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Project Name: Time Tracking System

HR/Accounting SME Session 1

Date: Nov 1^{0}, 2015
Time: 2:00PM
Duration: 1 hour
Location: Telephone conference

Unique ID:	*ProductManager_10112015_1400*		
Stakeholder:	*Name: Tom Schreck* *Title: Senior Product Manager* *Employer: Solutia Consulting* *Email:tom_schreck@solutiaconsulting.com* *Phone: 817-845-2817* *Viewpoint: Product Manager*	***Stakeholder:***	*Name:* *Title:* *Employer:* *Email:* *Phone:* *Viewpoint:*
Requirements Engineer:	*Name: Adam Whipple* *Email: awhipple@utexas.edu* *Phone: 512-965-5859*	**Scribe:**	*Name: Robert Pate* *Email: robert.pate@gmail.com* *Phone: 512-827-8137*

Session Goals and Desired Outcomes

Goal	Description
Topics for goals may include:	• *Gathering Requirements for Overall system vision* • *Elicit key scenarios* • *Identify key users* • *Drill down on key functions with descriptions* • *Expand on key scenarios - uncover additional scenarios* • *Begin layout of timing requirements* • *Expand on data requirements* • *Clarify key expectations, success factors, etc.* • *Key decision factors in purchase decision* • *Seek out any unidentified stakeholders*

Outcomes and Products	Description
Outcomes and Products may include:	• *Q&A Transcript* • *Enough information to represent the requirements for this user* • *Additional information required to formulate Vision Document.* • *Additional scope (functional).* • *Stakeholder expectations (nonfunctional, project)* • *Detailed process diagrams from this user's perspective.* • *Expanded detail of data - Data dictionary.* • *Stakeholder Analysis for Accounting / HR SME.*

Input to Guide Requirements Acquisition Session

Portion of System under Discussion	Accounting / HR Functions, Export / Import, Reporting, Key Scenarios
Guiding Scenario (if used)	n/a
Reference Documents	n/a

Action Items or Outstanding Issues/Requirements from Previous Sessions (if necessary)

Previous Session Date	**n/a**	**Previous Meeting Purpose**	**n/a**

Number	Description	Assigned To	Status

Planned Questions

Question #	Description
1	What do you envision as the most essential use case of this product? Can you walk us through the path a user might take if they were to use the product in this case?
2	Are there any other essential use cases? Could you walk us through those?
3	What are all of the types of users (or roles) for this product? Do any of them require special features? If so, what are they?
4	What do you think will make this product successful?
5	Is there anything that this product will do that its competitors do not? Is there anything that this product will do better than competitors?
6	Can you think of anything this product should NOT do?
7	What kind of information do you expect the product to remember?
8	Are there any project scheduling constraints we need to be aware of?
9	Are there any project budgetary constraints we need to be aware of?

Notes:

1st bullet is Adam, the RE. Other bullets are all the interviewee.

· Most essential use case:
o enter time while working
o i don’t want to have to come back and remember the hours on what i was doing
o click on a button, start tracking time while working, click button to stop time when done working
o needs to happen in the background
· Walk us through the path the user would take, an employee. I sit down at my computer..
o Could be going into a browser to click a button
o But maybe more mobile, on a cell phone or watch.
o take feedback from the device, have it ping the user (are you still working?)
§ prevents taking time while they aren’t doing anything
o in this use case, i don’t see how a traditional browser would accommodate that
· let’s pick the phone for now
o timekeeping app on your phone. When it opens you see list of current projects.
o select the project you’re about to start. time starts accumulating.
o every 45 minutes or hour the device vibrates and prompts you to interact with it, letting you know you’re still working.
· At the end of the hour, let’s say i need to switch gears. what do i do?
o well not at the end of the hour necessarily
o open the app
o click stop
o saves the amount of time accumulated
o you are presented w/ your other projects you can work against
· At the end of my day, would i get a review or what
o everything is entered in a “pending” state
o you’d have to review, one page that shows you all hours against all projects
o click button to approve
o then submitted into time tracking application
· At end of day, reviewed my time, i can commit it somehow?
o if it’s not correct, you’d have the ability to change the times to make it as accurate as possible
· At the end, let’s follow that data piece for a second
· we have time, integer, may be spread across different categories. for the day.
· at end of payroll period, what happens
o once you’ve committed it, it’s saved to that main database and you’re done.\
o once it’s committed you’re done
· Another use case from another user, who is the person on the other side of the timesheet?
o That particular person probably still has the mobile app, reports they could see
o Kris sends most of her stuff in the browser, she never sees the pending hours.
o she just sees the hours that are committed.
o UX, she’d log in and see something from a week view. for each week, by employee
· from there is Kris able to interact with the data? maybe not edit but send back to user?

· She'll need to move it from time tracking to payroll how does that occur?
o Right now that's manual
o ideally after she blesses all of the time that's been accumulated, she'd just press a button for whatever time frame she's dealing with and it'd get pushed into the accounting application
· use cases so far: Employee and HR person. any others?
o being able to project this information for similar types of projects
o if you're talking to a client that wants a website
o reach into time recording application and pull out hours that were used to create a similar type of website
o that way you can present a more accurate cost estimate to that potential client
· Some kind of analogous estimation ability
o you are entering time against categories, so you could look at average hours per category and drive cost estimates from that
· so we've got mobile devices. do you envision anything specific, what platforms, windows, android, ios? for release 1
o for sure ios and android, not sure how big windows is right now for mobile
· what about wearables?
o android, samsung have a wearable device. i'd want to target the iwatch and samsung watch
· thing i got all the roles, employee, human resources. Any others?
o e.g. Rick, the owner who wants to keep tabs on profitability and where things are going
o wants to look at macro level of views not the forecast
o let's talk about forecast
· ok
o every month Kris asks for forecast, about how many are possible for that month
o some months have 140-something, some have 184. based on holidays and days in the month.
o so forecast is 100% 110%.
o compared to the actual amount for the month
o Rick, the company manager, would want to see how that's going/slowing.
· beginning of month each employee enters their forecast
o yep
· once entered, combined into report view company wide forecast for billable hours?
o yes, exactly
o have actual vs forecast
· You said something about an employee finishes up the day but hasn't committed
· would rick's report take into account these?
o No, he wouldn't see any non-committed hours
o those are work in progress, very volatile
o once committed for day or week, then those committed hours are part of actual forecast
· so we've got employee, HR, management
· once employee entered time, does manager need to approve ti? In terms of something we market outside our company

o it’s possible, but i don’t think it’s applicable for the industry we are in
o each consultant is responsible for their own time
o no manager looking over their shoulders
o we talked about having everything in a non-committed state, then user commits it
o maybe there’s an intermediate step between that for a “pending” or “awaiting-review” state
o so you’re talking different workflow states that a piece of time could flow through
· would that be editable? Customer A could do workflow A, customer B use workflow B
o yeah it’s possible each customer implementing this could have a custom workflow
· so then we need an idea of a workflow configuration as well as a use case to think about
o point is when you sell it to a client, there’d be some type of workflow configuration you’d have to go through when setting them up.
o there’s also an administrator's point of view, how to create different categories, projects, and how to assign them
· any other roles? we’ve found a lot.
o no nothing that comes to mind
· as a product, getting it to market, what factors make it successful?
o targeting organizations, not the loan user.
o could work for lone user, but we’re talking a bunch of different persons, how they’d use this application.
o that’s a good question i don’t know
o not sure if app store makes sense, or more traditional means to market the application
o man i don’t know
o i know we talked about reaching lots of other service type organizations and see if they are interested
o may not be helpful to you
· no it’s good to know
· if you’re the product owner and you were setting down your expectations for the project and the team and the manager, what are some of the expectations you’d like to see met from the project itself?
o are you talking about technology or communication expectations?
§ technology:
· responsive
· same codebase on mobile device works in browser
· web API backend to be used for saving and retrieving data
· probably angular for the front end
§ communication
· not waterfall, agile approach to developing this in all the different events that happen in an agile space. the microcosm
· would you expect your main mode of comm would be user stories, then team communicates by via a demo?
o expect the devs to create some sort of video demonstrating what they’ve accomplished
o new tool called slack we’re going to be using. a communications hub. going to incorporate into future development activities.

- cool, couple of bases i want to cover
- any other project and non-communicational you can think of?
  - well, type of wireframing to set the floor
  - user research before requirements development to make sure
- You mentioned responsive was a quality the system needs. Any other requirements liket hat? Maintainability, modifiability, security, any other attributes we need?
  - of course biggest expense is the maintenance, so following the standards
  - following best practices
  - help to alleviate the expense of maintaining the software
  - why i was thinking angularjs framework would alleviate costs in long term
- so is maintainability high priority?
  - of course, doing stuff with best practices and frameworks lets you lower that cost
- is modifiability important?
  - what do you mean
- plug and unplug classes in and out of the system, quickly and easily modify it with new features
  - that goes hand in hand with the frameworks
- what about security?
  - well there's no personal identifiable info that's crossing the wire
  - GUID for the person
  - GUID for the project
  - GUID for the hours
  - that stuff doesn't mean anything
- so security is low priority?
  - yeah
- before I go …. we mentioned wearables, phones, and web app.
- let's talk about iOS specifically for a second
- does it need to be backwards compatible? or just focus on current version?
  - need to do research, where are the most people what version are they using?
  - we would probably target 2 versions back from that and forward
  - use statistical analysis to determine the version
- same for android and wearables?
  - yeah
- what about web versioning and platforms?
  - needs to be cross browser so it works on major browsers out there
  - as far as version, use the same analysis we did for mobile
- were you saying it's all on angular, or there's some other code on the backend?
- preferences on that?
  - C# .net as web api on the backend
  - angular you can bundle as IOS or Android
  - not sure about wearables

· let’s go back to the data, let’s say we have an individual person, what info do we need to get a view of an atomic employee user
o first, last, email address
· as admin, if i’m setting it up … i’m going to create project, categories, assign employees what’s that look like in terms of data
o couple of things
o you got projects
o you got clients
o clients can have multiple projects
o projects can have multiple employees
o first step create client then project
o then assign employee to projects
o then that project shows up. in employee list
o when the project is no longer active… nobody should be removed from it, but on my wearable i don’t want to see all my old projects, just active projects
o so as it becomes inactive because old or over, should fall off my active list
o someone would have to deem it over, and the act of closing it out removes it from active status
· Anything else? Let’s hone in on the client
o client is 2 different things. COmpany and Contact at the company
· So company name…. anything else for the record?
o collecting the Industry value right now, and company size based on employees and maybe a dollar figure
o get a feel for what size companies we do most of our business with
· cool anything else company related?
o Some time of pain indicator, or they pain in the ass or do we enjoy working w/ them
· hah so some qualitative grading
o yeah
· on company contact what do we need
o first name, last name, email address, phone number
· ok cool anything else
o want to talk about billing?
· we can, is it in the scope?
o i think what this system needs to do is be able to export approved time
o export it out to different accounting packages
o that’s the extent of what this time tracking application can do
· i agree that’s a really good boundary
o you’d have to supply maybe
o a list of 3 different ways you can export data
§ quickbooks
§ excel spreadsheet

§ something else?
· maybe something like XML or CSV
o well nowadays a lot of things are going json
· ok let's talk about a project, start date, end date, anything else?
o those data points would be
§ budget
§ also…. big spend (contract type?)
· fixed bid,
· time material
§ starttime/date endtime/date
o think that's about it. thinking billing method but no that's outside scope
· ok employee, first, last, email, anything else? what about the hours they enter over time, should the record show over the course of the project, that joins the time of their total hours?
o reporting feature… calculated field you'd just sum the total hours by project
· what about employee record? job types?
o yeah… that's not on the employee record, but the project assignment
o i could be QA on one project
o BA on another
· right so we need some way to add Tom to project X as QA, more on the project record
o a project can have many employees assign to it. many to many relationship.
o in that join table… has an assignment. that's where you apply the role
o I just remembered another persona
· what is it?
o the client. would be cool to have some web application, mobile application that they can see all their projects with us, time accumulated, how much paid, how much left to be paid.
· ok cool. we have client record, project record, time against it. i think we have all the data for that.
o correct
· what would you envision for a schedule, if we said go today… what kind of time frame do you think is reasonable
o right around 4 months
· what about rough budget constraint?
o oh gosh, i'm terrible at that. i don't know.
· any other constraints we're missing? timing?
· what would be the expectation of responsiveness? on my wearable, what kind of delay between putting in an hour and the time it's recorded? Or any responses?
o immediate, shouldn't have to wait for it to process. it should just do it.
· ok no perceivable wait to interact
o right
· true of all cases? Including administrator? HR person? Manager? employee?
· all users should have immediate response?
o yeah everyone is busy they don't want to wait around for stuff that should be everyone

· ok
· that kinda covers everything that we had in our initial list
· anyone else we should talk to?
Kris, the HR

Action Items

Action Number	Description	Assigned To	Due when
1.	**Convert the transcription to this document**	**Adam**	**2015-11-14**
2.	**Represent requirements based on this document**	**Adam**	**2015-11-14**
3.	**Gather more requirements on outstanding items (account acquisition and management, reporting, workflow and approvals, user record management, and export file formats)**	**Adam**	**TBD**

Agreements and Approvals

On the delivery date listed, I agree to deliver notes documenting this requirements session to the Stakeholder's listed below.

Requirements Engineer Name	Requirements Engineer Signature	Delivery Date
Adam Whipple		

The above requirements session report accurately reflects the session for which I served as an expert on the dates indicated above.

Stakeholder Name	Stakeholder Signature	Approval Dates

Requirements

- **SCENARIOS**
  - Purchase
    - A customer shall Purchase system (how? Website? Tiered subscriptions?)
    - A customer shall Load system (hosted solution? Downloaded?)
    - A customer shall Get application(s) on desired devices (how? download to devices and use some sort of key? how to link to a specific company file?)
  - Update Account Settings
    - A customer shall Log into customer account (How?)
    - A customer shall be able to change or update settings
    - A customer shall be able to save or discard changes
    - A customer shall receive notification that changes have taken place via email.
  - Help
    - A user shall access help via online resources (how?)
    - A service provider shall view customer / user account settings (security? how?)
  - Initial Setup
    - An admin shall set up a Client record
    - An admin shall set up a Project record
    - An admin shall set up a Employee / Vendor record
    - An admin shall set up Other Users record
    - An admin shall set up a Workflow Configuration
  - <u>Time Entry (Key Scenario)</u>
    - All users shall Log into system (through web, mobile app, or wearable)
    - Time entry users shall Select desired project from a list of assigned projects
    - Select “Begin”
      - Timer runs in background (every 45 minutes, an alert sounds to ask user if they are still working)
    - When done, Time entry users shall select “Stop”
      - Time is recorded in Pending State.
    - Time entry users shall Review time recorded
    - Time entry users shall Make any necessary changes for accuracy
    - Time entry users shall Commit Time (Committed State)
    - Time entry users shall Select how to handle comp time (payout or bank)
  - HR - End of period
    - An admin shall Review all time entries
    - An admin shall Print reports
    - An admin shall Export data
  - Analogous Project Estimation
    - An admin or manager shall Search projects based on parameters
    - An admin or manager shall Review hours by role
  - Ongoing Project Reporting
    - An admin or manager shall Select project
    - An admin or manager shall View time and other project factors ($)
    - An admin or manager shall Sort by role, employee, etc.
  - Forecast month
    - An admin or manager shall Request forecast / Reminders
    - Time entry users shall Enter monthly forecast & submit
    - An admin shall Synthesize company forecasts
    - An admin or manager shall Create reports

- **FUNCTIONAL**
    - BUSINESS REQUIREMENTS
        - FUNCTIONALITY
            - Acquire software
                - Need to gather more requirements on how the end user will acquire software for use on mobile and wearable devices.
                - Need more requirements on how the end user will establish an account.
                - need more requirements on payment and user access.
            - Account management
                - Need to gather more requirements on how the customer will manage their account to have access to the system as a service.
            - Login & Authentication
                - Any user shall have the ability to log into the system.
            - Set up a Client
                - An admin shall set up a client record.
            - Set up a Project
                - An admin shall set up a project record.
            - Set up an Employee
                - An admin shall set up an employee record.
            - Set up a Vendor
                - An admin shall set up a vendor record.
            - Set up other Users
                - An admin shall set up a Users to enter the system.
            - Set up workflow
                - An admin shall set up a workflow.
            - Select from a list of available projects
                - A time entry user shall select a project from a list of projects to track time against.
            - Select “Start” to begin timer against project
                - Upon selecting a project to track time against, time entry user will have the option to begin timer (stop clock style).
            - Select “Stop” to cease accruing time against project
                - While the timer is running, the time entry user will have the option to stop timer (stop clock style).
            - 45 minute reminder “Still Working?”
                - While the timer is running, the time entry user will receive small reminders or queries to ensure that the user is still logging time against the desired project..
            - Review time for period
                - Once a time record has been created, the user will have the ability to review that and all uncommitted records and shall have the ability to edit the time recorded.
            - Commit time
                - Upon reviewing the time record, a time entry user will have the ability to “commit” all uncommitted records, changing the state of the record from uncommitted to committed.
                - Once this takes place, the user no longer has the ability to alter the time record.
            - Handle comp time / overtime
                - Any time billed against a billable project above the monthly maximum shall be treated as comp time.

        - The system shall calculate that amount at .25 hour intervals and allow the time entry user to choose how to allocate that time between comp time or overtime.
            - If comp time, the user's record will "bank" the time up to an allotted maximum (40 hours) for later use.
            - If overtime, the additional time will be recorded in the employee's payroll for that pay period.
- Review all hours for all employees by period, project, or client / category.
    - The admin shall have the ability to review all committed hours.
    - The admin shall have the ability to select a time period to review, and
    - shall be able to sort and filter the data by period, project, client / category, or employee.
- Send time back to an employee.
    - From the review screen, the admin shall have the ability to change a time record (for a period of time for a given employee) from committed to uncommitted.
        - When this happens, the admin shall have the ability to enter a note to the employee explaining why the time has been sent back and requesting a change.
        - The note will be emailed to the employee and cc'd to the admin.
- Export company file
    - Once fully reviewed, the admin shall have the ability to export data from the payroll system into a variety of formats.
        - Formats shall include: Quickbooks, ADP, CSV, and XML.
    - The admin shall have the ability to select a time period for export.
    - The admin shall have the ability to select employees to be included / excluded from the export along with the ability to "select all" and "select none"
    - The admin shall have the ability to select the file path destination for the export file.
- Reporting
    - A user shall have the ability to review reports.
        - An admin shall have the ability to select which reports are viewable by which user types. (Data)
        - The system shall have canned reports
        - The system could have specialized reports that users can set up?
            - Canned Reports?
            - Specialized Reports?
        - Client Reporting
            - Client shall have the ability to log into the system and view reports
                - All projects related to that client
                - All time accumulated against a project
                - How much paid
                - How much left to be paid
                - Estimates
- Request Forecast
    - An admin shall send out a forecast request to all time entry users through the user interface.

            - The admin shall have the ability to select employees to be included / excluded from the request along with the ability to "select all" and "select none"
            - When this happens, the admin shall have the ability to enter a note along with the request.
            - The note will be emailed to the employee and (optionally) cc'd to the admin.
        - Send Forecast Request Reminder
            - The system shall track the responses from the forecast request. At regular intervals, the system shall send out reminders to any time entry users who have not responded to the request.
            - The note will be emailed to the employee and (optionally) cc'd to the admin.
        - Enter period forecast & submit
            - Upon receiving a request, the time entry user will follow a link to the forecast entry screen. In the screen, the user shall see the note sent by the admin along with the total count of full-time hours for that period.
            - The user shall enter individual time forecast for the period and submit.
        - Review forecast
            - Once all time entry users have responded, the system shall alert the admin that the forecast is ready.
            - The forecast shall be available in reports.
        - Set up workflow (approvals? by role?)
            - By role, set time entry users.
            - By role, select whether a certain role must have time approved by any other role.
                - If a record must be approved, for instance if there is a manager role who must approve time from employee and vendor users, that would be set up on the workflow.
                - Each role changes the state of a time record so if there is one manager who must approve time, then the state of a time record is "uncommitted", "Pending Manager Approval" and "Committed"
                - A company may have multiple workflows
                - Each project may have a different workflow.
    - DATA
        - User record
            - Need to gather requirements about how the system will manager user records: login ID, passwords, forgotten password management, security, email authentication.
        - Client record
            - Contains
                - Name of Client (String)
                - Active / Inactive (Boolean)
                - Notes (String)
                - Company size (Pre set? Combo Box? TextString?)
                - Industry (Combo Box from a list?)
                - Company Contact
                    - Name (First Last)
                    - Address
                    - Phone
                    - Email

                - Associations
                    - Project (many to many)
            - Project record
                - Contains
                    - Name (String)
                    - Start Date (Timestamp)
                    - End Date (Timestamp)
                    - Contract Type (Combo Box)
                        - Fixed Bid
                        - Time and Materials
                    - Budget (String or Float?)
                - Associations
                    - Employee (many to many)
                        - Relation: Role
                            - Types of Role
                                - Requirements Engineer (BA)
                                - Developer
                                - QA
                                - Project Manager
                                - Program Manager
            - Employee record contains
                - Contains
                    - Name (First Last)
                    - Email
                    - Address
                    - Phone
                    - Billing Rate
            - Vendor record contains
            - Time
                - States: Pending, Committed (additional states by workflow)
            - Export File
                - QuickBooks export/ file format?
                - XML
                - CSV
        - TIMING
            - When the timer is running, counting time against a project, every 45 minutes, the system shall alert the user
- **NON-FUNCTIONAL**
    - ATTRIBUTES
        - Responsiveness
            - Responsive Web Design
            - Immediate response via all applications
                - The end user should have no perceivable wait to interact with the system.
        - Maintainability
        - Supportability
    - PROJECT
        - Video Demos every iteration
        - Follow best practices in development
        - 4 Months of Development
- **INSTALLATION / INFRASTRUCTURE**
    - Server
        - Web Application (SaaS)

        - Common web browsers
    - Mobile Application
        - iOS
        - Android
    - Wearable Application
        - Apple / iOS
        - Samsung / Android
    - Versions for all software and hardware are unspecified. Requires more market research data to determine the appropriate deployment version strategy.
- Language
    - Angular JavaScript (JS)
    - C#.NET as web API on backend