Engineering, Architecture and Manufacturing

INCREASING PRODUCTIVITY BY ENABLING ADVANCED ENGINEERING DESIGNS WITH PROFESSIONAL GRADE TOOLS
Advances in simulation and analysis, digital twins and generative design are enabling new design paradigms that bring designs to market faster and more cost effectively.

Integrated design, additive manufacturing and IoT technologies are driving better designs despite ever increasing product complexities.

Augmented reality, virtual reality and real-time photorealistic rendering are enhancing design and collaboration.

Building Information Modeling (BIM) is driving better design and manageability of projects and is being adopted as a government mandated technology for projects across the globe.
ENGINEERING, ARCHITECTURE AND MANUFACTURING USE CASES

PRODUCT DESIGN (2D/3D CAD)
Take full advantage of your 2D and 3D CAD software features to efficiently develop models and prototypes.

Page 4

VISUALIZATION
Efficiently enable visualization tools for creating real-time photo-realistic images and animations, as well as xR tools to view and collaborate on designs in context, by visualizing in real-world scale.

Page 6

MECHANICAL, ELECTRICAL AND PLUMBING
Proficiently handle mechanical, electrical and plumbing (MEP), as well as HVAC system design and analysis to minimize waste and leverage ecologically-sound designs.

Page 8

ARCHITECTURAL DESIGN
Meet the demand for increased customization and shorter development cycles, even with large data sets representing the most complex building projects.

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MECHANICAL, ELECTRICAL AND PLUMBING
Proficiently handle mechanical, electrical and plumbing (MEP), as well as HVAC system design and analysis to minimize waste and leverage ecologically-sound designs.

Page 8

LOGISTICS
Design and improve logistical processes and systems as well as quality control to reduce costs and increase customer satisfaction.

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STRUCTURAL ENGINEERING
Capitalize on applications for analyzing structural components to meet safety and building code regulations.

Page 9

IMMERSIVE TECHNOLOGIES
Expand into immersive technologies such as artificial intelligence and virtual reality to develop smarter designs and simulate your product ideas.

Page 12

MANUFACTURING AUTOMATION
Listen to your manufacturing floor to make better, real-time decisions - resulting in increased production and higher quality.

Page 11

EMPLEYEEs ON THE GO
Mobilize your workforce to achieve increased productivity, both inside and outside of the office.

Page 13
Dell Precision 5820 Tower workstation provides scalable performance for CAD applications, such as:

- Dassault Systèmes - SolidWorks® and CATIA®, Autodesk Inventor®, AutoCAD® PTC, Creo®
- Siemens NX™

Combine with a single or dual Dell UltraSharp monitor(s) and a wireless 3DConnexion SpaceMouse to take advantage of the CAD software’s features and to maximize productivity.

**Recommended products and accessories**

A. Dell Precision 5820 Tower
B. Dell Premier Wireless Keyboard and Mouse - KM717
C. Dell UltraSharp 27 4K Monitor - U2718Q
D. Wireless 3DConnexion SpaceMouse Pro

**Mobile solution**

E. Dell Precision 3540, 3541 or 7540
F. Dell Thunderbolt™ Dock - WD19TB

**Rack solution**

G. Dell Precision 3930 Rack
H. Dell Wyse 5030 Zero Client
I. Dell UltraSharp 24 Monitor | U2417

*Not pictured*
Simulation and analysis (CAE)
POWER OPTIMIZATION, GENERATIVE DESIGN AND DIGITAL TWIN TECHNOLOGY
TO PROVIDE BETTER PART DESIGN AND FASTER TIME TO MARKET.

The Dell Precision 7920 Tower workstation provides scalable performance for CAE applications, such as:

- ANSYS® Mechanical™, Fluent®, Discovery™ Live
- Altair® HyperWorks®, solidThinking® COMSOL Multiphysics®

Combine with a single or dual Dell UltraSharp monitor(s), wireless keyboard and mouse and wireless headset for an exceptional user experience.

Dell Precision workstations provide the extreme performance to enable new paradigms in CAE such as digital twins, multi-physics, optimization and generative design.

Recommended products and accessories

A. Dell Precision 7740
B. Dell Performance Dock – WD19DC
C. Dell UltraSharp 27 4K Monitor - U2718Q
D. Dell Premier Wireless Keyboard and Mouse - KM717
E. Jabra Evolve 75
F. Dell Portable Thunderbolt 3 SSD 1TB
G. Dell Professorial Backpack* 
H. Wireless 3DConnexion SpaceMouse Pro*
I. Dell Precision 7920 Tower*

* Not pictured
Visualization

CREATE PHOTO-REALISTIC IMAGES IN REAL TIME, ANIMATIONS AND USE AR/VR TOOLS TO VIEW AND COLLABORATE ON DESIGNS IN CONTEXT, REAL-WORLD SCALE.

The Dell Precision 5820 Tower workstation provides scalable performance for visualization applications, such as:

- Dassault Systèmes® SOLIDWORKS Visualize
- 3DEXCITE
- Autodesk® 3ds Max®, VRED
- Siemens PLM Teamcenter® Visualization

Include 8K displays, X-Rite Colorimeter for color accuracy, and a VR solution to amp up your work space.

Dell Precision workstations provide the CPU and GPU performance to make visualization an extension of the design process.

Recommended products and accessories

A. Dell Precision 5820 Tower
B. HTC Vive Pro
C. Meta 2 Developer Kit
D. X-Rite Colorimeter i1Display Pro
E. Dell UltraSharp 32 8K Monitor: UP3218K

Mobile solution

F. Dell Precision 7740*
G. Dell Performance Dock – WD19DC*
H. Dell Professional Backpack 17*

* Not pictured
The Dell Precision 3630 Tower workstation provides space-savings and powers architectural applications, such as:

- Autodesk Revit®, AutoCAD®
- GRAPHISOFT® ARCHICAD
- Bentley Software MICROSTATION
- Robert McNeel & Associates Rhino®

Dual monitors, wireless keyboard and mouse and wireless headset provide a more comprehensive work space.

Recommended products and accessories

A. Dell Precision 3630 Tower
B. Wireless 3Dconnexion Space Navigator
C. Dell Premier Wireless Keyboard and Mouse - KM717
D. Jabra Evolve 65
E. Dell UltraSharp 27 4K Monitor - U2718Q
F. HTC Vive Pro*
G. Meta 2 Developer Kit †
H. Dell Precision 7540*
I. Dell Performance Dock - WD19DC*

Mobile solution
J. Dell Precision 3930 Rack*
K. Dell Wyse 5030 Zero Client*
L. Dell UltraSharp 24 Monitor - U2419H*

* Not pictured
† Not available in all countries

Precision workstations provide the interactive performance to increase productivity, drive faster time to market and open more opportunities for iteration, resulting in better building and site planning, design and more collaborative workflows. With Precision you can also show your work in VR/AR applications.
The Dell Precision 5820 Tower or 7540 mobile workstation provides outstanding performance and reliability for MEP and HVAC applications, such as:

- Autodesk® Revit® MEP, AutoCAD® MEP,
- Navisworks®
- Trimble® PipeDesigner™,
- DuctDesigner™

Include 4K monitor(s) and a Wireless 3DConnexion SpaceMouse to enhance the workspace and productivity.

Dell Precision workstations provide the GPU and CPU power to view and analyze complex data sets.

Recommended products and accessories

A. Dell Precision 5820 Tower*
B. Dell UltraSharp 27 4K Monitor - U2718Q
C. Jabra headset 75
D. Wireless 3DConnexion SpaceMouse Pro
E. HTC Vive Pro†
F. Wireless Keyboard and Mouse - KM717

Mobile solution

G. Dell Precision 7540
H. Dell Performance Dock - WD19DC

* Not pictured
† Not available in all countries
Structural engineering
SIMULATE AND ANALYZE ALTERNATE SOLUTIONS TO DELIVER OPTIMIZED DESIGNS MORE EFFICIENTLY AND AT A REDUCED COST.

The Dell Precision 5820 Tower workstation provides scalable performance and reliability for structural engineering applications, such as:

- AutoCAD® Revit® Structure, Advance Steel, Tekla® Structural Designer, Bentley Software MICROSTATION, STAAD.Pro, RAM(R) Steel

With a single or dual Dell UltraSharp 4K display, experience incredible image quality and color accuracy.

Recommended products and accessories

A. Dell Precision 5820 Tower
B. Dell UltraSharp 27 4K Monitor - U2718Q
C. Wireless 3DConnexion SpaceMouse
D. Jabra Evolve 75
E. Wireless Keyboard and Mouse - KM717*
F. Dell Precision 7740*
G. Dell Performance Dock - WD19DC*

*Not pictured
Dell Rugged products will help improve productivity and quality control.

The Latitude 7212 Rugged Extreme Tablet captures real-time data for making logistical decisions in warehouses and on manufacturing floors.

Dell Rugged computing solutions are built for world-class reliability in the most extreme conditions. Get the toughest jobs done with stunning performance, reliable connectivity and outdoor-readable displays.

Dell rugged products can handle harsh environments where dust, water, extreme temperatures and vibrations are present.

Recommended products and accessories

A. Latitude 7212 Rugged Extreme Tablet
B. Dell Rugged Dock
C. Rugged Tablet Keyboard and Kickstand
D. Rugged Cross Strap
E. Rugged Chest Strap
F. Rugged Battery Charger
G. Rugged Extended IO module
Manufacturing automation

CONNECT SCANNERS, PROGRAMMABLE LOGIC CONTROLLERS (PLCs) AND MOTORS, TO INTEGRATE RELEVANT DATA WITH INTELLIGENT UPSTREAM APPLICATIONS.

Integrated and automated

Dell Edge IoT products are fanless, designed and engineered to withstand harsh industrial conditions and operate reliably 24x7. Multiple deployment options such as inside control cabinets, on a DIN rail, or outside a cabinet without a mount provide customizable IoT solutions for the manufacturing floor.

Also consider embedding a rack workstation inside manufacturing equipment or as standalone units on the floor because they can withstand extended temperatures and provide outstanding performance.

Make informed decisions based on available data and continuously identify overall volume of products in production and apply set criteria, such as historical performance, to identify ideal products for auditing.

Recommended products and accessories

A. Dell Edge Gateway 3000 Series
B. Dell Edge Gateway 5000 Series
C. Rugged Enclosure
D. I/O Expansion
E. Power Module

Rack solution

F. Dell Precision 3930 Rack*
G. Dell Wyse 5030 Zero Client*
H. Dell UltraSharp 24 Monitor - U2417H*

*Not pictured
Dell has “Ready for VR” and AI solutions that are optimized for the intensive graphic and processing power that they require. Our solutions are verified and certified by our Dell Technology Partner Program to ensure reliable performance.

Take advantage of these technologies with Dell Precision workstations, either a tower or mobile.

Apply immersive technologies to existing business processes or develop new ones to creative or enhance your competitive advantage and drive the future of design and factory.

**Recommended products and accessories**

A. Dell Precision 7920 Tower
B. HTC Vive Pro†
C. X-Rite Colorimeter i1Display Pro*
D. Dell UltraSharp 32 8K Monitor - UP3218K

**Mobile solution**

E. Dell Precision 7740
F. Dell Performance Dock – WD19DC
G. Dell Professional Backpack 17

* Not pictured
† Not available in all countries
Get to work faster and stay productive longer with Dell Latitude notebooks and 2-in-1s, which provide light, stylish mobility for faster and smarter end user experiences. With an intelligent, unified approach to management, Express technologies and the trusted Safe suite of solutions, Latitude delivers both innovation and security.

Recommended products and accessories

A. Dell Latitude 7300
B. Dell Thunderbolt™ Dock - WD19TB
C. Dell Premier Wireless Keyboard and Mouse - KM717
D. Dell UltraSharp 27 Monitor - U2719D
E. Dell Dual Monitor Stand - MDS19
F. Dell Prostereo Headset - UC350
Dell Technologies Unified Workspace is the most comprehensive solution to deploy, secure, manage and support virtually all devices from the cloud. We designed this revolutionary solution with intelligence and automation providing visibility across the entire endpoint environment. We help save time, improve user experience, optimize resources and strengthen security.

Our modern deployment solution, ProDeploy in the Unified Workspace allows you to revolutionize the way deployment gets done. By spending just one hour for set up, IT can then hand deployment to Dell and have preconfigured systems shipped directly to the end users - wherever they are.

Dell Endpoint Security for the Unified Workspace helps manage growing cyber risks while embracing workforce transformation. With Dell SafeGuard and Response powered by Secureworks, gain actionable insight to help quickly and efficiently prevent, detect and respond to cyber-attacks-keeping your environment free from harm.

We integrated our hardware management solution Dell Client Command Suite with VMware Workspace ONE, allowing you to take advantage of unified endpoint management (UEM) and manage the firmware, operating system and applications for all devices from the Workspace ONE console. UEM simplifies the management of the entire environment saving IT time from having to work between separate consoles for PCs and phones.

ProSupport Plus continues to be the only predictive and proactive support in the market. When compared to key competitors, ProSupport Plus with SupportAssist reduced time to resolve a failed hard drive with up to 11x faster time to resolution.

Support and Deployment Services

ProSupport Plus
Upgrade to the most complete support service with ProSupport Plus.
Available with all client systems.

The ProSupport Plus advantage

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<tr>
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<th>Basic</th>
<th>ProSupport</th>
<th>ProSupport Plus</th>
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<tbody>
<tr>
<td>Hardware support during local business hours.</td>
<td>✔</td>
<td>✔</td>
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<td>24/7 hardware and software phone support</td>
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<td>Proactive and predictive automated support</td>
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<td>Repair accidentally damaged devices and keep hard drive after replacement</td>
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<td>Resolve issues quickly with ProSupport engineers</td>
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<td>Avoid downtime with failure prevention</td>
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When compared to key competitors, ProSupport Plus with SupportAssist reduced time to resolve a failed hard drive with:

92%  Up to 92% less time to resolution
68%  Up to 68% fewer steps to resolution
11x  Up to 11x faster time to resolution
13   Up to 13 fewer steps to resolution

ProDeploy Plus
Deploy PCs with greater speed and less effort.

Experts
Enjoy unprecedented efficiency thanks to best practices learned from years of experience. Gain up to 56% faster deployments and $792 reduced deployment cost per PC.

Insights
Gain expertise from teams who do this every day. We custom-configure and image units globally every week, and provide project documentation with knowledge transfers.

Ease
Effortlessly deploy PCs by outsourcing to us. You’ll have the flexibility to select the level of service that matches your IT staff outsourcing needs, and we perform deployments after hours or on weekends for zero disruptions during business hours. We’re also available in 70 countries.

56%  Up to 56% reduced deployment time
$792 Reduced deployment cost per PC

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