

The Football Idea

Project Specifications

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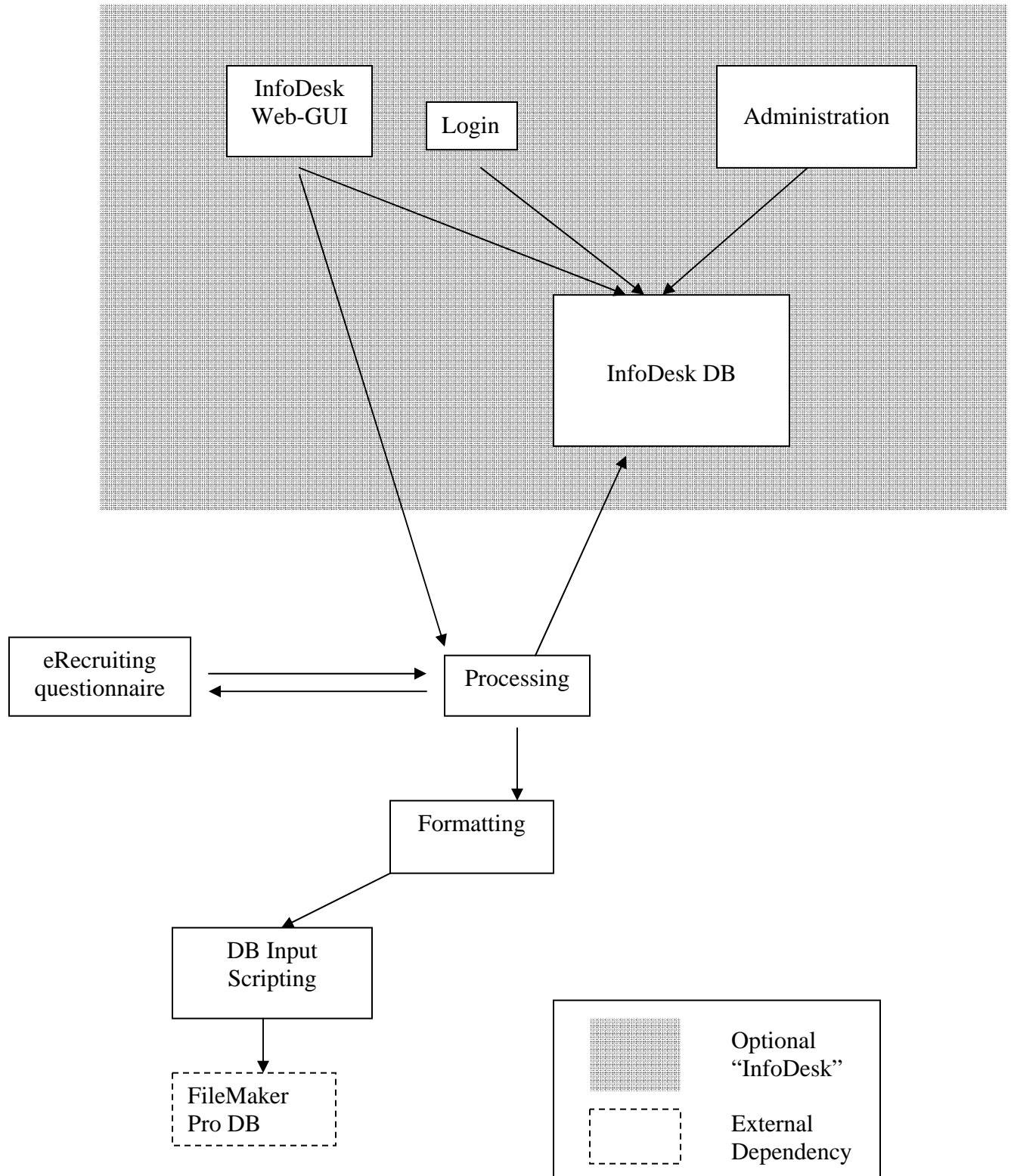
Description of Project

The Football program at Brown mails out over 10,000 recruiting questionnaires to prospective athletes on an annual basis. They receive about a 30% return rate. This translates to over 3,000 forms being mailed back to the recruiting office. Each form has over 50 fields that are filled out, and each one must be entered into a database manually. There is one full time employee who handles recruiting and hires students to help with some of the information input as the volume is way too great. The information stored on the high school football players is then used by the football staff to contact, rank, and organize their recruits.

The questionnaire is available online as a *pdf* (http://graphics.fansonly.com/photos/schools/brow/sports/m-footbl/auto_pdf/footballquestionnaire2.pdf) but this must still be printed, filled out, mailed and ultimately entered manually. As computer access and skills of prospective athletes increase it would be advantageous to allow the form to be filled out electronically. The recruiting coordinator Donna Fanion requested a solution to allow students to fill out the form on the web and have its submission entered directly into the recruiting database.

This specification documents describes a system by which the form could be made available over the web, the input checked and the form delivered and entered into the currently existing database structure in use by the Brown University football program. This document goes beyond the actual request in describing a system for recruit information management. This system, integrated with the questionnaire system, allows prospective athletes to easily obtain coaching staff contact information, update their own contact information, organize official and unofficial visits, learn about camps and other recruiting opportunities, provide necessary NCAA paperwork and helpful links, as well as assist in clearance and other important matters upon acceptance to Brown University. This system herein referred to as the “InfoDesk” will provide information for the prospects via the web.

System Model



System Component Descriptions

eRecruiting Questionnaire

This is the front end GUI that the prospective student athletes will see and use to enter their information. See the next section for a picture of the current questionnaire that this form will be based upon. The football staff has given us artistic leeway on the forms design but it will be laid out just like the current form.

The form must be compatible with most major browsers, most notably MSIE and Mozilla based clients. The data will be type-checked at the client level to insure the information input is in the correct format (i.e. exactly 10 numbers in the phone number area).

Processing

The form will be checked by this unit to make sure all necessary fields have been filled out (I believe this happens server-side, if I am incorrect then this may occur client-side and the layout will change slightly). The user will be presented with a thank you / confirmation page upon successful completion. The data will then be forwarded to the formatting unit (possibly on a separate machine).

Formatting

The information coming directly from the web-form will not be in a format compatible with the FileMaker Pro database. This unit will take care of formatting it properly.

DB Input Scripting

This unit activates FileMaker such that it will integrate the information as created by the Formatting unit into its internal database.

FileMaker Pro DB

This is the actual program currently being used by the football staff. It is an external dependency that we must interface with.

– *Optional / extension “InfoDesk” components* –

InfoDesk DB

A homegrown SQL based database, this unit manages the custom information storage. It contains usernames and password hashes to manage secure login (over SSL). Also contained is all the information the InfoDesk will present the athlete with. This includes (and is *currently* limited to) coaching staff contact information, personal contact information, official and unofficial visits, camps and recruiting opportunities. It will also provide, either directly or through links, necessary NCAA paperwork, banned substance information, links useful in the recruiting process.

The football staff has not been interviewed regarding the idea of an InfoDesk and as such details and information are limited to my personal experience with the lacrosse

recruiting process as well as the lacrosse staff current and prospective student athlete information technology practices.

Login

This will establish an SSL session with the user and interface with the DB to validate them as an athlete in the system, new user, guest, or administrative user.

Info-Desk Web-GUI

This unit dynamically generates the InfoDesk pages for all non-administrative users of the InfoDesk system (for security purposes this has been explicitly separated from the administrative unit). By querying the database a web-page will be presented to the user providing the selected information. Any data submission by the user (either to the staff or the database) will also be handled by this unit.

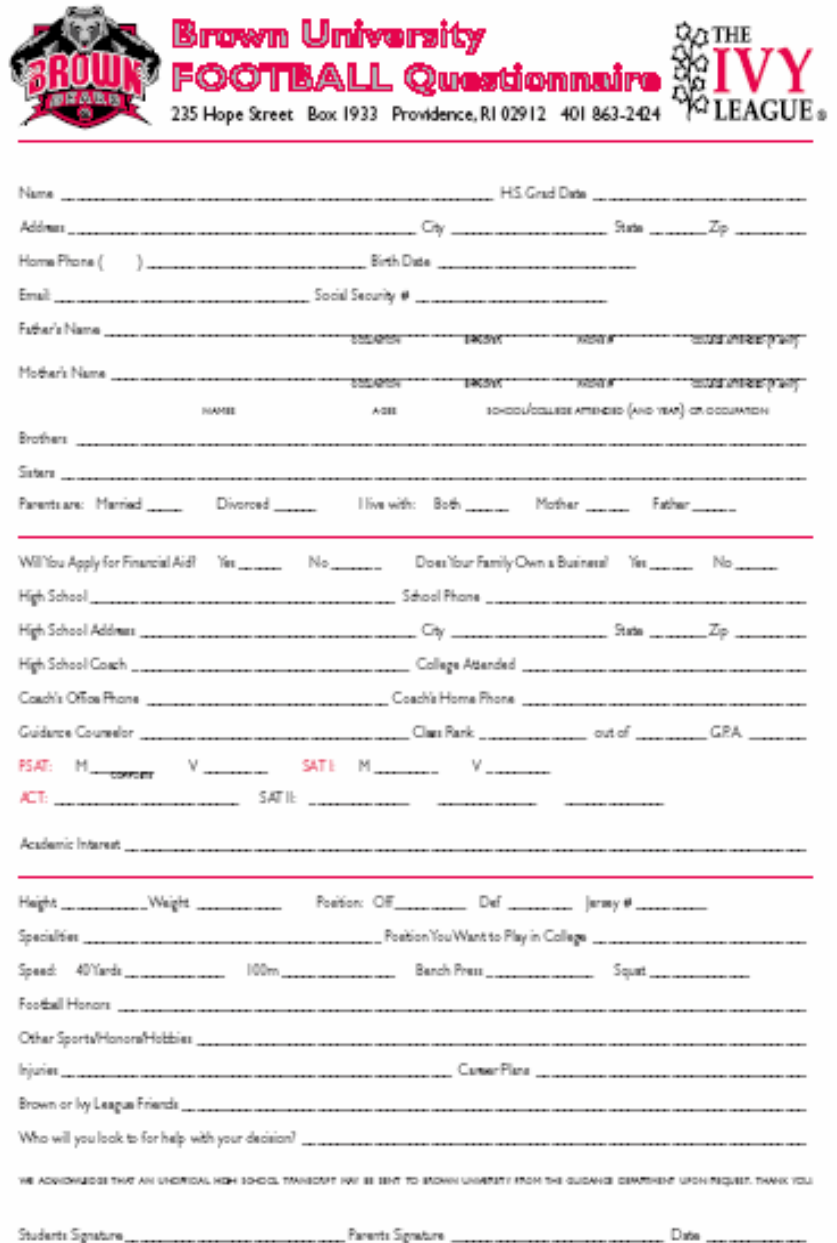
Administration

All database information can be obtained for any user or group of users via this unit. Administration will handle all changes to the database, such as change of coaching staff information, addition of recruiting camp, deadline change, individual InfoDesk messages as well as general message of the day type submissions.

UI Diagrams and Descriptions

To the right is the current recruiting questionnaire as it is physically mailed out to the prospective student athletes. The online eRecruiting questionnaire will maintain all of the same fields and basic layout. The form may be modified slightly for presentation as a webpage.

Fields that ask for well defined items, such as phone number, yes/no questions, state, zip, SAT score, height, weight, position, jersey number, strength and speed stats and more will be created such that the user must input correct values. Check boxes or buttons can also be used for items with choices. The bottom of the current physical form requires a signature. The electronic form will require that the user acknowledges the current policies and hereby swears to the validity of all information provided.



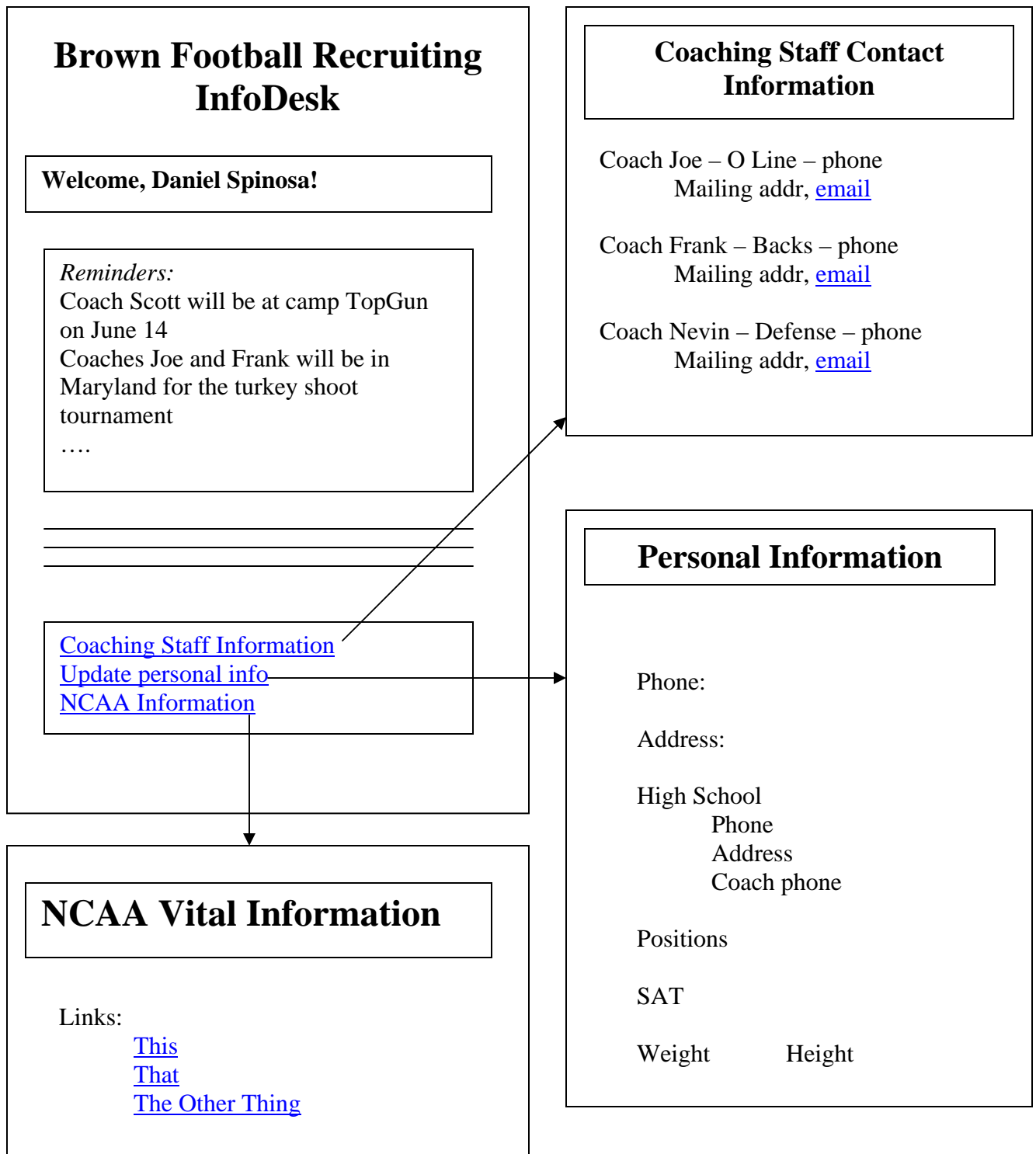
Brown University
FOOTBALL Questionnaire
235 Hope Street Box 1933 Providence, RI 02912 401 863-2424

THE IVY LEAGUE

Name _____ HS Grad Date _____
Address _____ City _____ State _____ Zip _____
Home Phone () _____ Birth Date _____
Email _____ Social Security # _____
Father's Name _____ SUGGESTION UNKNOWN NONE # SECOND INTEREST ONLY
Mother's Name _____ SUGGESTION UNKNOWN NONE # SECOND INTEREST ONLY
NAME AGE SCHOOL/COLLEGE ATTENDED (AND YEAR) OR OCCUPATION
Brothers _____
Sisters _____
Parents are: Married _____ Divorced _____ I live with: Both _____ Mother _____ Father _____
Will You Apply for Financial Aid? Yes _____ No _____ Does Your Family Own a Business? Yes _____ No _____
High School _____ School Phone _____
High School Address _____ City _____ State _____ Zip _____
High School Coach _____ College Attended _____
Coach's Office Phone _____ Coach's Home Phone _____
Guidance Counselor _____ Class Rank _____ out of _____ GPA _____
PSAT: M _____ V _____ SAT I: M _____ V _____
ACT: _____ SAT II: _____
Academic Interest _____
Height _____ Weight _____ Position: Off _____ Def _____ Jersey # _____
Specialties _____ Position You Want to Play in College _____
Speed: 40 Yards _____ 100m _____ Bench Press _____ Squat _____
Football Honors _____
Other Sports/Honors/Hobbies _____
Injuries _____ Career Plans _____
Brown or Ivy League Friends _____
Who will you look to for help with your decision? _____
WE ACKNOWLEDGE THAT AN UNOFFICIAL HIGH SCHOOL TRANSCRIPT MAY BE SENT TO BROWN UNIVERSITY FROM THE GUIDANCE DEPARTMENT UPON REQUEST. THANK YOU
Students Signature _____ Parents Signature _____ Date _____

current recruiting questionnaire

Below is presented a general idea of what will be contained on the InfoDesk prospective student athlete information pages. Further interviews must be conducted to determine the exact content of the InfoDesk and its database. On the main page the prospect is recognized with their name. Following it are sections with pertinent staff information and links to other pages with more information. These further pages, pointed to by the arrows, contain more information that is either unnecessary or would otherwise overcrowd and overload the main page.



The administrative page, presented below, will allow the football staff to select prospects and view their personal information. They will also be able to select groups and send email en masse as well as send/receive messages.

InfoDesk Administration Coach Hetfield	
Athlete:	<div>Joe Yevoli</div> <div></div>
<div>Personal Information:</div> <div><div>.</div><div>.</div><div>.</div><div>.</div><div>.</div></div>	Mass email Staff info Schedule
<div>Message History:</div> <div><div>.....</div><div>.....</div></div>	

Non-Functional Requirements

Testing

The testing of the system needs to be thorough and continuous. Most importantly it must be assured that eRecruiting form submission never chokes on bad input. All web pages must be tested on MSIE and Mozilla based clients for browser compatibility. A stress test must also be performed. It is estimated that up to 30 page requests and/or form submissions may occur almost simultaneously during the busy periods. The system must remain stable and performance must not drop below an average of an absolute maximum 10s page load time. Administration need not be stress tested as there are few administrative users.

We must also make sure that the data generated by the formatting unit is in the correct format for integration into FileMaker Pro. The scripting or macro features of the DB Input Scripting unit must also be thoroughly tested to insure that all data entered actually does end up in the FileMaker Pro database. Furthermore, it must be made sure that all data is input into FileMaker Pro correctly, in the correct fields, and that no submission are ever overwritten. When duplication occurs there must be notification of the recruiting staff.

User testing will also be of some importance. The users of this system will be high school football athletes who have a varying degree of computer skills and access. The pages must therefore be tested against high school football players for general ease of use and accessibility. Furthermore, through instructions on the pages the user must be prompted to click to submit the form. Any inaccuracies or errors in the form must be clearly pointed out for correction before a submission is accepted. After the form has successfully been submitted the user should be presented with a thank you / success notification.

Performance

As mentioned in the testing section, performance must not drop below a maximum of 10s page load time for athletes users of the system during a system stress of up to 30 users. During normal usage page load times must average that of a normal webpage, say around 3s for these graphics light pages. Dynamic generation of pages must not take longer than .3s and should not cause a noticeable difference in responsiveness to the end user.

The performance of the database input is not important. It is ok if it takes a while to generate the FileMaker Pro files and have them integrated at a slow pace. It is not an acceptable to have this perform quickly but only at a 99% rate.

Reliability

Form submission must be 100% reliable when the form is available. A server downtime is beyond the scope and responsibility of our project. Our system must remain operational and function (that is, receives and integrates the eRecruiting form data) at a 100% level at all times.

Ease of Use

See the last paragraph of testing for ease of use explanation.

Portability

The software itself need not be portable. It will be running on an already existing infrastructure and as it is web based our main concern is the appearance and compatibility of the pages with major browsers.

Documentation

A quick guide to resetting components or performing other integral and unlikely tasks should be created. The web page creation scripts and custom database should also be sufficiently documented such that any IT manager can step in and understand a portion of the system sufficiently to modify it or adapt.

Dependencies

The optional part of this specification is dependent on the needs of the football staff. If they do not want it we essentially have to scrap it. The only other dependency is on FileMaker Pro. There has been found a way to create a text file and have FileMaker Pro automatically import it, and this might be how we have to proceed to integrate web form submitted information into the database. This puts a dependency on that technique and also access to FileMaker Pro for a sufficient amount of time to rigorously test this integration technique.

RISKIEST PART

If it is deemed that the project is too small without the InfoDesk extension, then choosing this project immediately is a huge risk. Another interview must be conducted with the football program to ascertain their input on the InfoDesk extension. Only then can we determine if it should be created and implemented as a part of this project (or considered as a possible extension).

Updated Requirements

[1-3] = [highest-lowest] priority

- [1] Web based form, compatible with all major browsers, that is intuitive and easy to use
 - [1] Form may be generated by any server but linked to from the Brown Football web page
 - [2] Design should be made for and tested against high school football players, the primary users of the web based form
 - [1] Form must collect all information currently collected on the Brown University Football Questionnaire
 - [1] Input type should be constrained client-side so that data is the correct format for the DB
 - [1] Submission should be automatically checked (server-side) for required information as defined by recruiting office
 - [2] Auto-reply email and "thank you" page should assure user the data was successfully submitted
- [1] Form submission should initiate input of the information to the currently used FileMaker DB (they *love* filemaker and do not want to change)
 - [1] Form need not be hosted from same server as the database so long as reliable communication can be provided
 - [2] Duplicate entries must be marked for review by recruiting office personnel
- [2] Security (via SSL) must be provided as sensitive information (including SSN) will be entered electronically
 - [3] An acceptable digital signature (by athlete and/or parent/guardian) must be obtained and stored
- [1] Web based form entry into database must not interfere with continued manual information entry, and vice-versa
- [1] System should be able to handle hundreds of multiple simultaneous form submissions, including bad submission and duplications
- [2] Database must be moved to secure, redundant storage, as many paper copies will be eliminated
 - [2] Database backup should be automated
- [3] (Extension) Create a Brown Football prospective athlete personal info desk
 - individualized for each prospect, easily and automatically customized and updated with changes to filemaker db
 - organize and maintain communication between the prospect and the coaches
 - organize and provide reminders of invitations/dates
 - recruiting camps
 - Summer day
 - Official and unofficial visits...
 - confirm receipt or request of materials (videos, workout plans, etc)
 - maintain contact information in one easy to find, organized place