Premiere Electric Group
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December 3, 2001

Fe Funtanilla, Bookkeeper and Office Manager
Premiere Electric
8447 San Ramon Drive
Las Vegas, Nevada 89147

RE: Final Recommendation Report

Dear Premiere Electric:

Enclosed you will find our analysis on Premiere Electric's payroll process, beginning on November 5th and ending on the date of December 1st 2001. Our report will give suggestions for the improvement of the payroll process at Premiere Electric based on our findings during the allotted time.

During the time spent researching the payroll, we found two key problems:

1) **Software**. Premiere Electric's Master Builder software has caused its systems to crash costing it hundreds of dollars in service and maintenance fees. With the introduction of new software, the time spent at the computer and input problems resulting from long hours or system crashes, which would result in more time being spent to re-input the data could be reduced dramatically. A number of the software in our research allows for profiles to made for individual workers in the form of pay codes. These codes allow the computer to produce any needed information on numerous subjects at once within a few minutes, instead of reviewing each person(s) file individually. In addition the codes make payroll simplified so that only minor changes are needed, and not full write ups involving the entire time card.

2) **Time Cards**. Premiere Electric's time cards are printed up weekly or biweekly as needed and require the worker fill out a complete form. This is both time consuming on the payroll personal and workers, and is a waste of resources. So we suggest that Premiere Electric adopt a new time card, either the scan card version or e-mail version, both of which are cost effective in the long run saving paper and time. Once a format or template is introduced, the new time card will allow for faster processing with only minor alterations needed from time to time. The added bonus of simplicity will save time, and the problem of illegibility will be eliminated from the process.

Initial research began by visiting Premiere Electric to observe in person any problems and gain a first hand account from the employees. Afterwards time was spent with a study of outside payroll systems of willing companies, to help provide a comparison of strengths and weakness'. This was done individually at our own jobs or with the cooperation of an outside company willing to volunteer the information. Additionally we where able to gain access to the timecards used at each job, and allowed for comparison with Premiere Electric. Software was researched individually as well, so that a number of differing types could be used for comparison at each meeting allowing us to assess the pro's and con's of each one in our report.

In closing we believe that our time and research will help to provide valuable insight into Premiere Electric's payroll process, and the options available to them should they wish to use any of our suggestions. The project has provided us with an equally valuable chance to explore real world problems and gain experience, and we hope to have further dealings with Premiere Electric in its future.

Sincerely,

Anthony Hurston	Phil Motts	Stan Jordan	Sean McChesney
Research Consultant	Research Consultant	Research Consultant	Research Consultant

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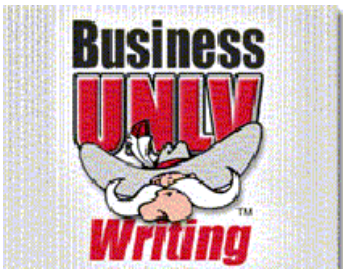
Premier Electric
Team



Improving Premier Electric's Payroll Process

9 December 2001

Prepared for

Mrs. Fe Funtanilla, Office Mgr.

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Executive Summary

When the Premier Electric Team read the steps of Vita Electric's payroll process, the team was surprised how many steps were needed to get from collecting the time cards to distributing an employee's paycheck. The team unanimously agreed that inefficiency did exist in the payroll process and that it needed to be solved.

The Premiere Electric Team based its research methods on one question: What type of research and investigation would help Vita Electric solve their payroll process inefficiency in the quickest and most cost effective manner? The team agreed on four research methods: Researching Vita Electric's Payroll Process, Researching Time Cards, Researching Software, and Researching Other Payroll Processes.

The Premiere Electric Team began researching and investigating on November 5th and concluded it on November 26th. Throughout all twenty-one days, the Premiere Electric team had been researching and investigating to the best of our abilities the four research methods. The research and the investigation began with Vita Electric from November 5th to November 9th. The team began this research method, Researching Vita Electric's Payroll Process, first because we wanted to know in detail what problems were causing the inefficiency with the payroll process. If the team could solve what was causing the inefficiency, then the results of the rest of the team's research and investigation could better solve Vita Electric's payroll process problem by focusing on what was causing it.

The Premier Electric Team's research and investigation found that the system's software, Master Builder 6, and timecard method were the most major problems with the payroll process. The timecard process includes many checkpoints that need to be passed, the team felt that passing one hundred and fifty paper timecards from one place to another was very inefficient. And, the current network software, Master Builder 6, frequently crashes, is not user friendly, and cost the company thousands of dollars a year for repair.

The team examined five software solutions for Master Builder 6: Microsoft Dynamics, Intuit Master Builder 7, Cougar Mountain, MAS 90, and AccuBooks 2000. Each software method varies in price and in core module features. But the Premier Electric Team believes that out of those five options, the Microsoft Dynamics program is the best because of its included features when compared to other programs in the same price range. The team also examined timecard methods to help solve Premier Electric's payroll process problem. The team believes that the timecard system eJobTime would also help Premiere Electric's payroll process efficiency problem.

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Introduction

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This report features three major sections: Background, Methodology, and Recommendation, as well as a Conclusion section. The Background section describes both the company and the inefficiency problem plaguing it. The company has gone through some major changes as of late, the Background section will describe these changes and how they affected this report. Methodology, this section describes what research and investigation methods the team used and why we decided to use them. The Methodology section will also mention the team's results and findings for each method. And finally, the Recommendations section gives the team's overall opinion about what would solve the payroll process problem in the quickest and most cost effective manner for Premier Electric.

The Premier Electric Team believes that this report will give the answers that Premier Electric is looking for to solve the payroll process inefficiency problem.

Background

This section describes both the company and the payroll process problem. This section is divided into the following four parts: Client Description, Need/Problem, Project Objective/Purpose, and Future Speculations. Client Description, the company has gone through some major changes as of late, this part of the section will describe these changes and how they affected this report. The Need/Problem part will focus, in detail, on the payroll process and the inefficiency problem within it. The Future Speculations part of this section will explain what could happen in the future if the problem isn't fixed at all. And finally, the Project Objective/Purpose part will explain what the Premier Electric Team planned to accomplish for the company with this project.

Client Description

Vita Electric was a local electrical contractor company that had been serving the Las Vegas Valley for the past eight years. Mike Vita established the company in January of 1993. He built his company on the basis of serving all of the electrical needs of the Las Vegas Valley. For the past eight years since the company's existence, Vita Electric had prospered as one of the best electrical contractor companies in Las Vegas. Vita Electric had wired the electricity for many different and elaborate projects over these years; such as the many housing developments they were contracted for, to doing the wiring for Sam Boyd Stadium. As of November 5th, 2001, Vita Electric had employed one hundred and fifty employees.

The group's main contact at Vita Electric was Mrs. Fe Funtanilla. When the group started this project, Mrs. Fe Funtanilla was Vita Electric's office manager and bookkeeper as well as mother to, then, the Vita Electric Team's client liaison, Anthony Hurston. Mrs. Fe Funtanilla had also informed the team's client liaison about the payroll process problem that had faced the company.

The researching and the investigating the Vita Electric Team had done for the company's payroll process problem was in near completion, when suddenly changes were made to Vita Electric. On Monday, November 19th, new management and ownership took over Vita Electric. The company changed its' name from Vita Electric to Premier Electric and the new owners and managers of the company had changed from Mike Vita to Leon Premier and his wife, Terri Premier. The change to the company was major, however, the change, thankfully, did not really affect the Vita Electric Team's Client Project. The only change the team made was to change its' name from the Vita Electric Team to the Premier

Electric Team. The team was glad and thankful to hear that all one hundred and fifty employees, including Mrs. Fe Funtanilla, would still be employed with remier Electric and play their normal roles in the company. And one other thing that the Premier Electric Team was glad and thankful to hear was that the payroll process, and all the problems within it, would not be changed until the results of the team's research had been completed and presented to Premier Electric.

The Payroll Process Problem

In October, Mrs. Fe Funtanilla had informed to Anthony Hurston that inefficiency had been plaguing, then, Vita, now, Premier Electric's payroll process for some time. Mrs. Fe Funtanilla had also informed him that the payroll process was a long and strenuous one for everybody involved in it. Mrs. Fe Funtanilla explained how long and strenuous the payroll process was by describing each step of Premier Electric's Payroll Process:

1. The payroll process begins with the timecards. All timecards include the following information: the employee's salary, their hours worked, and their piecework. Employees must complete their timecards before every Tuesday morning, by writing down on it the following information: job numbers, employee numbers, piecework wages, and employee signature.
2. The timecards then go to the employee's respective supervisor for his/her signature.
3. Then every Tuesday morning at 9:00 a.m., the supervisors of each department in the field and warehouse submit their own timecards, with the timecards of their workers, to the assistant field operations manager.
4. From there, the assistant field operations manager reviews the timecards from the field. Office timecards are given directly to the bookkeeper for processing which begins Tuesday afternoon.
5. On Wednesday morning at 9:00 a.m., after approved by the assistant field operations manager, field timecards are given to the owner for further review.
6. Once approved by the owner, timecards are sent to the bookkeeper for processing that same afternoon. All timecards must be processed by the bookkeeper before 11:00 a.m., Thursday.
7. At 11:00 a.m. Thursday, reports are printed up which show each department's payroll information.
8. Reports, once printed up, are then shown to the owner for approval.
9. After the reports have been approved then initialed by the owner, they're given back to the bookkeeper to print out employee paychecks.
10. Once paychecks are printed out, they're given to the owner for his/her signature Thursday afternoon.

11. On Friday morning, checks that are signed by the owner are given back to the bookkeeper for distribution. Payroll checks are stuffed in envelopes with new blank timecards to get ready for the next week's payroll. Employees then pick up their payroll checks in the company office by signing for them.

There are eleven long and strenuous steps to Premier Electric's payroll process and within each step, problems exist. The Premier Electric Team found the following problems when analyzing each procedure of the payroll process:

The Timecard Procedure. Problems with the timecard process are numerous. Often, employees forget to put their names on their timecards. Mrs. Funtanilla must have each employee's name on his or her own timecard so she can enter it into the local network, Master Builder. Employees also forget to put job numbers on their timecards. Again, Mrs. Funtanilla must have each employee's job number on his or her own timecard so she can enter it into the Master Builder system. Employees forget to put employee numbers on their timecards too. Again, Mrs. Funtanilla must have each employee's employee number on his or her own timecard so she can enter it into Master Builder. Often, timecards are not submitted on time either. Timecards go through many checkpoints. If timecards aren't submitted on time, distribution of payroll checks could be delayed. And one final problem with the timecard process is that timecards go through long series of checkpoints, if timecards aren't submitted on time, distribution of paychecks could be delayed.

Payroll Process Software. The software that Premier Electric currently uses, Master Builder 6, is plagued with many serious problems. Master Builder is extremely difficult to use. The interface of the application is very confusing and tough to navigate through. Without software training, there is a high probability of input errors or loss of records due to interface difficulty. Another problem with Master Builder 6 is with its' frequent crashing. Once the software crashes, Premier Electric must call Intuit, the Master Builder 6 programmers, for assistance. Assistance from Intuit is not free. One call can cost up to one hundred dollars. Also, Intuit assistance does not guarantee an immediate fix of the network. The Premier Electric Team had been informed that when the network crashed in October, it took Intuit an entire week to get the network back online, costing Premier Electric tens of thousands of dollars. Another major problem is with the software's cost. The cost of the Master Builder 6 is five thousand dollars. With a five thousand dollar price tag, Master Builder 6, in the Premier Electric Team's opinion, should not have any problems whatsoever.

Processing Payroll Procedure. Paychecks could be delayed to some, or all, of Premier Electric's employees because of the problems with the payroll process software and time card procedures.

Procedures Involving The Owner. Timecards go through long series of checkpoints. Paychecks could be delayed if timecards are checked late, or if paychecks are late, being signed by the owner.

Other Procedural Problems. The entire cost of the payroll process, which includes envelopes, checks, software, and time cards, are very expensive.

Future Speculations

Hypothetically, assume no changes were to be made to the payroll process. After all, the payroll process hasn't changed in eight years and the company is still running strong. So, then, why should changes be made now? If it isn't broke, why fix it? This part of the section will answer both of these questions by weighing both the cost and the benefits of fixing the problem now versus not doing anything at all.

True, Premier Electric's payroll process hasn't been changed in eight years, but technology has. As will be seen later in this report, changes have been made to software to make it more cost efficient and user friendly. Training for this software would still be necessary, but the Premier Electric Team assures that the benefits of implementing new software surely outweighs its' cost and Master Builder 6's benefits. Changing the software is a major change. This change would require a large amount of money. What about minor changes?

What about minor changes that wouldn't cost Premier Electric thousands of dollars? If major changes won't be made, minor changes should. As will be seen later in this report, minor changes are very cost effective for the company. Minor changes aren't as good as major changes because of the use of the old technology. But at least it's a start that can help a very inefficient payroll process.

Technology has changed to make payroll processes more efficient and minor changes would help Premier Electric's payroll process using very little cost. But what would happen if nothing were to be done with the payroll process? One obvious consequence to doing nothing is the continuation of the problems with the company's payroll process. There still would be eleven long and strenuous steps with the payroll process. Master Builder 6 would still frequently crash. Payroll checks would still have a high probability of not being distributed on time. And the cost of the process would still be very high. A second and much more serious consequence to not changing the payroll process is the termination of

employees, which would inevitably lead to Premier Electric's own termination. Cost for the current payroll process is very high. Spending one hundred dollars each time to fix a crash in the network because of frequently crashing software is very costly. Having to shut down the network for an entire week cost Premier Electric tens of thousands of dollars, an opportunity cost for the time that was lost. The less money there is in the company, the less money there is to give to employees. Termination would be inevitable.

Project Objective/Purpose

The primary goal of the Premier Electric Team was to answer this question: How and what can Premier Electric do to make it's payroll process more efficient and cost effective?

Methodology

The Premier Electric Team planned to research and do a thorough investigation of four specific topics that would lead to a successful solution to Premier Electric's payroll process problem. These four topics were chosen very carefully. First, the Premier Electric Team read each step of the company's payroll process. The team then determined what major problems were within each step. After determining what problems existed, the Premier Electric team decided to base its research and its investigation on those major problems. The four topics are the following: Visiting Vita Electric, Researching Payroll Systems, Researching Time Cards, and Researching Software. All four topics each required the participation of all five members of the Premier Electric Team. The team used all of our skills and our knowledge to complete each task successfully. The more research and investigation that was done on each topic, the more answers the Premier Electric Team could provide to help Premier Electric solve its payroll process inefficiency problem.

Visiting Vita (Premier) Electric

What the Premier Electric Team planned to do with this task was to have each team member observe Vita Electric's payroll process first hand, so that each of us could determine what efficiency problems existed in each step of the process. The team wanted to find out the major problems of the payroll process. The reasoning behind why each member of the team visited Vita Electric was so that each team member could compare with each other, which problems each of us had observed while visiting. Some members of the group could have had something different from the rest of the team. The main goal of this task was to determine what exactly was causing the efficiency problem in Premier Electric's payroll process.

The Premiere Electric Team visited Vita Electric on three specific days: Tuesday, November 6th, Wednesday, November 7th, and Thursday, November 8th. Vita Electric's payroll process takes place on these three days. On Tuesday November 6th, the Premier Electric Team went to the Vita Electric field, the Glenbrook housing development, to observe the first procedure of the payroll process, the timecard procedure. Wednesday, November 7th, the Premier Electric team visited the Vita Electric offices in Henderson, Las Vegas to observe the processing of timecards and payroll procedures. And on Thursday, November 8th, the Premier Electric team visited the Vita Electric offices again to observe the distributing of employee paychecks.

All five members of the Premier Electric Team didn't have any differing opinions about what the payroll process problems were. The team came to the same conclusion. Three major problems were plaguing Vita Electric's payroll process:

Timecards, Software, and the Payroll System itself. Though, the group did find minor problems that could be taken care of with little cost to Premier Electric that would at least benefit the payroll process.

The three minor problems that the Premiere Electric team focused on were timecard design, timecard instruction, and the involved individuals within the payroll process. The team noticed that the required fields on the timecards (name, employee number, job number, and piecework) weren't already typed on the timecard. If the required fields were already entered for each of Premiere Electric's employees, it would save the payroll process some time, which, with it's series of checkpoints, it definitely needs. Also, employees could turn in their timecards on time if the required fields were already entered. The Premiere Electric Team also noticed that the fields on the timecards were organized in a confusing manner[1]. All of the fields on the time card were all bunched up together and disorganized. The team agreed that if the timecard's fields weren't so close to each other and organized differently[2], employees would have an easier time reading it and entering data on it; thus, helping employees turning in their timecards on time. Another minor change to the payroll process the team thought would help Premiere Electric is that if ownership of Premier Electric could emphasize the importance of timecard completion. If reprimands were given for those employees who don't follow timecard completion instructions correctly, employees would be forced to have their timecards completed on time therefore resulting in less problems within the timecard procedure of the payroll process. Finally, one more minor change of the payroll process could be adding another person to help Mrs. Funtanilla enter timecards in the system, Master Builder 6. Adding another person, the team agreed, would significantly increase the speed of the current payroll process. This other person wouldn't have to cost the company anything. This other person helping Mrs. Funtanilla could be an intern that's interested in the market of electrical contracting. Fixing these minor problems could help the payroll process in the short run, but in the long run, the major problems will continue to cause more serious problems for the company. More drastic changes are needed to solve major problems with the payroll process.

Researching Timecards

One of the major problems with Premier Electric's payroll process that Mrs. Funtanilla had concerns over dealt with Premier Electric's timecards. Mrs. Funtanilla had complaints over employees not completing their timecards correctly and timecards not being handed in on time, just to name a few of her complaints. The team planned to research and do a thorough investigation of other types of timecard processes to solve this timecard problem. The team compared and contrasted the timecard processes from each of the team member's own jobs with that of Premier Electric's. The goal of this task was to see if Premier Electric

[1] Example: The 'Hours' field wasn't by the 'Overtime' field.
[2] Example: The 'Hours' field would be by the 'Overtime' field.

could implement the timecard processes of other companies to make the company's payroll process more efficient and cost effective. The Premier Electric Team researched and investigated the following five companies' timecard processes: the Department Of Energy, Bank Of America, Mandalay Bay, and Watts Brothers Frozen Foods co. The timecard system 'eJobTime' was also researched and investigated as a possible solution to the timecard process problem. Before looking at the different timecard processes, a thorough examination of Premier Electric's timecard process is necessary.

Premier Electric

Premier Electric basis their timecards design according to the fields shown on the Master Builder 6 system. Master Builder 6 requires that the following fields be entered when entering payroll information into the system: Employee Name, Social Security Number, Job Name, Job Number, Phase, Lot/Block, Plan/Building, Hours, Cost Code, Regular Time, and if necessary, Overtime. All of Master Builder's required fields are the fields that are to be completed by the employees on each of Premier Electric's timecards. Premier Electric's timecard is an eight and a half inch by eleven-inch white sheet of paper. The timecards design is made using Microsoft Excel. The total cost of Premier Electric's timecard system, which include the cost of paper (about five dollars), Microsoft Excel (about one hundred dollars), and Master Builder 6 (about five thousand dollars), will add up to about five thousand one hundred and sixty dollars.

Department Of Energy[3]

The timecard design of this system is in an email format. Every two weeks, employees receive a work order form (timecard) via email, which assigns them their projects on a weekly and/or daily basis. The total cost of this system is the cost of the computers being used in the network, one thousand dollars a computer.

The Department Of Energy's timecard system's main advantage is its ease and availability. Premier Electric, if using this time of system, could have employees email their timecards from the field. This would save Mrs. Funtanilla and the payroll process time. Mrs. Funtanilla would already have the required timecard information already entered into the computer. She would only have to 'cut and paste' the information into Master Builder's required fields. And also, some checkpoints would be eliminated because these email timecards could go to Mrs. Funtanilla, the Premier Electric owners, and anyone else that needed to review the timecards before the process could continue. Although the advantages are promising, there are seen disadvantages.

[3] Please refer to the Appendices for timecard design.

The two main disadvantages with an email timecard system is its' privacy and cost. Timecard information has the risk of being revealed to other employees via email. Although at first, this might not sound important. But, Premier Electric's timecards do reveal an employee's social security number. An email timecard system's cost is based on the cost of the computers used for the network, one thousand dollars a computer. Depending on how many computers are needed in Premier Electric, the cost of an email timecard system is high.

EJobTime[4]

Along the same lines as the Department Of Energy's email timecard system is this web based timecard program. Remote users can enter their timecard into the system via the online network. The program was developed by Accu-Tech Systems and costs about two hundred dollars.

The advantages of the program mirror that of the Department Of Energy's email timecard system. The only difference is in the disadvantages of both systems. EjobTime eliminates the danger of revealing timecard information. The network for this system is much more private meaning more security for protecting timecard information. But again, cost is based on the cost of the computers used for the network plus the cost of the eJobTime program. The system's cost is its disadvantage.

Bank Of America[5]

Bank Of America's timecard closely resembles that of Premier Electric's, being that both timecard designs are an eight and a half by eleven-inch sheet of paper. But Bank Of America's timecard system uses a much more automated system of entering figures into fields, then sending the information for paychecks to be processed. Each timesheet has all of the information that pertains to each employee's status and pay level. Each field has its own individual identification; such as, Regular Pay, Vacation, Sick Time, Overtime, Unpaid Leave and Holiday Pay. A payroll processor decides what information is to be entered into each program field by looking at the completed timesheets and any notes associated with a particular day. This timecard system's cost closely resembles that of Premier Electric's timecard process, about five thousand dollars. Bank Of America's timecard system fixes the minor problems that are plaguing Premier Electric. Required fields that are already known are already entered into each employee's timecard before being printed up.

[4] Please refer to the Appendices for timecard design.
[5] Please refer to the Appendices for timecard design.

Mandalay Bay

Mandalay Bay uses a plastic ID card for their timecard design. Mandalay Bay uses the Instant ID System. It can create badges containing text, pictures, bar codes, background pictures and colors. Printing ID cards is done with plastic card printers with magnetic encoding capabilities and also on Microsoft Windows compatible printers. To use this timecard system, Mandalay Bay employees use the bar code on the back of their ID badge. By pressing 'IN' or 'OUT' on an electronic clock located at the work area, then swiping the badge through a slot on it; the process will generate into a computer generated database which will then record each time the employee used his or her badge, without ever recording it on paper. The information is then put into the software by the computer system to record employees' paychecks. The total cost of this timecard system, which includes the cost of the plastic badge (seventy cents an employee), and the cost of the timecard software, camera included (three thousand dollars), is about three thousand one hundred and twenty five dollars.

Watts Brothers Frozen Foods Co.

Along the same lines as Mandalay Bay's time card process is Watts Brothers Frozen Foods' timecard process. The Watts Brothers Frozen Foods uses a photo ID system on PVC cards, which includes an employee's bar code. Attached to the time clocks in the company's facility is a swipe system for reading the bar code number of each PVC card. When an employee 'clocks in', the reader on the time clock scans the bar code number and records the time the employee checked in and out for work. Watts Brothers Frozen Foods choose an Internet retailer that markets PVC card packages. The package that the company has chosen includes, the printer used for printing up the cards, the camera for photo ID, the software to generate the cards, and enough tools to make three hundred cards. This package cost approximately one thousand three hundred dollars.

Researching Payroll Systems

How does Premier Electric's current payroll process compare to that of other payroll processes? The Premier Electric team wanted to answer this question, and we believe that we did. Our answers are in this part of the section. What the team planned was to research and investigate the payroll systems of each team member's current place of employment and compare and contrast it to that of Premier Electric's. The team's goal with this task was to determine what steps or processes from other companies could Premier Electric implement to make their payroll process more efficient and cost effective. The Premier Electric Team investigated four payroll processes: the Department Of Energy, Bank Of America, Mandalay Bay, and Watts Brothers Frozen Foods co.

The Department Of Energy

Since all of the timecards are emails, the Department Of Energy's payroll process is 90% electronic. The Department Of Energy's payroll process is as follows:

1. Every two weeks, workers receive a work order form, or timecard, which assigns their projects on a weekly and/or daily basis.
2. At the end of two weeks, the completed work order form is forwarded to the work center supervisor, who then reviews, verifies, and signs the completed form. If there is any problem with the form, it is sent back to the worker for correction with a note detailing any problems.
3. After the work center supervisor has completed review of the forms, they are forwarded to the division director who grants final authorization for the forms.
4. The division director then forwards it to the regional finance section. The regional finance section enters the given data into a financial database and form information is re-verified for accuracy.
5. The finalized data is then electronically sent to the Department Of Energy headquarters in Pennsylvania for final review.
6. After the final review, the payment process is started and all payments are made electronically to the bank of the employee's choice. Though, the employee could elect to have their payment sent to the work center for pick up or sent by USPS mail to employee's home address.

Bank Of America

Bank Of America's payroll process is as follows:

1. Timecards are sent to a host server that calculates the amount of pay, taxes withheld, 401K, and benefit(s) information. The system makes adjustments to the individual's payroll account, which keeps a record of the transactions.
2. The next step is printing out paychecks or direct depositing each paycheck into the employees' accounts already.
3. The checks are then verified by a staff member and then signed by a computer.

Mandalay Bay

Mandalay Bay's payroll process is as follows:

1. First, Mandalay Bay employees use the bar code on the back of their ID badge. By pressing 'IN' or 'OUT' on an electronic clock located at the work area, then swiping the badge through a slot on it; the process will generate into a computer generated database which will then record each time the employee used his or her badge, without ever recording it on paper.

2. The information is then put into the software by the computer system to record employees' paychecks.
3. Regular pay, holiday pay, FICA, FED, and taxes withheld are all added onto the paycheck automatically to calculate gross and net wages. If under union wages, it will also be added onto the paycheck.
4. Paychecks will then be printed up out of the database and sent out to the manager of each department.
5. From there, the employee will sign a sheet with his or her name on it to identify that they received their check. Or, the other option the employee could choose is to have pay direct deposited straight into their checking account. If this option was chosen, then employees will receive a non-negotiable check in the mail that will show that the paycheck was deposited into the employee's account.

Watts Brothers Frozen Foods Co.

Watts Brothers Frozen Foods' payroll process is as follows:

1. When an employee 'clocks in', the reader on the time clock scans the employee's bar code number and records the time the employee checked in and out for work.
2. As the time worked is accumulated on the time clock, the payroll clerk downloads the time to a system computer via a modem connection. The clerk can then edit time cards, if needed, and then save the time information.
3. Once the time worked has been collected and adjusted, the payroll department generates it into the payroll-processing program. The 'Time In A Box' system that the company uses provides an extra piece of software that allows the transfer of the time collected into the company's payroll software.
4. Once they have exported the time information to the payroll system, it is then a matter of running an edit report to verify that all the time that has been imported agrees with the time in the clock system.
5. They are then ready to process checks.

Researching Software

Premier Electric uses special software to input their payroll, Master Builder 6. For this task, each member of the Premier Electric Team planned on researching software that was similar to Master Builder. The team would then compare and contrast the different types of software with Master Builder. The team wanted to determine if there was cheaper, more efficient payroll software out in the market than the one that was currently used by Premier Electric. The goal of this task was to see what types of software could be implemented by Premier Electric, besides Master Builder 6, that would make their payroll process more efficient and cost effective. The Premier Electric Team researched and investigated the following

five construction solution software: Cougar Mountain, AccuBooks 2000, MAS 90, Dynamics, and Master Builder 7. First, an examination must be done on Premier Electric's current software, Master Builder 6.

Master Builder 6

MB6 is construction management software that's developed for companies with multiple computers and users. It's best suited for companies that require networking, as well as custom reporting and document control. The core system includes the following functions with construction specific features: Job Cost, Cost To Complete, General Ledger, Accounts Receivable, Accounts Payable, and Reporting. Premier Electric chose to add the payroll module to MB6. The total cost for the software was twenty thousand dollars.

Cougar Mountain

Cougar Mountain is accounting solution software. Cougar Mountain's core module includes the following: General Ledger, Accounts Payable, Accounts Receivable, Payroll, Inventory, Order Entry, Purchase Order, Point Of Sale, and Fund Accounting. The cost of the Cougar Mountain software depends on the needs of the company. But the price range starts at one thousand five hundred dollars.

AccuBooks 2000

AccuBooks 2000 is also accounting solution software. AccuBooks 2000 core module includes the following: General Ledger, Accounts Payable, Accounts Receivable, Checkbook/Bank, Payroll, MICR, Inventory, Bar Coding, Order Entry, Purchase Order, Point Of Sale, Job Tracking, and Property Management. The cost for AccuBooks 2000 is in the price range between seven hundred to one thousand dollars.

MAS 90

MAS 90 is 32-bit accounting, distribution and light manufacturing software. MAS 90 core module includes the following: General Ledger, Accounts Payable, Accounts Receivable, Payroll, Bank Reconciliation, Inventory Management, Sales Order, Purchase Order, Bill Of Materials, Work Order, MRP, Bar Code, Import Master, Job Cost, and a link to Microsoft Excel. The total cost for MAS 90 depends on the features that will be included. But the range of cost is between three thousand to thirty thousand dollars.

Dynamics

Microsoft Dynamics is business solutions software. Dynamics' integrated solution offers financials, e business, sales and marketing, purchasing, project accounting, payroll and human resources solutions. Microsoft Dynamics core module includes the following: General Ledger, Cash Flow Management, Accounts Payables Management, Accounts Receivables Management, Invoicing, Collections Management, Bank Reconciliation, Fixed Assets, eBanking, Inventory Control, Sales Order Processing, Purchase Order Processing, Payroll, Direct Deposit, Human Resources, eOrder, eSell, eView, Project Accounting, Customization, and Crystal Reports. Again, The total cost for Microsoft Dynamics depends on the features that will be included. But the range of cost is between three thousand to thirty thousand dollars.

Master Builder 7

Master Builder 7 includes the same features as Master Builder 6 included, but the interface of MB7 has changed to be a little less confusing and the Premier Electric Team has been informed that the problems, which were plaguing MB6, have been fixed. MB7 is construction management software that's developed for companies with multiple computers and users. It's best suited for companies that require networking, as well as custom reporting and document control. The core system includes the following functions with construction specific features: Job Cost, Cost To Complete, General Ledger, Accounts Receivable, Accounts Payable, and Reporting. Once again, the total cost of the software depends on the features that will be included, but the price range of MB 7 is also between three thousand to thirty thousand dollars.

Recommendations

The Premier Electric Team has researched and done thorough investigations of all four research methodology topics. So, after all of the results and findings that were collected; what conclusion has the team come to solving Premier Electric's payroll process problem? The Premiere Electric Team has come to the unanimous decision that to solve Premiere Electric's payroll process problem the system's software and timecard methods must be changed.

There were five timecard and five software processes that were given; but out of those options, which timecard and software method should Premiere Electric choose? The answer is the 'eJobTime' timecard program and the Microsoft Dynamics software. The reasoning behind our decisions will be explained in the following two sub-sections: Why 'eJobTime'? and Why Microsoft Dynamics? The following five parts will also be included in both sub-sections: Effectiveness, Resource Feasibility, Desirability, Affordability, and Preferability.

Why eJobTime?

Before looking at why the Premier Electric Team chose the 'eJobTime' timecard method as our timecard solution, comparisons should be made. The following table features all five timecard methods that were presented and the features included in each of them:

	Dept. Of Energy	**eJobTime**	**Bank Of America**	**Mandalay Bay**	**Watts Brothers**
Design	Email	Email	Paper	Plastic Card	PVC Card
Main Feature/Advantage	Electronic Communication	Electronic Communication	Organized Timecard Design	Automatic Payroll System	Automatic Payroll System
Cost	$150/Computer	$150/Computer	$.05/Timecard	$3,125	$1,300

According to the table, Bank Of America's timecard method should be the timecard solution chosen because of its effectiveness and cost. The Premiere Electric Team did consider cost, but the team also considered efficiency. EJobTime was chosen mainly because of its efficiency.

Effectiveness

The Department Of Energy's timecard method is very similar to the eJobTime software. What eJobTime offers that none of the other timecard methods features

is speed. Since timecards are completed electronically, they may be sent to many locations all at once saving time in the payroll process. Checkpoints can be passed more quickly and inputting timecard information would be quicker if the eJobTime software was implemented. Inputting timecard information would be unnecessary because since timecard information is sent electronically, the 'Copy' and 'Paste' methods could be used to increase speed in the payroll process. Implementing the eJobTime software will solve the problems within the Timecard Procedure within the current payroll process.

Resource Feasibility

Implementing the eJobTime system would be no problem for Premier Electric. Premier Electric's current technology has already been surveyed by the Premier Electric Team and the team has come to the conclusion that implementation is not only possible, but also easy. Laptop computers would need to be acquired for each field team and new training for the new timecard system would also be necessary for each staff and field member. However, cost of training and new equipment is expected to be minimal when compared to future cost of the current payroll process. Suspension of work would not be necessary.

Desirability

Considering the ease of implementation and the efficiency improvement of the timecard procedure within the payroll process, the Premier Electric Team believes that ownership would want to implement the eJobTime software. Some staff members and employees may have trouble at first getting used to the new timecard procedure, but with training, those troubles should be eliminated. The only undesirable effect of this timecard method is if the Premiere Electric network 'crashes', timecard information may be lost. However, prevention of system malfunctions rest heavily on the software the system uses; that's the reason why the team also chose to replace the current software, Master Builder 6, to Microsoft Dynamics.

Affordability

While not as affordable as Bank Of America's timecard method of five cents a timecard, the eJobTime timecard method is more efficient at one hundred and fifty dollars. Both timecard methods are very different. The design and procedures of both methods differ vastly from one another. Bank Of America's timecard method closely resembles that of the current timecard procedure within Premier Electric. Given the time saved within the payroll process and the ease of the eJobTime system, the benefit outweighs the cost.

Preferability

As had already been shown, the benefits of the eJobTime software definitely outweigh its cost. The benefits of eJobTime also outweigh the other four timecard method's benefits. The time saved within the payroll process and the ease of timecard information access makes eJobTime a required accessory to payroll process efficiency.

Why Microsoft Dynamics?

Before looking at why the Premier Electric Team chose the Microsoft Dynamics software method as our software solution, comparisons should be made. The following table features all five software methods that were presented and the features included in each of them:

	Master Builder 7	**Dynamics**	**MAS 90**	**AccuBooks 2000**	**Cougar Mountain**
Core Modules	6 Core Modules	21 Core Modules	15 Core Modules	13 Core Modules	9 Core Modules
Advantages	Training Via The Internet	1st To Market Microsoft Windows Accounting	Lots Of Modules, Easy To Use	Open Microsoft FoxPro Database	Dynamic Processing Of Information In Format That Can Be Understood
Cost	$3,000 – $30,000	$3,000 – $30,000	$3,000 – $30,000	$700 - $1,000	$1,500 -

According to the table, AccuBooks 2000 software method should be the software solution chosen because of its featured core modules and cost. The Premiere Electric Team did consider cost, but the team also considered the need for reliable system software. Microsoft Dynamics was chosen mainly because of its reliability.

Effectiveness

Premier Electric's entire payroll process revolves around the software. Premier Electric basis their timecards design according to the fields shown on the Master Builder 6 system. Master Builder 6 requires that the following fields be entered when entering payroll information into the system: Employee Name, Social Security Number, Job Name, Job Number, Phase, Lot/Block, Plan/Building, Hours, Cost Code, Regular Time, and if necessary, Overtime. All of Master Builder's required fields are the fields that are to be completed by the employees on each of Premier Electric's timecards. Timecard and payroll process reports are printed from the Master Builder software. Paychecks are also printed off the

software as well. Problematic software has a high probability of causing a stoppage of the entire payroll process. Recall that the Premier Electric Team had been informed that when the network crashed in October, it took Intuit an entire week to get the network back online, costing Premier Electric tens of thousands of dollars. If Premiere Electric were to change the payroll software, there would be no doubt in any of the team member's minds that it would solve the company's payroll process problem.

Resource Feasibility

Microsoft Dynamics could be implemented at Premier Electric. The owners of Premier Electric, Mr. and Mrs. Premier, had already informed me that any resource(s) that was needed to make Premier Electric's payroll process more efficient would be available. But actually, implementing Dynamics wouldn't require any new equipment except the Microsoft Dynamics software itself. The team surveyed Premier Electric's technology and has concluded that no new equipment would be necessary. However, work stoppage is inevitable when implementing any new software, including Microsoft Dynamics, because of the need to transfer current records over to the new program. And also, new training for Microsoft Dynamics would unfortunately be required. But, an estimated one-week work stoppage doesn't sound too costly considering the benefits of Microsoft Dynamics compared to that of Master Builder 6, which already forced a work stoppage. Also, since Mrs. Funtanilla is the only employee of Premier Electric that will work with the new software, training costs should be relatively low.

Desirability

Considering the frequent crashing of the Master Builder 6 software and the costs that are associated to the crashing, any change in the software would be an improvement. Making this legal change to Microsoft Dynamics can only benefit Premier Electric. An example of Microsoft Dynamic's benefits could be the decrease of the Premier Electric's system crashing and more up-to-date core modules included for less the cost as Master Builder 6. I have the full support of Premier Electric to make this change to Microsoft Dynamics. In fact, Mrs. Funtanilla and Mr. and Mrs. Premier suggested that the Premier Electric Team look into new types of software, besides Master Builder, that Premiere Electric could implement to make the payroll process more efficient and cost effective.

Affordability

As was shown in the Researching Software part of this report, Microsoft Dynamics cost ranges between three thousand and thirty thousand dollars. This

cost is very reasonable considering the already included twenty-one core modules of Microsoft Dynamics and that Premier Electric spent twenty thousand dollars on Master Builder 6 with all of its' problems. Mr. and Mrs. Premier have already informed me that, just like the Premier Electric Team, fixing the payroll process, especially replacing software, is a major priority and needs to be taken care of. The cost of Microsoft Dynamics is justifiable given the needs of Premier Electric.

Preferability

Changing software is needed because the payroll process revolves around the software being used by the system. Hands down, Microsoft Dynamics is the most preferable software. Microsoft Dynamics has more core module features then any of the other types of software in the same price range. Also, the Microsoft Dynamics software is shown to be more compatible with other types of technology than the other software choices. Microsoft Dynamics is considered by 2020software.com, one of the top construction solution web sites, to be the number one ranked construction solution software.

Conclusion

As you can see by the research and the investigation done, and the results and findings that came from them, the Premiere Electric Team was successful coming to a unanimous conclusion about Premiere Electrics payroll process. The payroll process could be improved by changing the timecard method to the eJobTime software and also by changing the current system software to Microsoft Dynamics. Timecard management is important, however, system software is the key to payroll process efficiency. The entire payroll process revolves around Master Builder 6. Premier Electric basis their timecards design according to the fields shown on the Master Builder 6 system. Master Builder 6 requires that the following fields be entered when entering payroll information into the system: Employee Name, Social Security Number, Job Name, Job Number, Phase, Lot/Block, Plan/Building, Hours, Cost Code, Regular Time, and if necessary, Overtime. All of Master Builder's required fields are the fields that are to be completed by the employees on each of Premier Electric's timecards. Timecard and payroll process reports are printed from the Master Builder software. Paychecks are also printed off the software as well. Problematic software has a high probability of causing a stoppage of the entire payroll process. Recall that the Premier Electric Team had been informed that when the network crashed in October, it took Intuit an entire week to get the network back online, costing Premier Electric tens of thousands of dollars. If Premiere Electric were to change the payroll software and change their timecard method, there would be no doubt in any of the team member's minds that it would solve the company's payroll process problem.

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Appendices

This appendix includes the timecard designs of the Department Of Energy and of Bank Of America. Also included in this appendix is the timecard design of the eJobTime software.

Dept. Of Energy

KLAUS D. CORNELL,Sr.

USDOE WAPA DRW
TIMESHEET

12/1991

PAY BLOCK: MHI

001-23 (SEPTEMBER) OC

Hours Code		Marked Work Order Number	Day / Date	Sun 22	Mon 24	Tues 25	Wed 26	Thur 27	Fri 28	Sat 29	Total Hours	Labor Misc	Mon 30	Sun 1	Tues 2	Wed 3	Thurs 4	Fri 5	Sat 6	Total Hours	WBA WLR
010		G21354SA												1.00						1.00	
010		G15854			3.00						3.00				7.00	7.00	8.00			25.00	
010		G90378				10.00	10.00	1.50			21.50	330									
010		G34850GM						8.50			8.50	130									
010		G34867AM			1.00						1.00			2.00						3.00	
010		33512												2.00						2.00	
010		33512TV												1.50						1.50	34
010		33513												2.00						2.00	
010		33513TV												1.50						1.50	
010		G34850SW													2.00					2.00	34
010		G34850PH													1.00	3.00				4.00	
010		G34867MA															2.00			2.00	45
010																					
010																					
010																					
010																					
010																					
010																					
010																					
010																					
251		G21101-251																			
020 AL		G21101-020			8.00						8.00										
030 SL		G21101-030																			
0C3 FL		G21101-0C3																			
050 HL		G21101-050																			
060 ADM		G21101-060																			
110 OT		34501							2.50		2.50										
110 OT		34501TV							1.50		1.50	48									
110 OT		34500							1.00		1.00										
110 OT		34500TV							1.00		1.00	61									
110 OT		34426							2.00		2.00										
110 OT		34426TV							2.00		2.00	113									
110 OT		G15854																10.00		10.00	
110 OT																					
	Total: Hrs.				10.00	10.00	10.00	10.00	10.00		50.00	852		10.00	10.00	10.00	10.00	10.00		50.00	110
	Times: Fr:				6:00A													6:00A			
	To:				12:00P													4:30P			
	Times: Fr:																				
	To:																				
	Times: Fr:																				
	To:																				
	Initials		KDC		KDC	KDC	KDC	KDC	KDC	KDC	KDC			KDC	KDC	KDC	KDC	KDC	KDC	KDC	

SIGNATURE: Klaus D. Cornell, Sr

Bank of America

NEVADA EMPLOYEE'S DAILY TIMESHEET

ACCORDING TO REQUIREMENTS OF FEDERAL AND STATE LAWS, IT IS IMPERATIVE THAT THIS RECORD BE FILLED IN COMPLETELY AND ACCURATELY. UNDER NO CIRCUMSTANCES MAY TIME WORKED BE UNRECORDED. EMPLOYEE MUST INITIAL DAILY TO VERIFY ACCURACY OF TIME RECORDED. TIME WORKED IN EXCESS OF SCHEDULED HOURS MUST HAVE PRIOR APPROVAL.

1. ALL ENTRIES MUST BE LEGIBLE.
2. ALL CHANGES MUST BE INITIALED BY THE EMPLOYEE
   DO NOT USE CORRECTION FLUID
   TO MAKE A CHANGE, DRAW A LINE THROUGH THE ORIGINAL ENTRY
   WRITE IN THE CORRECT INFO AND INITIAL
3. ENTER ALL TIME ROUNDED TO THE NEAREST QUARTER HOUR USING THE CONVERSION CODE.
4. EMPLOYEES MUST INITIAL EACH DAY WORKED AS WELL AS SIGN THE COMPLETED TIMESHEET.
5. MANAGERS MUST VERIFY ALL TIME WORKED AND RECORD ALL TOTALS YOU REPORTED IN THE "FOR MANAGERS USE ONLY" RECAP BOX. IF THE RECAP BOX IN NOT COMPLETED, THE EMPLOYEE WILL NOT BE PAID.

REMINDER!
ROUND EACH TIME IN AND OUT TO THE NEAREST QUARTER HOUR AND ENTER THE ROUNDED AMOUNT ON THE TIMESHEET

15 MIN. = .25
30 MIN. = .50
45 MIN. = .75
1 HOUR = .00

WEEK 1	DATE	TIME IN	TIME OUT	TIME IN	TIME OUT	TIME IN	TIME OUT	HOURS	INITIALS	REASON
SUNDAY										
MONDAY										
TUESDAY										
WEDNESDAY										
THURSDAY	11-1									
FRIDAY	11-2									
SATURDAY	11-3									
		WEEK ENDING SATURDAY		11 / 3 / 01			TOTAL			

WEEK 1	DATE	TIME IN	TIME OUT	TIME IN	TIME OUT	TIME IN	TIME OUT	HOURS	INITIALS	REASON
SUNDAY	11-4									
MONDAY	11-5									
TUESDAY	11-6									
WEDNESDAY	11-7									
THURSDAY	11-8									
FRIDAY	11-9									
SATURDAY	11-10									
		WEEK ENDING SATURDAY		11 / 10 / 01			TOTAL			

WEEK 1	DATE	TIME IN	TIME OUT	TIME IN	TIME OUT	TIME IN	TIME OUT	HOURS	INITIALS	REASON
SUNDAY	11-11									
MONDAY	11-12									HOLIDAY
TUESDAY	11-13									
WEDNESDAY	11-14									
THURSDAY	11-15									
FRIDAY										
SATURDAY										
		WEEK ENDING SATURDAY					TOTAL			

FOR MANAGER'S USE ONLY

01-HOURLY	01-OT	08-EX REG	02-SICK	03-VAC	04-UNPAID	13-PUB VC

CONFIDENTIAL

10 Part-time

I HEREBY CERTIFY THAT THE ABOVE IS AN ACCURATE RECORD OF TIME WORKED DURING THIS PERIOD.

EMPLOYEE SIGNATURE _____

E JOB TIME

Edit Time Card
TC #
1220
Work Date
7/1/2001
Employee #
GMK1 - George Kramer
Job #
TX81715 - Access Communications, Inc
Cost Code
LABOR2 - Labor Code 2
Reference
On-Site
Hours
5
Regular
Overtime
Double Time
Billable
Non-Billable
Notes
Installed system upgrade and trained users on new functionality.
Save
Close
Print
Help