



# PTO Workflow

## A SharePoint 2010 solution.

### Executive Summary

The client was very much worried about its existing Leave Management System where they faced issues in managing and approving leave applications of their employees. They required an automated process for that. To meet their business requirement, they wanted to develop a custom workflow named PTO (Personal Time Off) in SharePoint 2010 for their existing Leave Management System.

PTOReportsWebpart

PTO Reports

Search Criteria for PTO Report

Quarterly  Biweekly

Search Criteria for Quarterly PTO Report

Employee  Quarter  Year

Requester: SRIKANTA KUMAR BARIK

Title	PTO Start Date	PTO End Date	PTO Status	PTO Supervisor	Department
PTO for SRIKANTA KUM...	12/20/2010	12/24/2010	Pending	Raj Kumar Bhagat	Dep1
PTO for SRIKANTA KUM...	12/20/2010	12/24/2010	Pending	Raj Kumar Bhagat	Dep1

Requester: System Account

Title	PTO Start Date	PTO End Date	PTO Status	PTO Supervisor	Department
PTO for System Accou...	12/20/2010	12/24/2010	Pending	Raj Kumar Bhagat	Dep1

For an end-to-end solution they approached Mindfire Solutions. After a detailed analysis of the client's existing scenario and having understood their needs, Mindfire Solutions proposed to develop a SharePoint 2010 State Machine Workflow.

### About our Client

**Client** Material Handling Company | **Location** MA, USA | **Industry** Distribution & Order Fulfillment

### Business Situation

The customer had clear issues with the existing ways to manage their Personal Time Off for their organization. They required an automated process for managing and approving the leave application for each employee in their organization. The flow of the process to be followed is as follows:

- Requester Clicks on Request PTO.
- Fills out form. Submitting the form will initiate the workflow.
- Supervisor is notified about the task of approving the PTO.
- Supervisor approves.
- Requester is then assigned a task, and receives an e-mail notification of the task at the specified end of the PTO.



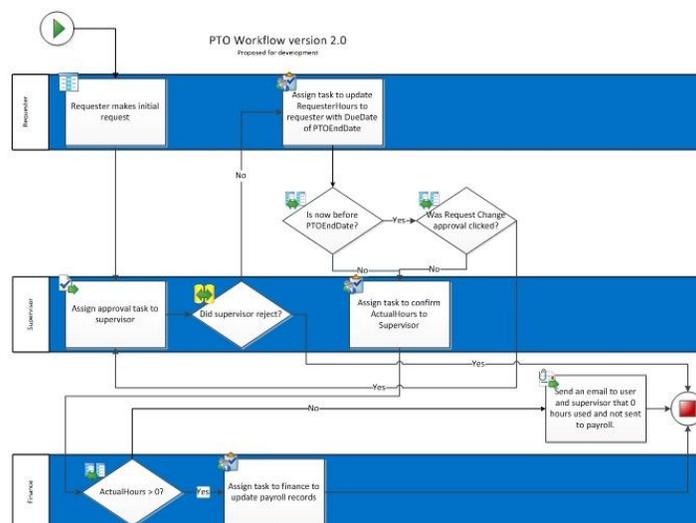
- Requester is then notified of approval with a link to the new task.
- Requester then confirms his actual hours via the task.
- Supervisor is notified to confirm actual hours.
- A task is assigned to Finance, but an e-mail notification does not occur for 21 days only if the task remains uncompleted.
- As part of payroll process, Finance enters information from their tasks.

They also had a special scenario wherein the Requester applying for leave can change the leave plan even though the leave application is already approved by the Supervisor. The client had a requirement for changing the Supervisor details of an employee, to generate the PTO Reports based on certain filter condition here.

### Solution Details

#### The Mindfire Solution

When the client approached Mindfire Solutions, our technical team understood their demands and started analyzing their existing workflow (PTO). Their existing application in SharePoint Designer 2010 which was developed earlier as per their business needs was unable to cope up with their requirements in certain scenarios. Therefore, Mindfire with the consent of the client came up with a custom State Machine Workflow development, for managing the PTO (Personal Time Off) Approval Workflow, for each individual employee in the organization. Mindfire also proposed the client to have a custom SharePoint application page for changing of Supervisor details as well as a custom Webpart to generate PTO Reports. The client was very much persuaded by the approach Mindfire took in, understanding, and providing a perfect solution to such a complex requirement and immediately instructed the technical team to work on it.





### Achievements

As per the client’s business needs and looking into their objective for developing the workflow, Mindfire’s SharePoint team developed few components in SharePoint 2010 as mentioned below:

1. PTO Workflow - State machine workflow in SharePoint 2010 having six independent states which used to interact with each other. These states are PTO Initial, Assign Task to Supervisor, Requester Update, Supervisor Confirm, Finance and PTO Complete.
2. PTO Reports Webpart – This is for generating the PTO Reports based on certain filter conditions. Two types of reports are generated. These are Biweekly & Quarterly.
3. Content types - We had custom requirement for designing the task form for each task. For this we developed custom content type for each task form.
4. Application page - Developed the Application page where the selected user or group can change the Supervisor details for an employee.

### Technologies

Microsoft SharePoint 2010, Microsoft SharePoint 2010 Workflow Foundation, Visual Studio 2010, ASP.Net 3.5, C#.Net, MS Visio 2010.

### Final Results

### Software System

**PTO Request Form (aka Vacation)**

Required Lead Time:  
 2 Days - PTO of 4 hours or less.  
 2 Weeks - PTO of 4 days or less.  
 4 Weeks - PTO of more than 4 days.  
 I hereby request paid time off

Department:

PTO Start Date:

PTO End Date:

Hours Used:

PTO Total Hours:

PTO Fixed Days:

PTO Employee Confirmation:  I confirm this entry matches my most recent payroll.

Additional Info:

PTO Supervisor:

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**Workflow Information**

Initiator: System Account      Item: PTO for System Account 1/2/2011-1/3/2011 (10hrs)  
 Started: 12/31/2010 8:44 AM      Status: In Progress  
 Last run: 12/31/2010 8:45 AM

If an error occurs or this workflow stops responding, it can be terminated. Terminating the workflow will set its status to Canceled and will delete all tasks created by the workflow.  
 \* Terminate this workflow now.

**Tasks**

The following tasks have been assigned to the participants in the workflow. Click a task to edit it. You can also view these tasks in the list Tasks.

Assigned To	Title	Due Date	Status	Related Content	Outcome
<input type="checkbox"/>	Kaushik Mohanty	PTO Initial Request from System Account 1/2/2011-1/3/2011 (10hrs)	1/3/2011	Not Started	(no title)

**Workflow History**

The following events have occurred in the workflow.

Date Occurred	Event Type	User ID	Description	Outcome
12/31/2010 8:44 AM	Comment	System Account	PTO 2.0 started on PTO ID 445	
12/31/2010 8:44 AM	Comment	System Account		
12/31/2010 8:44 AM	Comment	System Account	The PTO Approval email has been sent to supervisor Kaushik Mohanty	
12/31/2010 8:44 AM	Comment	System Account	Email PTO Request 1/2/2011-1/3/2011 (10 hrs) sent to SHAREPOINTsystem	



### *Customer Benefits*

The PTO Workflow results have clearly shown positive results. The primary goal of the customer was to have an automated process for PTO which our custom implementation met successfully within the stipulated time period. The client could manage their application in a much easier and effective way without any complexity.

### *Future relationship*

The client was very happy with the end result and rewarded Mindfire to develop a financial application for them.

