

Software Updates: News from software vendors...

Uplink is a continuation of our annual Software Guide featured in the fall of each year, containing new and updated information from software manufacturers. If you would like to include your software please send your information to publisher@structuremag.org to add your name to our mailing list.

StruCad

The StruCad 3D structural steel detailing system puts a unique array of powerful modeling and detailing tools in the hands of drafting professionals-providing the most productive solution for steelwork detailing. www.strucad.com



New Release of 3D FEM

This latest release of the world renowned 3D FEM concrete design platform for conventionally and post-tensioned floor systems is packed with features designed to generate submittal ready structural drawings with ease and fewer errors in record time. New dynamic tendon modeling capabilities make it easier than ever to place and design P/T tendons. Other productivity boosting features include the ability to specify typical reinforcement anywhere in a slab, integrated punching shear reinforcement design, and fully interactive graphical reporting of designed reinforcement — ready for AutoCAD export. Shipping with Staad.Pro and ETABS integration.

For more information, call 650-306-2400 or go to www.adaptsoft.com.

POSTTENW for Post-Tensioned Beams/Slabs

POSTTENW is a post processor in the STRAP finite element analysis and design system that enables the engineer to design any structure that contains posttensioned beams and/or slabs. Features: Accurate calculation of the losses and deflections, iteratively, in time steps. Handling of staged structures. Check of the shear, ultimate moment, deflection, and elastic stresses. As the program analyzes a complete structure, it accounts for the effects of the elastic losses of an element on others. The stressing can be applied to beams or to finite elements. www.atir.com

Autodesk Revit Structure 2

Autodesk Revit Structure 2 is structural engineering and documentation software that helps structural engineers and drafters increase efficiency, accuracy, and design flexibility in their structural designs. Revit Structure uses a single building information model and proven



parametric change management technology, as well as bidirectional links to newly expanded analysis partners including RAM, CSI, RISA, and RoboBAT to integrate and coordinate structural design and documentation. Autodesk Revit Structure is interoperable with AutoCAD, Architectural Desktop, Autodesk Building Systems, and Revit Building, and supports import/export of DWG, DGN, DXF and DWF files.

New Project Management Tool for BillQuick

BillQuick manages employee, client and project information — including Document Management, Budgets, WIP & Receivables. NEW: Resource Allocator allows Project Managers to assign employees and subs to projects based on skill set and availability. Create Gantt charts, Work Schedule reports and more! A fast, easy to use project management tool that provides timelines for each project and a schedule of all of your resources. Know when your projects will be completed, when your resources will be available and when you can take on more work. Resource Allocator integrates with BillQuick, QuickBooks and Outlook. For a demo, call 888-245-5669 or visit www.BQE.com.



CADRE Pro Finite Element Structural Analysis Application

CADRE Pro was developed for Windows 98/NT/2000/XP and has now been re-designed to take advantage of the Microsoft .Net framework. It solves structures for internal loads, stresses, displacements, vibration modes, and natural frequencies. It contains advanced features or stability, buckling, shock and seismic loads. CADRE Pro provides automatic external loading features for dead weight, normal surface loadings, and projecting loading such wind and snow. There are eleven element types including 9 special beam types and 2 plate types. www.cadreanalytic.com

SAP2000 Update



Now available — SAP2000 Version 10. Evolutionary and intuitive from a usability standpoint, but revolutionary in its underlying technology, this latest release extends the power of SAP2000 by adding numerous new features such as SAPFIRE™, CSI's new analytical engine, next generation Pushover Analysis, Layered Shell Elements, and updated Design Codes. The SAPFIRE engine runs problems 10 to 100 times faster than previous solution techniques. The enhanced pushover capabilities include numerous new hinge types and procedures, including FEMA 440. A sophisticated layered shell element incorporating nonlinear behavior and support for the latest in concrete and steel design codes have been added. www.csiberkeley.com

Multiframe Enhancements

Multiframe is a fully graphical structural engineering design and analysis software for 2D and 3D modeling. The latest update to Multiframe includes over 35 enhancements. Chief among these is the addition of semi-rigid connections, improvement in 3D drawing and dynamic line constraints, realistic OpenGL rendering and animation of models, and enhanced Modal Analysis options. The Multiframe Automation interface has been enhanced as well, allowing dynamic links between other applications and the structural design information contained in the 3D structural model inside Multiframe. (816) 741-4310, info@daystarsoftware.com, www.daystarsoftware.com

SDS/2 Steel Software System

Design Data provides the next step in engineering and detailing with the SDS/2 Steel Software System. The perfect fit for innovative firms that have implemented design-build projects. SDS/2 can take a project through every transition in the work process. With import and export options, including real-time web review, SDS/2 untangles the lines of communications, offering the ability to increase accuracy and speed on projects. Design Data, a proven leader for almost 25 years, has pioneered the interfacing of models and model data with other software systems. The SDS/2 family — the standard by which all other systems are judged. www.sds2.com



LGBEAMER version 6 Professional Edition

LGBEAMER v6 Pro provides modeling and design of cold-formed cee's, channels and zee's with uniform, concentrated, partial span, sloping and axial loads. Single, boxed, back-to-back and built-up members can be designed. Modules for framed openings (header, sill and jambs), shearwalls (including provisions for the 2001 and 2003 IBC), x-braces and general interactions are also included. LGBEAMER version 6 also includes provisions of the 2001 North American Specification (NASPEC) as adopted in the 2003 IBC. Devco Software, Inc. Phone: 541-426-5713; Web Site: www.devcosoftware.com; e-mail: rob@devcosoftware.com

Concrete Beam Design

Digital Canal's Concrete Beam Design designs one-way flexural members, including beams, one-way slabs and joists. Unlike competing software, Concrete Beam Design completely determines the design, including beam dimensions, bar sizes, quantities, development lengths, cut off locations, stirrup layout, deflection checks, capacity diagrams and more. Concrete Beam Design was written with simplicity and compatibility in mind. Inputs are concisely organized using a minimum of dialog boxes. Like other Digital Canal products, reports are created in Rich Text Format (RTF) and automatically displayed in Microsoft Word Viewer or any user selected word processor. For more information, call 800-449-5033 or visit www.digitalcanal.com/concrete.shtml

Dimensional Solutions DSAnchor™ Incorporates ACI 318-05

DSAnchor, our concrete anchor design solution now incorporates Appendix D, ACI 318-05 building code, in addition to ACI 318-02. DSAnchor is our software solution that not only completes tedious and computation-intensive failure load calculations of anchoring to concrete in just seconds, but also makes recommendations for safe anchorage. With its simple, easy-to-use graphical interface, many customizable options, and detailed reporting, DSAnchor reduces the time-intensive effort of anchor design. Download a free trial version today from www.dimsoln.com/trials. For more information contact: Claire Wehri, Tel:(281)-497-5991 Email: Claire@dimsoln.com

Hilti PROFIS

The most complete anchor design program available, Hilti PROFIS is easy to download and install. It features a full-screen user-friendly graphical interface; comprehensive, easy-to-use anchor selector; easy-to-understand anchor setting animations; database of exportable CAD drawings for all Hilti anchors; and library of anchor approvals and specifications. Users can choose the level of detail or complexity needed and save personalized user preferences. PROFIS supports allowable stress design (ASD) and load resistance factor design (LRFD) in accordance with ACI-318-02 Appendix D/AC193 and ICC, and features the only tested and ICC approved anchors (HSL-3, HDA) in North America for use in cracked concrete. www.us.hilti.com



Integrated Engineering Software, Inc.

For over a decade, Integrated Engineering Software, Inc. (IES) continues to provide leading edge structural engineering software. Over 1,800 professional engineering firms and 200 universities rely on IES's intuitive User Interface, software productivity within minutes, informative reports, accessible technical support, and an industry commitment to evolve its broad product line. Producing fully guaranteed products like VisualAnalysis, for general analysis and building design, and QuickRWall, for retaining walls, IES sets the standards for results-oriented engineers. IES is poised for significant growth in 2005 and beyond with new technological achievements. Find out why at www.iesweb.com and 1-800-707-0816.16.

ROBOT Millennium Integrates with Autodesk Revit

ROBOT Millennium, structural engineering software from RoboBAT, has been integrated with the Autodesk® Revit® Structure, Autodesk's new software solution for structural engineering and documentation. The bidirectional link between Revit Structure and ROBOT enables structural engineers to automatically generate a structural model in ROBOT, based on the Revit Structure model, without manual manipulation of data. This ensures integrity of the Building Information Model (BIM) created in Revit Structure. ROBOT Millennium's finite element analysis and advanced meshing algorithms allows analysis of all geometry created in the Revit model, including shear walls and cores, walls and floors with openings of any shape. www.robot-structures.com



LARSA 4D for Bridges 2006 Update

LARSA 4D for Bridges, the most advanced structural analysis and design software for two decades, will introduce several new features in its 2006 update. Section Composer — the easiest way to find the cross-sectional properties of parametric, nonprismatic sections of any shape. Bridge path geometry control features take the trigonometry out of modeling multi-curved bridges. Horizontal and vertical path definitions establish a coordinate system in which model geometry can be edited using simple station-elevation-offset coordinates. Influence surface analysis has also been added for more accurate modeling of live load effects on curved cable structures. See www.Larsa4D.com or email info@larsa4d.com for more information.

New LECWall SW Design Software for Structureworks 3D

Losch Software has teamed up with Structureworks, LLC to provide integrated engineering software for the Structureworks 3D parametric precast concrete modeling software. First out is the LECWall SW design software for precast/prestressed concrete wall panels. The user can call up and load panel dimensions from Structureworks directly into LECWall, complete with reveal and opening info. Reinforcing location and sizes can be transferred from LECWall to the Structureworks model automatically. Lifter locations can be sent to or from LECWall for handling analysis. Call 847-705-1396 or visit www.LoschSoft.com for more info.

Lusas Releases Version 13.7

LUSAS Bridge and LUSAS Civil & Structural engineering analysis software products have been significantly improved with the release of Version 13.7. New facilities include a new concrete material model for reinforced and un-reinforced concrete applications; improved vehicle loading; discrete loading facilities for line beam analysis; and single and multi-tendon prestress enhancements. Improvements to the concrete creep and shrinkage material model complying with CEB-FIP Model Code 1990 now allow concrete material model input parameters to be specified in any set of units and shrinkage effects can now be excluded if not required. For more details visit www.lusas.com

MDX Software Upgrade Includes 2005 LRFD Interims

The MDX Software Curved & Straight Steel Bridge Design & Rating package has recently been updated to include the 2005 LRFD interims which now allow curved girders in LRFD. The user interface recently has been redesigned to significantly streamline input procedures and the reviewing of analysis results. A free 15-day trial version is available. Call (573) 446-3221, email: info@mdxsoftware.com, or visit www.mdxsoftware.com for more details on this steel bridge design package.

New Release - MIDAS/Civil V691

MIDAS/Civil V691 for bridge and civil structures. Balanced Cantilever Wizard now allows unsymmetrical and any irregular sections, widening, simplified rebar and tendon placement reflecting creep, shrinkage, changes in modulus & tension losses. Nonlinear forward stage analysis of cable stay bridges can be performed by accumulating the results of construction stages while reflecting time dependent effects (Creep/Shrinkage), tangential displacements and Lack-of-Fit Force. Nonlinear/Inelastic Time History Analysis Function has been improved with fiber element models and numerous built-in hysteretic models of concrete & steel. A number of response spectrum load cases can be defined using different design spectrums. www.MidasUser.com

New version of Masonry Design Software

Available February, 2006. In addition to performing masonry allowable stress and strength design, combined axial and flexural loading, the following capabilities have been added: 1) IBC 2003 code; 2) MSJC 2005 code; 3) hollow clay unit masonry; 4) column design; 5) span input in feet and inches; 6) shear reinforcement and deflection for lintels; 7) 14 and 16- inch units; 8) customized masonry unit capability. For more information contact the National Concrete Masonry Association at 703-713-1900, or visit www.ncma.org.

DESCON Updates

Steel structures connection design software DESCON has been updated implementing AISC-2005 Specification and the design of coped beam web reinforcement. Metric versions of all modules of Descon are now available. Descon software interface has been expanded to provide for a two way data exchange using the XML file format. Phone: 1-888-8DESCON, Web Site: www.desconplus.com e-mail: Omnitech@desconplus.com



Opti-Mate Bridge Software

Opti-Mate, Inc. provides software for analysis, design, rating, construction staging and code check of bridges using the AASHTO WSD, LFD and LRFD specifications for straight steel and reinforced or prestressed concrete bridges, and horizontally curved steel bridges. Software titles include: MERLIN DASH for straight steel or concrete girders and tapered or haunched steel I-girders; DESCUS I for curved I-girders; DESCUS II for curved box girders; SABRE for sign and luminaire structures and TRAP for truss bridges. All AASHTO live loads are included in each program, and user defined live loads can be input and analyzed. For more details visit www.opti-mate.com

pcaSlab v1.50 Now Available

Recently upgraded pcaSlab v1.50 is now even more efficient in helping engineers analyze, design, and investigate reinforced concrete floor systems. Like its predecessor ADOSS, pcaSlab now analyzes beams, one-way slab systems, and two-way slab systems. It incorporates torsion into shear design and investigation of beams, as well as, redistribution of negative moments over supports. Also upgraded is pcaBeam which includes only beam and one-way slab capabilities of pcaSlab. Both programs are available with a standalone or network licensing which allows switching between multiple license servers. Contact pcaStructurePoint – Phone: 847-966-4357; Fax: 847-581-0644; www.pcaStructurePoint.com; E-mail: info@pcaStructurePoint.com



New Offerings from POSTEN Engineering Systems



New from the creators of the most powerful post-tensioned and reinforced concrete design software: TiltUP 2006® — Quickly and efficiently design Tilt-up Concrete Walls with or without pre-stressing; TaperSTEEL 2006® — while only POSTEN® & CONCRET® allow you to vary concrete section properties as you cross the span — now you can in STEEL. Coming Soon: SEC® — the ultimate section property program — incredible power to model virtually any shape or combination of shapes, add to the extensive library and output to CAD or FEA; CAD Detail Libraries — Based upon 30 years of A&E experience, starting with Tilt-up Details. www.postensoft.com

RAM International Releases Major Upgrades

RAM International has recently released major upgrades to RAM Structural System (RSS), RAM Advance, RAM Connection and RAM Concept. New features in RSS V10.0 include wall modeling, meshing, and post-processing; snow loading, AISC 2002 Seismic, and much more. RAM Advance V7.0 now includes Retaining Wall Design and Continuous Beam Design for Steel, Concrete and Wood, complete with automatic skip-loading. RAM Connection V3.0 now includes details in DXF format plus new Gusset Plate Design. RAM Concept V2.0, for design of R/C or PT concrete floors and mats, now includes shear stud calculations and numerous other major enhancements. For more information visit www.ramint.com.

Research Engineers International

STAAD.Pro 2005 — linear and non-linear beam elements, plate and surface elements, 3D brick elements, linear and P-delta analysis, advanced dynamics (seismic, wind, vibrations), automatic load generators (wind, floor, seismic, offshore), soil-structure interaction and multi-material design. STAAD.foundation — analyze and design isolated and group footings; perform pile cap arrangements; analysis and design of mats and pile caps and create reinforcement layouts for complex mat foundations. STAAD.beam — analyze and design single steel composite and non-composite beams with various loadings; takes into consideration camber, web openings and vibrations; provides shear stud layout, full HTML calculation sheets and allows for pre-construction dead loading. www.reiworld.com



New – RISAMasonry



RISAMasonry, the newest member to RISA Technologies' library of top-rated structural engineering software, offers a complete answer for analysis and design of masonry construction. RISAMasonry performs analysis and design on virtually any type of wall element, whether in-plane or out-of-plane loaded, reinforced or unreinforced, grouted, partially grouted or ungrouted. Both cracked and uncracked analyses are performed for in-plane walls. Design slender walls using the iterative strength design method. RISAMasonry supports both the UBC 97 and MSJC 02 (ACI/ASCE/TMS) codes. Manage your entire project in one file, with as many independently designed beams, columns and walls as you need. www.risatech.com

S-FRAME and S-CONCRETE from SOFTEK Services

S-FRAME® 3D Modeling and Analysis Version 7.0 — new Staged Construction Analysis; new Constraints allowing inclined diaphragms; new Physical-Member modeling; new Cardinal Point offsets; new MDB database input/output files aid integration with external applications; new FE Wall Integration Lines; new Automatic Notional Loads and more. Integrated with S-Frame, all-new S-CONCRETE™ Reinforced Concrete Section Design Version 1.0 provides a powerful, simple, intuitive interface for design of RC Beams, Columns and Shear Walls — international codes including ACI 318-05 and ACI 318-02; autodesign and optimization; composite columns; columns with holes; complex shear wall zone reinforcement and more. E-mail sales@csc-softek.com or phone (604)273-7737.

New Version of SPACE GASS

The new version 10 of SPACE GASS contains many new features including: moving loads, merging of jobs, auto-creation of steel design data, re-designed printing and print preview facilities, enhanced mouse control, copying of node/member properties, copying of loads, auto-stabilization of unstable nodes, direct links to MS-Excel, MS-Access and MS-Word, enhanced job cleanup, easier cable modeling, etc. Full details are available from www.spacegass.com/sgnew.asp.

Strand7

Strand7 — a sensibly priced finite element analysis system used extensively for civil, structural, mechanical and transportation engineering. It's Windows® native and comprises fully integrated pre-processing (including CAD import and auto-meshing), solvers (static, dynamic, heat transfer, linear, non-linear) and post-processing functionality. www.beaufort-analysis.com



New Features for ProSteel 3D from StrucSoft Solutions



ProSteel 3D is an AutoCAD-based 3D modeling and detailing application complete with BOM and CNC options, including parametric and full customization capabilities. ProSteel 3D introduces new features and functionality for Web Joist objects. Autoconnect function allows users to automatically insert connections based on project standards. New technology provides a seamless integration between ProSteel 3D/AutoCAD and several analysis applications. This bi-directional interface manages the flow of data between ProSteel 3D and SAP2000, Etabs, Risa3D, S-Frame, Robot Millennium and Multi-Frame. ProSteel 3D is compatible with the latest CIS/2 and SDNF v3. Increase productivity and reduce errors with ProSteel 3D. www.strucsoft.ca

Enhanced ANSYS/CivilFEM 9.0

New ANSYS/CivilFEM 9.0 offers major enhancements in many areas, extending the capabilities of advanced analysis. Through an intuitive and easy-to-use user interface, users now can apply loads over multiple load steps and solve, and post-process results over these multiple load steps. Further enhancements in the beam stress tool, customizable command objects through the ANSYS Parametric Design Language, and enhancements in contact modeling and setup offer users tools targeted toward increased productivity. In addition to the above enhancements, there have been significant enhancements in pre and post processing features providing higher flexibility and usability within the software. www.sdss.biz

New Release of StructureWorks Precast Available Soon

Users can now integrate StructureWorks Precast 2006 with Mathcad 13, LECWall, and Studs V4.0.1. Recent development partnerships with Mathsoft Engineering & Education, Inc., Losch Software, and Salmons Technologies bring a unique feature set to an already complete StructureWorks Precast application. StructureWorks enables users to develop projects dramatically faster by automating the production of drawings and generating downstream data by way of a real time bill of materials. StructureWorks Precast is intended for use by all manufacturers or designers of structural, architectural, utility, and site cast precast and prestressed products. Companies using the application will realize lower design costs, fewer errors and more accurate bills of materials. For more information, phone 303.278.4111, email info@StructureWorks.net, or visit www.StructureWorks.net

New Import/Export Interface for Tekla Structures

Tekla Structures and Computers and Structures, Inc. (CSI), in collaboration with Georgia Institute of Technology, have developed an IFC structural analysis model import/export interface. In North America, CSI's ETABS, is the first analysis software package to utilize the Tekla Structures import/export for interoperability between the Tekla Structure's physical model environment. Structural engineers will have much greater flexibility and reliability as they not only three-dimensionally model and design multi-material structural systems, but also coordinate, manage and detail them for manufacturing and construction. For more information about IFC and this project, visit: <http://dcom.arch.gatech.edu/teklaifc/>

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