design is very important since it would result in efficient information access for the users.
3. Better data presentation is crucial. Up until now, data organization has been executed with limited consideration for the users' functions. The relationship level information between clients, accounts, third parties and legal entities should be presented in a more visual and structural fashion.
4. After the completion of the redesign, more training should be provided to the users. Team oriented workshops could be organized and training videos could be uploaded on the portal.

Additional investigation of the groups' functional usage will be necessary in developing team-based views of the portal. There may be need for DILO (day in the life of) type documentation to capture the exact reasons for portal usage. Extensive user testing of the prototypes will also be necessary to ensure user acceptance. Within the limited time of 7 weeks to complete this project, we hope that our efforts are considered an important step in launching the role-based and user-friendly portal design initiative.

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Appendix A

PBToday Survey

1) Please specify your location:

- United States
- Europe
- Asia

2) Please select your team from the below:

- i) Client Service:
 - CS
 - CSM
 - SCSM

- ii) Sr. Management / PB Partners

- iii) Other Client Facing teams (WG persons)
 - Sales
 - Business Consulting
 - Startup Services
 - CI

- iv) Business Support Teams
 - PB Docs
 - PBWIC:
 - PBTrades:
 - CDM:

- v) Others PB Teams
 - Marketing
 - Risk

- vi) Outside of PB
Please specify: _____

3) What are main purposes for you/ your team use of PBToday? Please list the tasks that you perform using this tool.

4) Please put checks next to modules / tabs that you use on PBToday (your PBToday screen might not contain some of the items on this list)

Checkbox choices:

- Home Tab
 - Notice Board module
 - Various Reference modules: Global References, MS Resources, System Shortcuts modules
 - Client Headlines modules
 - Client Visits modules
 - Coverage Events modules
 - Global CIA modules

- My Client Content Tab
 - Various Client Reference data: Profile, Alternative Names, Account, Legal Entity, TP Relationships, Contacts
 - Coverage module

- My Client Financials tab

- Legal Entity tab

- Accounts tab

- Third Party tab

- Other tab or module (Please specify the module:)

5) Please rate the modules you use from the above list in order of priority and frequency of usage (please estimate the percentage of time you spend on each module):

1. _____
2. _____
3. _____
4. _____
5. _____

6) Do you have any comments about the site, or suggestions on improving the current functionality? Please mention the strengths and weaknesses of PBToday.

Appendix B

Shadowing and Interviewing Framework

Interviewee Name: _____

Date: _____

Interviewer: _____

Survey Feedback:

The team will aim to gather data on the following during the shadowing session:

- The time spent by the user in each tab
- The ranking of the tabs/modules used in order of priority and frequency of usage (estimating the percentage of time the user spend on each module)
- How long the employee has been in his/her role.

Questions:

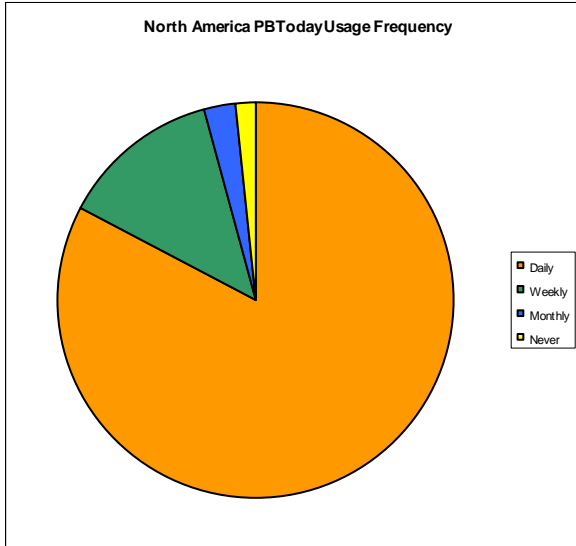
- Which team do you work with?
- Which client(s) do you have? What are their specific properties: is it a global client, a big client? How many CSM's serve this client?
- What activities prompt you to use PBToday? Which tabs/modules do you use and which tasks do you perform using these? Do you have a daily routine? Could you please show us the tasks you perform using PBToday?
- What are the challenges, frustrations, urgencies and repetitive processes that you face while using PB today?

- Are there any shortcuts that you would like to see on PBToday? If yes, please elaborate by describing what kind of shortcut and under which tab or module. Do you believe that there is a need to create PBToday “Macros” based on the repetitive interactions with the system?
- Do you find it necessary to see and compare more than one client’s data? What are some of the challenges that you face when you try to do this today?
- Are there any applications that you think should be added to or separated from PBToday?
- Do you have any additional comments about the site, or suggestions on improving the current functionality?

Appendix C: Data Analysis by Region

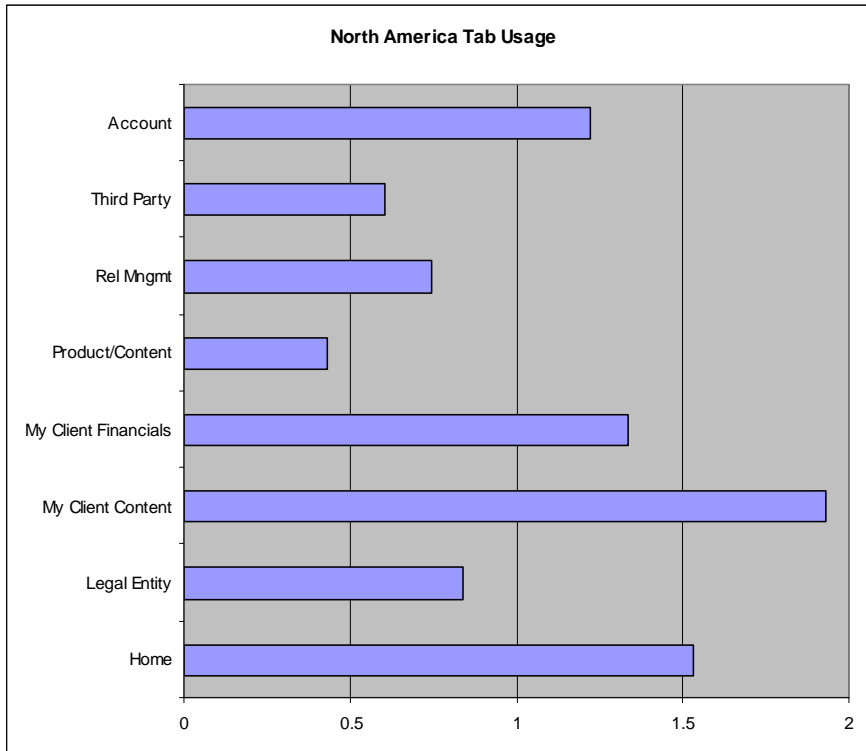
North America

PBToday Usage Frequency



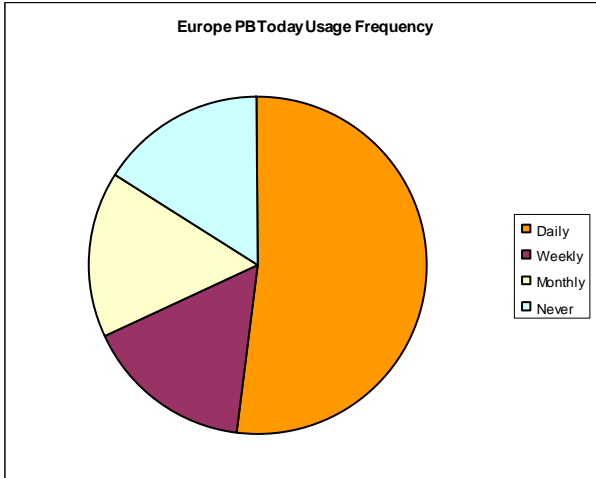
Total	117
Daily	97
Weekly	15
Monthly	3
Never	2

Tab Usage



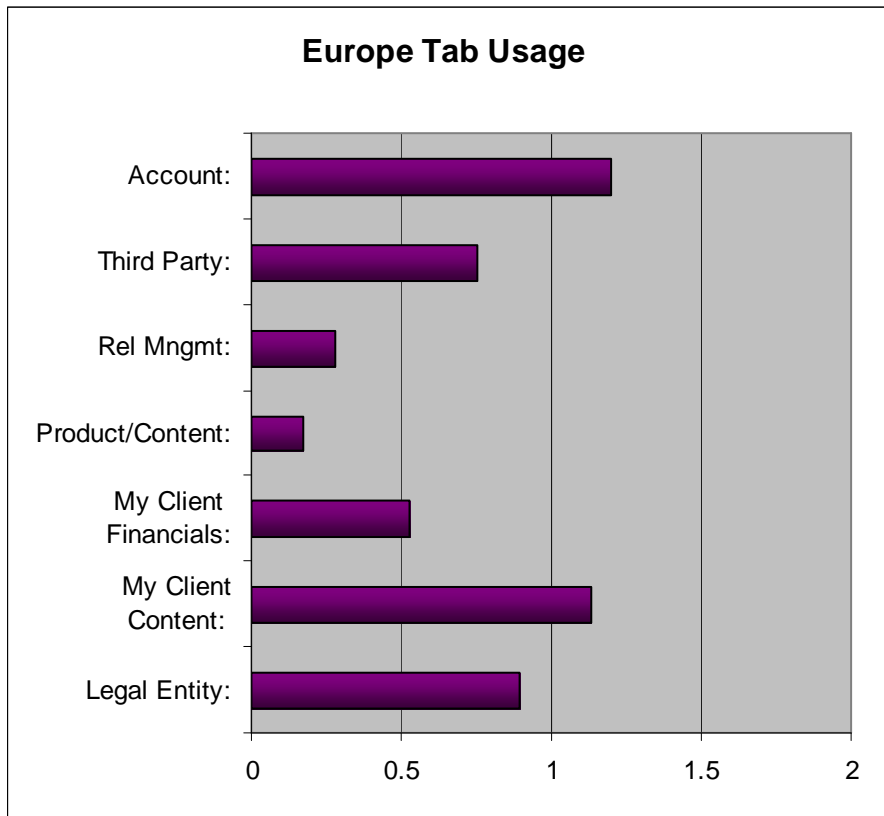
Europe

PBToday Usage Frequency



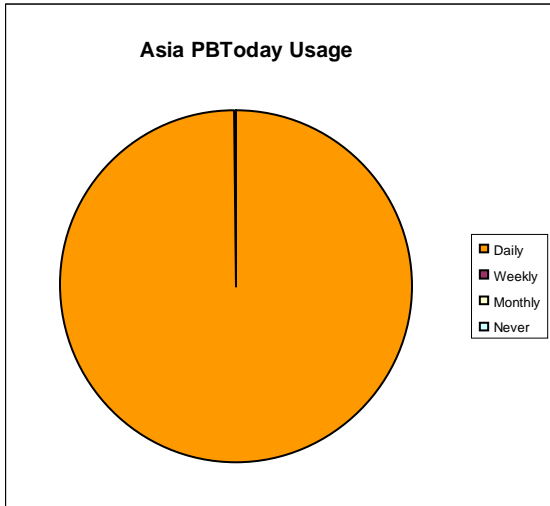
Total	25
Daily	13
Weekly	4
Monthly	4
Never	4

Tab Usage



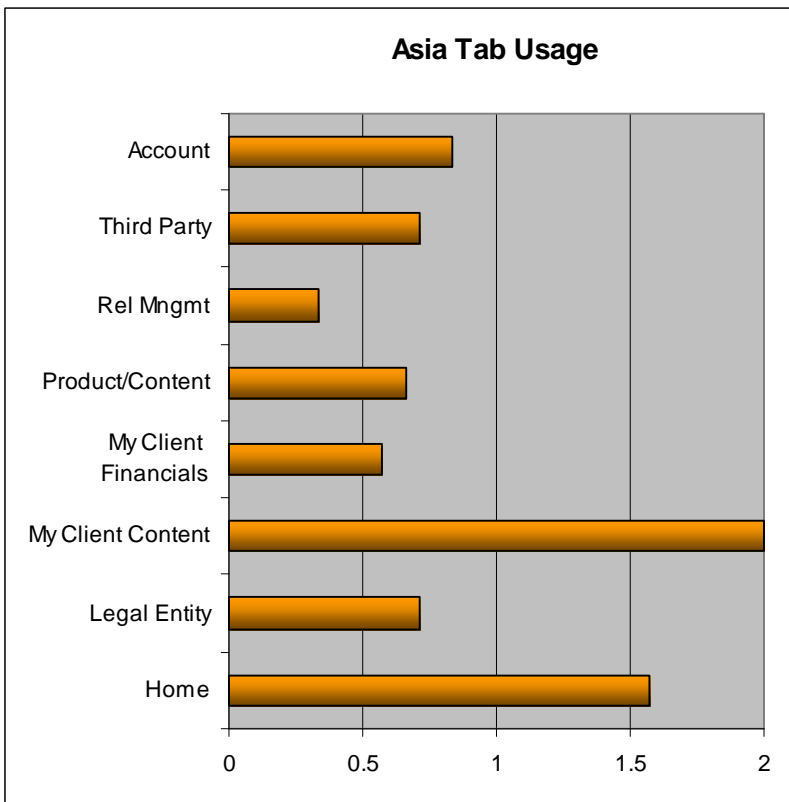
Asia

PBToday Usage Frequency

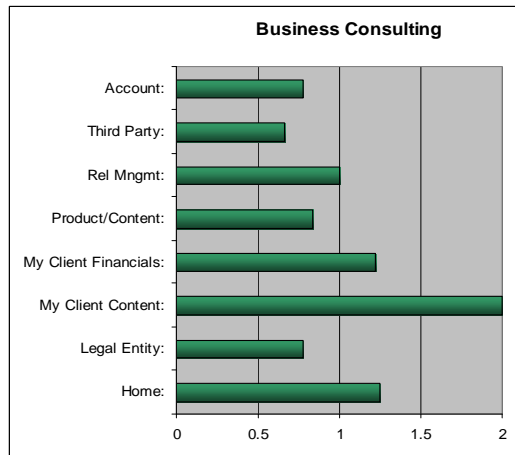
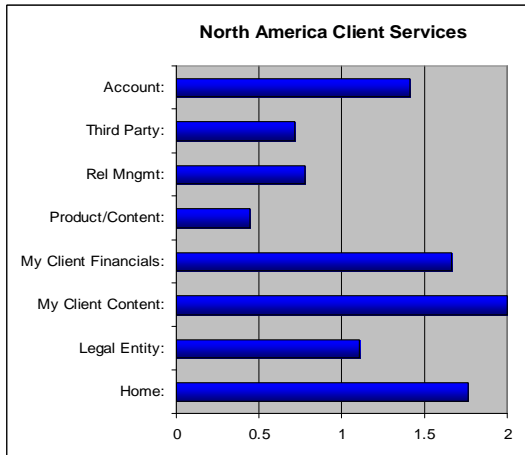
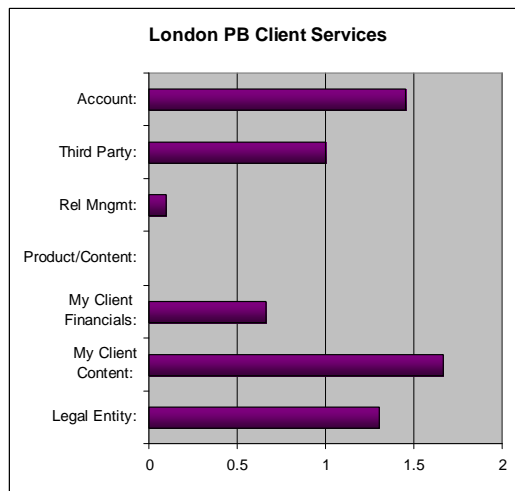
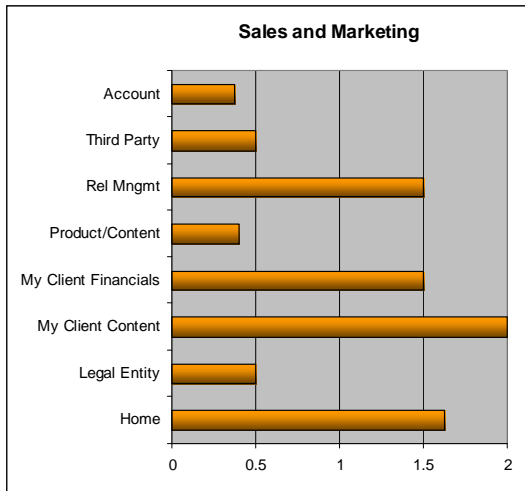


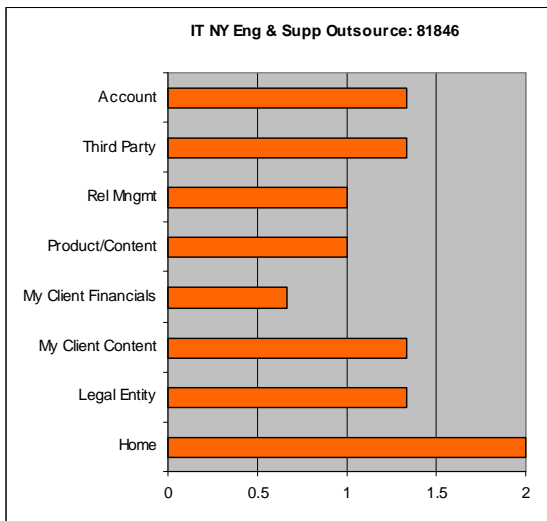
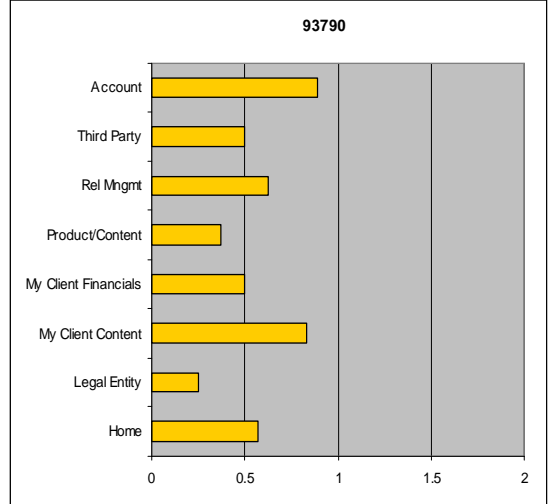
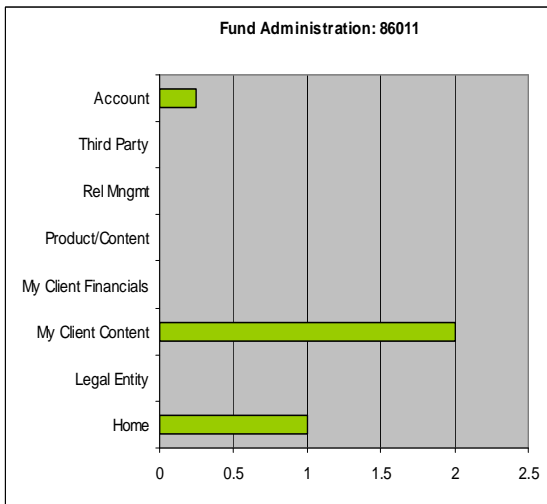
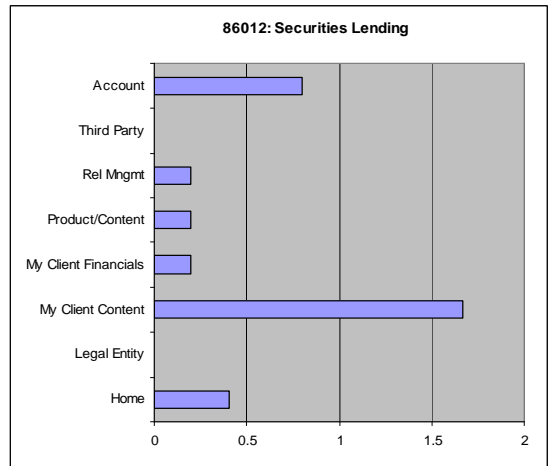
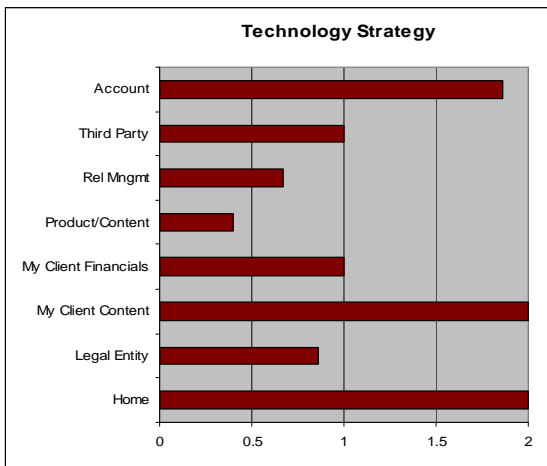
Total	7
Daily	7
Weekly	0
Monthly	0
Never	0

Tab Usage

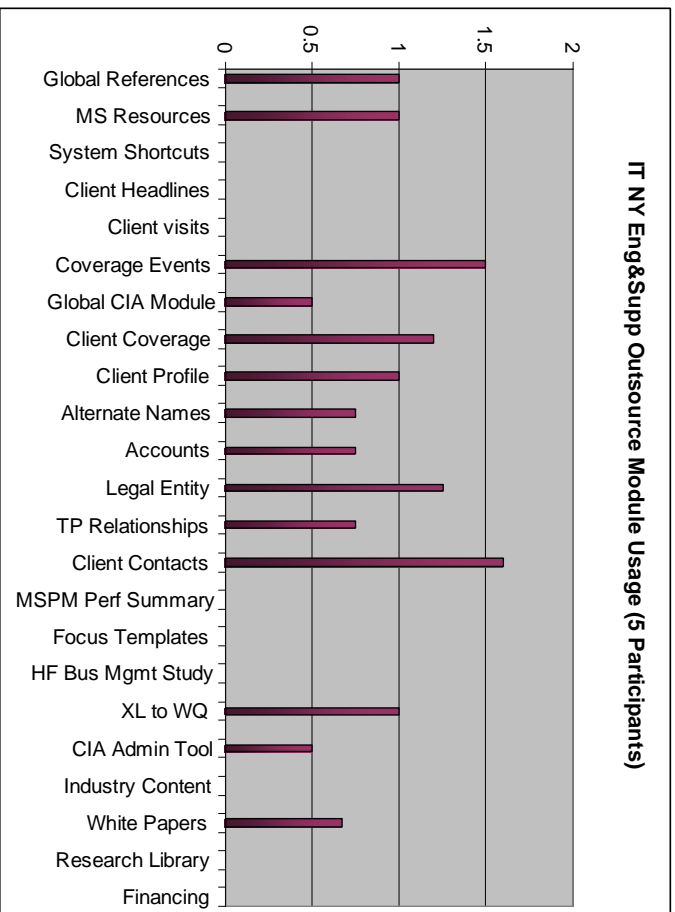
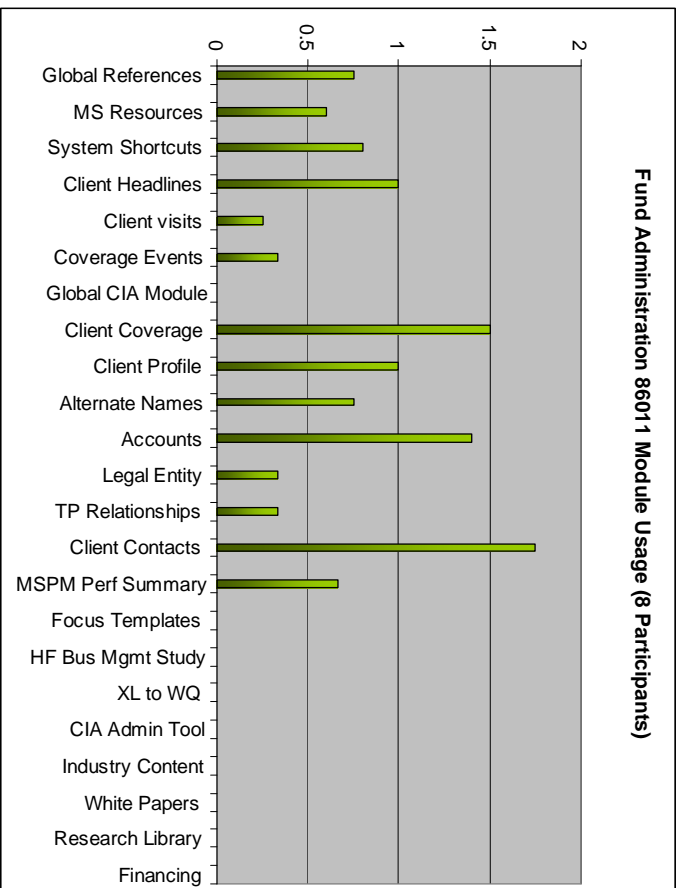


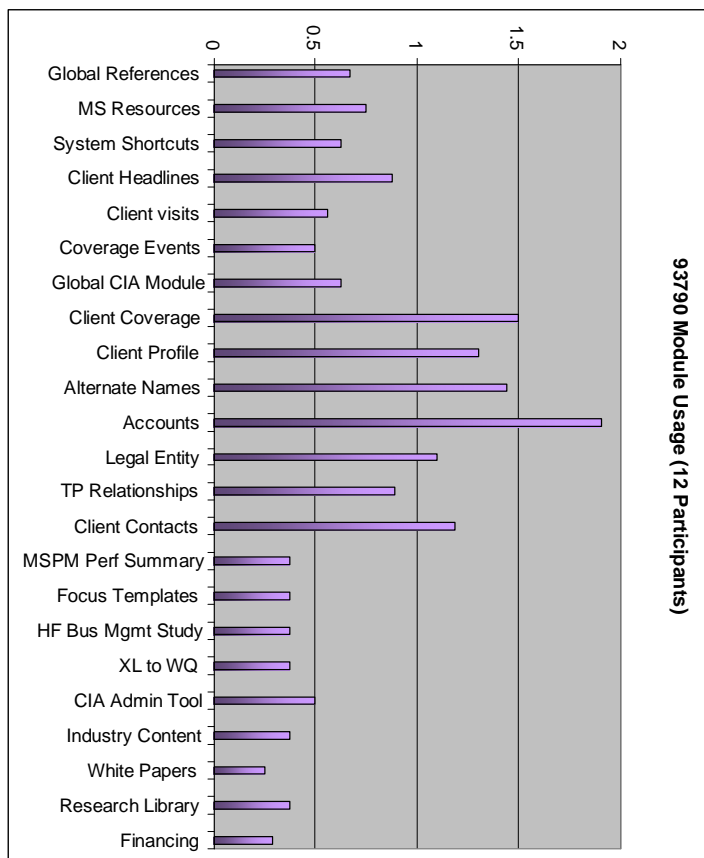
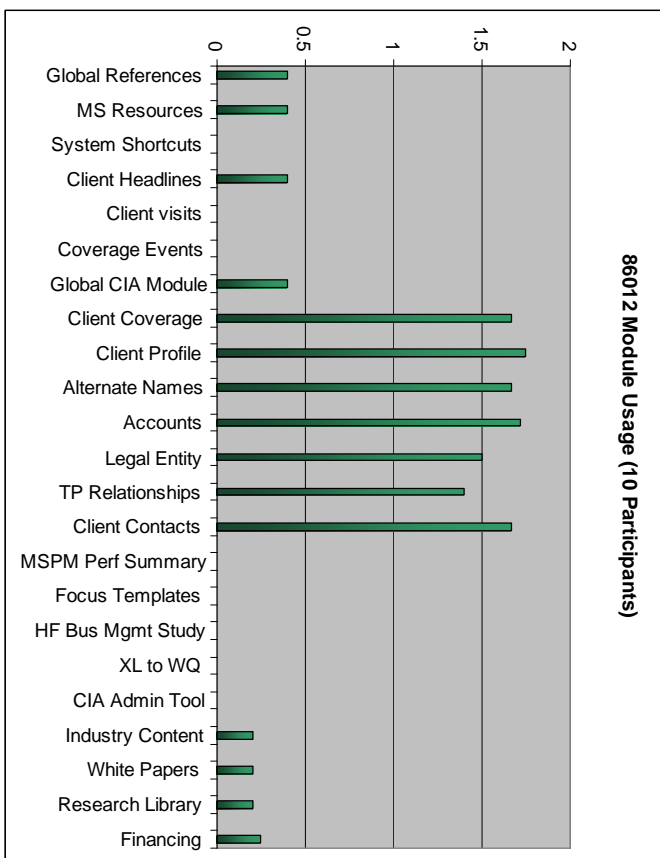
Appendix D: Data Analysis by Cost Center

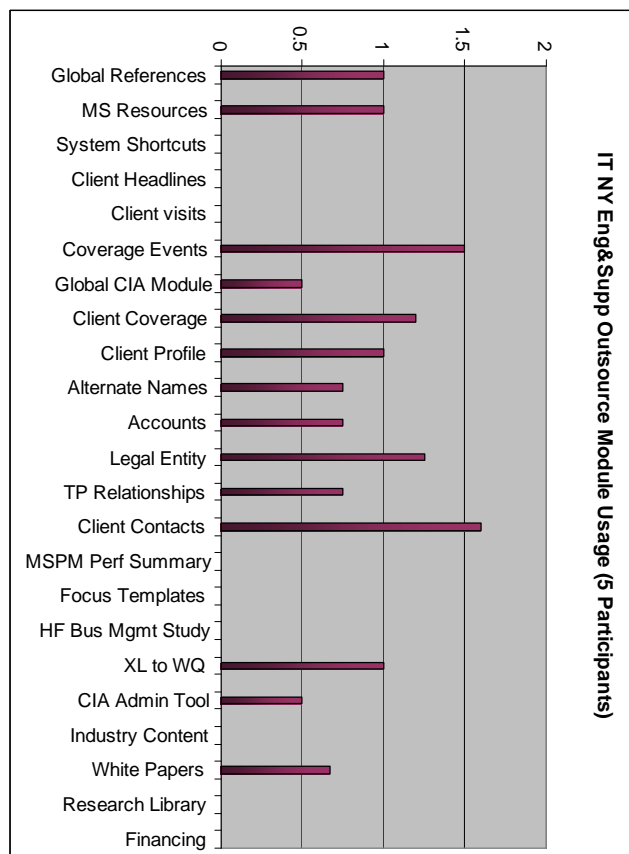
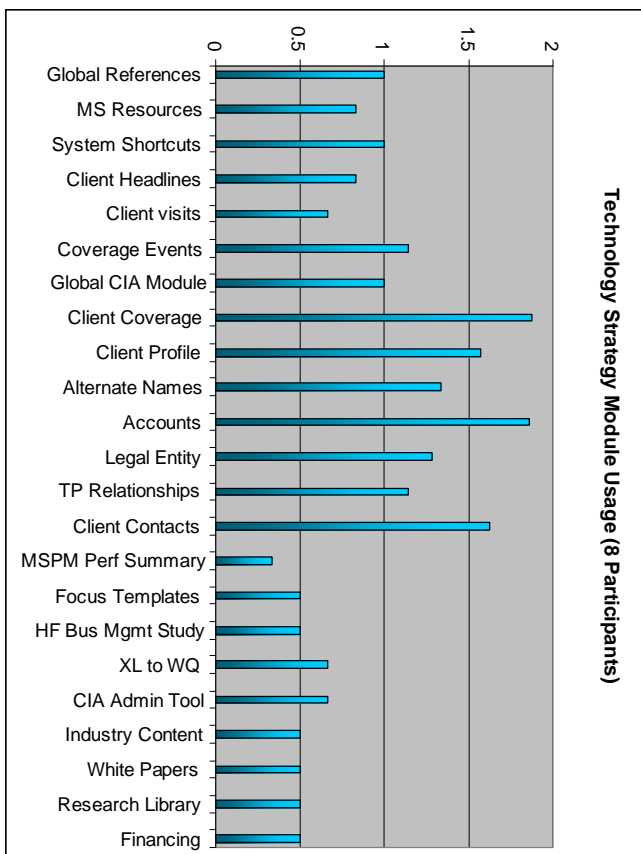


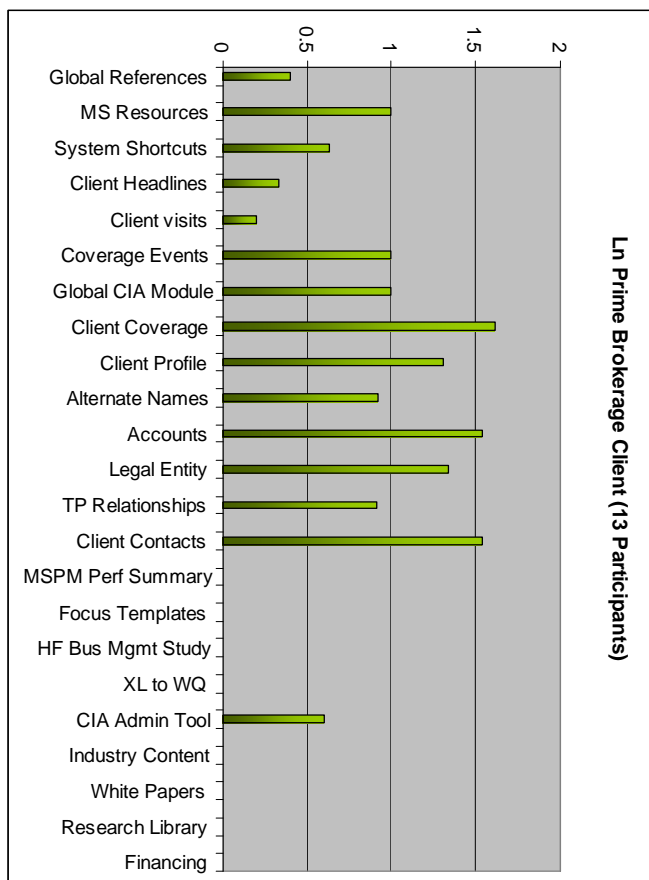
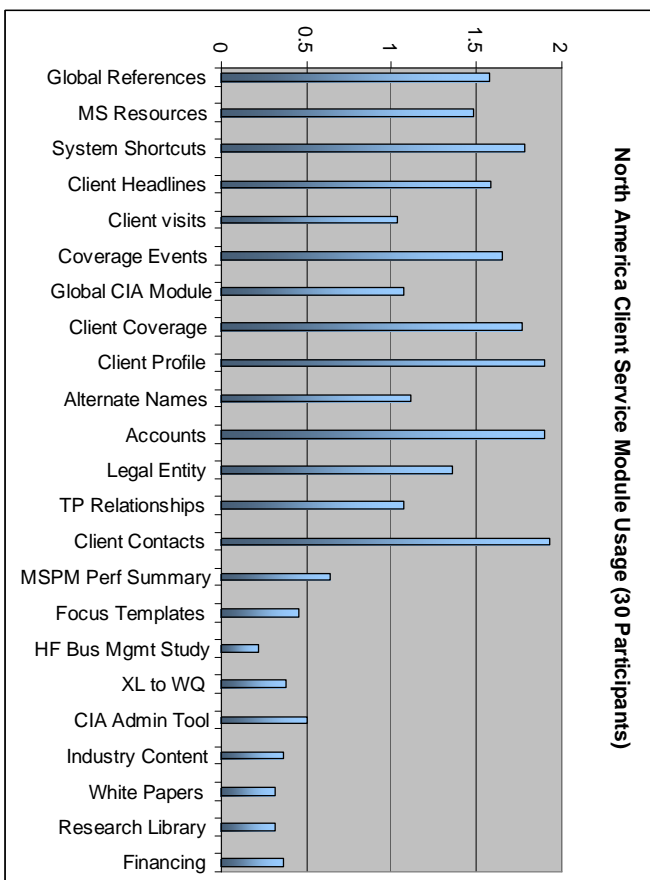


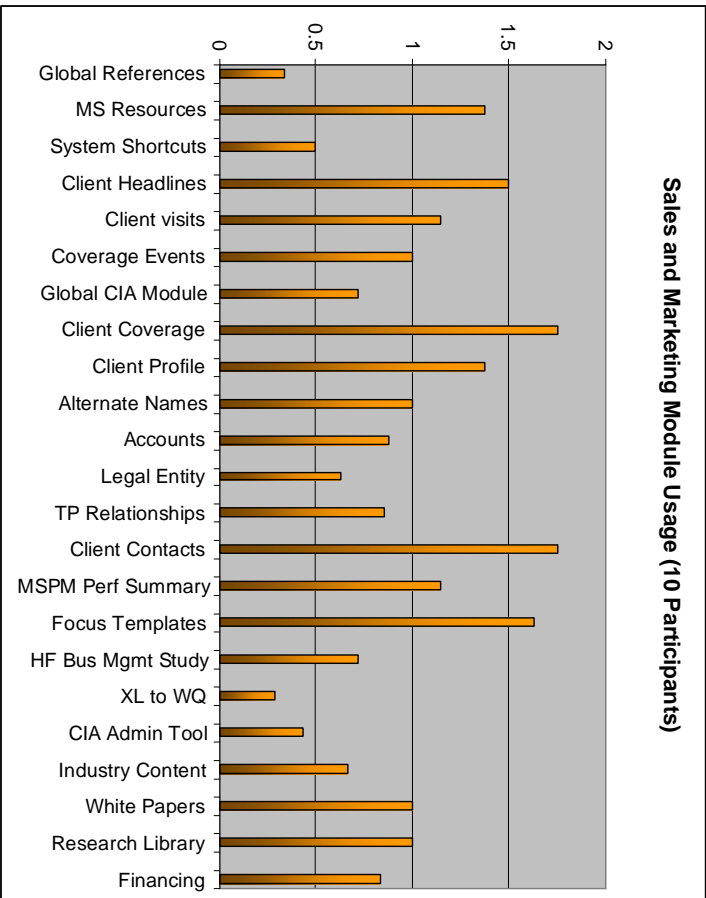
Appendix E: Module Usage Analysis











Appendix F: PBToday Current Design Screenshots

My Client Content: Choose Content | Move Content

Suggest Client
PB TEST SUPER
Search [Help](#)

Headlines
[Search](#) [Add/Invalidate](#)
No Headlines for current client

Documents
[File Upload](#)

Type	Description	Posted/Owner	Delete
No Files			
	Web Sites		Delete
No URLs			

Profile [Edit](#)

Name: PB TEST SUPER
Main Address: 1221 6TH AVENUE NEW YORK NEW YORK
Business Unit: PB
Phone: 10020
Other addresses
Fax: 10020
WorkQ Inbound Fax Number: PB: 2125077698 IPB:
Status: Live
Org Structure:
Entity Type:
Client Service Person Hours: 0.0

Accounts
Status:
[Management Accounts](#) | [Legal Entity Accounts](#)
[Separately Managed Accounts](#)

Type	Account Name
Main - Hearsay	038025400 GCIA MODEL TEST HEARSAY
Main - Reg-T	038126827 LUXEMBURG BANK LOAN TEST ATTN: MILLIE MORALES
Main - Reg-T	038126839 LUXEMBURG SPC INTEREST ACCOUNT ATTN: MILLIE MORALES
Main - Reg-T	038126843 LUXEMBURG SPC PRINCIPAL ACCOUNT ATTN: MILLIE MORALES
Main - Reg-T	038062300 ICE PB TEST ACCOUNT

Alternate Names

System	ID	Name
A2 Party	88802672853	PB TEST ACCOUNTS
A2 Trading Name	IN000075472	PB TEST SUPER
BU Client	PBRK0010403	PB TEST ACCOUNTS
GL	K754729	
HF Mnemonic	HF11	IAN KAUFMAN
HF Mnemonic	HF1K	IAN KAUFMAN
HF Mnemonic	HFSM	IAN KAUFMAN
HF Mnemonic	HFZB	IBS/TEST
HF Mnemonic	HGG3	MARK NG
HF Mnemonic	HGN9	R/NINA ERK/WTE
HF Mnemonic	HGNI	R/JOE ANTONIO/WTE/CS
HF Mnemonic	HGRW	PBECT TEST/CSV
MSPA	CCSTEST	CCSTEST
MSPA	PBTEST	PBTEST
MSPM	MSPM1179	RCM UK PORTFOLIO
MSPM	MSPM1180	RCM GLOBAL PORTFOLIO
WIRE Client	CCSGROUP	CCS GROUP TEST ACCOUNT

Client Visits
All | Last 90 Days | [Refresh](#) | [Print/Export](#)
No Call Reports

My Client Financials: Choose Content | Move Content

Suggest Client
PB TEST SUPER
Search [Help](#)

Market Share
BU Client: PBRK0010403 - PB TEST ACCOUNTS
[Run Quarter End Process](#)

Metric to View: EQUITY(MSPA) SM(MSPA)
Type: Full Hearsay

	2007 (\$M)	2007 (%)	10Q7 (%)	4Q06 (%)
Prime Brokers				

Interest Balance
WIRE Client: CCSGROUP
(Dollars in Millions) [Chart](#) [Show All](#)

Type	Close 11-26	w/e 11-26	w/e 11-23	% Change
Credit	96.86	96.86	19.37	400.15
Regular Debit	333.08	333.08	478.95	-30.46
Implied Debit	637.18	637.18	1,785.57	-64.32
Total Debit	970.26	970.26	2,264.53	-57.15
Short Proceeds	134.11	134.11	44.59	200.77
Short Domestic	364.96	364.96	1,372.24	-73.40
Short International	406.33	406.33	457.93	-11.27
Total Balance	1,838.41	1,838.41	4,114.06	-55.31

Alternate Names

System	ID	Name
A2 Party	88802672853	PB TEST ACCOUNTS
A2 Trading Name	IN000075472	PB TEST SUPER
BU Client	PBRK0010403	PB TEST ACCOUNTS
GL	K754729	
HF Mnemonic	HF11	IAN KAUFMAN
HF Mnemonic	HF1K	IAN KAUFMAN
HF Mnemonic	HFSM	IAN KAUFMAN
HF Mnemonic	HFZB	IBS/TEST
HF Mnemonic	HGG3	MARK NG
HF Mnemonic	HGN9	R/NINA ERK/WTE
HF Mnemonic	HGNI	R/JOE ANTONIO/WTE/CS
HF Mnemonic	HGRW	PBECT TEST/CSV
MSPA	CCSTEST	CCSTEST
MSPA	PBTEST	PBTEST
MSPM	MSPM1179	RCM UK PORTFOLIO
MSPM	MSPM1180	RCM GLOBAL

MM Balances
BU Client: PBRK0010403 - PB TEST ACCOUNTS
No data found for BU Client: PBRK0010403

Rates
WIRE Client: CCSGROUP [Show All](#)
GP: 038092433 - CCS GROUP INTEREST QUASI #19 *
(Client Rates USD) [Rate](#) [Pricing](#) [Rate Y'Day](#) [Balance Y'Day](#)

Rate	Pricing	Rate Y'Day	Balance Y'Day
Debit	FED + 25.00		4.81
Credit	FED - 25.00		4.31
Short	FED - 22.50		4.34
Short Proceeds			0.00
Short Int'l	LIB - 0.00		4.68

Rates shown are for the lowest balance tier.
* Enhanced Grandparent
As of Date Not Available

PB Today - Microsoft Internet Explorer

Address: http://pbwebprod.ms.com:28800/portal/site/pbtoday/menuitem.575c9236c89b04fc5a5b10eacde009/

Morgan Stanley

MS 40.56 +1.5
52WK HI 73.64 LO 47.56
27 Nov at 11:00 EST

New York 11:15 London 16:15 Hong Kong 0:15 Tokyo 1:15

Home My Client Content My Client Financials Legal Entity Accounts Third Party Rel Mgmt KEY Old My Client Products/Content

Legal Entity: [Choose Content](#) | [Move Content](#)

Suggest Legal Entity

IPB TEST ACCOUNT

Search [Help](#)

Accounts

Status: Open

Type / #	Account Name
Main Custody 04F123451	IPB TEST ACCOUNT/REPO TRADING
Main Custody 04F123568	IPB TEST ACCOUNT/REPO TRADING MODEL 2
Main Custody 04F249009	IPB TEST ACCOUNT
Main Custody 04F249017	IPB HEDGE TEST ACC C/O HEDI ZATLUKAL, 4TH FLOOR
Main Custody 04F249025	IPB TEST ACCOUNT
Main Custody 04F249041	IPB HEDGE TEST ACC C/O PAULA GRAHAM
Main Custody 04F249074	IPB TEST ACCOUNT/MSPA ONLY
Main Custody 04F249124	IPB TEST ACCOUNT/COST CENTRE ZB99
Main Custody 04F249132	DUMMY ACCOUNT - DO NOT USE

Relationships

Core Relationships

Company	Role
GERBER/TAYLOR ASSOCIATES INC	Investor
MORGAN STANLEY & CO. INTERNATIONAL PLC	Investment Manager
MARUBENI CORPORATION	Investment Manager
MERRICKS CAPITAL PTY LIMITED	Investor

* Pragmatic

Third Parties

Third Party	Role
MORGAN STANLEY FUND SERVICES (UK) LIMITED	Administrator
MAPLES FINANCE LUXEMBOURG S.A.	SPC Issuer

* Pragmatic

Profile

Company Name / A2 Party Name: IPB TEST ACCOUNT

A2 Party ID: BBB02721858

C/O MORGAN STANLEY
25 CABOT SQUARE
CANARY WHARF LONDON
E14 4QA

Address Type: Headquarter site

Status: Live

Actual Launch Date: 28 Jul 1999

Detailed Profile

Fund Inception Date:

Tax ID:

PB Today - Microsoft Internet Explorer

Address: http://pbwebprod.ms.com:28800/portal/site/pbtoday/menuitem.b0e33568a21c9b04fc5a5b10eacde009/

Morgan Stanley

MS 49.45 +1.5
52WK HI 73.64 LO 47.56
27 Nov at 10:59 EST

New York 11:14 London 16:14 Hong Kong 0:14 Tokyo 1:14

Home My Client Content My Client Financials Legal Entity Accounts Third Party Rel Mgmt KEY Old My Client Products/Content

Accounts: [Choose Content](#) | [Move Content](#)

Suggest Account

04F000006 / TEST

Search [Help](#)

Accounts

Status: Open

Type / #	Account Name
Execution 04F249355	IPB TEST EXECUTION ACCOUNT

Relationships

Legal Entity	Third Party	Role
IPB TEST ACCOUNT	MORGAN STANLEY FUND SERVICES (UK) LIMITED	Administrator
IPB TEST ACCOUNT	MAPLES FINANCE LUXEMBOURG S.A.	SPC Issuer

* Pragmatic

Profile

Account Type: Main Custody

Account Number: 04F000006

Account Name: TEST

Status: Closed

Legal Entity: IPB TEST ACCOUNT

Order Placer: MORGAN STANLEY & CO. INTERNATIONAL PLC

Account Open Date: 23 Mar 2000

Ringfenced:

Ringfence Type:

Closeout Method:

Base Currency:

Coup & Div Currency:

Base Reporting:

Coverage Team

Click [here](#) to email coverage team [Show All](#)

Coverage	Name	Phone	CAG	Coverage Level
CSR	Shred Patel	+44 20 7425-4704	CAG	
CSM	Julia Gray	+44 20 7425-2376	CAG	

Microsoft Internet Explorer window showing the Morgan Stanley PB Today interface. The browser address bar shows the URL: <http://pbwebprod.ms.com:28800/portal/site/pbtoday/menuitem.cbec80c98ca9b04fc5a5b10eacde009/>. The page title is "Morgan Stanley PRIME BROKERAGE".

The main navigation bar includes: Home, My Client Content, My Client Financials, Legal Entity, Accounts, Third Party, Rel Mgmt, KEY, Old My Client, Products/Content. The current page is "Third Party: Choose Content | Move Content".

Third Party Profile:

- Name: PB TEST SUPER
- Address: 1221 6TH AVENUE NEW YORK NEW YORK 10020
- Address Type: Headquarter site
- Status: Live
- Business Unit: PB
- Country of Inc: UNITED STATES

Accounts: Status: Open. Management Accounts | Legal Entity Accounts. No data found for selected TNID.

Alternate Names:

System	ID	Name
A2 Trading Name	TN000075472	PB TEST SUPER
A2 Party	B8802672853	PB TEST ACCOUNTS
BU Client	PBRK0010403	PB TEST ACCOUNTS
WIRE Client	CCSGROUP	CCS GROUP TEST ACCOUNT
HF Mnemonic	HFII	IAN KAUFMAN
HF Mnemonic	HFIK	IAN KAUFMAN
HF Mnemonic	HFSM	IAN KAUFMAN
HF Mnemonic	HFZB	IBS/TEST
HF Mnemonic	HGG3	MARK NG
HF Mnemonic	HGN9	R/NINA ERK/WTE
HF Mnemonic	HGNI	R/JOE ANTONIO/WTE/CS

TP Relationships: No data found for selected TNID.

TP Contacts:

Name	Role	Phone
Givev_Distou	Technology Contact	+1 212 7625077
Magp_Bill	Academic	
Test3_Test	Property Manager	
Test3_Test	Property Manager	
User_Test	Analyst	

Microsoft Internet Explorer window showing the Morgan Stanley PB Today interface. The browser address bar shows the URL: <http://pbwebprod.ms.com:28800/portal/site/pbtoday/menuitem.e638177972e2ab04fc5a5b10eacde009/>. The page title is "Morgan Stanley PRIME BROKERAGE".

The main navigation bar includes: Home, My Client Content, My Client Financials, Legal Entity, Accounts, Third Party, Rel Mgmt, KEY, Old My Client, Products/Content. The current page is "Rel Mgmt: Choose Content | Move Content".

HSPH Perf Summary: Details | Benchmarks. (Dollars in Millions)

Client	Equity	YTD %/L	Day %/Rtn	MTD %/Rtn	YTD %/Rtn

Focus Templates: Select a client and then the period of the report you want to view.

Search: [] PB [v]

Client: [033 Asset Management[033ASSET - PBRK0007985]] [v]

Region: [Domestic] Quarter: [FOCUS] [GO]

Employee BCP:

Data Type	Last Updated	update
Professional Data		update
Personal Data		update
Calling Tree Lists		update

generate call lists: My Directs Only All Subordinates

CIA admin tool: ADMINISTER CIA

XL To WQ: XL to WQ

HF Bus Mgmt Study: Title Search: [] Clear Search

Title
-Analysis of Results HFBMS 2006_070125
-Peer Group Analysis 1Bn 5Bn Equities_061221
-Peer Group Analysis 1Bn 5Bn Complex_061221
-Peer Group Analysis 250MM-1Bn Complex_061221
-Peer Group Analysis 5Bn+_061221
-Peer Group Analysis Less than 1Bn Equities_061221
-Peer Group Analysis Less than 250MM Complex_061221

Prime Brokerage Key | Morgan Stanley - Microsoft Internet Explorer

Address: http://key2-na.ms.com/PB/ClientRedirect.aspx?PageId=Default

Morgan Stanley | Search Web

Prime Brokerage Key ...

Help | Glossary | PB Today | Morgan Stanley Today

HOME | BROWSE CONTENT | SUBMIT FAQ

WELCOME TO Prime Brokerage Key

My Authored Content
No Content Found to display in this section

Ask Key a Question
enter your question or search term:

FAQs Documents Products

Browse Options
Browse Content by A to Z
select a letter:
A B C D E F G H I J K L M
N O P Q R S T U V W X Y Z

Browse by Market
select a country:
Abu Dhabi Dubai (IAE)

Featured Content

- PB Content
- Hedge Fund Trends - 3Q07
- What do the various acronyms used in Prime Brokerage mean?
- What are the different strategies employed by our clients and what do they mean?

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Done Local intranet

PB Today - Microsoft Internet Explorer

Address: http://pbwebprod.ms.com:28800/portal/site/pbtoday/menuitem.f8cd0d4fad2e1ee9827f71c2176ce009/

Morgan Stanley | Search Web

MS 49.64 1.06
52wk HI 73.64 LO 47.56
27 Nov at 10:08 EST

Logout Extra Unloadan Directory

New York 11:13 London 16:13 Hong Kong 0:13 Tokyo 1:13 Contact Us | Compliance Guidelines | Client Helpdesk and PBECT +1.800.303.2493

Home My Client Content My Client Financials Legal Entity Accounts Third Party Rel Mgmt KEY Old My Client Products/Content

Old My Client: [Choose Content](#) | [Move Content](#)

Client Old
Current Client - test2
Quick Search: All PB
test2

Alternate Names Old
Other names by which this client is known in PB systems.

System	Name	System	Name
A2 Party ID		RTM	
A2 Trading ID		A2 Trading Name	
MSPM		WWI/MSPA Client	
HF Mnemonics		CIS	PBRK0023222
K Code			

As of: Nov-27-2007, 11:13:24

CIS Contacts Old
The Contacts Module on this Page has been decommissioned. Please use the module on My Client Content Tab for Contacts. In case you face any issues please open a ticket at [PBToday Help](#)

Firm Coverage Old

Employee	Department	BU

Client Address Old
As of: Nov-27-2007, 11:13:24

Coverage Team Old
Day-To-Day Coverage (Today's in Khaki)

Title	Name	Phone
No Coverage Found		

Client Accounts Old
There are no accounts for this client.

© 2009 Morgan Stanley Logout

Microsoft Internet Explorer window: PB Today - Morgan Stanley PRIME BROKERAGE

Address: http://pbwebprod.ms.com:28800/portal/site/pbtoday/menuitem.847a82cc743ab078e2169272176ce009/

Navigation: Home | My Client Content | My Client Financials | Legal Entity | Accounts | Third Party | Rel Mgmt | KEY | Old My Client | Products/Content

Products/Content: [Choose Content](#) | [Move Content](#)

Industry Content

Title Search: [Clear Search](#)

Title	Publication Date v	Author
HF Recap Jun2007 InternalOnly	July 05, 2007	PB Marketing
HF Trends 2007Q2	June 08, 2007	PB Marketing
HF Recap May2007 InternalOnly	June 06, 2007	PB Marketing
US Endowment Update Jan2007	January 29, 2007	Courtney Proctor
Active Extension Reading Pack Jan2007	January 07, 2007	PB Marketing
Structured Alternative Investments	December 01, 2006	Global Fund Derivatives
Basel II Impact Oct2006	November 05, 2006	Anil Babbar & Scott Werthamer
Master Limited		

Event Recaps

Title Search: [Clear Search](#)

Title	Publication Date	Author
No Data found for Event Content Recaps		

White Papers

Title Search: [Clear Search](#)

Title	Publication Date v	Author
Employee Benefit Plans for HFs	March 2007	Ralph Long
Active Extension Institutional Investor FAQ	January 2007	Sarah Barratt Ball, Sandy Chotali, & Ralph Long
Higher Levered Fund Options	November 2006	Jim Houghton & Justin McMahan
101 De-Registration	October 2006	Ben Foosehee
Separate Accounts-Partnerships-Funds	June 2006	Ralph Long
Seeder and Platform Capital Manager	June 2006	Ralph Long

Research Library

Title Search: [Clear Search](#)

Title	Publication Date v	Topic
Rising Tide in Japanese Investment Management	Oct 2006	Investors
Demystifying the Newest Equity Long-Short Strategies - Making the Unconventional Conventional	October 2006	Strategies
Global Evaluation of Fund of Hedge Funds	October 2006	Industry Outlook
Institutional Demand for Hedge Funds 2	October 2006	Industry Outlook
Synthetic Funds and the Monoclonal Barbecue	August 2006	Fund Structure
Marketplace Advisory - Fixed Income Prime Brokerage - Has Its Time Finally Come	August 2006	Industry Outlook
Mid-Year Look at 2006 Hedge Fund Asset flows	August 2006	Asset Flows

Financing Products

Title Search: [Clear Search](#)

Title ^	Topic	Author
Active Extension Reading Pack		