

Microsoft®


# ENGINEERING

*Microsoft Dynamics SL Project Management  
and Accounting for Engineering*

Engineering Challenges...Microsoft Solutions

 Microsoft Dynamics SL





*“Microsoft Dynamics and Project Server have transformed the culture of our company. Communication between employees has dramatically increased. Engineers used to focus almost exclusively on their own work, whereas today there is a lot of synergy between engineering groups. People realize that one person’s work might be relevant to a different project. And as a result, we’ve seen improvements in product quality. The ability Microsoft Dynamics SL gives us to drill down and instantly access the information we need is invaluable. Employees in manufacturing and project management have realized the greatest increases in productivity, working up to 50 percent faster.”*

Robin Ash,  
Controller,  
Intelligent Automation Corporation

CONNECTED

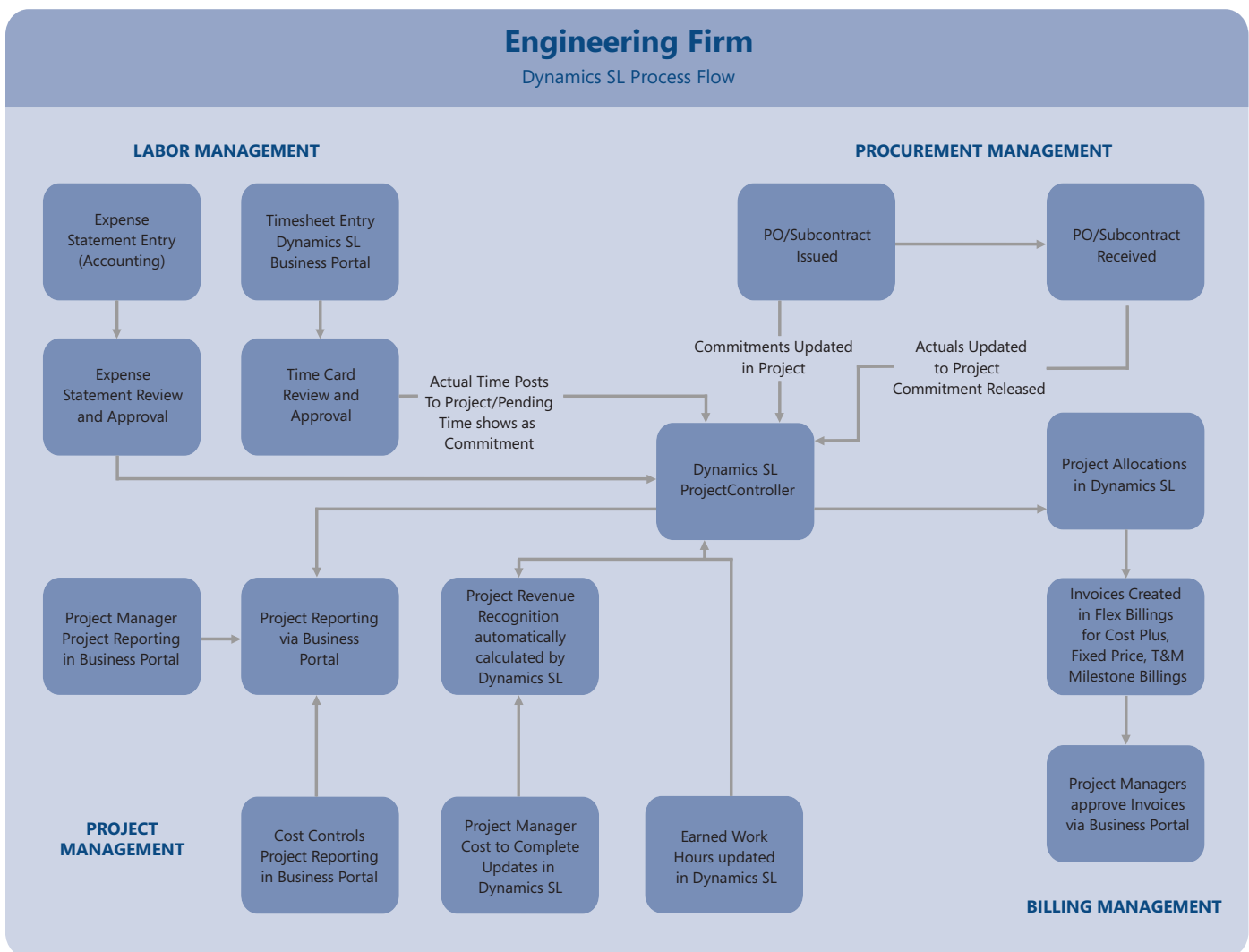
# Microsoft Dynamics SL

## DRIVE PROJECTS WITH A SOLUTION BUILT TO WORK THE WAY YOU DO

Utilize tools from Microsoft that allow you to take the everyday **Operational Activity** tasks you perform in day-to-day project management and turn them into the catalyst used to drive **Financial Tracking** and **Decision Making** information.

Whether your Engineering firm is performing services only or performing Engineering, Procurement and Construction, Microsoft Dynamics SL understands your unique needs and has the tools you need to run your business. Join other Engineering firms that have relied everyday on Microsoft Dynamics SL and Microsoft Office SharePoint to manage their project-driven organization.

## Engineering Process Flowchart for Microsoft Dynamics SL



# Labor Management

## Operational Activity

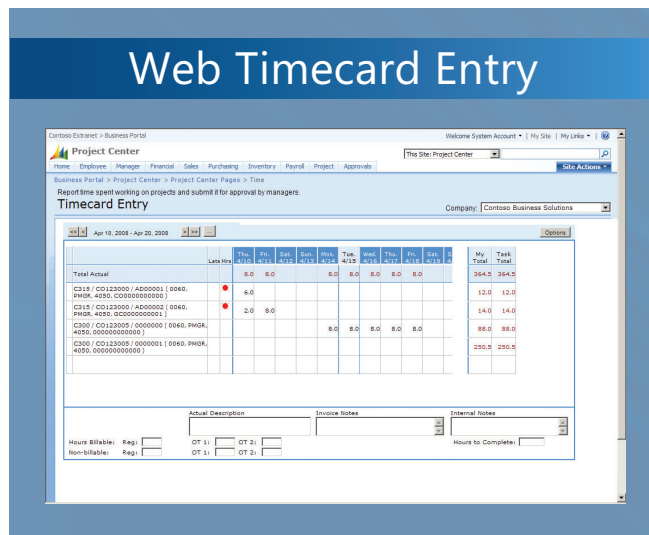
- Engineering personnel will provide daily status updates on their projects to communicate status, percent complete and concerns by task by entering this information online via SharePoint Business Portal. Microsoft Dynamics SL workflow is designed to allow timecards and expense statements to be routed for approval automatically from the engineering resource to the project manager and/or supervisor. This communication occurs for:
  - Timecard Entry
  - Expense Statement

## Financial Tracking

- Project managers are able to analyze labor for both labor commitments and labor actual hours and costs. This information is available to project managers and supervisors for:
  - Labor commitment analysis
  - Labor Reporting by Discipline
  - Payroll Reporting and Processing
  - Labor Costing (standard, actual or burdened)
  - Budget versus Actual Comparisons
  - Estimate to Complete Analysis
  - Forecast to Completion Analysis

## Decision Making

- Engineering managers are able to make real-time decisions based on up-to-date information, rather than having to wait two weeks for payroll processing to occur. Engineering supervisors and project managers know immediately whether the project is behind schedule or ahead of schedule.



Capture time information, even from employees working remotely, with data automatically routed to the appropriate managers.

# Procurement Management

## Operational Activity

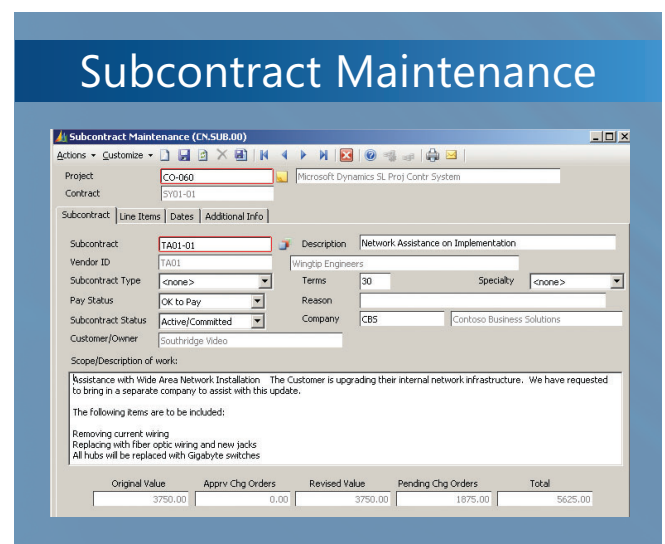
- Engineering procurement personnel may procure materials or engineering subcontracted resources daily using Requisitions, Purchase Orders and/or Subcontracts. Microsoft Dynamics SL workflow is designed to allow requisitions and subcontracts to be routed for approval automatically based on the rules of the project, department or company. The procurement activity for projects occurs for:
  - Item Requests
  - Requisitions
  - Purchase Orders
  - Subcontracts

## Financial Tracking

- Engineering managers are able to analyze material and subcontract labor commitments as well as actual material and subcontract labor hours and costs. This information is available to project managers and supervisors as soon as it occurs to allow for:
  - Material commitment and actual analysis
  - Subcontract Labor commitment analysis
  - Subcontract Labor Reporting by Discipline
  - Subcontract Labor Costing (standard and actual)
  - Budget versus Actual Comparisons
  - Estimate to Complete Analysis
  - Forecast to Completion Analysis

## Decision Making

- Engineering managers are able to make real-time decisions based on up-to-date information, rather than having to wait until all vendor invoices for materials or subcontracts hit the project; Project managers have the information from the time it is a commitment until the commitment is an actual cost to the project.

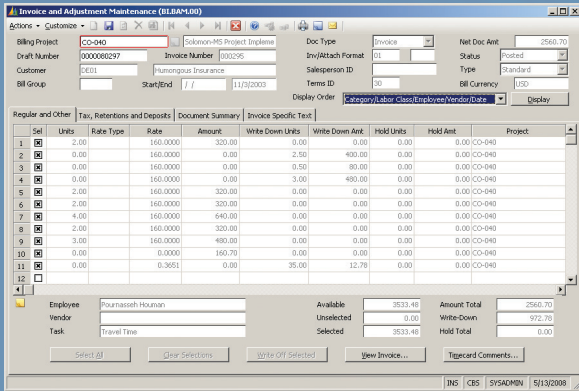


Manage contract documents, change orders, and disbursements to optimize project cash flow and profitability.



# Billing Management

## Flexible Billings Control



Create, adjust, maintain, and view in-process invoices or view billed invoices at a glance.

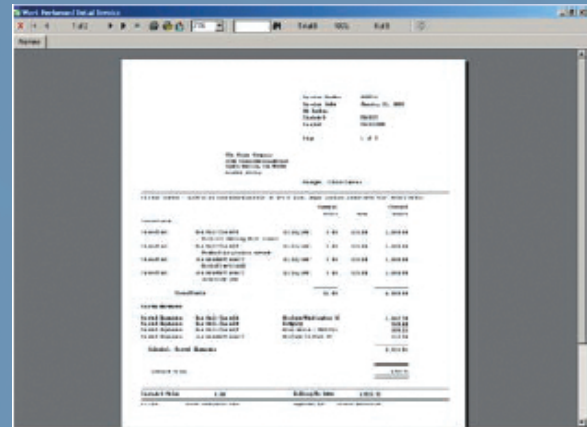
### Operational Activity

- Project Managers will regularly update Estimated Costs to Complete, Estimate at Completion or Forecast at Completion costs. The purpose of this activity is to update Project Stakeholders of project performance. By using Microsoft Dynamics SL for these updates, Project Billing is allowed to happen automatically rather than relying on Microsoft Excel or other outside billing systems. Microsoft Dynamics SL will create billing records for the following types of billing that can occur on projects:
  - Cost Plus
  - Time and Material
  - Time and Material with a Maximum
  - Fixed Fee
  - Other billing types based on rates sheets or multipliers

### Financial Tracking

- Accounting managers are able to forecast profitability and cash performance because the project billing is created based on the operational activity of the Engineering firm. This information is available to project managers, accounting managers, executives and supervisors for:
  - Accounts Receivable Aging by Project
  - Accounts Receivable Aging by Customer
  - Unbilled Accounts Receivable Analysis
  - Communication of past due Accounts Receivables (automatic notification is available to Project or Business Managers)
  - Budget versus Actual Comparisons
  - Estimate to Complete Analysis
  - Forecast to Completion Analysis

## Flexible Invoice

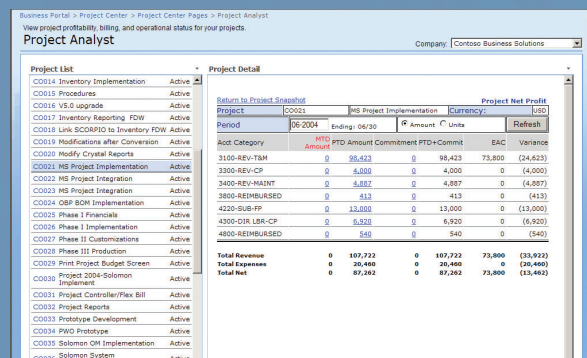


Invoice customers with different types of services and fees—all at one time.

### Decision Making

- Backlog reporting allows for automatic analysis of Backlog based on actual billing compared to Contract value for all projects. This ensures that all decisions are being made based on either Unbilled or Actual Billed values on projects. Project managers can make real-time decisions because all billing information is updated as operational activity occurs.

## Project Analyst



Using Business Analytics for Microsoft Dynamics SL, advanced reporting and analysis of financial results and operational activity is available to truly understand what is happening within projects and the business overall.







# Visibility, Insight, and Control

Web-based access to real-time project information helps project managers stay in control so they can deliver to the client's satisfaction, profitably.

## Project Communicator

**Project Communicator**

- Draft # 000080663 is Completed** 2/21/2005  
Draft # 000080663 through 000080663 are Completed for Billing Project: CO002  
[Approve](#) [Document Approvals](#)
- Budget revs awaiting approval.** 2/21/2005  
[Approve](#)
- Timecards awaiting approval.** 2/21/2005  
[Approve](#) [Document Approvals](#)
- Concerns about cost overruns..** 4/11/2008  
I am concerned about the overruns on Project CO-003. We are already over 50% overbudget and schedule wise we are 35% complete. We need to identify the plan to bring back into alignment costs and schedule.
- Project Activated** 4/11/2008  
A project has been Activated in Dynamics SL, ID = CO79. Transactions can now be recorded against it.

Microsoft Dynamics SL will send alert messages to prompt people to review exceptions or take action. Project alerts help ensure that key project issues are addressed promptly.

## Document Approvals

**Document Approvals**

Time and Expense Reports Invoices

Filter by: All

Customer: [ ]

Clear Actions Set all to Approve Set all to Reject Set all to Delegate Commit Action

Customer	Project	Draft #	Preparer	End Date	Amount	Currency	Action to take
A. Datum Corporation	CO062	000080647 details	SYSADMIN	4/11/2008	\$26,147.50	USD	[No Action]
A. Datum Corporation	CO062	000080668 details	SYSADMIN	4/11/2008	\$29,238.50	USD	[No Action]
A. Datum Corporation	CO062	000080669 details	SYSADMIN	4/11/2008	\$593,325.00	USD	[No Action]
A. Datum Corporation	CO062	000080670 details	SYSADMIN	4/11/2008	\$518,750.00	USD	[No Action]

Review, comment on, and approve or reject draft invoices, time cards, and expense reports online in one easy screen to keep cash flow moving.

## Project SharePoint Site

Microsoft Dynamics SL - Project CO123000

Welcome System Account | My Site | My Links

This List: Flexible Billing Invoice

### Flexible Billing Invoice

Type	Name	Modified	Modified By
Flexible Billing Invoice	Flexible_Billing_Invoice_CO123000_02-27-2008_000086	2/27/2008 6:39 AM	System Account
Flexible Billing Invoice	Flexible_Billing_Invoice_CO123000_02-27-2008_000087	5/13/2008 8:40 AM	System Account
Flexible Billing Invoice	Flexible_Billing_Invoice_CO123000_02-28-2008_000088	5/13/2008 8:40 AM	System Account

Create document repository sites to make it easier to store and share project-related documents. In this example, invoices are automatically sent to these sites along with engineers' notes and other documents.

## KPI Alerts

**KPI Alert Web Part**

- Net Sales Period Activity - CBS  
This YR(Fis)
- Net Income Period Activity - CBS  
This YR(Fis)
- Debt to Equity Ratio - CBS  
This YR(Fis)
- Total Cash Period Activity - CBS  
This YR(Fis)
- Net Receivables Period Activity - CBS  
This YR(Fis)
- Quick Ratio - CBS  
This YR(Fis)

Bar Chart: Gross Profit Margin - CBS

Year	Actual	Target
2008	100%	100%
2009	100%	100%

At a glance, view key project billing and financial performance indicators.

## Project Activity View

Activity By Resource

Resource	Total	Jan 2005	Feb 2005	Mar 2005	Apr 2005	May 2005	Jun 2005	Jul 2005	Aug 2005	Sep 2005	Oct 2005	Nov 2005	Dec 2005
Jim Kelly	100.0%	30.7%	28.3%	6.8%	1.0%								
Paul Neal	2.9%	0.6%											
Eric Lang	0.5%												
Christine Keach	30.5%	28.2%	2.4%										
Christine Keach	0.6%												
Christine Keach	6.2%												
Christine Keach	32.8%												
Christine Keach	1.9%												
Christine Keach	24.1%												
Christine Keach	0.3%												

Realization Rate By Account

Month	Rate
Jan 2005	88.4
Feb 2005	116.5
Mar 2005	113.7
Apr 2005	77.0
May 2005	88.5
Jun 2005	84.5
Jul 2005	85.5

Activity by Person

Person	Activity
Jim Kelly	1,000
Paul Neal	2,700
Eric Lang	1,031
Christine Keach	3,411
Christine Keach	253

Review project activity by type and person, as well as realization rates over time.



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