BUILDING IMPACT: DEVELOPING SUPERIOR PROCESSES

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Progress Report
3-29-2012

Introduction: Background

- BI has a non-profit network of 40+ organizations.
- BI works with 47 buildings, 575 companies, and 20,000 people
- Events include:
    1. Donation drives in our buildings and at companies every other month
    2. Volunteer events in the community
    3. In-Office Volunteer Events
    4. Corporate Volunteer Days
    5. One-Off Donations
    6. Blood drives

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Building Impact's mission is to strengthen communities by providing individuals and companies with the knowledge and opportunity to volunteer, donate, and connect in the buildings where they work or live. Through their Connect program, Building Impact comes to office and apartment buildings, acting as a free community resource, connecting participants to a variety of convenient and meaningful ways to give back to the community.

Introduction: Need

- How should they define their customers?
- How should they define their products?
- How can the communication with the Non-Profit Partner Network be improved?
- How can calendars and plans for different types of projects be integrated with each other?
- Create a process-flow diagram to document current processes to identify risk, inefficiencies, and improvements

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Our focus is on creating the process flow diagrams to document their current processes to identify inefficiencies. We also plan on helping them improve communication and integrate calendars.

Introduction: Problem Statement

- Determine BI's clients and products
- Determine where to focus resources to improve products and provide quality service
- Streamline communications, execution of events, coordinate event planning

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BI has not clearly defined its clients or products so they are hoping that our project will help them define that. They want us to figure out how to best focus their resources so that they can provide the best service to their clients. We will be examining their processes for inefficiencies in order to streamline communications, execution of events, and coordination of event planning.

Technical Approach

- Decided for BPMN over UML
  - Event-based over Signal-based
  - Better for business process analysis
  - Represented a better resolution to BI needs
- How we decided to use Bizagi
  - Created Objectives Hierarchy to formulate categories
  - Performed modified swing weighting to determine weights
  - Analyzed software to find best suited modeling software
- Using Bizagi to model and analyze current processes
- BI uses Salesforce for CRM (Customer Relationship Management)
  - Integrate Salesforce with their calendar functionality

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BPMN vs. UML

We had to decide which type of modeling practice to focus on when attempting to decide on a software package for BI. The two most applicable modeling languages are BPMN and UML. We discussed these practices with our sponsors and came to a decision that BPMN was better suited to BI's needs. BPMN allows for a higher level of focus and most importantly, it is an event-driven choice modeler. That means it focuses on actual events that take place, like a response to an email OR an approval of an application. UML focuses more on singals to drive choices like that of electrical systems; this means its functionality is more at a lower level than what BI is looking for. UML is better for modeling requirements and details for software and IT related agendas. BI and us agreed that BPMN would be a better language to use.

Deciding on Bizagi
Read bullets on slide. More on these in the coming charts.

Bizagi Modeling
More on these in future charts. Will see our models for the best cases for all 6 events types that BI offers.

Integrating Salesforce
Bi uses Salesforce as their Customer Relationship Management tool. It acts as a database that holds all information they wish to enter about their events, nonprofit partners, and

program partners. There are ways to integrate this will outlook calendar, which will better organize their schedule and allow for easier event analysis.
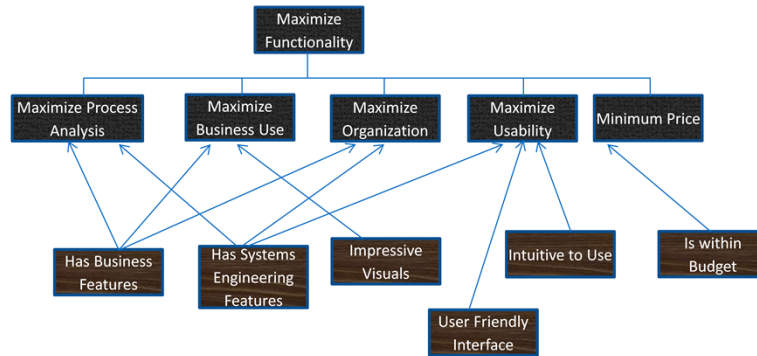
Top are fundamental objectives. Bottom are means objectives. We went created this in conference with BI in order to help determine the criterion in which to analyze the software selections. Using this we formed the categories: Price, Usability, Quality, Features, and Visual Impact.

Choosing Bizagi: Swing Weighting

	Price	Usability	Quality	Features	Visual Impact	Sum
Rank	2	1	4	3	5	
Best	1250	13	13.5	12	14.5	
Worst	free	10	10	10.5	8	
Importance	0.71	1.00	0.43	0.57	0.14	2.85
Weight	25%	35%	15%	20%	5%	100%

Swing Weighting
1. Rank order grading criterion
2. List the best and worst for each criterion
3. Determine the importance of each criterion
    a. Start with number 1 rank - list importance as 1
    b. Continue in ascending order based on rank and
      determine importance of the best & worst difference
      compared against each other
4. Find Sum of importance values and divide by one to
determine K (weight of ranked 1 criterion)
5. Multiply K by each importance value to find weight

Explain the table and normal swing weighting (everything on the slide). Then continue to explain that we did more of a modified swing weighting system. Instead of presenting this style of thinking about weights, Building Impact chose weights based on their own decision system. Once the weights were obtained, we worked backwards through the Swing Weighting process to determin what the importance values were. We went back to BI and explained that these importance values were the results of their initial weights and asked if this is in line with their values. They agreed that the initial weights, given this new decision style, were accurate and should be used.

Software & Tools Research

Mini Decision Analysis

- High-level view of 10 UML and BPMN software packages
- Slimmed the list down to a possible three based on input from sponsor and ourselves
- Asked Sponsor to place weights on selected categories using an objectives network

Normalization						
	Price	Usability	Quality	Features	Visual Impact	Matches BI Needs
BI Weights	25%	35%	15%	20%	5%	100%
ProcessMaker	0.00	0.00	0.57	1.00	0.00	29%
AccuProcess	0.20	0.83	0.00	1.00	0.38	56%
Bizagi Process Modeler	1.00	1.00	1.00	0.00	1.00	80%

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We viewed 10 potential software packages including MagicDraw and Enterprise Architecture, but the decision to use BPMN removed these options as they support UML. These categories were listed as important with BI. We determined them by reviewing a means objectives network to show what BI's wants were for this software. They developed weights for each category and these were used in our final decisions. We viewed our 8 remaining software packages and chose the most promising three based on their expected value to BI. With the final three we normalized our mean score for each category and normalized the price value for each software package. This resulted in Bizagi as our best choice; it is free for a slimmed down but fully featured version, has a good support base, high quality reviews, and has all the features that BI needs.

Bizagi Process Modeler
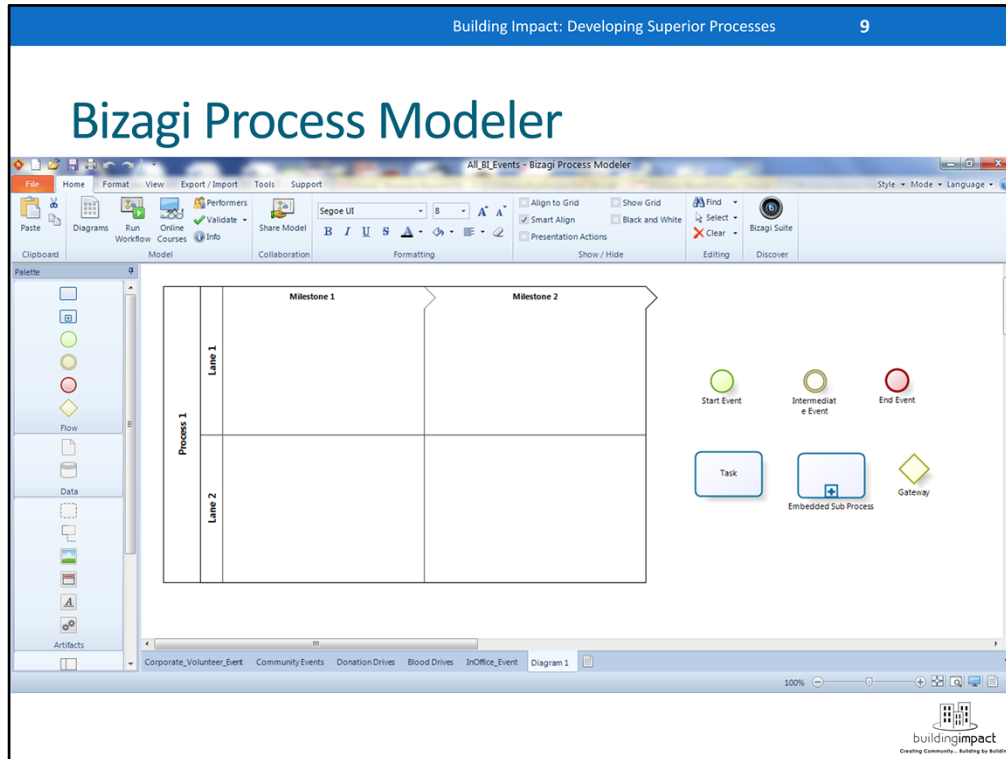
Start - Shows the beginning of the process

Task - an activity that requires use of resources (time, money, otherwise)
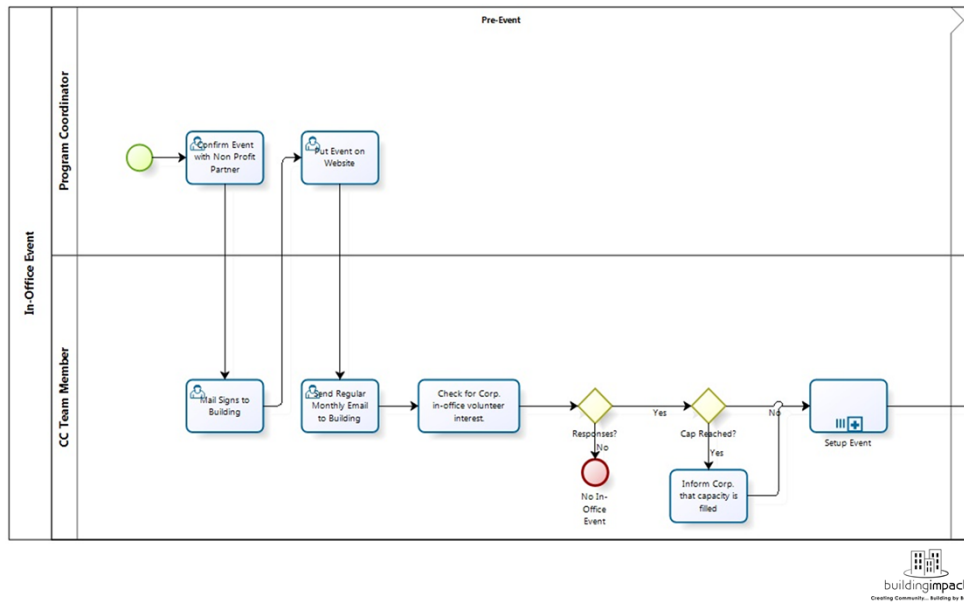
Sub-Process - a process within this process using the tools here

Intermediate Event - Shows something that occurs that does not take up resources (receiving an email)

Gateway - allows for the depiction of a choice

End - shows that the process has finished

Bizagi Model: In-Office Events

Follow the sequence of events that follow. Explain that "Setup Event" is a sub-process with greater details and its own process flow diagram. The triple lines means that it occurs multiple times, an event for each participating office.

Bizagi Model: In-Office Events
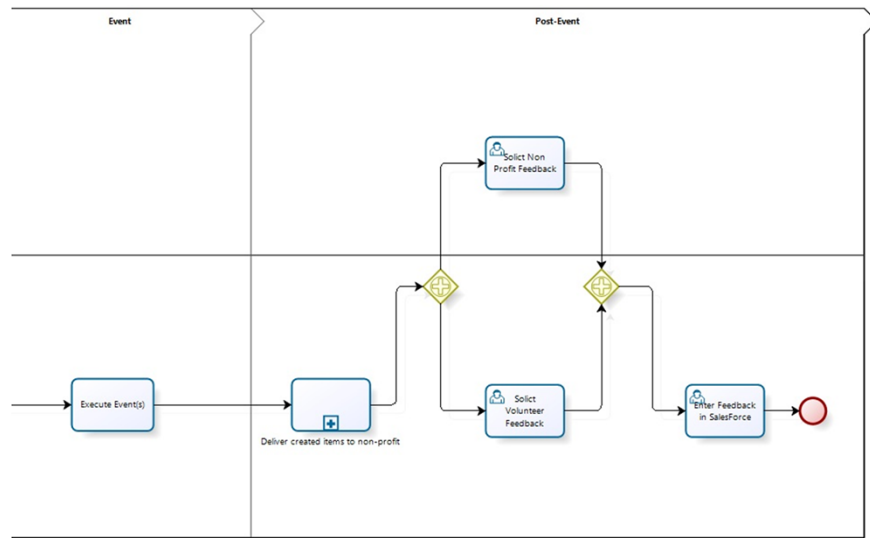
The events are executed and products delivered (could be quilts, valentines, letters, etc.) and then feedback is collected from the nonprofit as well as from the Comp and volunteers. This information is input into Salesforce for record keeping.

Bizagi Model: Corporate Events
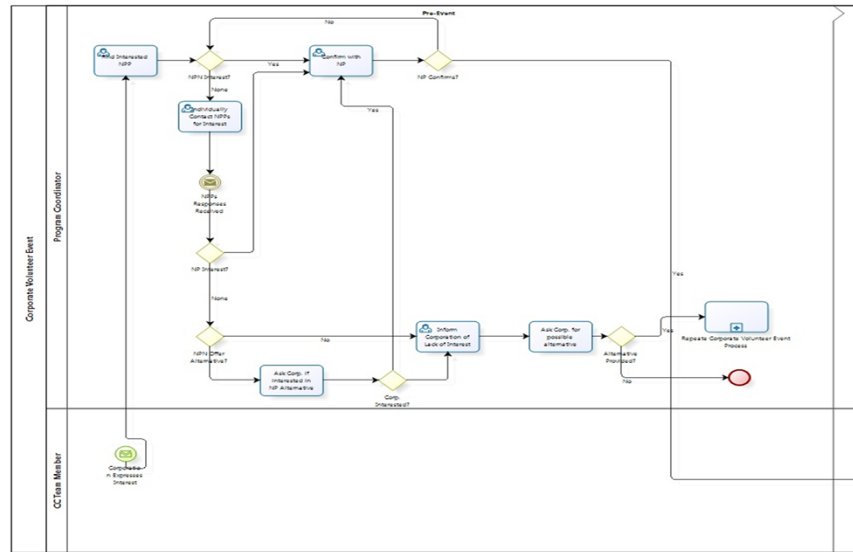
This is the pre-event for a Corporate Volunteer Event in which BI receives a message from a program partner (participating company) that they would like to host a certain type of service like send care packages to soldiers. BI sends out this interest to the NPN and find out if there is interest. If there is interest, then they confirm with the NP and program partner. If not they individually contact selected nonprofits for interest. If interest is found back to confirmation, otherwise there may have been a counter-offer. If so, check with Comp. and if they like it then confirm with NP. If they don't like it or if no counter-offers were issued then inform the Comp that there is no interest for their service type and ask if they have a different service they wish to provide. If they do then start back at the start, if they don't then the corporate event does not happen.
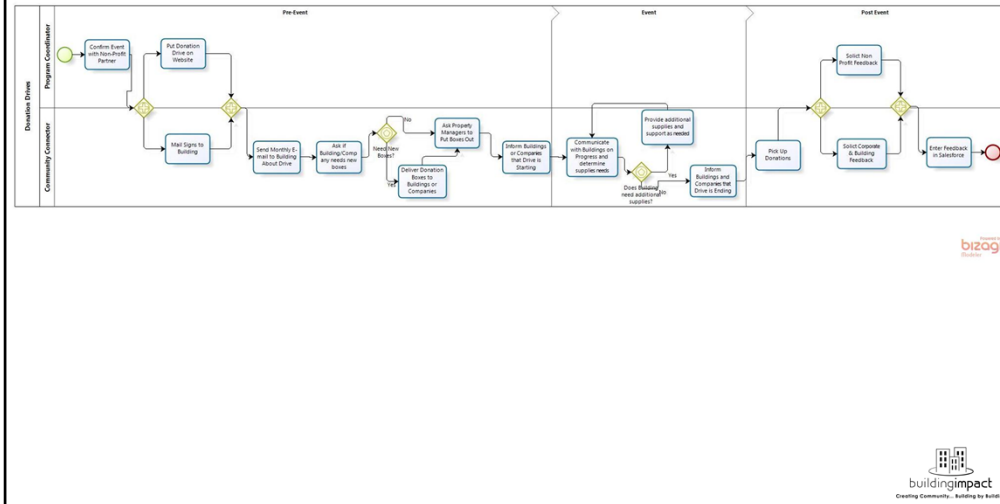
Bizagi Model: Corporate Events
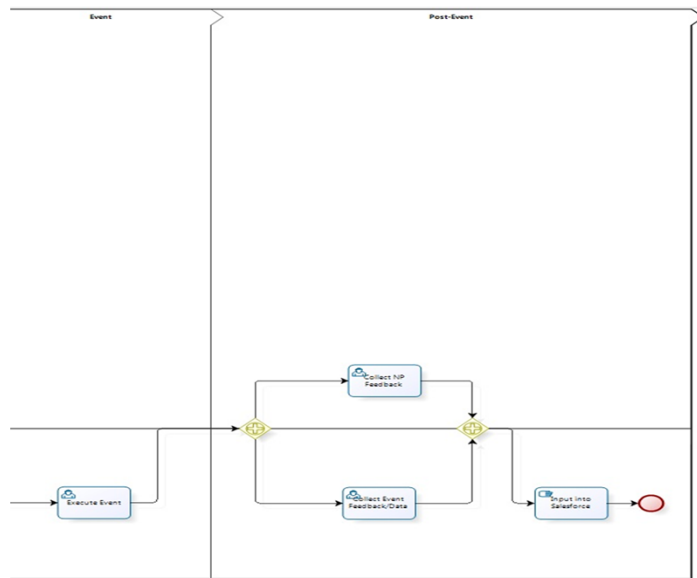
During the event it is executed and the event is held. Then feedback is collected from the nonprofit as well as from the Comp and volunteers. This information is input into Salesforce for record keeping.

# Bizagi Model: One-Off Donations
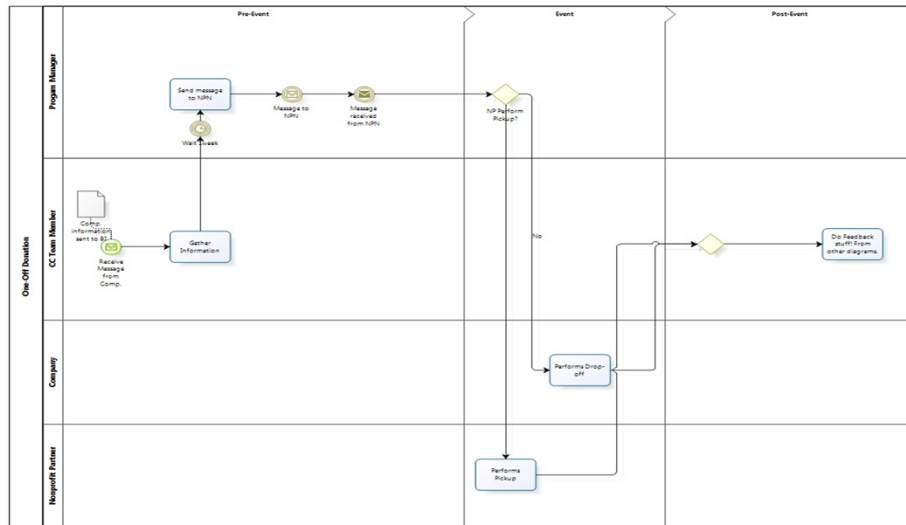
BI receives a message from participating company that they have a donation to offer and they provide details about what it is, how much, model numbers if necessary, condition, etc. Then in a biweekly mailing to nonprofit network this donation is sent to all nonprofits for interest. A nonprofit responds and they are put in contact with the company. Then they discuss who will do the pickup or drop-off. Feedback is garnered from both parties.
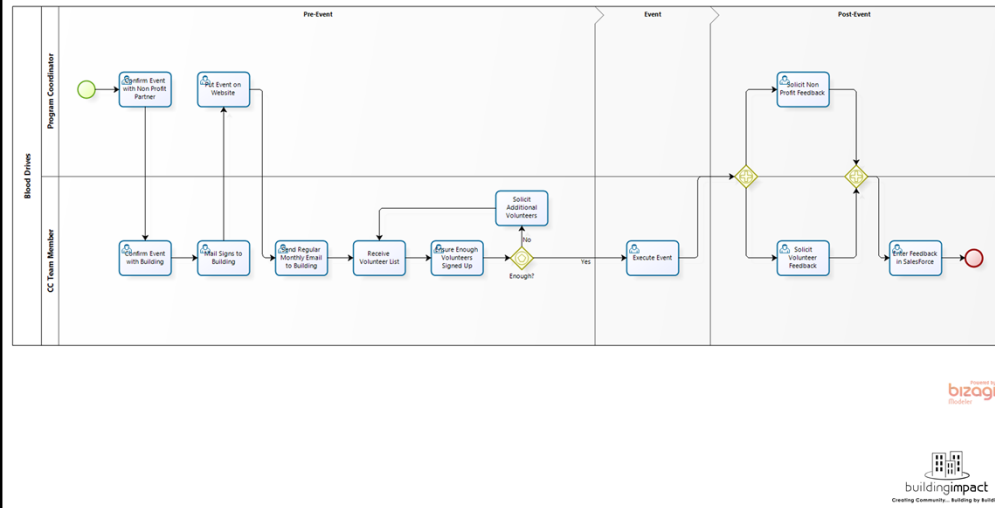
This is the model for Donation Drives. Follow the order of events describing the activity. Note the parallel gateways and exclusive event gateways.
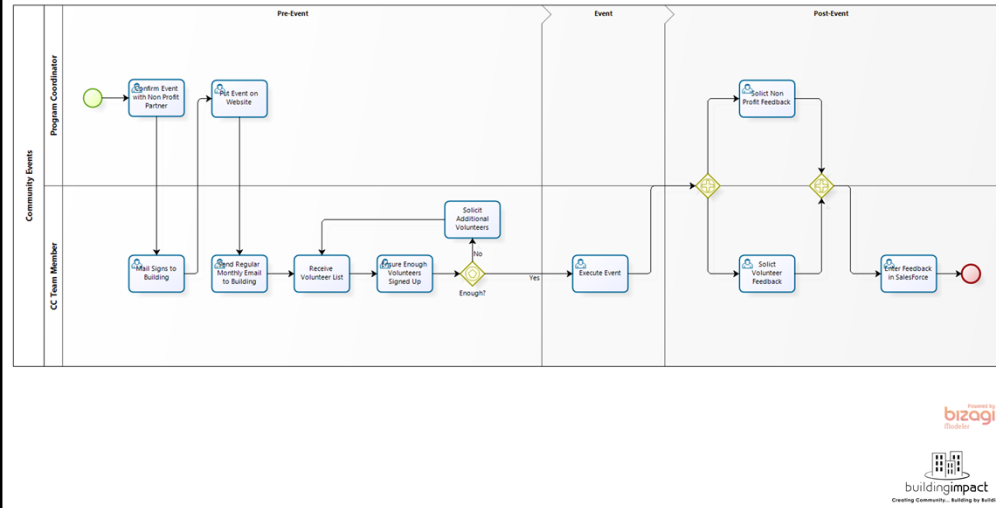
This is the model for Community Events. Follow the order of events describing the activity. Note the parallel gateways and exclusive event gateways.
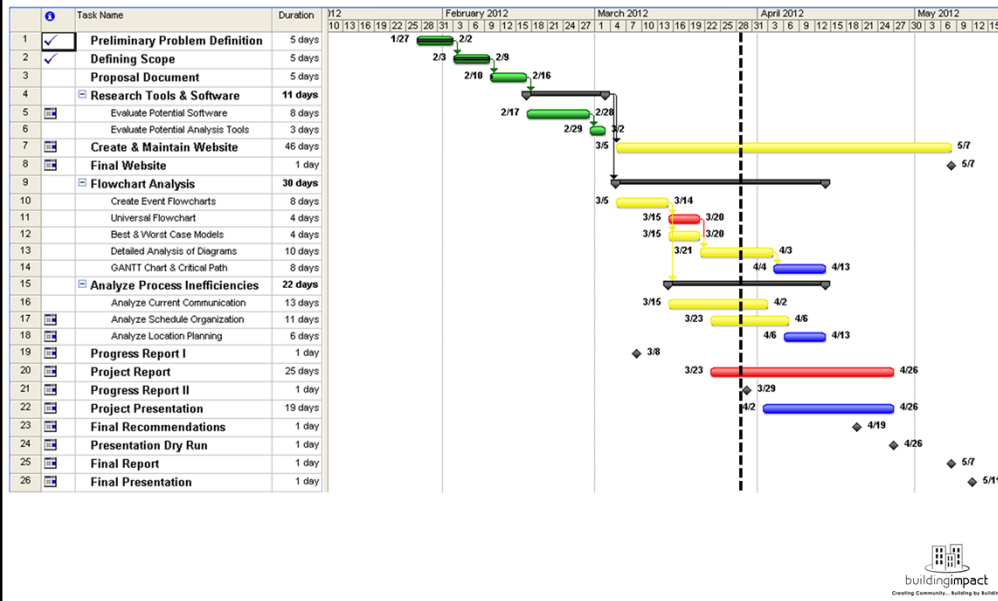
This is the model for Blood Drives. Follow the order of events describing the activity. Note the parallel gateways and exclusive event gateways.

Website

This is a mock-up of the website.
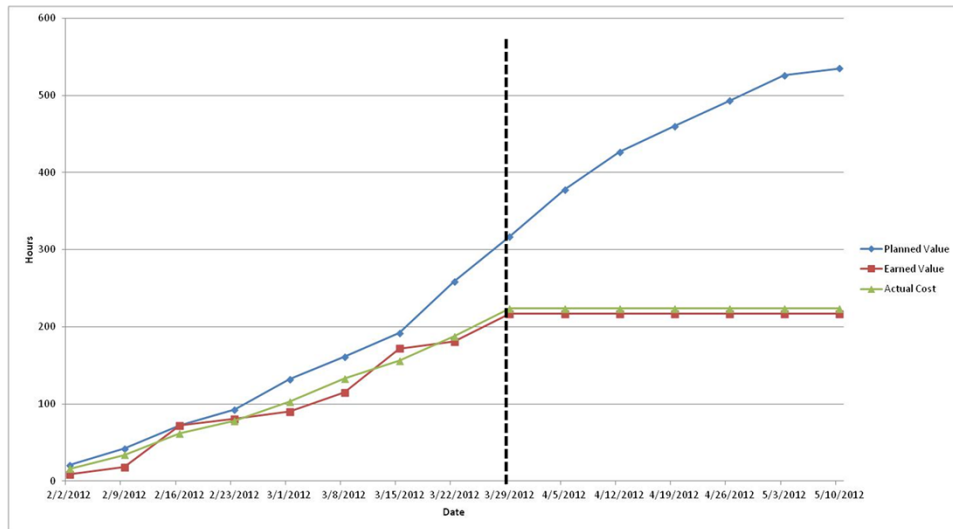
Green: Completed tasks
Red: Tasks we are behind on
Yellow: Tasks we are currently working on
Dashed line: Current date
We are behind on the Universal Flowchart and the Progress Report. We will not be able to start the Universal Flowchart until we finish the best and worst case models. We hope to start the Progress Report soon so we do not forsee that the delay in starting either of these tasks will have an impact on our overall progress.

This is our Earned Value Management chart as of 3/29/2012. We have the values and cost in terms of hours worked, rather than a dollar amount.

Going Forward

- Complete business process models
  - Best-case scenario
  - Worst-case scenario
  - Universal flowchart
- Research improving communications and scheduling
- Finalize website design and content

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All of the best-case models are complete but need to be updated with timing and sub-processes. We are still waiting on communication from BI in order to complete the worst-case scenario models. After those models have been completed we will be able to move forward with determining the feasibility of a universal model. We are looking into options for improving their communication and scheduling with Salesforce and Outlook. We've started our website and will continue to update it as the project continues.