Function Point Analysis

To track our potential development costs, we developed a function point analysis document for the Payday online small business accounting system. To estimate the potential costs, we took into account all the requirements determined necessary by the client and compared them with the object design and system design requirements we developed. All three were used to determine the final estimate cost. First and foremost, we compiled our weighting factor estimate. Broken down into five different measurement parameters, we determined the estimate number of parameters for each category as well as the difficulty of implementation for each category.

The first measurement parameter, Number of Inputs, was estimated to be 11. We came to this conclusion utilizing the RTM document as a guideline, compiling smaller inputs into “input categories.” Since the different types of input categories vary in number of specific inputs, types of inputs, and size of inputs we determined this input category to require a “complex” weighting factor of 6.

The second measurement parameter, Number of User Outputs, was estimated to be 13. Again, utilizing the RTM document as a guideline, we compiled a list of the major outputs required to satisfy the requirements of the client. Typically, outputs of the Payday system will be some type of accounting request, such as transactions and financial reports. Since each of these various outputs will require a considerable amount of individual data, we assume the “complex” weighting factor of 7 to be appropriate.

The third measurement parameter, Number of User Inquiries, was estimated to be 5. We found in our analysis of the RTM document that the actual number of inquiries by the user was limited. Essentially, Payday will provide four major functions requiring user intervention to operate: Employee reporting, revenue reporting, transaction accounting, and employee payment. Additionally, basic user interface navigation and functionality will be required as well. Since the system is designed for the small business owner, we determined that the system will be designed around average weighting factor estimate of 4.

The fourth measurement parameter, Number of Internal Files, was estimated to be 3. For the Payday system to meet the requirements provided by the customer, we determined the system to require three separate database tables: One for user information/tracking,

one for transaction data, and one for revenue reporting. Since there is potential for a significant amount of data recorded and the individual data will comprise of many differerent components, we estimated the weighting factor to be the most complex at a value of 15.

The last measurement parameter, Number of External Interfaces of Files, was estimated to be 2. Since Payday will be using industry standard encoding of data for the web page generation and using standard database calls, we determined that we would at most have to develop 2 original external facing interfaces. The complexity should be low since we will implement standard interface designs, thus we utilized a simple weighting factor of 5.

The second major component of the Function Point Analysis was the Rating Estimate of Categories. Utilizing the requirement document, the RTM, the system design and object design we gave an estimate difficulty/importance rating for each category.

Since Payday is an accounting software platform, we will need to have both accurate and reliable record keeping. We rate this as a 5 in number of importance. Payday will be a web based accounting system, thus will require communications with outside systems. Category two was awarded an importance rating of 4. On the backend, Payday will perform simple calculations of financial transactions. Since these transactions will not require heavy processing and complex computation, we award category 3 an importance rating of 2. With that being said, performance is a must for Payday. The system will need to output data in a very efficient manner. Thus, we award category 4 a rating of 4. We don’t expect the system to be used in an existing environment as it is designed for small businesses. Thus, we award category 5 a rating of 3. Payday will be online for all functions, thus we will award category 6 a rating of 4 and a rating of 4 to category 8. Generally, most functionality will require inputs on individual screens for processing. Thus, we award a rating of 2 to category 7. All processing for Payday should not be complex, thus we award a 3 rating to both categories 9 and 10. Payday will utilize an object oriented design and thus will feature reusable code. We award category 11 a rating of 4. Installation will not be included in the design, thus category 12 is awarded a rating of 2. Since Payday is designed to be a simple small business accounting system, it will be available to many different organizations. Ease of use is a priority for a varied user base, thus we award a 4 rating to category 13 and a 5 rating to category 14.

For the final state of the Function Point Analysis, we used a cost factor of $1000 for each Function Point based on our previous experiences and current project loads. Given the total FPC estimate of 264.48, we determined the estimate cost for developing the Payday system to be $264,480.