

## **Overarching principle**

Improving the security of organizations through comprehensive crisis scenario based testing.

# Faculty

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## **0.1 Introduction**

IPRO 370: Crisis Management & Security Assessment Program (CMS), Summer 2007, is the second phase of a four stage IPRO. Our goal was to further develop the capabilities of our web based program through more robust scenarios and additional assessment features allowing companies to determine how well their crisis management plans stand up to different methodologies during the testing process.

## 0.2 Background

It is important first to understand three key terms that will be used throughout the final report. *Crisis* is anything that has the potential to significantly impact or cause instability within an organization. *Management* is the controlling and directing of a situation in a positive proactive manner. A *Plan* is a method of acting, proceeding, developing in advance.

The potential for a crisis is all around us and happens every day. It is detrimental that organizations are prepared in all areas of risk management where potenial volunerabilities can occur. Crisis management involves identifying the crisis, planning a response then confronting and resolveing it. Crisis management can be applied in almost any endeavor and could include tampering with a product, something as shocking as a shooting to a natural castosphe event such as a tornado or hurricane.

Every year, organizations invest millions of dollars to create plans to ensure that their business only experience minimal interruption during a crisis. One of the most important and often overlooked aspects of this preparation is fully testing the crisis management plan to ensure that it is sufficient. A proven method for testing is constructing scenarios and executing what are called "table-top" exercises. During these exercises, crisis management planners use these scenarios to walk through their crisis management plan and more importantly, assist them with a process to acknowledge their vulnerabilities.

We have created an application that assists business continuity professionals in the assessment of their crisis management plans. This web-based application allows a growing community the ability to easily create realistic scenarios and track the results of their excises.

A company's ethical point of view regarding crisis management should be that of a moral and conscience one. Upfront, tough, and direct approaches will show their commitment to their employees. Unfortunately, organizations view crisis management to different extremes. Some simply do not have a crisis plan, while others have a department/team allocated to ensure that their plans are written, tested, and maintained properly.

Our scenario builder application is important in the industry because an organizations written plan is one milestone but what is important, is to determine if it tests and works in the manner intended. It is proven that prepared organizations and organizations respond and recover from a crisis/disaster faster and cheaper. Those who fail to plan, plan to fail. The goal after a crisis occurs is that your business is around and fully functional. The upfront planning is a way to ensure that happens. A well written, tested plan will assist organizations to have minimal recovery, time, money, and effort.

## Phase 1 vs. Phase 2

Phase 1 (Spring 2007)	Phase 2 (Summer 2007)		
Create a web based application that will allow crisis management planners to construct effective scenarios through test objectives.	To accommodate the crisis community needs we have added something called injects into our application. Before you would pick a specific crisis like flood, fire and then a scenario/story would be created for the user to run their table top exercise. We have now created a more flexible testing method through these injects or additional twists to the story/scenario. Allowing a more realistic experience that would occur during a crisis.		
Develop a simulation through realistic scenarios that could actually be applied to determine if an organization's crisis plan is not only effective, but also to give them a measurement of their shortcomings.	The end of the build scenario process will result in a page that is printable. First will be the introduction (a user's guide on how to run an effective and efficient table top exercise.), then the scenario, then a page break, followed by an inject, another page break, and finally the conclusion/evaluation section.		
Perform qualitative and quantitative research in understanding risk analyses through significant scenarios that provide complete and accurate assessment in an organization's preparedness.	We continued to gain a more qualitative and quantitative understanding of what the crisis management community values when running their table top exercises. Flexibility is key along with user specific information. To accommodate this, we allow the user to modify their scenario information tailored to their needs.		
Gain an understanding of what and how organizations need to measure impacts, along with commonly missed attributes of their plans, through scenarios.	This is an on going process for this IPRO. The crisis management community continues to up their expectations and continually rework their plans to perfect them. This process will require repeated reevaluation to address their changing needs.		
Design an actual simulation and testing environment, and as a result create a useful application for management to properly evaluate their organization's preparedness for a crisis and to identify their needs if such events were to occur.	The scenario builder not only allows users to modify specific information tailoring these scenarios to their needs, it also offers a report to use, and a benchmark to compare against future testing.		
Create weekly team minutes in an orderly fashion for the purpose of effective communication.	We not only created weekly team meeting notes, but also utilized the igroups calendar and heard weekly updates from the sub team leaders.		
Meet with qualified professionals to hear their needs and get an idea of what is missing in the crisis management planning community.	We met with two crisis management professionals to test drive our scenario builder and gained substantial feedback along with a better understanding of what advice to give our successors.		

## 0.3 Purpose

Some facts:

"In the US nearly one in five enterprises and nearly one in three medium size businesses lack a business continuity plan."

"It takes years to build a successful business. It takes seconds to destroy it."

"80 percent of businesses that suffer a major disaster go out of business in three years."

The question is "ARE YOU READY" for a crisis?

Proper crisis management reduces the tension during the crisis at hand, demonstrates a company's commitment and expertise, controls the flow and accuracy of information and execution of their plan, and allows the company to manage resources effectively and efficiently.

Our project objective was to provide a application that would facilitate business continuity planners (BCP) to test and validate their disaster recovery plans (DRP).

To accomplish our goal, we found that during our initial research stage, it was necessary to also combine the third aspect into our project which included the creation of a web based management application. This would not only help us meet the demand of an internet society but gain a better starting point for the success of the project.

The purpose of this web-based management application is to test a company's current crisis management plan through various levels of impacts and penetration throughout their company. This will allow Crisis Management Teams to not only gain an understanding of their plans, but more importantly allows them to create the most realistic scenario to test their plans. Our application will also give them measurable data. This measurable data will show the potential impact on an organization's sustainability if ever faced with a crisis while evaluating a risk analysis combined with their preparedness. Thus, answer the biggest question most organizations have: Will their company's crisis management plan hold up to but more importantly, survive a crisis.

The original objective of this phase did not change. We continued to build a solid foundation that will not only allow our successors to continue our work, but to create a unique application.

## 0.4 Research Methodology

Our main challenge was to overcoming all of the information we were finding during the research of crisis management plans. The team agreed it would be impossible in the eight weeks to become professionals on all aspects of crisis management plans. We decided instead to focus on key risk management areas, thus becoming professionals on these in order to successfully write realistic scenarios that would uniformly not only be workable for everyone, but also address the most common target areas of crisis management plans.

We decided to break the research into four distinct areas. The first was simply to understand what a Crisis Management Plan was and the important key objectives in them. We found these core objectives that were common in all Crisis Management Plans.

- Business Continuity Management
- Crisis Management and Communication
- Critical Infrastructure
- Emergency Management
- Facility Management
- Legal Compliance and Audit
- Organizational Behavior
- Risk Management and Insurance
- Social Resilience
- Supply Chain Logistics and Transportation Management

Taking this understanding was essential for us to build our creation of scenarios around the various key objectives and crisis management plans.

The next research area included finding out why crisis management plans failed. We needed to gain as much information on when these plans were put into effect, "reacting mode", as well as how well they held up. This would answer the question as to are they re-acting to the right response quickly enough. It was important for us to understand how the inappropriate response initiated by organizations during an actual crisis would gain clearly recognize and relate to the necessary steps needed by management during in these situations.

A crisis has several potential magnitudes and can challenge these key areas. It is detrimental to seek out and fix gaps in crisis plans before the actual event occurs. But more important to provide guidance so that the crisis is not handled poorly resulting in the disruption and/or destroying any efforts at managing opportunities to resolve the situation and recover. This research allowed us to recognize expectations of plans that failed, thus our scenario builder will assist them in guidance to respond affirmatively.

The next research area included statistics and facts on organizations that had been faced with a crisis. It was important to understand actual quantitative data to gain a clear understanding of what organizations have actually faced both successes and failures. This information was both discerning and helpful, providing us with a stepping stone to write better scenarios to help test crisis management plans.

The final research area included the actual writing and building of realistic scenarios.

After we gained an understanding of crisis management the writing of scenarios was an essential part to help organizations test their plans but also examine a range of situations and teach us an understanding. These plans are crucial in order for a business to get back on its feet in the event of a disaster. The comprehensiveness and success of a disaster recovery plan is tested by means of a scenario. These scenarios would not be "black or white" implications; however they would simulate the potential for realistic participant in realistic situations through a story that has multiple layers and explicitly states which decisions you want the crisis teams to examine along with key areas of the plans to test.

#### **Objectives**

The purpose of this web-based management application is to test crisis management plans through various levels of impact and penetration throughout a company. This will allow Crisis Management Teams not only the ability to gain a better understanding of their plans, but more importantly allow them to create the necessary scenarios to test their plans. As a result, we will be able to allow them to take it a step further, a way to measure the success (or failures) of their plans. Our application will also provide them with measurable data. This measurable data will show the potential impact to an organization's sustainability if ever faced with a crisis, thus answer the biggest question most companies have: will their crisis management plan hold up to, but more importantly, survive a crisis.

The first change set forth is the redesign of the scenario building process with regards to the manner in which the user will be able to build a scenario for testing purposes. Originally our design included the user having the capability to choose from a particular list of crisis they wanted to test; it then matched an actual scenario specific to the crisis such as fire, tornado, etc. Our scenario builder linked each crisis with one of ten key risk management area objectives that could ultimately render a business ineffective if a crisis were to occur. There is currently however no link to specifically target these objectives per department in a company. We decided that it would be best if instead we turn our process around by linking key risk management objectives to specific scenarios they wanted to test. This would allow us to more efficiently and effectively link our new goal of adding injects/twists into the equation. As a result, would provide our users with the most realistic simulation that can be provided during their testing experience.

Our design team needed to modify the program to accommodate these new choices, along with the additional information on running these table top exercises. It would also employ them to now create a section for tracking the results of how teams/tests play out in reference to each of the key risk management areas. Key members of a company that created the scenario could then receive not only the scenario they have created but also an actual report of injects that were used throughout the test and measurable data to report to managers/owners and provide a stepping stone for future tests.

There were multiple objectives and goals accomplished this semester:

- Enhanced the current database so that scenarios were more efficient and effective.
- Amended current and new scenarios to include "starter" scenarios, and "injects" (information that is injected throughout the exercise). The goal was to assist the user in obtaining more customized realistic scenarios.
- Customization allows the user to have "choices" within their created scenarios. For example: number of employees, number of sites, number of floors per site, types of services and/or products produced at each site. One example would be to add information about the date, and then ask what "events" or "special work" will be taking place on that day; etc.
- Provided additional ability to add "injects" (additional information) at any stage during the "live" table-top exercises.
- Developed instructions on how to use a scenario while setting up an exercise so as to create the most successful real live test achievable.

- Provided access to a pilot group of business continuity professionals and obtained feedback.
- Developed test tracking functionality, compared data from each table-top exercise that could potentially be performed.
- Constructed/continued a working prototype incorporating the main objectives.
- Submission of required reports/documentation.

The continued development of our web-based application was our main objective for the Summer 2007 semester. Our team achieved results through these objectives by continuing to learn about crisis management plans, crisis management team's needs, adding more extensive scenarios, and testing of crisis management plans with the available selection of scenarios in our database.

## 0.5 Assignments

Using the different talents of our team we broke into six sub teams based on interest and skill. We felt that would be the most advantages to meet our objectives for the semester. Each team was responsible for defining their own milestones based on team objectives along with the tasks needed to accomplish them.

Our teams with different views and ideas come together with a common vision of our semesters end result combined with the advantage of a more sophisticated user friendly application.

Our team chose not to keep timesheets as a measurement of our individual progress.

#### Team 1: Research/Writing/Analyzing

This team was responsible for the continued research of all aspects of crisis management. This included how to breakdown different areas of a crisis management plan, risk management, and effects directly correlated within them, specifically, how to analyze what is missing within a plan and the writing of crisis management scenarios.

Sub team Members: Rick Kaim (sub team leader) Oliver Schmidt Sebastian Zielinski Annette Pioletti

Results achieved:

- Completed analysis of what a crisis management plan should consist of, while analyzing commonalities within a plan.
- Gained an understanding of the most critical areas according to risk management and link objectives/categories by importance.
- Developed specific attributes based on key objective of a crisis management plan that need to be included while building successful and realistic scenarios.

- Discovered key elements so crisis management teams can efficiently and effectively develop company specific scenarios, as well as save scenarios that other organizations can potentially use.
- Created stronger and more usable scenarios based on attributes of a good scenario, specifically linking key objectives to actual crisis management plans.
- Modified and developed the current and new scenarios to include "starter" scenarios, assisting the user along with the use of "injects" (information that is injected throughout the exercise).
- Determined a way of enhancing the current database so scenarios are more efficient and effective.
- Amended current and new scenarios to include "starter" scenarios. Meaning it will allow the user along with the use of "injects" (information that is injected throughout the exercise) to achieve more realistic scenarios during testing process.
- Determined the best way to customize allowances so user has "choices" within their created scenario, as well as can modify scenario they are building.

#### Team 2: Creative/Marketing/Design

This team was responsible for the visualization of our product. This included general structure and decorative scheme providing edifice, expressions, and marketing aids.

Sub team Members: Brett Watkins (sub team leader) Annette Pioletti

Results achieved:

- Obtained new ideas on how to convey the perception of emergency moving into a state of calmness.
- Worked on a poster to incorporate the continued vision of this IPRO.
- Created an abstract/brochure to substantiate several key factors that would help visualize a crisis.
- Designed the exhibit layout for IPRO day.

#### Team 3: Documentation

This team was responsible for writing, communicating, and documenting all aspects of team meetings/classes.

Sub team Members:

- Nicole Trevor-minutes/summary (sub team leader)
- Annette Pioletti-compilation of documentation (hard copy)

#### Results achieved:

• Created a place on igroups to store weekly minutes for the purpose of communication for the team.

- Created a real life copy of all team documents so that we would maintain our work outside of a computing environment.
- Posted weekly meeting notes on igroups.

#### Team 4: Design/Development

This team was responsible for the writing and development of all aspects of technology specifically the web-design.

Sub team Members: Jim Fiorato (sub team leader) Hassan Alnoon Nicole Trevor

#### Results achieved:

- Enhanced our website to include storage for registration, about us, my saved scenarios, and builds scenario elements.
- Enhanced application to test tracking functionality by means of comparative data from each table-top exercise that is performed.
- Constructed/continued a working prototype incorporating objectives.
- Created new page layout based on new scenario design layout.
- Created about us page.
- Fixed broken links
- Created a method for "injects" to work into the users testing process, as well as modification of their scenario.

#### Team 5: User Experience

This team was responsible for the integration between our web-based application and actual crisis management plans. He conducted research, interviews, and observations from business continuity professional while using our web-based application.

## Sub team Members:

Jim Fiorato (sub team leader)

#### Results achieved:

- Gained an understanding of needs for testing crisis management plans.
- Pilot test with an outside company's crisis management plan using our scenario builder.
- Developed ways to incorporate suggestions to improve our web-based application.

#### Team 6: Leadership/Deliverables

This team was responsible for the management of the IPRO. Goals included ensuring that all deadlines were met, tasks were executed and focused in a timely and efficient manner, and assisting where needed. As a result, created a positive working team environment.

Sub team Members:

- Jim Fiorato(facilitator)
- Annette Pioletti (co-facilitator)

## Results achieved:

- Created a timeline associated with each sub team to ensure project completion.
- Maintained along with igroups site, the appropriate email correspondence that ensured proper communication to the team.
- Updated individual assignments and team organization as deemed necessary.
- Ensured proper writing and submission of required reports/documents.
- Created a timeline associated with each sub team to ensure project completion.
- Maintained igroups site to ensure proper communication.
- Updated individual assignments and team organization as deemed necessary.
- Submitted required deliverables.

## 0.6 Obstacles

Our on going concern has been how to obtain the most efficient and effective scenario builder that allows diversity for groups of all sizes and experience within the crisis management community. Our goal is not only to build a "real life" scenario but also allow it to change, testing the real diversity of their crisis management plan. The main risk management key objectives have not changed, but meeting the goal of our sponsor allowing injects into the scenario is an on-going and timely process. With only eight weeks we are limited to the amount of writing and programming that can be done.

We overcame this by changing the way we were thinking of the scenarios in terms of actual risk management key objective areas. In other words, we reversed the way the user will build their scenario (key objective area, then the crisis). This semester we focused on linking risk management key objectives to specific scenarios then pass to our successors the ability to integrate more crisis situations.

## <u>Assessment</u>

Our main challenge was how prior team members could share knowledge with new team members on what was previously learned about crisis management. In an eight week time frame we know that our time will be very limited, and needs to be utilized in the most efficient and effective manner possible. We decided to focus our efforts on key risk management areas, thus expanding on and combining existing and new team member's experiences. This will be the successful manner in which to tackle the key areas of writing scenarios, which is the website/scenario builder's main content.

We supplied a presentation calling it "Crisis Management 101" outlining the key areas along with terms used within the industry. Along with continual explanation as needed.

#### Workable Application

Our challenge was how to make a workable application to pass on to our successors with the limited amount of understanding we would gain from an enormous amount of information, passing along a stronger stepping stone for them to build on. The program needed to remain flexible, allowing them to change up the testing through inject capabilities, and also somehow measure a company's progress during their writing and testing experience. Through our research we discovered the importance of a crisis management team to present strong reasoning to owners, CEO's, and board members that allocating resources towards these goals is worthwhile.

We diverted a larger team of programmers to accommodate the code changes that would be necessary to add these injects along with linking key objectives now verses an actual crisis.

#### User Experience

Our challenge was first to achieve a workable and more efficient and effective scenario builder, which would allow a pilot group to test an actual crisis management plan. This semester has a shorter allotted time frame, therefore we determined that feedback on our new design layout would be most helpful while still in the design phase. We will leave our successors the task of testing the scenario builder against a real crisis management plan.

Along with our sponsor Irene, we called on our friends at DePaul, crisis management professionals, to test drive our scenario builder and supply feedback for our successors based on their needs, as well as, their vision for the crisis community.

#### Ethical issues

The ethical issues that have occurred with the team activities so far include the lack of experience in the crisis management community. Some did not even know what a crisis management plan entailed.

It is easy, because of many commonalities within the community, to use data already provided within the community.

Risks at each integrity level

Law

There could be a potential test run of a user's crisis management plan with our scenario builder. After performing the test, a crisis could take place, and a modification to the plan may not work or meet the original expectation, including the original plan being properly executed.

There could be testing with the new user injects created during scenario testing phase where a potentially missed or misrepresented inject necessary for the scenario to run properly.

User data is shared with a competitor or another company.

#### Contracts

Currently our website if a free to all, so no contractual agreements exist.

#### Professional Codes

CMS currently has no fiduciary responsibilities with our users.

CMS could potentially store vital and confidential information about a user.

Without a contract, others could potentially see another company's information. There could be a possible conflict of interest which could provide a competitive advantage to one client through the use of confidential information from another client who is a direct competitor without that competitor's permission including someone who could patent our idea.

#### Industry Standards

This is a school project and we are not professionals in the area of crisis management, therefore even though we are consulting with professionals, it is possible we have missed key areas or are in some cases not as thorough as necessary.

We have never written or validated a crisis management team's plan under simulated, real time conditions, nor ran a table top exercise to confirm expected results. So far everything is in theory.

Training is the final step in developing a quality crisis management program, which our team, has been only exposed to research.

There could be a display of inaccurate or in turn harmful information that ends up being counterproductive for the user.

#### Community

CMS not being professionals in the crisis management area could potentially but not intentionally advertise or display information in a manner that is deceptive.

Unintentionally misrepresenting the community we are trying to uphold and respect.

Because of our lack of knowledge we could potentially miss strengths and/or weaknesses in a plan including crucial areas that needed to be tested.

By use of the wrong verbiage, we may inadvertently confuse or give inaccurate results to the user.

#### Personal Relations

Underestimate the importance of our project, thus cutting corners or skipping essential steps.

Potentially provide the wrong type of communication methods about our scenario builder.

Represent our scenario builder or the crisis management community in an inaccurate, harmful manner.

#### Moral Values

Team members could potentially not take the project in a serious and mature manner, thus cause unexpected results as an outcome.

The team could employ resources that are not of a crisis management community standard which could undermine future IPRO extensions and our potential users.

It will be important for our successors to take into account each of these possible risks and apply care in developing the next stage of this IPRO.

#### Teamwork:

Our team did not have any official teambuilding activities.

The effectiveness of our team is that we accomplished a more robust, realistic, user friendly end result. We all had different skill sets, talents, and ideas of what our objective should include. In the end we came together and created something we are proud of and have ownership in its success.

As a whole we had a strong synergy of individual contributions, one team member did not perform any work on the project at all. The team did an excellent job of looking beyond this challenge and remain focused on their responsibility to the project. All trusted that the instructor would be fair when assigning grades accordingly.

To overcome our team's different views and ideas, especially with some of the design ideas, we used the method of instant feedback. This allowed us to discuss, problem solve, prioritize ideas, and identify actions items needed to achieve them.

#### Communication:

An important part of project completion and teamwork was constant communication. We achieved this through igroups, sub group meetings, meeting notes, and weekly updates given by the sub group leaders. Most importantly doing our best to create an atmosphere where team members felt like they could be open to their ideas. Realistically, all team members did their best to achieve this openness but like any team environment we did face some obstacles of changing another team member's views or ideas.

There were no "communication activities" performed within our team. Our goal was to be respectful, listen, and supply constructive feedback as needed.

## 0.7 Results

Crisis management and how organizations approach it are very different. After a semester we found the amount of data and different approaches was overwhelming. First, just acknowledging that there could be a potential crisis is a giant step within your organization. The true milestone within an organization begins when there is actually some structure of a crisis management plan written as a starting point or in the right direction to creating one. As mentioned before organizations are usually from the extreme they do not have one at all to the other which is they have a whole department or team designated to the plan. Putting a crisis into prospective, President George Washington said, "To be prepared for war is one of the most effective ways of preserving peace." Not only does our scenario builder help those who have no plan start to think about the areas most commonly important to a business that could potentially be impacted, it also helps a fully written plan be tested and give planners something to think about but also benchmarks their testing phase this help take a time of confusion and chaos and ultimately restoring the peace.

The fact is a crisis could happen in different scales and severities. A crisis can happen to organizations of all different sizes. How they overcome the crisis is based on the plan and how well they are prepared and how well they tested their plan. Our application is designed to help organizations of all sizes realize, build, and perfect their plans.

Since none of us can call ourselves "experts" in the area of crisis management, it was important that we continue our research within the crisis management profession and study their needs when testing crisis management plans.

Our objective was to assist business continuity professionals in testing their crisis plans through what are referred to as scenario based table top exercises. Our application allows such professionals to build custom scenarios (stories) that will test specific areas of their crisis management plan relating to ten key objectives. These ten key objectives are the most critical areas that could potentially be impacted if a crisis were to occur within an organization.

To further accommodate the crisis management community, we have added something called injects to our application. Injects are additional bits of information that are "injected" sometime after the original scenario, adding more realism and a making the exercise more effective.

The end of the scenario building process will result in a page that is printable. The first page(s) will be the introduction, followed by the scenario, the inject(s), and finally the conclusion/evaluation.

#### Our Code of Ethics-Cannons

Law

CMS will uphold the highest level of confidentiality to our client and not use for professional gain except where approval is granted to share within the community for a common positive goal.

CMS will never offer, give, or provide any legal counseling, or legal advice, to our users.

CMS will divert any conflicts of interest to the proper people within the IIT University for them to acquire the resolved outcome for the interest of all parties involved.

#### Contracts

CMS has no contractual agreements.

#### Professional Codes

CMS will always act in good faith, deal reasonably, and maintain the highest standards of professional conduct.

CMS' main focus is to service our users with veracity, experience, and objectivity.

CMS has a wide variety of talents among our team; we have done the most to utilize those skills to meet the needs of and ensure the best outcome for this project.

#### Industry Standards

The primary goal of CMS' is to help the crisis management community with regards to testing their crisis management plans against real life scenarios which we have done our best to match with key risk areas of crisis management, penetrating all levels of their companies.

CMS is devoted to providing pragmatic and realistic solutions with regards to testing a crisis management plan.

#### Community

CMS has a commitment towards the crisis management community, who want to perfect their plans in order to achieve the most efficient and effective results.

CMS is a school based project with a limited amount of crisis management experience, but our goal is to involve the expertise of professionals within the crisis management community to ensure we are producing the highest standard possible within the scope of our work.

#### Personal Relations

CMS is committed to reporting any violations of these said Codes of Ethics we have agreed to.

CMS respects all intellectual property rights of the crisis management community, professionals who are helping us with the project, and the university. We will not use any proprietary information without explicit permission.

#### Moral Values

CMS respects the inherent dignity and worth of every person we are trying to assist by helping companies prepare for a crisis.

#### Flow Process of our scenario builder process



#### Our major accomplishment " The Scenario Builder"

" The Scenario Builder" http://www.cmsprogram.com/

This is the first page when the users types our web address.

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The login screen which will link users to its own database for storing their scenarios, as well as any of their others within their company.



This is where the user will choose one of the ten key objectives in which they want to test their crisis management plan against.



After the user chooses one of the ten objectives, a description of that choice will appear.



The user can now choose a second key objective to test.



Keeping with our intentions of making it "company specific" and realistic as possible based on the key objective that they choose, will be able to enter specific information when prompted.

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#### Then the scenario is created.



The inject/twist to the scenario will be created. The person managing the table top exercise will through this into the test when they deem necessary. Again, creating a realistic simulation of an actual crisis. Targeting the fact that normally it is not just the crisis at hand, it is several other mini crisis' that occur in conjunction that requires attention/reaction as well.

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JILD SCENARIO EW MY SAVED ZENARIOS NNAGE SCENARIO	Home > Build Scenario Step 4 - View/Edit Inject		
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IOUT US DDE OF ETHICS IFERENCES & CREDITS IGISTER DGOUT	After a long investigation and a Grand Jury trial a judge of the State Court has mistakenly ordered CMS to cease operations immediately and tasked the sheriff's department to carry out the order. Your business is closed for two full business days while the mistake is being corrected. During that time no electronic or telephone contacts have been acknowledged.		
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Now the user can save their scenario for future use. These saved scenarios can be used as a benchmark to compare a test they do today, then run again in several months after refining their crisis plan to see if the new procedures work or not.



New also to our scenario building is a report and handout to be used during the table top exercise.

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ILD SCENARIO			
EW MY SAVED	Home > View My Saved Scenarios > Scenario		
ENARIOS	Edit		
NAGE SCENARIO			
NAGE COMPANIES	Introduction		
NAGE SCENARIOS	This introduction is designed to maximize the effectiveness of your tabletop exercise. Throughout the exercise keep in mind four		
NAGE INJECTS	purposes;		
TRODUCTION	1. Evaluate the effectiveness of your Crisis management plan.		
IT SCENARIO INCLUSION	2. Identify areas to improve your crisis management plan,		
ENARIO HELP	3. Give experience to crisis management professionals prior to an actual crisis.		
OUT US	4. Promote communication and relationships between crisis management personnel		
DE OF ETHICS			
FERENCES & CREDITS GISTER	You have generated a crisis scenario based on objectives to be tested; you should edit a saved exercise to make it applicable for your specific workplace and exercise constraints. Prior to the exercise, create evaluation forms to fit your specific scenario before the exercise		
GISTER	specific workplace and exercise constraints, into the exercise, create evaluation forms to include the objective spous and to test. Decide on who should attend, in addition to relevant employees, you may also wish to invite		
0001	outside parties such as police, firefighters, EMT's, and local officials. In most cases these parties will be more than happy to help, as it will make their iob easier in the event of an actual emeraency. Plan well in advance to make sure everyone can attend.		
	make their jub easier in the event of an actual emergency. Plan wen in advance to make sure everyone can attend.		
	To begin the exercise hand out evaluation form and note paper to each participant. Start by introducing all of the participants and their roles. Distribute a contact list to all attendees. Explain that this is an exercise to find potential shortcomings that may be faced in an actual		
	roles. Distribute a contact list to all attendees, explain that this is an exercise to find potential shortcomings that may be faced in an actual crisis situation, and that participation is strongly encouraged. Present the main scenario and allow subsequent discussion on how to deal		
	with the situation at hand. New concerns may arise that where not part of the original scenario and will need to be addressed. The timeline		
	for this exercise is at the discretion of the facilitator. Some businesses may spend an entire day while some may only wish to devote a few hours. Distribute the subsequent injects to their target group and allow them to present the updated developments.		
	Operate from your Crisis Management Plan and note missing procedures. Encourage note taking during this entire exercise. These notes will be invaluable in revising your crisis management plan in the future.		
	Scenario		
	Handout 1		
	Four terrorist's attacks in the USA in one week prompt the President to enact special powers for the department of homeland security. The		
	NSA is tasked with evaluating thousands of businesses; mistakenly yours was put on a special list sent to the FBI for investigation. On		
	Wednesday at 11am the FBI has determined your company is an imminent threat to the security of the Unites States. All of the officers of Dan & Co are brought to a special processing center to begin the investigation. The doors have been locked and el employees are told to		
	not to come to work until further instructed and not to leave town.		
	All of the electronic equipment as well as all media such as back up disks has been taken to an FBI lab, the paper files and contents of every desk and filing cabinet has also been sent to a lab. Your company internet / intranet sites now have an FBI investigation notice when		
	accessed. When the company phone number is dialed an FBI notice recording is played.		
	Distribution; All		
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To maintain our professional focus on this project, we developed a *Code of Ethics: Cannons*.

Law

CMS will uphold the highest level of confidentiality to our client and not use for professional gain except where approval is granted to share within the community for a common positive goal.

CMS will never offer, give, or provide any legal counseling, or legal advice, to our users.

CMS will divert any conflicts of interest to the proper people within the IIT University for them to acquire the resolved outcome for the interest of all parties involved.

#### Contracts

CMS has no contractual agreements.

#### Professional Codes

CMS will always act in good faith, deal reasonably, and maintain the highest standards of professional conduct.

CMS' main focus is to service our users with veracity, experience, and objectivity.

CMS has a wide variety of talents among our team; we have done the most to utilize those skills to meet the needs of and ensure the best outcome for this project.

#### Industry Standards

The primary goal of CMS' is to help the crisis management community with regards to testing their crisis management plans against real life scenarios which we have done our best to match with key risk areas of crisis management, penetrating all levels of their companies.

CMS is devoted to providing pragmatic and realistic solutions with regards to testing a crisis management plan.

#### Community

CMS has a commitment towards the crisis management community, who want to perfect their plans in order to achieve the most efficient and effective results.

CMS is a school based project with a limited amount of crisis management experience, but our goal is to involve the expertise of professionals within the crisis management

community to ensure we are producing the highest standard possible within the scope of our work.

#### Personal Relations

CMS is committed to reporting any violations of these said Codes of Ethics we have agreed to.

CMS respects all intellectual property rights of the crisis management community, professionals who are helping us with the project, and the university. We will not use any proprietary information without explicit permission.

#### Moral Values

CMS respects the inherent dignity and worth of every person we are trying to assist by helping companies prepare for a crisis.

#### Budget Overview

List of Expenses	Budget	Actual Expenses	Difference
Design Team			
Website essentials (domain name registration)	\$50.00	\$0.00	\$50.00
Marketing Team			
Business Cards	\$30.00	\$0.00	\$30.00
50 brochures	\$35.00	\$31.00	\$4.00
Miscellaneous handouts for IPRO Day	\$100.00	\$0.00	\$100.00
Leadership Team			
Teambuilding	\$50.00	\$50.00	\$0.00
Deliverables	\$35.00	\$20.00	\$15.00
Totals	\$290.00	\$101.00	\$199.00
Under Budget			\$199.99

## **0.8 Recommendations**

The future vision of our IPRO is to add a method of traceability through testing, along with building a community that contributes to the database. This can be accomplished by more robust building and customization through extensive evaluation of scenarios, testing best practices within organizations, matched up against their Crisis Management Plans.

Future IPRO's should continue their education in the following areas:

- Provide access to pilot groups of businesses and gather feedback
- Improve scenario building process
- Enhance the test tracking functionality
- Develop ways to attract a community to contribute to the application
- Learn more about Crisis Management Team needs
- Create more scenarios with injects to enhance our web based application
- Perform more in depth testing

Specifically Research:

- The number of scenarios can be increased per objective. Each should refer to the type of crisis (Fire, Flood...). Some users may prefer to choose a scenario by type rather than objective.
- General injects can be added to be edited by the exercise manager. For instance if there is an evacuation the inject could block one of the exits. This type of very general inject can be listed and added by the user in the edit phase.
- The introduction and evaluation could be further researched and enhanced. There is a good deal of information about performing tabletop exercises that can be used to improve our product. Each scenario should have an evaluation guide listing critical appraisal points.
- We will need to focus more on individuals in any crisis management plan and test the backup chain of command, specifically targeting how key individuals can prepare to make themselves available to the company in the event of a crisis outside of the company.
- Encourage the user to take the information as a rough draft, edit on the website, save and prints.
- A space for user feedback, linked to the scenario they developed, could be useful so that experiences could be shared with future users.
- Mega disasters have a key element in that most emergency services are either not available or in short supply. There is a component of self reliance built into this type of scenario.

Specifically Design:

- On the final page of the 'Create a Scenario' process, allow each section to be printed separately with its own number of pages (for example, allow the user to print 1 copy of the Introduction, 5 copies of the Scenario, and 2 copies of Injects).
- Have more scenarios and injects created so that there is a better chance of the user getting different and more random combinations of scenarios and injects

- Enhancing scenario and inject selection logic.
- Create a weighted system for scenarios where if a scenario deals with more than one objective and the user selects more than one of those objectives, that scenario is used rather than another scenario + inject
- Incorporate a section to the site that will allow the user to store the results of their table top exercises
- Possibly change over of the code from ASP.NET to a PHP/SQL based system
- Add a company registration page
- Add a company logging page, where only a specific member within the company can have access to add and delete users, instead of relying on web admin.
- Create a website to allow users to edit information like email etc.

Additional Resources to consider:

- Jay Fisher (fisherj@iit.edu), who currently directs our Jules F. Knapp Entrepreneurship Center, might be a good sounding board for your prototype, since he was on a crisis management team at BP Amoco in his role as director of research.
- Susan Feinberg led an IPRO team in the spring that is continuing in the fall related to creating an e-learning game to help certify health physics professionals by exposing them to various scenarios and seeing how they respond. The IPRO 329 team's work can be viewed at <u>http://iknow.iit.edu</u> under the Spring 2007 semester records.
- The news item below is from the June 25 issue of IIT Today
   An additional thing I ran across was a proprietary disaster recovery planning application
   offered by The St. Paul Travelers Company (via its risk control services) to customers
   and agents in collaboration with the Institute for Business & Home Safety (IBHS). I only
   have a one-pager that describes it, with the application called "Open for Business."

## 0.9 References

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## 0.10 Acknowledgements

Sponsor

Ms. Irene Rozansky RA Consulting

Ms. Rozansky and her knowledge of crisis management were critical to helping us understand and target key areas of crisis management plans. Her guidance allowed us to understand while seeing the importance of what our project entailed. She helped us understand the need for our scenario builder today is not only important but also a necessity. She helped us benchmark our findings into a workable and progressive project.

DePaul Crisis Management Team Mr. Gregory Edwards

The DePaul Crisis Management Team helped us create a vision from what was missing from their teams prospective. They helped us realize that any plan can be written but the true measurement comes from effective and efficient testing. The testing phase is the most important aspect to measure its preparedness.