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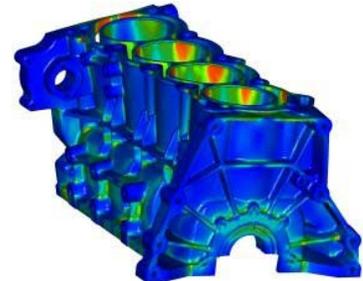
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PTC Product Focus

Pro/MECHANICA Structure

Pro/MECHANICA Structure allows design engineers to evaluate, understand, and optimize the static and dynamic structural performance of their designs in a real-world environment. Precise representations of CAD geometry, and unique adaptive solution technology provides fast, accurate solutions automatically - solutions that help to improve product quality, while decreasing costs associated with extended development times and ineffectual prototypes. Pro/MECHANICA Structure also offers specialized analyses that automatically create fully associative FEA meshes for products like NASTRAN. Mechanica offers end-to-end interoperability with PTC products, data management tools, and other CAD data.

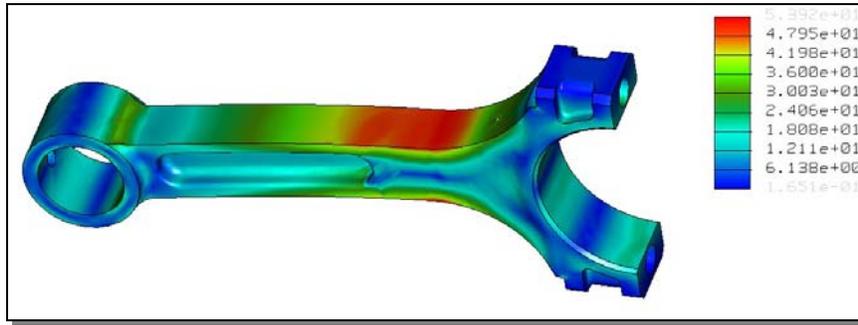


By operating directly on the Pro/ENGINEER model, Pro/MECHANICA Structure eliminates data transfer issues while delivering the power of parametric optimization. Multi-disciplinary simulation capabilities additionally enable simultaneous structural, thermal, and motion design optimization. Pro/MECHANICA Structure provides engineers with associative, parametric, interoperative, and Internet centric modeling and simulation capabilities. Several different types of analysis can be performed using Pro/Mechanica Structure:

Linear Static Analysis

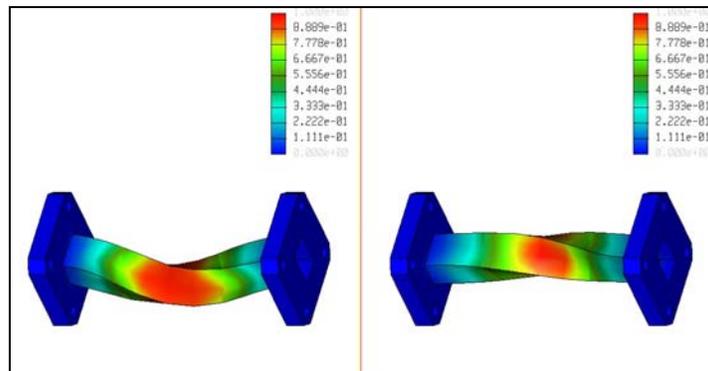
Used to calculate deformations, stresses, and strains on your model in response to specified loads and subject to specified constraints.

A static analysis can tell you if the material in your model will stand stress and if the part will break (stress analysis), where the part will break (strain analysis), how much the shape of the model changes (deformation analysis), and the effects of loads on any contact regions (contact analysis).



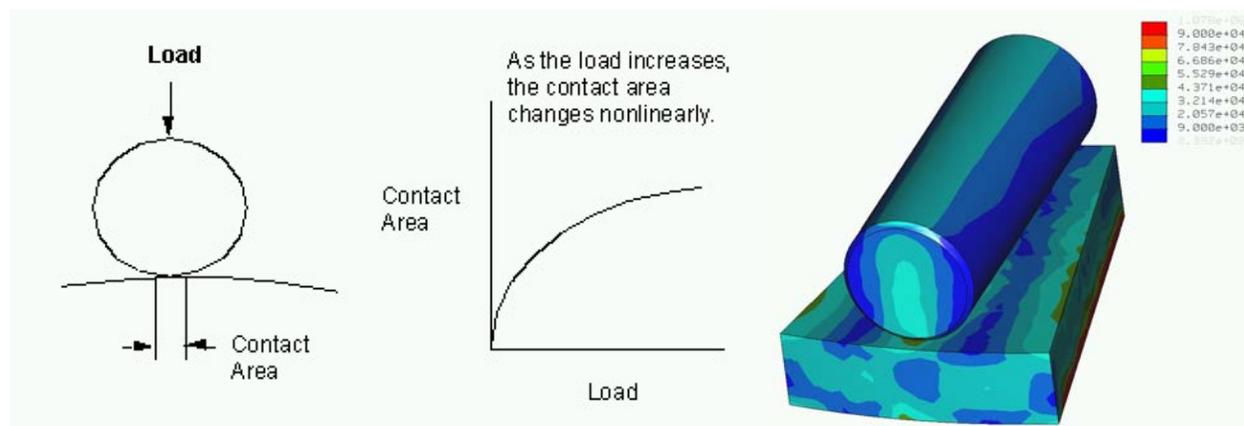
Modal

Used to calculate the natural frequencies and mode shapes of your model. You can see the natural frequencies of your model when subjected to time-dependent and/or oscillatory/vibration loads.



Non-Linear Contact

Used to observe how displacement, stresses, contact pressures, and/or measures affect the contact regions of your model. During a contact analysis, Pro/MECHANICA monitors any changes to the surfaces of your model that are defined as contact regions. Pro/MECHANICA also calculates the total contact area of all contact regions in your model and the maximum contact pressure over all contact regions.



Linear Buckling

Buckling analysis is used to calculate the critical load at which a structure will buckle, as well as the model's stresses, strains, and deformations at the onset of buckling.

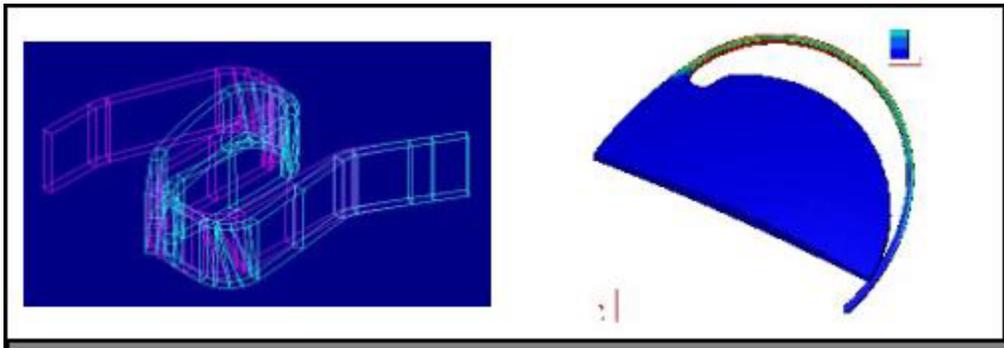
Pre-stress-Modal and Static

Used to simulate how a pre-stiffened or pre-stressed structure affects your model's deformations, stresses, and strains.

A pre-stress static analysis determines the strengthening or weakening of the part due to the applied loads. For example, you can run a pre-stress static analysis on a ski lift to determine the strengthening or weakening caused by a pretension cable.

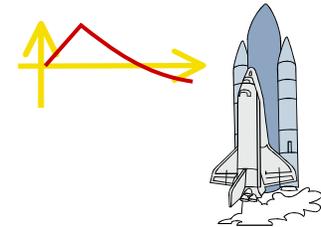
Non-Linear Large Displacement

Use large deformation static analysis if you want to calculate geometrically nonlinear results.

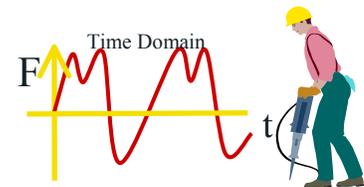


Dynamic Time/Frequency/Shock/Random

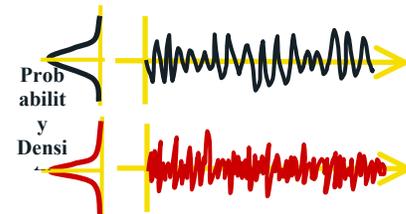
In a dynamic time analysis, Pro/MECHANICA calculates displacements, velocities, accelerations, and stresses in your model at different times in response to a time varying load. Use dynamic time analyses if you are interested in transient or non-steady forced response.



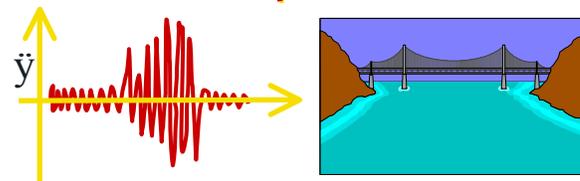
In a dynamic frequency analysis, Pro/MECHANICA calculates the amplitude and phase of displacements, velocities, accelerations, and stresses in your model in response to a load oscillating at different frequencies. Use dynamic frequency analyses if you are interested in a steady-force response, for example, cyclic loading.



In a dynamic random analysis, Pro/MECHANICA calculates the power spectral densities and RMS values of displacements, velocities, accelerations, and stresses at points in your model in response to a load of specified power spectral density (PSD).



In a dynamic shock analysis, Pro/MECHANICA calculates maximum values of displacements and stresses in your model in response to a base excitation with a specified response spectrum. Use dynamic shock analysis if you are interested in subjecting your model to earthquake-like motion.

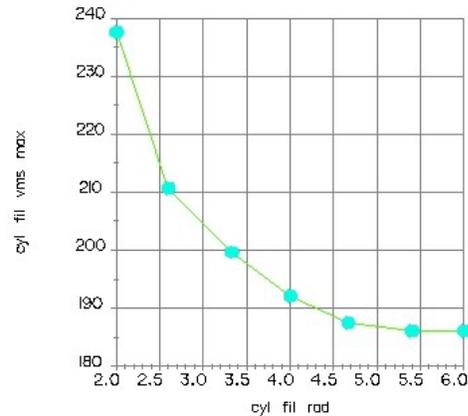
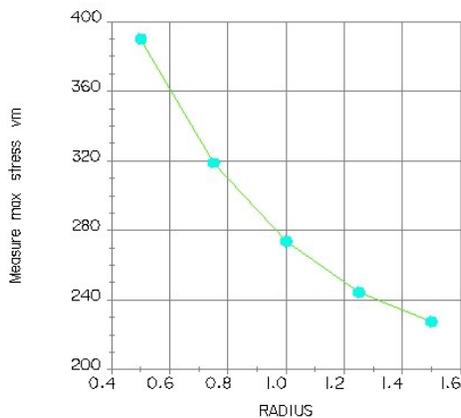


**** Fatigue Advisor is an optional module**

Not only can parts and assemblies be analyzed in the current design state, but also Pro/Mechanica can perform a variety of design studies such as global sensitivity studies, local sensitivity studies, and optimizations.

Global Sensitivity Studies

Select one or more sensitivity parameters to vary over a range and then review graphs of desired outputs as a function of that changing parameter.



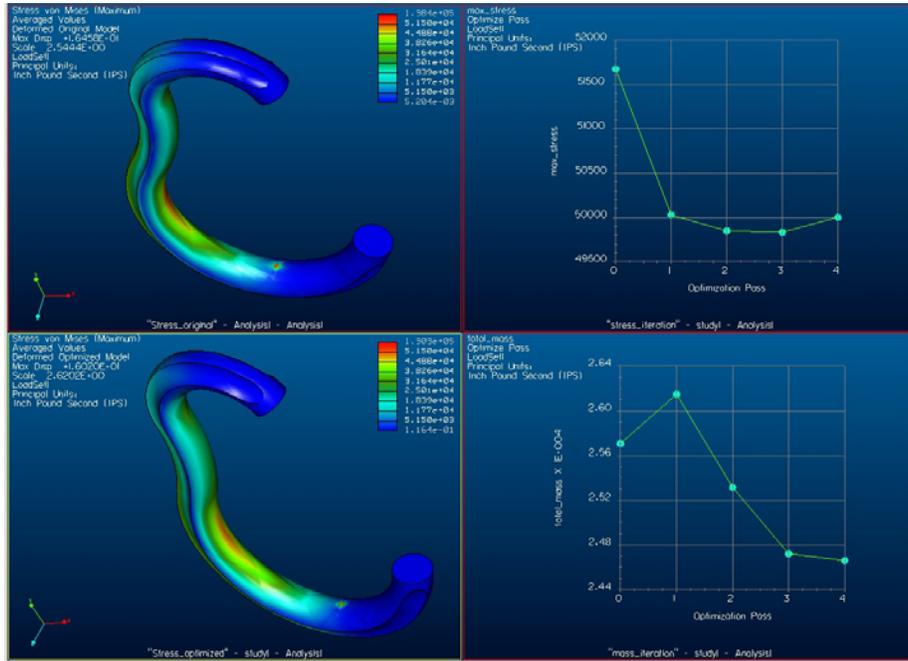
Local Sensitivity Studies

Calculate local sensitivity results at a small offset from the nominal parameter value and visualize whether varying a certain parameter has a significant effect.

Optimization

Optimize designs by specifying multiple design parameters and a design goal in terms of cost, mass, displacement, stress, reactions, strain, frequency, or any other aspect of the design. For example, the mass of an assembly could be minimized while keeping stress, first modal frequency, and maximum displacement within limits.

In the example below, Pro/Mechanica was actually able to reduce the weight of the body of this carabineer while at the same time making it LIGHTER.



Benefits of Pro/Mechanica Structure

- Fully Integrated with Pro/Engineer
- Easy to Use
- Sensitivity and Optimization Studies
- Early Insight and Improvement of Designs
- Reduces Reliance on Prototypes
- Minimizes Costly Over Design
- Accurate Results

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Windchill PDMLink – Product Data Management

Windchill PDMLink gathers and administers all data relevant to a product throughout its lifecycle, which can lead to enormous time and cost savings during product introductions, changes and adaptations.



Figure 2: Windchill PDMLink is the single source of product information for the enterprise

With Windchill PDMLink, team members can instantly get their hands on the data they need. It accommodates multiple design locations and users in all departments. And yet, it's more than a passive repository. It's an intelligent correspondent that provides each user with information and functionality specific to them, increasing productivity and speeding workflow. Visualization is woven throughout, providing corresponding viewables for all data, enabling team members to readily understand and interpret what they see. Further, its Web-based access empowers everyone to make smart decisions faster. It removes barriers that once impeded productivity and creativity, and allows people to focus less on looking for and acquiring information and more on using it.

Windchill PDMLink is a robust, highly usable, quick-to-implement product data management solution for manufacturing companies of all sizes. It supports key product development processes including configuration, release, and change management. The out-of-the-box functionality, usability, and relative ease and speed of technology implementation of this solution sets new standards in the marketplace. Furthermore, Windchill PDMLink makes product information easy to find and accessible to all enterprise players (i.e., marketing, engineering, procurement, manufacturing, sales, support) who need it to complete their work and make better decisions.

Windchill PDMLink supports these critical product development processes:

Design—provides a blending of Pro/ENGINEER® and Windchill® technologies into powerful solutions that help manufacturers create innovative products, collaborate with participants throughout the value chain, and control their product development process. Controlling the Pro/ENGINEER workgroup environment and providing tools that allow PTC customers to leverage Pro/ENGINEER product information throughout the enterprise are cornerstones of this strategy. *Windchill product data management solutions, Pro/INTRALINK, and Pro/ENGINEER are integral and complementary components of this strategy.*

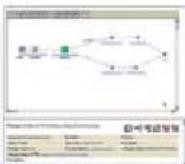
Configuration management—provides robust technology for documenting and managing the configuration of the product in forms that everyone can understand. Not only can product configurations be captured automatically from CAD geometry, but also all of the necessary enterprise variations are supported with multiple views, substitute and alternate parts, and multiple effectivity types.

Change management—utilizes a proven process for controlling the activities required to document and implement changes. The Windchill PDMLink change process provides a controlled environment for delivering unambiguous problem reports, engineering change requests, and engineering change notices to the right people at the right time. With fast, easy access to the latest, most accurate product information by everyone involved in the product development process Windchill PDMLink ensures that everyone has what they need to accurately assess the impact of a change and effectively plan and manage its implementation – which reduces the likelihood of costly mistakes.

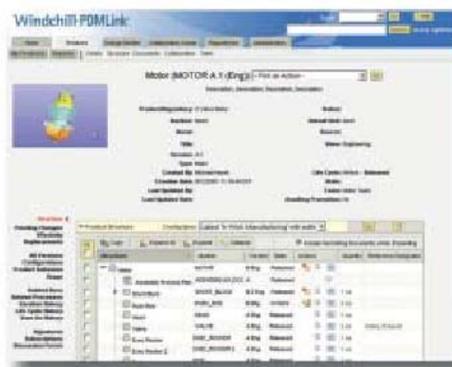
Release to manufacturing—controls the process of design review and approval by delivering the right information to the people who need it. Decisions and comments are tracked providing a complete audit trail that documents critical development decisions.



Product structures can be easily created and manipulated through robust visualization capabilities.



Using an out-of-the-box, CMI certified change management process, manufacturers can adopt best practices quickly.



Windchill PDMLink weaves visualization throughout so you can quickly see and use all part information, including the product structure, pending changes, effectivity, and version history.



The Windchill PDMLink change monitor displays the status of problem reports, change requests, and change notices.



The home page provides an up-to-date view of tasks, current work, and subscription, so users can manage their day more effectively.

Where once only the very largest manufacturers embarked on a PDM implementation, today Windchill PDMLink offers a quick start, affordable and comprehensive solution for manufacturers of any size and delivers the comprehensive functionality every manufacturer needs to leverage its product-related IP right out of the box. Specifically, Windchill PDMLink provides:

Product structure management—the most robust functionality to create and manipulate product structures, including bill of material (BOM) markup, simultaneous manipulation of product structure and product visualization, and the ability to share markups and annotations for the purpose of collaboration.

Document management – any type of product documentation can be managed and controlled by Windchill PDMLink no matter what application is used to create it. Microsoft Office® applications are especially well integrated. Office users have complete access to Windchill PDMLink controlled data and functionality right from within the Office application session.

Workflow-driven processes —predefined change management workflow with clear steps, tasks, forms, roles and decision points. The Windchill PDMLink change system is certified by the Institute for Configuration Management's (www.icmhq.com) CMII standard.

Interoperability—robust integration with leading MCAD systems, including Pro/ENGINEER®, AutoCAD®, CATIA®, SolidWorks®; ECAD systems; and other design engineering tools.

Fast implementation—the Quick Start program, a predefined, fixed price, implementation package, enables manufacturers to get Windchill PDMLink running and delivering benefits in as few as five weeks.

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Tips of the Week

Converting a Solid Part to a Flattened Sheetmetal Part

This tip describes the procedure to convert a solid model created in Pro/ENGINEER Part mode into a flat sheetmetal model in Pro/ENGINEER Sheetmetal mode.

1. In Pro/ENGINEER Part mode, create a solid part model as shown in Figure 1.

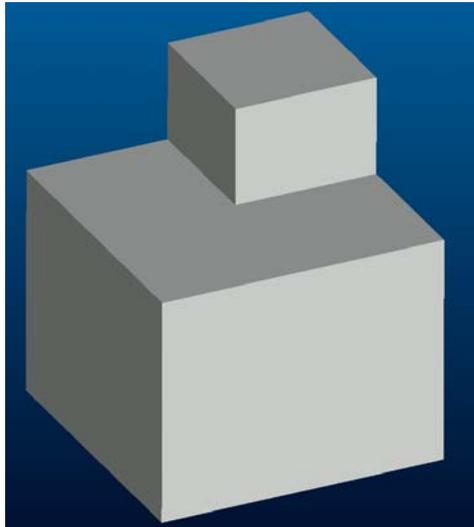


Figure 1

2. Convert the model into a Sheetmetal part by creating a shell from the model. Select **Application, Sheetmetal, Shell** and select the surfaces to remove. See Figure 3.
3. To unbend the model the geometry has to be developable. To convert the geometry so that it can be developable, create conversion features such as point relief, edge rip, bend or corner relief on the model. Select **Insert, Conversion...**, and select the base of the protrusion to remain fixed.

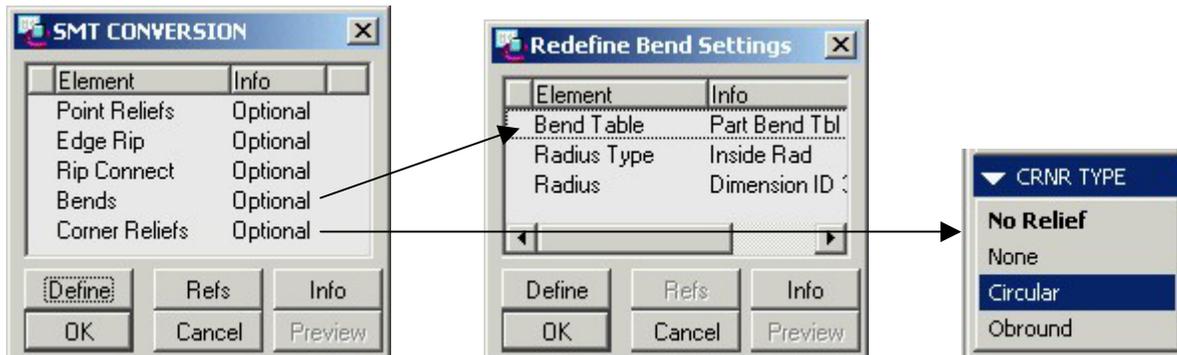


Figure 2

To convert the part, it is as simple as going from top to bottom in the SMT CONVERSION dialog box.

- Point Reliefs** – Select or create any points along an edge where there will be a rip.
- Edge Rip** – Select the edges that will be ripped. See Figure 3.
- Rip Connect** – Connect edge rips that do not have common vertices. See Figure 4.
- Bends** – modify bend attributes such as bend allowance, radius side, and dimension.
- Corner Relief** – Specify what type of corner relief, circular or obround.

4. Select **Edge Rip, Define, Add** and select the three edges indicated in blue in Figure 3.

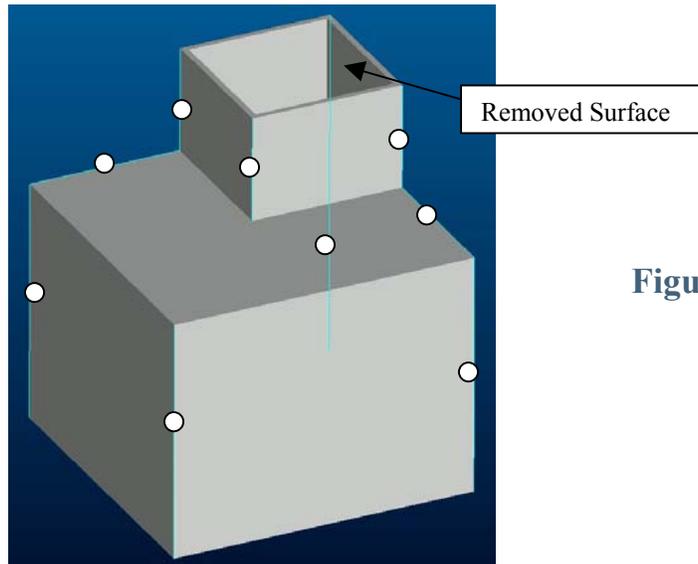


Figure 3

5. Select **Rip Connect, Define, Add**, select the two vertices indicated in Figure 4.

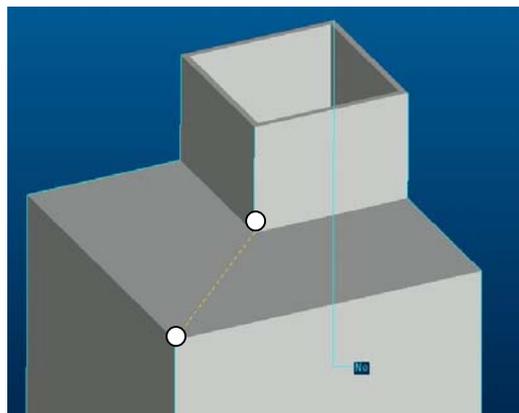


Figure 4

6. Select **Corner Reliefs, Define, Add All, Circular, Thickness*2, Done Sets**.
7. Select **OK**, and the model should appear similar to the one shown in Figure 5. Notice how all of the sharp corners now have radius.



Figure 5

8. Now the model is developable, unbend the model. Select **Insert, Bend Operation, Unbend... Regular, Done**, select the bottom surface to remain fixed while unbending. Select **Unbend All, Done, OK** and the model should appear as in Figure 6.

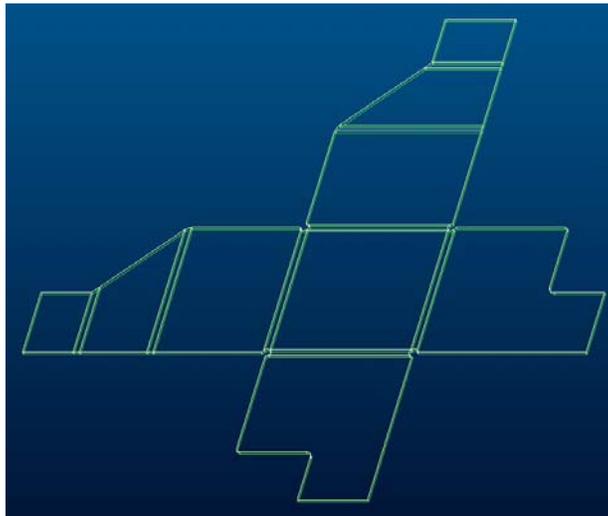


Figure 6

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Tips of the Week

Managing Your Worklist Views in Windchill & PDMLink

Is your Worklist getting full? Is it hard to find which tasks should take priority? Are you familiar with the ability to configure your own custom Worklist Views similar to how you may use views to manage information in Microsoft Outlook? In the next couple of paragraphs you will find out how to create your own views to manage your tasks better.

Task	Subject	Activity Start	Status	Priority	Deadline	Team
<input type="checkbox"/> Analyze Problem Report	Problem Report 00025 (Cheaper rack available)	5/02/2002	Potential	Highest	5/03/2002	Team (Cheaper rack available)638
<input type="checkbox"/> Analyze Problem Report	Problem Report 00027 (Starter having trouble)	5/03/2002	Potential	Highest	5/06/2002	Team (Starter having trouble)641
<input type="checkbox"/> Analyze Problem Report	Problem Report 00026 (Engine displacement wrong)	5/03/2002	Potential	Highest	5/06/2002	Team (Engine displacement wrong)639

Figure 1 - PDMLink Worklist

Figure 1 shows a standard worklist that includes pieces of information such as Task, Subject, and Deadline. These fields can be configured and saved for later user. **Balloon 1** above notes that the current view is set to the default SortByStart. If you want to create a different view layout with different fields and sort options, simply select Custom Views as shown in **Balloon 2**. This will bring you to **Figure 2**. Note that **Balloon 3** highlights how you can access online help which will guide you through setting up your own Custom Views.

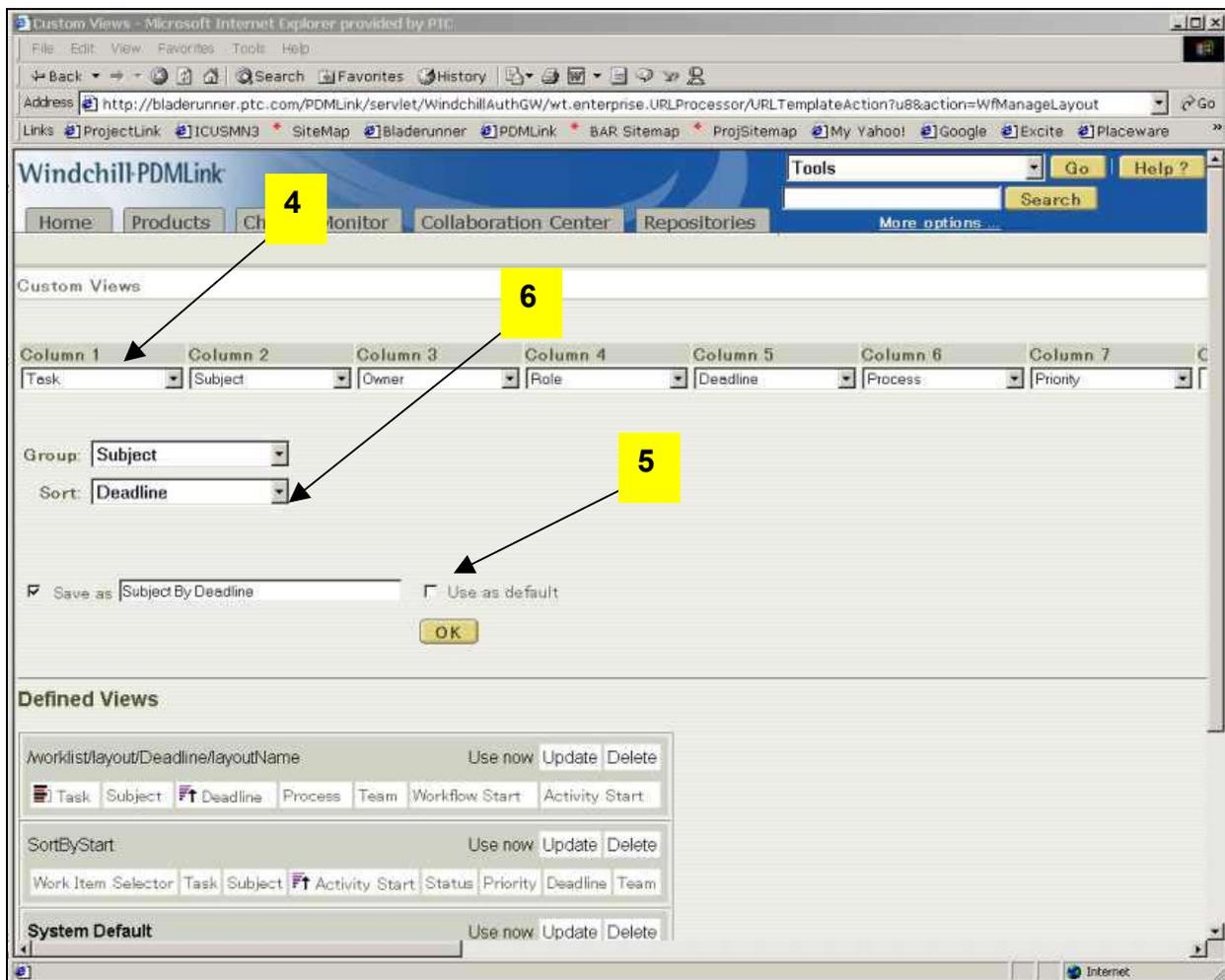


Figure 2 - Defining Custom Views

From within the Custom Views screen, **Balloon 4** highlights how you can choose a number of columns in which to show up in your newly defined views. The items available for selecting here are as follows;

Task, Subject, State, Status, Priority, Deadline, Team, Owner, Process, Role, Activity Start, Workflow Deadline, Activity Description, Workflow Start, Workflow Description, Required, Type, Group

Once you have all of your desired fields selected, you can choose how you want to have the work items Grouped and Sorted. In the above example, I want all work items grouped by the Subject Item (a.k.a. Primary Business Object) and sorted by Deadline. I will then save this view to **“Subject By Deadline”** so I can easily access it later from the dropdown list as shown in **Balloon 1**. Note that I can also set this to be the default view of my worklist by checking **Balloon 5**. Once finished, select **OK**. Your newly defined worklist will look like [Figure 3](#).

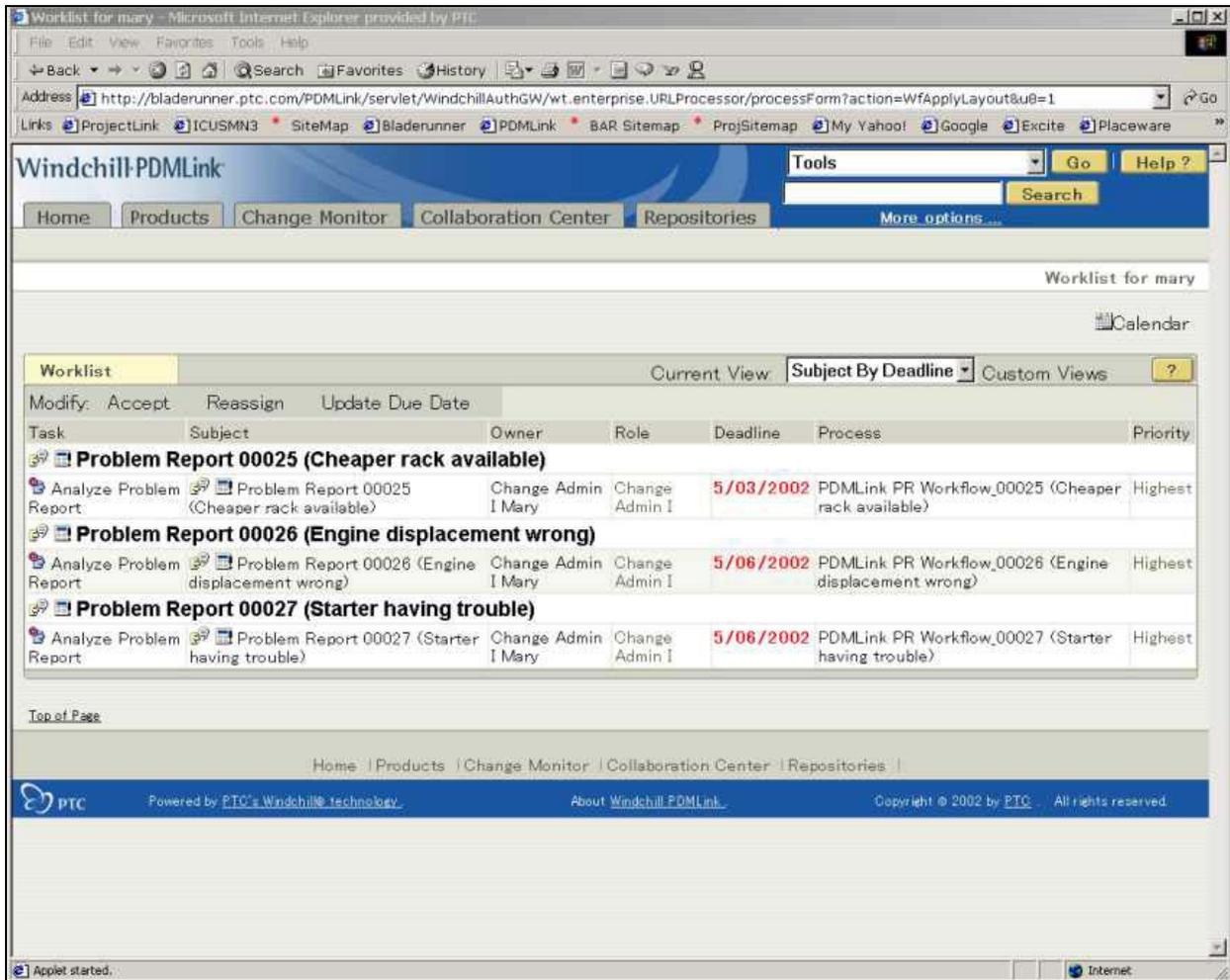


Figure 3 - New Worklist View

****NOTE to Workflow Administrators****

If you are a Workflow Administrator, you will see an additional Drop-Down list next to **Balloon 6** in **Figure 2** that States “Source” with the options of “your username” AND “All Work Items”. If you choose All Work Items, it will let you see all Tasks by All individuals essentially giving you an enterprise task portal. Feel free to play with the Group and Sorting options until you get the desired layout. **Figure 4** shows an example of an enterprise task portal below. Note how I chose to group by Owner and sort by Activity Start to get the desired layout.

The screenshot displays the 'Worklist for Administrator' interface in a Microsoft Internet Explorer browser. The page title is 'Worklist for Administrator - Microsoft Internet Explorer provided by PTC'. The address bar shows the URL: <http://bladerunner.ptc.com/PDMLink/servlet/WindchillAuthGW/wt.enterprise.URLProcessor/URLTemplateAction?action=WfWorkList>. The page features a navigation menu with options like Home, Products, Change Monitor, Collaboration Center, Repositories, and Administration. Below the navigation, there are tabs for Current Work, Notebook, Subscriptions, and Worklist. The main content area is titled 'Worklist for Administrator' and includes a 'Calendar' icon. A 'Worklist' tab is selected, and the 'Current View' is set to 'All Processes'. The table below lists tasks with columns for Owner, Task, Subject, Priority, Process, Team, and Activity Start.

Owner	Task	Subject	Priority	Process	Team	Activity Start
CAD Designer Brad						
CAD Designer Brad	Complete ECN Task	ECN Task 00021 (Update product with new improved oil seals)	Highest	PDMLink CA Workflow_00021 (Update product with new improved oil seals)	Team (Update product with new improved oil seals)629	5/02/2002
CAD Designer Brad	Complete ECN Task	ECN Task 00022 (Replace spring in throttle with heavier duty spring)	Highest	PDMLink CA Workflow_00022 (Replace spring in throttle with heavier duty spring)	Team (Replace spring in throttle with heavier duty spring)637	5/02/2002
Change Admin II Larry						
Change Admin II Larry	Create ECN	ECR 00023 (Fix shock boots)	Highest	PDMLink ECR Workflow_00023 (Fix shock boots)	Team (Fix shock boots)631	5/02/2002
Change Admin II Larry	Create ECN	ECR 00023 (Fix shock boots)	Highest	PDMLink ECR Workflow_00023 (Fix shock boots)	Team (Fix shock boots)631	5/02/2002
Change Admin I Mary						
Change Admin I Mary	Analyze Problem Report	Problem Report 00025 (Cheaper rack available)	Highest	PDMLink PR Workflow_00025 (Cheaper rack available)	Team (Cheaper rack available)638	5/02/2002
Change Admin I Mary	Analyze Problem Report	Problem Report 00026 (Engine displacement wrong)	Highest	PDMLink PR Workflow_00026 (Engine displacement wrong)	Team (Engine displacement wrong)639	5/03/2002
Change Admin I Mary	Analyze Problem Report	Problem Report 00027 (Starter having trouble)	Highest	PDMLink PR Workflow_00027 (Starter having trouble)	Team (Starter having trouble)641	5/03/2002

Figure 4 - Enterprise Task Portal

Hopefully you now know that you can create custom worklist views as well as how to do it. Remember, if you ever have questions, you can select the ? Help link to find out more information through online help.

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Announcements

Customer PTC E-Newsletter Survey

For the past 2 years I've been sending you our Customer PTC E-Newsletter such as this one.

In an attempt to deliver the highest quality and create the most value we would like to use this survey to further our "Learning" Relationship with you, our Customers. Even if you are a first time recipient of the newsletter, please feel free to share your comments on this one you're reading.

It will not take longer than a few minutes to fill out this quick survey as your input is invaluable and we greatly appreciate your input. Please click on the following link to begin:

[To Enter Survey, Please Click](#)

Please note it may be impossible to "Customize" the newsletter to meet every individual request however we will attempt to integrate as many ideas as possible.

Thank-you very much for your time and feedback as we try to improve this value-added service.

Innovation Days - Summer 2002

Product Development Workshops for MCAD Professionals

Win a DVD player and Get Up to Speed on Latest MCAD Advancements at [PTC's Innovation Days](#). You'll see first-hand the latest MCAD tools that can help you - and your entire team - do your job faster, better, smarter.

Events for cities such as Los Angeles, CA / San Jose, Ca / Vancouver, BC, Canada now available for registering.

PTC Sponsored Events

[SunNetwork 2002](#)

PTC is a PREMIER sponsor of this conference. PTC will be located in booth #A17 in the Application Development Pavilion and will be demonstrating Pro/ENGINEER Wildfire and our Windchill Solutions.

Moscone Center
San Francisco, CA
September 18-20, 2002

[HP World Expo and Conference](#)

PTC is a sponsor of the conference. PTC will be located in booth #520 in the HP Bridge Partner Pavilion and will be demonstrating Pro/ENGINEER Wildfire and our Windchill Solutions.

Los Angeles, CA
September 25-27, 2002

[Free Live Webcast: How to Manage Design Projects](#)

Get tips on organizing teams, sharing data, tracking deliverables, and completing projects on time and on budget.

Register today and be eligible to win a new Compaq iPAQ Pocket PC. Watch right from your desktop.
September 25, 2002

[Virtual MCAD](#)

Virtual MCAD is a three-day virtual MCAD exhibit featuring the latest MCAD and MCAE technical innovations. Talk to reps, get literature, watch presentations, and see demos. Register now and you might win a 2003 Honda Sabre 1100 Motorcycle! Watch right from your desktop!
October 15-17, 2002

[SupplyChainLinkExpo](#)

Register for a free two-day online conference and be eligible to win a 00 American Express gift certificate. This online Expo offers everything you'd expect from a traditional tradeshow, including several keynotes, a wide selection of industry round-tables, and various exhibits on supply chain.
October 16-17, 2002

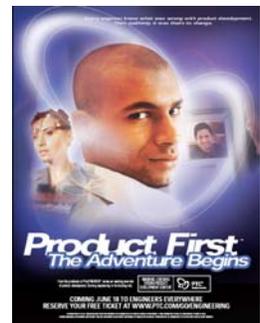
[CCI \(Collaborative Commerce & Integration\) Conference](#)

CCI Conference puts you face to face with high-level executives who have implemented collaborative commerce. PTC is a sponsor of the conference and Doug Macdonald, PTC, will be speaking at the event.
Chicago, IL
October 23-25, 2002

[Forbes CIO Forum](#)

PTC is the title sponsor of the Forbes CIO Forum. Forbes conducts one CIO Forum a year. Forbes CIO Conference Programs showcase CIO perspectives, timely case studies, and cutting-edge best practices presented by Forbes 500 CIOs and other business leaders. The format is one and one-half days for the interactive forum followed by one-half day of golf. Among the list of confirmed speakers are Jim Heppelmann, Chief Technology Officer, PTC and Steve Horan, Chief Information Officer, PTC.
Four Seasons Resort and Club at Las Colinas
Dallas, TX
December 9-10, 2002

Click on the poster to gain access to the Product First Virtual Event resource center!! See the software and pick up a screen-saver or two.



Quality Function and Development (QFD) is a consulting engineering company. Using the Pro/ENGINEER software suite, we provide comprehensive, quality-conscious product development and engineering design services to clients whose needs include 3D digital modelling, engineering, design and rapid prototyping.

QFD is looking for new team members. We offer a competitive compensation package; exciting projects; excellent support services. We are looking for skilled mechanical designers with substantial experience with Pro/ENGINEER software.

You are:

- A mechanical designer, mechanical engineer, or an EIT
- Innovative, self-disciplined
- Looking for constant challenges

You have:

- Well-developed mechanical design and 3-D modelling skills
- Design experience including plastics or castings, and complex assemblies
- Experience designing for both prototype and manufacturing
- A genuine interest in problem solving and cost saving processes
- And eye for detail and the ability to produce unambiguous drawings

You can:

- Work independently in a fast-paced environment
- Think on your feet: interacting, creating, problem-solving

You want:

- To expand an already impressive skill set through formal and on-the-job training
- To work for a young, rapidly-growing company on the leading edge of mechanical design

Our clients are local and international corporate leaders in technological innovation—dynamic, progressive, and successful hi-tech, research, and manufacturing companies.

Visit our website: <http://www.qfd.bc.ca/>

Response Information:

Snail Mail:

David Mochuk
General Manager
QFD Consultants Inc.
#703-402 West Pender Street
Vancouver, BC
V6B 1T6

Fax: 604-684-8151

Email: <mailto:quality@qfd.bc.ca> (send either as an attachment, or as an ASCII text file, please)

Here is what Sigma S4 can provide:

- Training in PTC's Simulation tools including static, thermal, kinematics and dynamics products.
- Mentoring in PTCTMs Pro/MECHANICA: Structure, Thermal, Motion, Design Animation Option (DAO), Mechanism Design Extension (MDX) and Mechanism Dynamics Option (MDO).
- Engineering consulting results - from concept through manufacturing of a product's development process.



Sigma S⁴ Consulting
Simulation·Service·Support·Solutions
What's product development without Simulation?

Kurt L. Werner
Owner

Phone (425) 427-0104
E-Fax (707) 220-0273

wernerkl@asme.org
Think Simulation!

- Virtual prototype results - to make sound engineering judgments on product validation as it's being developed.
 - Robust product development via optimization of parts and/or assemblies that meet engineering and/or marketing requirements.
 - Products faster time to market with better quality and in less time.
-
-

E-PROFILES IS HERE!!

We have been eagerly anticipating the debut of the new electronic version of Profiles Magazine and now it is here! This new web site will supplement the print edition of the magazine and will provide new useful features not feasible with paper media. e-Profiles will provide you with 24x7, worldwide access to key information previously available exclusively in the print version. "Tips & Tricks," a popular feature pioneered by Pro/USER, has also moved to the web and will be expanded as the site matures. Future plans include several foreign-language editions of Profiles for our many international readers. Currently, Profiles is printed in English and Japanese.

Please take a few minutes to check out this new web site. We don't think you will be disappointed.

<http://profilesmagazine.com/>

CAD-BASED Solutions Inc. Web-site

Please click on the following link to see CAD-Based Solutions new web-site:

<http://www.cad-based.com/>

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Upcoming Events & Training Class Schedules

Oct. 17, 2002 Portland, OR, USA Pro/E Users Group Meeting
 Upcoming, 2002 Seattle, WA, USA Pro/E Users Group Meeting
 Upcoming, 2002 [Vancouver, BC, Canada Pro/E Users Group Meeting](#)
 Upcoming, 2003 Pro/USER International Conference
 <http://www.prouser.org/>

Please visit the [PTC Education Services](#) website for the latest training information including course descriptions, schedules, locations, and pricing.

- Attend a course at any PTC Center and receive a **free** copy of Pro/E 2001 Student Edition!

Call Richard Buckius @ 408-953-8500	San Jose, CA, USA	Click Here for Course Schedules & Description
Call Richard Buckius @ 408-953-8500	Vancouver, BC, Canada	Click Here for Course Schedules & Description
Call Terri Kartonchik @ 905-602-4660 x256	Oakville, ON, Canada	Click Here for Course Schedules & Description
Call Richard Buckius @ 408-953-8500	Bellevue, WA, USA	Click Here for Course Schedules & Description
Call Richard Buckius @ 408-953-8500	Portland, OR, USA	Click Here for Course Schedules & Description

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Note: This PTC E-Newsletter will continue to be used for the following:

- 1) Inform you on events in Western Canada, CA, OR, WA State related to PTC products (user groups, conferences, training schedules, etc.)
- 2) Educate you on products that are available at PTC
- 3) Tips & Techniques using PTC Products

Note: These messages are compiled in the Vancouver, BC office and will be distributed via e-mail. If you wish to subscribe, send an e-mail to jpeng@ptc.com and type SUBSCRIBE in the subject line. If you wish to be removed from future mailings, type REMOVE in the subject line.

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