



## Business Process Optimization Overview

### Overview

The role of a Point North Consulting Business Analyst is to establish effective communications with the client to understand their business needs and facilitate development and communication of an improved vision in successive levels of detail to meet the organization's business processing and automation needs.

Far too often organizations are unduly influenced by the latest buzzwords and trends, so technology is implemented for technology's sake without paying the due diligence necessary to understand the business justification for the systems and changes that are to be implemented. Business Assessments and Methodologies are ways to insure due diligence and focus on actual business needs that also contribute effectively to your bottom line.

Point North Business Process Optimization services typically fall into the following categories discussed in this paper:

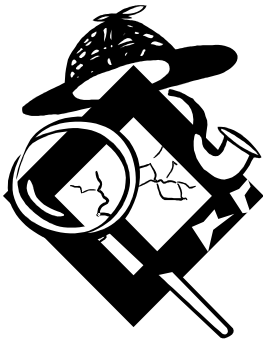
- *Business Assessments*
- *Business Analysis*
- *Project Management*
- *Documentation and Online Help*

Point North Consultants use Business Assessments to identify current business processes and issues as well as communicate a vision for business improvements that can be understood by management, functional area staff and technical staff. Diagrams, charts, ROI analysis and functional specifications are deliverables of these assessments – these deliverables communicate business concepts and tactical strategies using a well-defined PNC methodology.

Once a project is identified and approved, a combination of sound requirements analysis and implementation are professionally managed and monitored by a Point North Business Analyst and Project Manager that can work with functional and technical staffs for the client as well as manage their vendors and external contractors.

With the fast pace of business and the crunch to complete projects on time, all too often important documentation and online help for systems is neglected or not done.. The typical engineer is good at writing program code, but often has minimal skills and little patience for writing documentation. A Point North business analyst with effective authoring talent can address this problem as well as help your organization develop documentation skills as a part of your normal systems maintenance and development cycles.

## Point North Consulting - Business Assessments



Critical to effectively managing a business is the ability to assess your current situation and have a discipline for methodically reviewing, approving and applying the changes required by your business.

As we divide such changes into projects, a Systems Development Life Cycle (SDLC) emerges that allows you to begin with partial information and successively add more detail as you progress through the lifecycle of a system or product.

The Point North Business Process Methodologies provide for this SDLC progression of steps to identify the current situation in order to approve and apply required changes:

- **Business Assessment** – Working with you to understand your organization’s business and current issues in order to clearly define where you are today with an assessment and recommendations on how to get where you want to be tomorrow.
- **Project Initiation Report** – A formal statement of the objectives, rationale and expected business justification for a proposed project. This working document clarifies the nature, reasons and expectations plus why executive management should allocate and approve funding for the project.

This document becomes an effective tool for the originator(s) to clarify their thinking during the authoring process and provides an effective way to present projects to management for review and approval.

Management needs to know that due diligence was applied to each project proposed, that it makes good business sense and that it was not “designed on a napkin”. A uniform and complete format allows management to better assess and compare the merits of proposed projects.

The relatively small investment to write the Project Initiation Report is quickly recovered by avoiding prioritization mistakes. This Project Initiation Report is used as the baseline for future SDLC life-cycles, further detailed as necessary.

- **Business Requirements Definition** – A formal statement of the specific functional requirements that must be met. This typically builds on the previous Project Initiation Report content, but provides more detail and updates. Usually, the requirements state only the functionality that is needed and avoids describing “How” they are to be accomplished. This maintains an open opportunity for implementers to find the best way to meet each requirement and avoids the pitfalls caused by over-specification.
- **Systems Requirements Definition** – An optional step that may be needed with complex hardware and/or software systems. This document may also take the form of an RFI or RFP/RFQ used to solicit information or bids for these hardware and/or software components. Portions of the Business Requirements document may be included with additional details and updates.
- **System Design & Implementation Specification** – Detailed design specifications for hardware and/or software systems. Portions of the Business and/or Systems Requirements document may be incorporated here with additional details and updates. An important portion of this document is to map the Business/System Requirements to the corresponding System Design Specification components that apply to ensure that design specifications satisfy all of the requirements.
- **Change Control Document** – Formally documents each request for change to specifications and systems that provides a consistent way for management to review and approve changes.
- **System Documentation** – Administrator and User Guides that document the system are important to have available. Often much of the content from the Requirements and System Design & Implementation specifications can be reused and edited for use as documentation.

Not every change or project will use the full sequence of SDLC steps. The complexity of the documents can range from one page to a large specification depending on the complexity and needs of each project.

The Point North consultants not only supplement a client’s already busy staff, but they also set an example to train and further a culture of “Best Practices” in the client organization.

## Point North Consulting - Business Analysis

Business Analysis services are able to identify current business processes and issues as well as communicate a vision for business improvements that can be understood by management, functional area staff and technical staff. Often diagrams, charts, ROI analysis and functional specifications are created to communicate these business concepts.

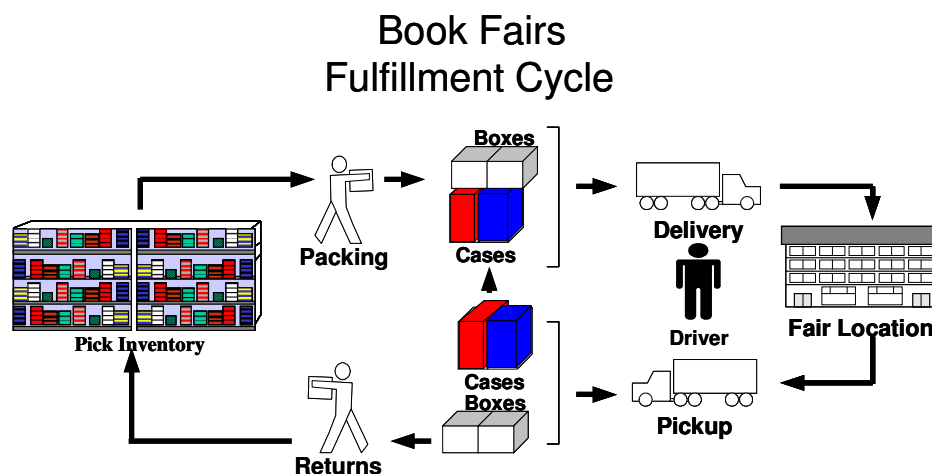
Basically, it is best to use the type of description, diagram or method that is most effective in understanding and communicating each concept to the audience for your specification.

In some technical circles, the Uniform Modeling Language (UML) has been taught and is understood within the group so diagrams and charts defined for UML would be the preferred approach since everyone understands the symbols or can look them up.

In many organizations, UML is often not of interest and not a priority for executives, managers and non-technical staffs – nor must it be. Effective UML and non-UML diagrams can be used to communicate efficiently and subtly begin introducing advanced UML concepts such as object-oriented inheritance, use-cases, functional swim-lanes and business process flows as ways to better understand and communicate business concepts. In this way, such advanced concepts are efficiently introduced and learned gradually, as discussed below.

In many cases the Point North business analyst can consolidate the big picture of how the business is *supposed to work*, *actually works* or *should work better* into a single picture “that is worth a thousand words” to clarify, communicate and help make the right business and/or technical decisions (as illustrated in the example below).

*PM Phase II Production Management System*

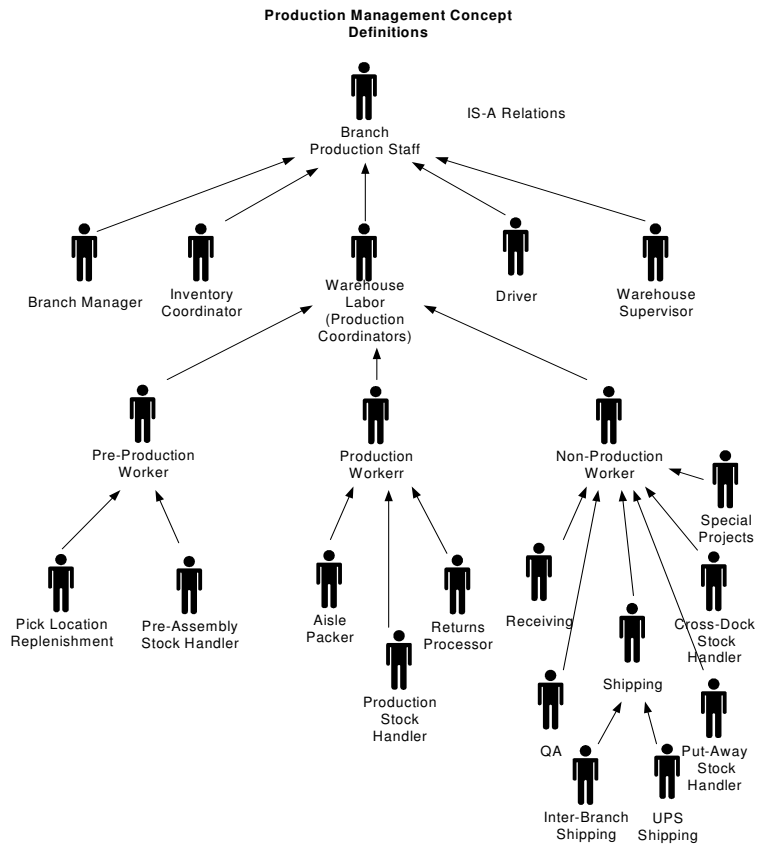


The concepts communicated in high-level diagrams, such as shown above, can be further decomposed into functional components and detailed specifications that are easily understood by technical and non-technical staff alike. Because staff members are already familiar with their business, they can now better see the complete picture and readily grasp new and advanced concepts such as inheritance (IS-A Relations) in the diagrams.

The staffing for the warehouse is clearly depicted in the object-oriented UML inheritance diagram (on the right) that shows the different roles assumed by warehouse workers.

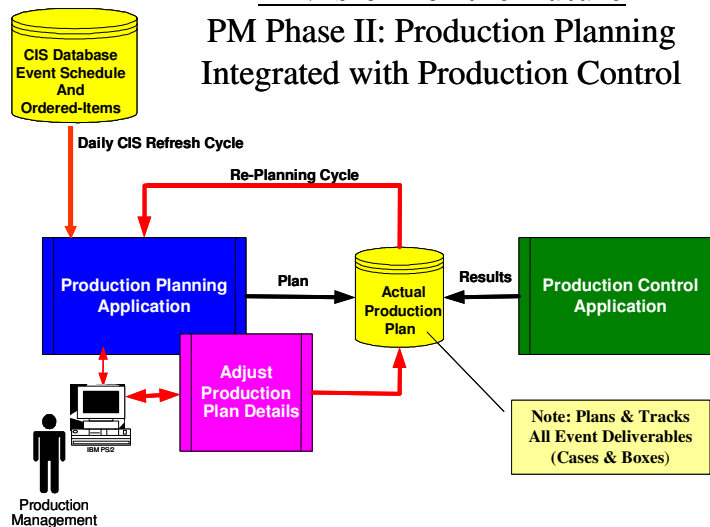
Likewise, the same approach can be applied to define other types of objects such as products or equipment to clearly specify the general types and subtypes.

The functional vision for a proposed system can be introduced at a high level (as shown below) and then subsequently shown in more detail as the functional design approach is further detailed.

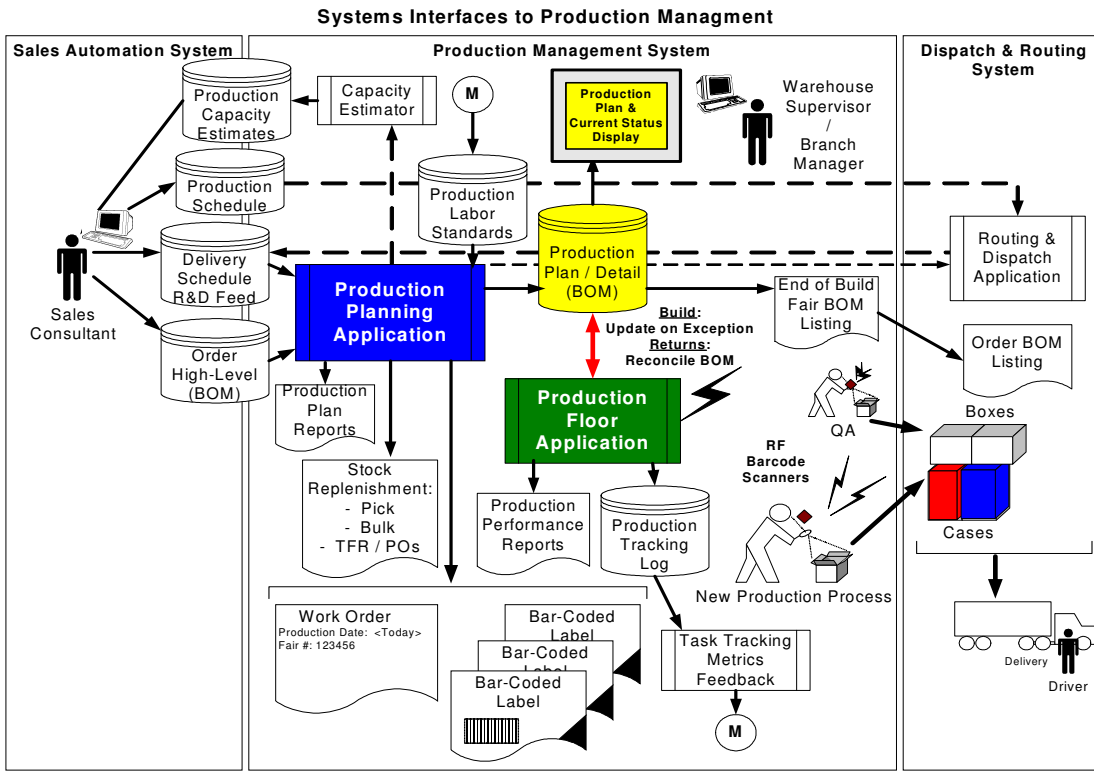


*PM Phase II Production Management System*

A Vision for the Future  
PM Phase II: Production Planning Integrated with Production Control



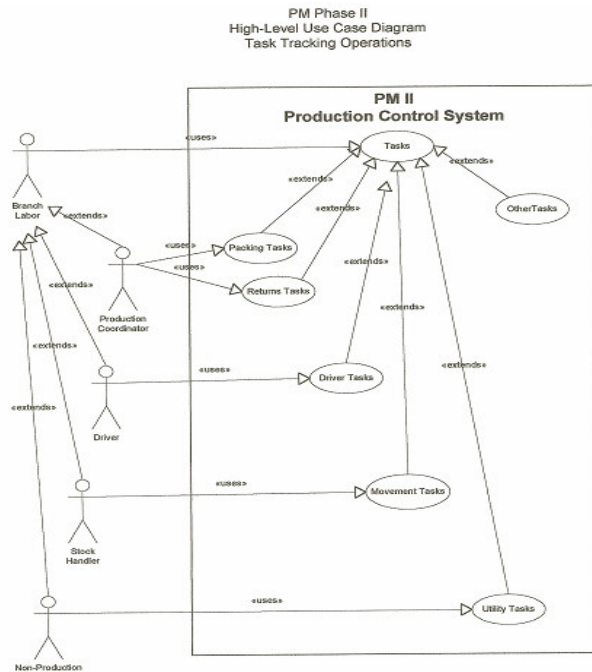
The functional design for a system as it affects different departments and functional organizations as well as the primary input and output information sources are shown in the example below.



The three separate vertical areas are called "Swirmlanes" in UML. The diagram above clearly shows the functionality and high-level process flow among: Sales Automation, Production Management and Dispatch & Routing whether you know UML or not.

As business processes are defined at additional levels of detail, "Use Cases" are a very effective way to identify business objects and the business operations that must be supported in the application for those objects as shown in the example on the right.

Use Case diagrams provide additional detail by showing which operations may be performed by each type of worker that was defined in the prior inheritance diagram. Use Case diagrams also employ inheritance relationships that are easy to understand by both technical and non-



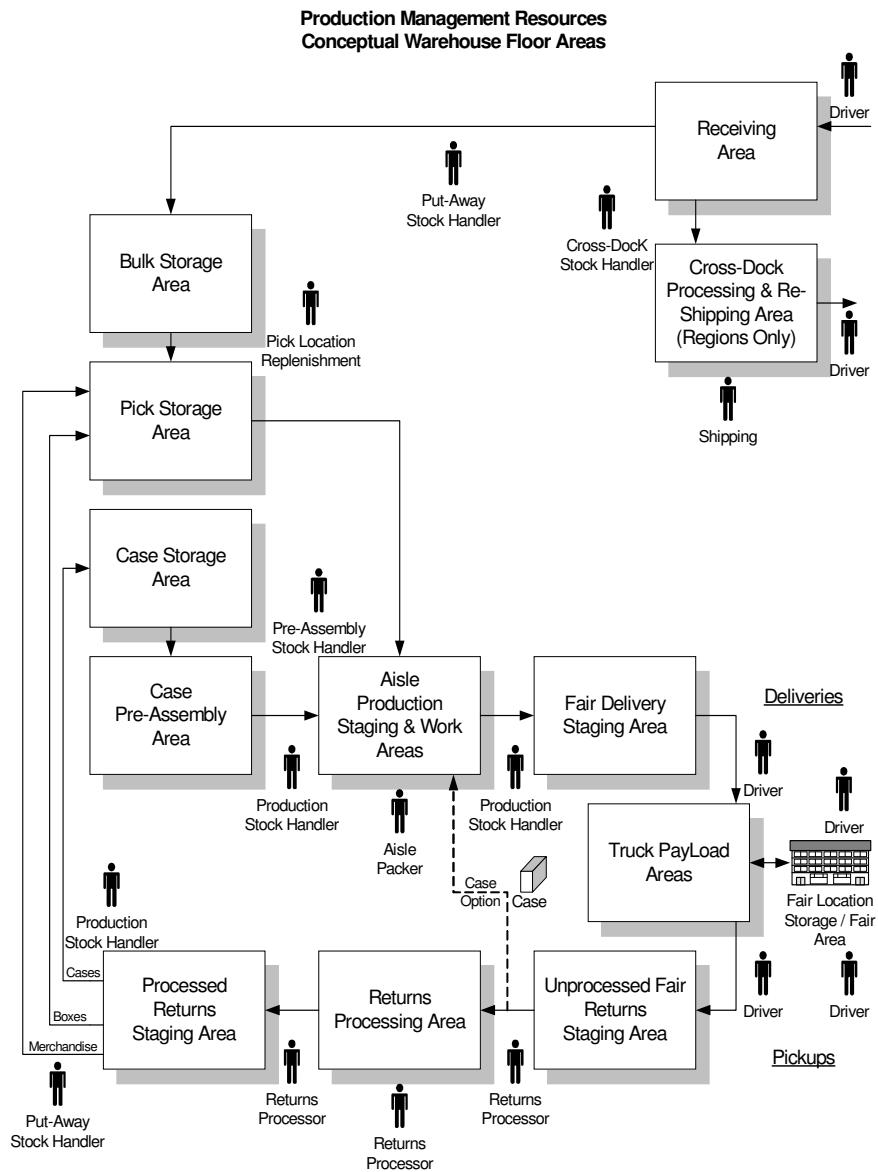
Note: High-Level Use Cases with Inheritance Relationships

technical staff. The clarity provided by these diagrams and methods allow functional users to catch omissions and mistakes such as allowing the packing and shipping tasks, but forgetting that you must also accept and process returns as a part of project reviews and discussions.

Use Case diagrams are especially important to object-oriented software development projects since they typically become a guide as to how the objects and programs are structured.

As the business analyst continues to understand the new manual and automated processes that will be integrated, a new functional organization for the many different warehouses begins to emerge as a diagram that aids in efficient discussion, review and innovation by the functional, technical and management staff involved (as shown in the diagram on the right).

These examples are just a few ways a business analyst's skill at understanding and creating effective pictures of your current process and the vision for your improved manual and automated business processes can be evolved methodically as a progressive series of steps.



Clear and effective communication of business facts and needs serves to get both technical and non-technical staff on the same page as well as lead to better project results.

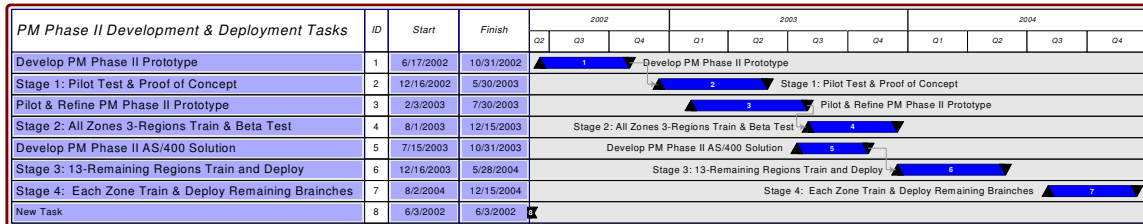
## Point North Consulting - Project Management

Once a project is identified and approved, the project planning, mobilization and execution can be professionally managed and monitored by a Point North Project Manager that can work with functional and technical staffs for the client as well as manage their vendors and external contractors.

The project manager plays a key role in driving the System Development Life Cycle (SDLC) methodologies provided to your organization or they may follow your organization’s SDLC and Project Management standards. Point North consultants can also be effective in helping organizations begin to use SDLC and Project Management methodologies by setting the example in your next project.

The Project Management Institute (PMI) is a respected and recognized organization that promotes professional “Best Practices”, Training and Certification for Project Managers around the world. Point North project managers are participants in this organization and can utilize PMI practices and SDLC methodologies as appropriate for each project.

Too often project management is regarded as managing a schedule, when it is so much more.



Sure we want to complete projects on time, but there are many more dimensions to consider when managing a project.

From a traditional schedule perspective, the project may seem to be half-done when you estimate that you are halfway to the project end date. From a PMI cost-based earned-value perspective, the Estimate to Complete (ETC) of 50% indicates you are half done – that’s when you have spent half the budget for the project. The added emphasis on a cost-based perspective in the project management discipline helps project staff keep their eye on the budget as well as the schedule and technical matters.

We have briefly covered the importance and nature of SDLC methodologies for understanding, specifying and controlling the approval processes and PMI methodologies which also include many dimensions for project planning and control of:

Schedule	Change Management	Project Startup
Cost	Risk	Quality
Resources	Project Coordination	Testing
Procurement	Communications	Acceptance
Scope	Reporting	Project Close

## Point North Consulting - Documentation & Online Help

With the fast pace of business and the crunch to complete projects on time, all too often important documentation and online help for systems gets neglected or it is not done at all leaving your investment at risk when key people that understand the system are no longer available. The typical developer is good at writing program code, but often has weak writing skills and little patience for writing.

As a result, documentation and/or online help are some of those tasks that there is no one available to do plus you can never seem to get around to doing it properly. This is where a Point North business analyst with strong authoring skills can be very effective.

The Point North Consulting business analyst knows how to quickly gain an understanding of business processes and automated systems and has the skills to organize the information into effective and well-structured documents such as user guides, administrator guides, etc.

Once an effective user guide is available, the Point North consultant knows how to convert it into an online help system for your web and/or client/server applications plus allow a common source for both printed documentation and online help to be shared minimizing on-going maintenance costs.

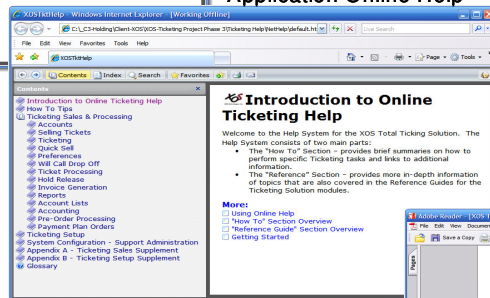
### Web-Based Healthcare Application Online Help



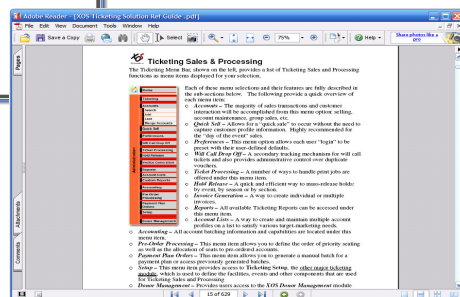
## Online Help & Documentation

- Microsoft HTML & Windows HELP Standards Used
- Adobe Acrobat PDF is an Industry Standard for distributing documentation

### Web-Based Ticketing Application Online Help



### Online Download / Viewing of Adobe Acrobat PDF



### Common Source for Both Online Help and User Manual

- **Avoids Double work to Author Help & Manual**
- **Minimizes Maintenance Effort plus Insures Consistency**

Once the initial documentation and/or online help project is completed, the hard part is over and the Point North consultant can explain how to maintain and extend the

documentation and help systems to in-house staff. With established formatted examples and conventions for documentation and help, your organization can begin to develop better writing skills that are incorporated into your IT development and maintenance processes by continuing to follow the examples set during the initial effort.

## Conclusion

This Business Process Optimization overview and case study has provided you with an introduction as to how some of the Point North Consulting Business Process Optimization services may be of benefit to your organization.

The companion Point North Consulting *Information Management Overview* white paper identifies many of the ways Point North can help you with Business Intelligence reporting and electronic dashboards as well as migration and support for Enterprise Legacy, CRM, ERP and eCommerce systems.

Likewise, the Point North Consulting *electronic Document Management (eDM) and Workflow (eWorkflow) Overview* white paper describes how an organization can begin to automate its business processes and progress to the selection, integration and implementation of a secure and efficient system for the capture, storing, retrieval, processing and sharing of all kinds of business documents in electronic file format as well as electronic workflow processing with real-time control of business operations for a single department or your entire enterprise.