

# BUILDING IMPACT: DEVELOPING SUPERIOR PROCESSES

---

## Volunteers

Fiona Ariaratnam  
Michael Hockstein  
Michael Lovejoy

**Progress Report**  
**3-8-2012**



building**impact**

Creating Community... Building by Building

## 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



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.

## Methodology & Technical Approach

### **BPMN vs. UML**

- Business Process Model and Notation (BPMN)
  - Higher level focus
  - Focuses on Event-Driven Choices
  - Offers larger number of control-flow constructs
    - More Gateway types (complex gateways)
- Unified Modeling Language (UML)
  - Lower level focus
  - Focuses on Signals-Driven Choices
  - Is geared more for modeling requirements and execution for software



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 signals 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.

## Methodology & Technical Approach

Developing or Finding software to integrate communication & scheduling practices

- Create User-Document that illustrates how to use the tools for BI's specific purposes



We also plan to either develop or find a software package that will help to integrate their communication & scheduling practices. BI communicates with their 47 building sponsors, their 40+ NPN, and with the local community. On average BI sponsors, supports, and maintains 5 or more volunteer events every month. Keeping track of all of this can get complicated and they currently use several different software applications to handle it, but none of it is integrated. Our goal here is to develop user-documentation that will help guide any employee through the steps required to perform any task BI needs using the tools we have provided to them.

## Tasks

- Research Tools & Software
  - Evaluate Analysis Tools
  - Evaluate Software
- Create & Maintain Website
- Flowchart Analysis
  - Create 6 Event Flowcharts
  - Universal Flowchart
  - Best & Worst Case Model
  - Detailed Analysis of Diagrams
  - GANTT Chart & Critical Path
- Analyze Processes Inefficiencies
- Progress Report I
- Project Report
- Other Assignments for Class

Here is our list of project tasks that directly affect our project sponsors.

## Software & Tools Research

### Mini Decision Analysis

- High-level view of 10 UML and BPMN software packages
- Slimmed the list down to a possible three software packages based on input from sponsor and ourselves
- Asked BI 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%

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.

## Flowchart Analysis

- We want to create a **process map** of how BI's events currently operate, and how they should operate
- We're currently verifying specific details of each type of event BI coordinates

The ultimate goal is to use the Business Process Modeling software to create formal process maps of all event BI coordinates. Before we can take that step, we must verify that our understanding of every step BI undertakes is completely thorough.

## Process Mapping

<u>Step</u>	<u>Days Before</u> <u>Month of Event</u>	<u>Days Before</u> <u>Event</u>	<u>Staff</u> <u>Requirement</u>
1 Confirm event with non-profit partner			
2 Confirm event with building	14-21		
3 Mail signs to building	7		
4 Put donation drive on website	< 7		
5 Send e-mail reminder to building (regular monthly e-mail)	0		
6 Deliver donation boxes to building		3	
7 Communicate with buildings and companies on progress during donation drive		0	
8 Pick up donation boxes		-3	
9 Feedback		-3+	

This is an example of the amount of detail we want from BI to be able to create a thorough and accurate process map. We will request this level of detail for every type of event BI coordinates.

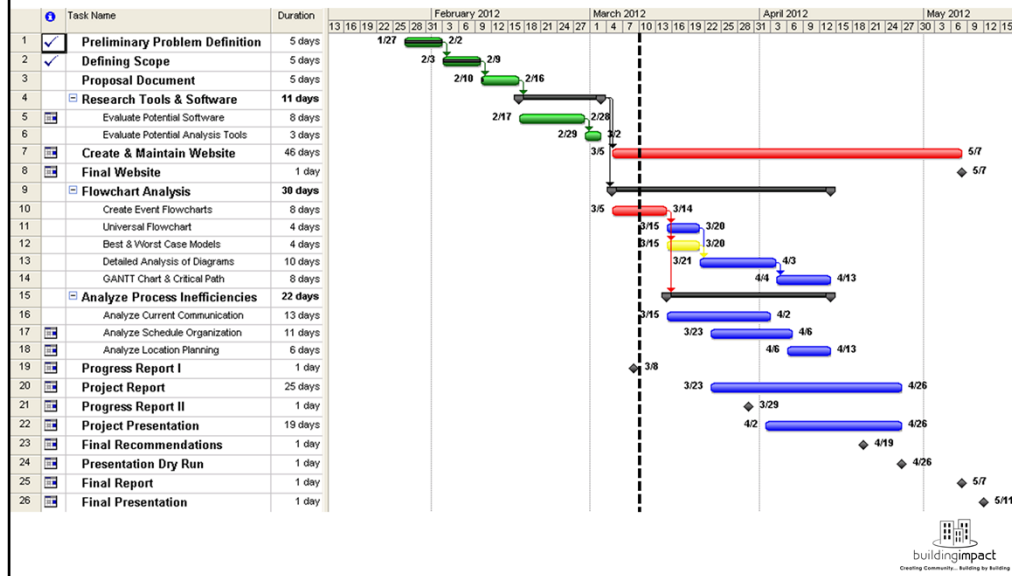


## Research

- “Process Mapping” by Hunt
- “Business Process Engineering” by Elzinga, Gullledge, & Lee
- “The Management System Auditor’s Handbook” by Kausek
- “Corporate Renaissance: The Art of Reengineering” by Cross
- “Workflow Modeling” by Sharp
- “Business Process Management Systems” by Chang

These research tools, and online research (e.g., best practices for non-profits), will guide our improvement process.

# Timeline



Green: Completed tasks

Red: Tasks we are behind on

Yellow: Tasks we are currently working on

Dashed line: Current date

## Issues

- Confidentiality agreement
- Learning BPMN
- Finishing the user documentation if we have to create the tool package ourselves via macros or other methods

BI has asked us to sign a confidentiality agreement in order to get access to Salesforce. The wording of the agreement concerns us since it is very general. It can be interpreted that we are very limited with what we can talk about with regards to BI and their events and processes. We want to find out if there will be limitations that will affect our project before we proceed with signing it. No one in our group has experience with BPMN so it will be a learning experience for all of us. We will be consulting books, the internet, and any other resources we can find. If we create any tools for them we will be responsible for creating user documentation so they will be able to continue to use them in the future without assistance.