Project Post Mortem Guide

Post Mortem Types, Checklist Family, Checklist Development Guide and Implementation Process Guide

Version 2.1

Contents

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Introduction

What Is A Project Post Mortem – A project post mortem can have multiple purposes. A common purpose is to review a project after the project is completed and identify key good things that were done so those practices can be replicated on other projects and to review challenges and issues the project faced to define better methods for future projects. Other types of post mortems exist and some of those can focus on assessing the attainment of organization goals for a given project and other types may focus on evaluating the working relationships between stakeholders. Combinations of these types is often of value. (See paragraph "B" titled "Types of Post Mortems" for further information).

Why are Post Mortems Important – For any project, organization or business to improve, one must know what is good and what is not. With the information developed by a project post mortem, an organization can identify what went well and what needs to be improved. The good can be communicated to other projects for replication and the "not so good" can reviewed for the identification of needed improvements. Both actions support overall positive change in an organization. Post mortems do require a small investment in time by the project team but the payback for the organization, and the project team members themselves, can be substantial.

What Is This Document – This document is general guide on conducting post mortems. It includes generic checklists for use "as-is" or for customizing and includes guidance on checklist development and for the conduct of post mortems.

Section A
How to Use This Document

To Learn

- Read this document
- Read other publications on post mortems
- Talk to others about their experiences and consolidate your views

To Perform A Basic Post Mortem

1. Read the introduction to this document
2. Review the basic post mortem checklist
3. Review the post mortem implementation process
4. Plan and conduct your post mortem

To Build a Custom Post Mortem Checklist

(See Section D)

<< Back to Contents >>

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Section B
Types of Project Post Mortems

There are different types of project post mortems that serve different purposes. Follows are common types. Select the combination of types best suited to your organization's interests.

- **Basic Post Mortem** – Quick and top level review of the basics. (See paragraph "0")

- **Strategic Interests Post Mortem** – Addresses the alignment of a project's outcomes with the strategic interests of the organization generally in terms of meeting customer needs, organization Mission, Vision and Strategic Plan. Evaluations might address product or service quality, project costs, delivery schedule, use of resources, leveraging this project's outcomes for future business and other strategic interests. (See paragraph "1")

- **Project Management Post Mortem** – Addresses the methods used to manage the given project. Review topics can be organized by project phases and would include critical project management functions performed such as requirements generation and management, plans, controls, resource management, risk management, etc. (See paragraph "2")

- **Project Work Post Mortem** – Addresses how the project work was actually performed (i.e. the actual project work, not how the project was managed). What was good, what was not and what advice can be developed for future projects. Example areas here might be processes, tools and methods for a development project. (See paragraph "3")

- **Project Team Post Mortem** – Addresses how the project team worked together, team communications, clear and respected team roles, teamwork, resolving issues as a team and other team related topics. (See paragraph "4")

- **Stakeholder Relationships Post Mortem** – Addresses if the working relationships amongst project stakeholders existed in a manner that best benefited customers, the organization and the project. Key stakeholders considered often include customers, sponsors, management, peer organizations, subcontractors and where applicable, government regulatory agencies. (See paragraph "5")

- **Customer Exit Review** – A customer exit review is a process by which a contractor that has been engaged with a single customer on a dedicated project for that customer, meets after the project with the customer to identify the good and not so good aspects of the project from the customer's viewpoint. (See paragraph "6")

- **Combinations of the Above** – Most organizations can benefit from a post mortem that combines several or all of the specific post mortem types listed above.

<< Back to Contents >>

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Section C
Generic Post Mortem Checklists

The following are generic checklists that can be used "as-is" or can be tailored. If the organization is just starting to employ post mortems, consider the "0-Basic…" checklist as a start. If your organization is looking to develop a more in-depth customized checklist, consider the "1 to 6" generic checklists and pick the ones that best align with your needs. You may decide to use selected parts of selected checklists for your overall checklist.

The following generic checklists are included in this section.

0) Basic Post Mortem Checklist

The basic project post mortem checklist addresses the core post mortem concept and is a good place for any organization to start when initiating a post mortem function. As experience is gained and/or the organization's needs dictate more details, a more extensive post mortem checklist can be considered and the other generic checklists in this section can offer generic thoughts for a more in-depth checklist.

Basic Questions

Did we meet our customer's expectations and did the customer get what they needed?

Is our organization comfortable with how this project finished?

Generally, what did we do well on this project?

Generally, what did we NOT do so well on this project?

What most important advice can we give other projects and/or advice to our organization?

For our project management efforts on planning, work assignments, schedule management, resource management, change management and other management areas…..

- What was good?
- What was not good?
- What advice should we give to future projects?

For our actual project work, work methods, tools/systems, documentation, …….

- What was good?
- What was not good?
- What advice should we give to future projects?

For our project team and our roles, team communications, teamwork, resolving issues, …….

- What was good?
- What was not good?
- What advice should we give to future projects?

For our working relationship with stakeholders such as customers, subcontractors, peer organizations and management………..

- What was good?
- What was not good?
- What advice should we give to future projects?

<< Back to Contents >>

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1) Organization Strategic Interests Generic Post Mortem Checklist

Addresses the alignment of a project's outcomes with the strategic interests of the organization generally in terms of meeting customer needs, organization Mission, Vision and Strategic Plan. Evaluations might address product or service quality, project costs, delivery schedule, use of resources, leveraging this project's outcome for future business and other strategic interests.

Meeting Customer Needs

- Did the project provide what the customer needed? & Did the project provide what the customer expected?
- If yes, what could we have done better?
- If no, what did we miss and what should we have done different?
- What advice could we provide to future projects?

Alignment with the Organization's Mission and Vision

- Did the project's outcome support organization mission and vision?
- If yes, what could we have done better?
- If no, what did we miss and what should we have done different?
- What advice could we provide to future projects?

Alignment with the Organization's Current Strategic Plan

- Did the project's outcome support the current strategic plan?
- If yes, what could we have done better?

- If no, what did we miss and what should we have done different?
- What advice could we provide to future projects?

Meeting Organization Budget and Schedule Needs

- Did the project meet the organization's cost goals?
- Did the project meet the organization's schedule goals?
- If "no," was this due to poor estimates and/or poor execution and/or to changes?
- What could have been done differently to better meet project cost and/or schedule goals?
- What advice would we provide to future projects?

Meeting Organization Resource Consumption Expectations

- Did the project match the planned resource usage?
- If "no," was this due to poor estimates and/or poor execution and/or to changes?
- What could have been done differently to better utilize organization resources?
- What advice would we provide to future projects?

Top Advice

- Considering all of the thoughts related to the organization's strategic interests noted above, what "top, most important, bottom-line" advice can we provide?

<< Back to Contents >>

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2) Project Management Generic Post Mortem Checklist

The project management focused post mortem addresses the methods used to manage the given project. This is separate from a review of the actual project work. Assessment topics can be organized by project phases and can include critical project management functions related to requirements, plans, controls, resource management, risk management, project roles and stakeholder interfaces.

Pre-Project Actions

For the following pre-project topics, answer the questions below:

- Project Authorization
- Selection of the PM
- Completion of a Project Charter or Project Definition Document that defines scope, constraints, needed outcomes, key stakeholders & roles, etc.
- Management / Sponsor Engagement in the Project
- Project Alignment with Organization Mission, Vision, Strategic Plan and Current Priorities
- All stakeholders on the same page relative to the project scope, importance, available schedule, budget and resources

- What was done well and how can this be leveraged in the future?
- What should be improved and what should be done to implement improvements?

- What advice can we provide to future projects?

Project Startup Actions

For the following project startup topics, answer the questions below:

- Requirements that are documented, complete, understood and accepted by all relevant stakeholders
- Project plan that contains a definition of all work, work assignments, schedules, budgets, etc. and is accepted by all appropriate stakeholders, especially the team and management
- Clear accountability for all relevant team members and stakeholders
- Initiation of subcontracts
- Staffing, team engagement, team building, team communications, clear roles, etc.
- Initiation of risk management with identified risks and control actions
- Identification of how the project will be monitored and controlled

- What was done well and how can this be leveraged in the future?
- What should be improved and what should be done to implement improvements?
- What advice can we provide to future projects?

Project Monitoring and Controlling Actions

For the following project monitoring and control topics, answer the questions below:

- Tracking compliance with project requirements
- Tracking project schedules
- Tracking budgets
- Surfacing deviations from the plan and taking corrective actions
- Managing changes
- Managing project risks
- Internal team communications
- Maintaining teamwork and team energy
- Managing project resources
- Communications with management and/or sponsor and/or customers
- Handling difficult project situations

- What was done well and how can this be leveraged in the future?
- What should be improved and what should be done to implement improvements?
- What advice can we provide to future projects?

Project Closure Actions

For the following project closure topics, answer the questions below:

- Verification of all work completed
- Verification of requirements compliance

  - Validation the customer accepts the results
  - Formal closure of any subcontracts
  - Completion of required internal project closure administrative tasks
  - Smooth transition of resources to other projects
  - Conduct of a project post mortem and capturing and communicating results

- What was done well and how can this be leveraged in the future?
- What should be improved and what should be done to implement improvements?
- What advice can we provide to future projects?

Project Management Infrastructure

For the following project management infrastructure topics, answer the questions below:

  - PM processes
  - Defined PM Role, Authority and Accountability
  - PM Tools in the form of checklists, templates, guides, etc.
  - PM Systems such as scheduling, cost management, requirements tracing, etc.
  - Expert support for projects such as on-call experts
  - Training and other skills building opportunities for project managers and teams

- What was done well and how can this be leveraged in the future?
- What should be improved and what should be done to implement improvements?
- What advice can we provide to future projects?

Bottom Line Recommendations for Future Similar Projects

For the project management related post mortem topics, what are the top 3 recommendations for improvements?

1. ________________________________
2. ________________________________
3. ________________________________

<< Back to Contents >>

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3) Project Work Generic Post Mortem Checklist

The project work post mortem evaluates how the project work was actually performed (i.e. the actual project work, not how the project was managed). What was good, what was not and what advice can be developed for future projects.

Work Methods or Processes

For the methods and processes used to perform project work (not managing the project), address the following:

- What methods or processes worked well?
- What methods or processes did NOT work well?
- What should we do different in the future and what advice should we provide to future projects?

Tools and Systems

For the tools and systems used to perform project work (not managing the project), address the following:

- What tools or systems worked well?
- What tools or systems did NOT work well?
- What should we do different in the future and what advice should we provide to future projects?

Work Roles, Accountabilities

For the work performed on this project (not managing the project), address the following:

- What roles and accountabilities for project work were sufficiently defined, understood and followed?
- What roles and accountabilities for project work were NOT sufficiently defined, understood and followed?
- What should we do different in the future and what advice should we provide to future projects?

Bottom Line Recommendations for Future Similar Projects

For the project work related post mortem topics, what are the top 3 recommendations for improvements?

1. ___________________________________
2. ___________________________________
3. ___________________________________

<< Back to Contents >>

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4) Project Team Generic Post Mortem Checklist

The project team post mortem evaluates if the project team worked well together to complete the project in an effective manner.

Teamwork
- What was good?
- What could have been done better?

Team Communications
- What was good?
- What could have been done better?

Resolving Issues
- What was good?
- What could have been done better?

Defined, Clear, Understood and Respected Roles
- What was good?
- What could have been done better?

Bottom Line Advice to Future Projects

<< Back to Contents >>

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5) Stakeholder Relationships Generic Post Mortem Checklist

The stakeholder relationships project post mortem evaluates if the project worked with appropriate stakeholders in a manner that best benefited customers, the organization and the project. Key stakeholders considered often include customers, sponsors, management, peer organizations, subcontractors and where applicable, government regulatory agencies.

Management / Sponsor Interaction

For the working relationship between the PM and the project team with organization management and/or the project sponsor, address the following:

- What aspects of working with management or project sponsor worked well?
- What aspects of working with management or project sponsor did NOT work well?
- What should be done different, what advice should we provide to future projects?

Customer Interaction

Where the PM and/or project team work directly with the customer, address the following:

- What aspects of working with the customer worked well?
- What aspects of working with the customer did NOT work well?
- What should be done different, what advice should we provide to future projects?

Peer Organization Interaction

Where the PM and/or project team work directly with another internal group inside the same organization, address the following:

- What aspects of working with peer organizations worked well?
- What aspects of working with peer organizations did NOT work well?
- What should be done different, what advice should we provide to future projects?

Subcontractor Interaction

Where the PM and/or project team work directly with one or more subcontractors, vendors or suppliers, address the following:

- What aspects of working with external suppliers worked well?
- What aspects of working with external suppliers did NOT work well?
- What should be done different, what advice should we provide to future projects?

Bottom Line Recommendations for Future Similar Projects

For the project stakeholder relationship related post mortem topics, what are the top 3 recommendations for improvements?

1. ____________________________________
2. ____________________________________
3. ____________________________________

<< Back to Contents >>

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6) Customer Exit Review Generic Post Mortem Checklist

A customer exit review is a process by which a contractor that has been engaged with a single customer on a dedicated project for that customer, meets after the project with the customer to identify the good and not so good aspects of the project from the customer's viewpoint.

Project Outcome

- Did the project deliverables and outcomes meet all customer needs?
- Are the project deliverables and outcomes acceptable to the customer?
- What should be repeated on a future similar project?
- What should be done different on a future similar project?

Project Performance

- Was the project's schedule acceptable to the customer?
- Were the project costs acceptable to the customer?
- How could schedule and/or budget performance have been improved?

Project Team and Customer Working Relationship

- Was the project team and customer working relationship acceptable to the customer?
- What should be repeated on a future similar project?
- What should be done different on a future similar project?

Bottom Line Recommendations for Future Similar Projects

For the customer exit related post mortem topics, what are the top 3 recommendations for improvements on future projects?

1. ____________________________________
2. ____________________________________
3. ____________________________________

<< Back to Contents >>

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D) Checklist Development Process

To Build a Customized Post Mortem Checklist

1. **Scan this Document** - Scan this document to understand the general nature of post mortems and the need and the types of checklists that might be considered.

2. **Form a Team** - Form a team of appropriate individuals to generate the post mortem checklist. This is important to ensure a broad perspective drives the development and supports acceptance of the eventual result.

3. **Understand Checklist Types** - Read the paragraph titled "Types of Post Mortems" and consider which type of post mortem or which combination of post mortem types, is best suited to your organization's needs. Make this determination via an interchange of ideas amongst your checklist team.

4. **Define the Need** – If an organization is considering implementing post mortems for the first time or is considering improving existing post mortems, there usually is a driving reason. Define what that need is. Are there project issues that keep repeating, are management or customers surfacing issues or are project teams identifying areas that must be changed? In addition to any current know need, identify an overall need or focus for your future project post mortems to best support customers and your organization.

5. **Decide on One or Several Checklists** - Decide if one overall checklist meets your need or if several individual checklists will be the best approach. As an example, for smaller projects in a modest sized organization, a single basic checklist may be the best approach. As another example, for complex projects in a large organization, a "Strategic Interests" checklist and a separate "Project Management and Project Work" checklist may be the best approach as different individuals may be involved in each review.

6. **Decide on "Big Bang or Evolution"** - Consider a phased approach to the checklist development that might "start small" and then would "add more" later. A narrow focused review can be better when starting vs. a very broad and all-encompassing checklist that maybe hard to secure stakeholder acceptance and could be a challenge to implement. Prove the concept and expand later is a common good approach.

7. **Build An Initial Generic Checklist** - Assemble an initial generic post mortem checklist using your decision from above steps and the contents of this document and other post mortem resources. Consider the resulting checklist as a "generic start" and not a final version.

8. **Customize The Generic Content to Meet Organization Needs** - As the "generic start" checklist is formed, customize this checklist by removing subjects that are not applicable and/or by changing the nature of subjects as needed and/or by adding new subjects

important to your organization that is not in the generic example checklists. Consider this your "draft checklist."

9. **Match Strategic Requirements** - Review your resulting draft checklist against your customer's needs and your organization's Mission, Vision and Strategic Plan to ensure alignment with these driving requirements. Adjust as needed.

10. **Stakeholder Review** - Review the checklist with appropriate stakeholders and make updates for further refinements and also to gain broad acceptance of the contents.

11. **Pilot Checklist Use** - Perform one or more pilot applications of the checklist and refine the checklist based on those pilot post mortems. Using a team to be a party to the post mortems and to review and refine can be a good approach.

12. **Checklist Application Process** – Following the pilot usage, define a brief process for post mortem application that would include what types of projects the post mortem would apply to, who would decide what projects would conduct the post mortem, who would perform the post mortem, how the results are captured and communicated and who "owns" the checklist tool and will take responsibility for updates and supporting checklist on-going implementation. This later need could be a PMO or senior PM or project sponsor or your quality organization.

13. **Maintain and Support** - As post mortems are conducted, the "owner" should take on the responsibility to update the checklist based on inputs from project teams, PMs, management along with a periodic review of customer interests and the organization's Mission, Vision and Strategic Plan. This is important to ensure the checklist stays aligned with the organization's top priorities. Also and periodically, leadership should voice support for the concept to ensure continued application exists to support continued organization improvements.

<< Back to Contents >>

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E) Post Mortem Implementation Process

Post Mortem Implementation Process – Use the following post mortem implementation steps "as is" or as a start to develop your own tailored implementation process.

Step 1 – Finish the Project but Do Not Wait Too Long – A post mortem is most effective performed soon after the project completes or right at the time the project is completing. Do not wait too long as project team members may not be available or may lose some of their views about the project.

Step 2 – Define Your Approach – Define how the post mortem will be conducted. Options can include:

a) Just get the team together and simply ask them what was good, what was not and what should future projects do and write that down.
b) Get the team together and provide them your post mortem checklist and capture their thoughts.
c) Send the checklist to the team prior to the review and meet as a team a few days later to discuss.
d) Send a set of questions to the team and meet with team members individually to discuss.
e) Combine "c)" and "d)" by having a group meeting and also meeting with individual team members in a one-on-one fashion to further gain their insights.

Option "a)" is better than nothing, is quick and easy and should provide value, but it is not the optimum approach as the team is not prepared and little structure exists to stimulate thoughts.
Option "b)" is better than "a)" but again the team has not had time to think about their responses to the post mortem questions.
Option "c)" is a good approach as the team has time to think about their views and team's feedback can be amplified by the subsequent brainstorming and group discussion. One drawback is that some team members may not feel free to discuss all negative issues in a group environment.
Option "d)" is good in that the team has time to think about their views and each individual interviewed should feel free to offer any and all thoughts about some of the issues faced on the project. But here the brainstorming and group discussion would not happen.
Option "e)" would take the most effort, but would typically be the most complete approach.

Step 3 – Define the Post Mortem Leader – The individual that will lead the post mortem is identified. Options can be the following.

- **The Project Manager Leads** – The PM is close to the project, understands what was good and not and can be a great facilitator and able to ask good follow-up questions. Having the PM lead and report the results to the organization has some shortcomings as the PM may not be as critical as is needed to fully address issues, resulting in a smaller set of needed improvements.
- **The Project Sponsor Leads** – Since the sponsor is somewhat removed from the project, they can ask questions from a different angle than what might be asked by the PM, providing a fresh view from a different perspective. The sponsor will not typically be as knowledgeable about the project or the disciplines involved in the project as the PM and may not be able to ask all needed follow-up questions. Having the sponsor lead and report the results to the organization has some shortcomings as the sponsor may not be as critical as is needed to fully understand issues and needed improvements since they often have the responsibility to guide the project.
- **An External Individual Leads** – For strategic projects or large and complex projects, an individual that did not work on the project and is a senior individual within the organization can be a good option to lead the post mortem. With this approach, the hard questions can be asked. Where the external lead lacks some skills or knowledge in some aspects of the project, additional experts may be brought in to support the lead in conducting the review. An external lead should be able to provide management with an objective view of the good and bad on a project because of their distance from the project and the team.

Step 3 – Define Participants – The group that will perform the post mortem is defined. Take time to consider who should be a part of the post mortem from the project team's side and if individuals external to the team should be included.

- <u>Small Projects</u> - For smaller projects, having the entire team present can be a good idea.
- <u>Medium Sized Projects</u> - For medium sized projects, make sure all key project members are invited. All personalities can be of value. Individuals with a "critical or questioning mindset" are good "devils advocates." Individuals with a postitive attitude can well surface the good on the project for future replication. For team members that are not invited, their thoughts can be invited via a short email asking them about what was good about the project and what should be done differently in the future.
- <u>Large Projects</u> – For big projects often team leads on the project and other key individuals can be the right set of individuals to attend and not the entire project team. Where team members are not invited, their thoughts can be invited via a

short email asking them about what was good about the project and what should be done differently in the future. For complex projects, having external experts on areas related to the project can be a good way to surface the good and not so good.

In all cases, the post mortem leader should make invitation decisions based on what is best for a complete and accurate post mortem review.

Step 4 – Set Date, Send Invite, Send Checklist

- **Set Date** – Find a date that will allow all or most of the invitees to attend. This is an important meeting, perhaps the most important project meeting from the organization's perspective so take care to watch for competing events that may limit attendance. Make sure you schedule the meeting for a length of time adequate to get through the checklist. Several hours is a good minimum.
- **Send Invite** – Send the invite to the set of individuals identified for the review, make sure you include too key thoughts:
  - **What this Review Is** – A review of how things went, what was good, what was not and what should/could have been done better. The review is intended to develop advice for future projects and for organization improvements.
  - **What this Review Is NOT** – The review is not focused on individuals nor identifying those at fault for any project shortcomings.
  - **Why this Review is Important to All** – We can help other future projects and help ourselves by sharing our thoughts on better ideas for the future.
  - **Why Their Attendance is Important** – Everyone has valuable insights into the project and their individual participation is valued. Also their attendance will support a complete and accurate view of the project as other attendees may lack a complete and fully objective view.
- **Send Checklist** – This might be the checklist you will use in the meeting or might be a summary of the topics that is on the checklist. Sending the detail is good to allow attendees to prepare but may keep some away because there are too many details. Decide what the team will best respond to.
- **Plan for Snacks and Beverages** – Attendees are being asked to take time to support the review, good idea to offer some "nutrition for thought."

Step 5 – Touch Base the Day Before – The day before the review, touch base with the attendees to both make sure they will attend and to see if they have any questions. Re-state the importance of the review and the value they can provide by attending.

Step 6 – Conduct the Review – Consider the following.

- Make introductions, restate the reason for the review and the importance. Thank everyone in advance for their important thoughts.
- State that the review is the basis for the organization to improve, this is not a focus on any errors or omissions by any individuals.
- Define what will happen to the results after the meeting.
- State that every opinion has value, that we are not here to argue details but are here to formulate advice to future projects.
- Define how the meeting will be conducted such as "we will address each checklist item, make notes and move on."
- Where agreement does not exist, we will note all views.
- Establish any needed ground rules such as "you would like inputs from all, that inputs after the meeting in privacy is acceptable and that we will focus on the project and methods and tools and roles, etc. and not on individuals."
- Then use your checklist as your agenda.
- Make notes or have someone make notes as each item is discussed.
- Review the notes after each topic to ensure you captured what the group said and that all agree on the notes.
- Note that if the lead is the PM or sponsor, these individuals will have views and these views should be included in the notes. Where the post mortem lead is an external individual that did not work on the project, their view on what happened or did not happen is usually not material. However, an external individual may have insights that can be recorded as they listen to the project team's comments. Such insights should be recorded as provided by an individual that did not work on the project.
- As the post mortem checklist is completed, ask for final thoughts again stressing that all views will be used to formulate advice to future projects.
- Again offer that the leader is open to further input after the meeting, that they will see the report before it is published and that a final report will be published on a given date.
- Ask if anyone has any ideas for future post mortems.
- Thank all attendees for their time.

Step 6 – Prepare the Report – Consider the following.

- Generate a draft report.
- Include purpose, attendees, date, checklist reference, etc.
- Provide all raw notes taken organized via the checklist.
- Develop summary notes of top things that were good and top things to improve.
- Provide the draft report to the post mortem team to review and comment to support completeness and accuracy as well as team ownership of the report contents.
- Forward to appropriate management personnel as desired by the organization.

– For large, complex and/or strategic projects, consider a presentation to management and include clear bottom line recommendations with "specifics of what management needs to do" to support changes being considered and implemented.

<< Back to Contents >>

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END OF

Project Post Mortem Guide

Post Mortem Types, Checklist Family, Checklist Development Guide and Implementation Process Guidance

Version 2.1

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