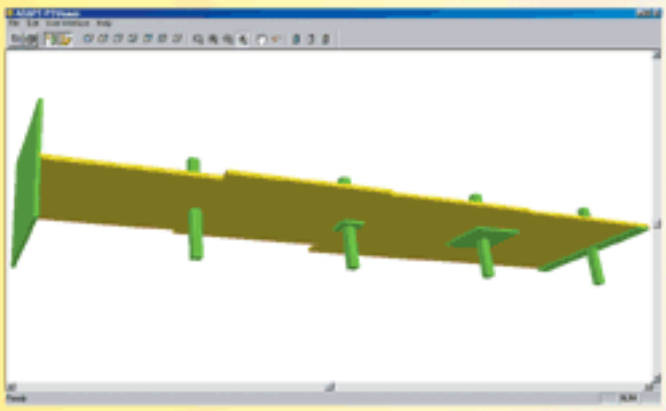
ADAPT-PT

For Post-Tensioned Buildings & Parking Structures

ADAPT-PT for complete design of floor systems, beams and slabs

- Bonded (grouted) and unbonded post-tensioning
- One- and two-way floor systems
- Multiple beam cross-section options: T, L, I sections
- Drop caps, drop panels, steps above and below the slab
- Wind and seismic actions can be combined with gravity loads for design
- Allowance for cracking in deflection calculations of one-way systems
- **ADAPT-PT Provides:**
  - Graphical display of the structural model and tendon profile
  - Graphical and tabular display of the location, length and amount of required reinforcement
- **ADAPT-PT Includes:**
  - Calculations for long-term losses due to creep, shrinkage and relaxation of the prestressing steel
  - Reinforcement check for strength and minimum code requirements
  - Beam shear and punching shear checks



ADAPT-PT is the industry standard production tool for the design of post-tensioned slabs, beams and floor systems. The program is the result of over 20 years of continuous development and use to meet the demands of design engineers around the world. ***ADAPT-PT*** is based on the traditional and well-proven Equivalent Frame Method, but has been extended to the latest developments in post-tensioning design and software technology.

ADAPT-PT includes a simple and intuitive user interface for the generation of input data. A three-dimensional display provides the user an opportunity to verify the data prior to executing the calculations. The design can be optimized via an optional interactive screen to use the least amount of post-tensioning or can be adjusted to meet other design criteria, as appropriate.

Drop caps, drop panels, steps above and below the slab and other nonprismatic features of the structure are easily accounted for. The program calculates the supplemental reinforcement needed for the serviceability and strength requirements of the code. The location, amount and length of the reinforcement needed is displayed both graphically and in a tabular form. ***ADAPT-PT*** can also be used to design the longitudinal post-tensioning required for box-girder bridges.

ADAPT-PT is a complete, stand-alone program for the analysis and design of post-tensioned floor systems, beams and slabs. As a member of ADAPT-Builder family, however, it can also be used with ADAPT-Modeler – another module of ADAPT-Builder and can receive input data generated by the Modeler. The ADAPT-Modeler allows you to create a three-dimensional structural model of the entire floor system from a DWG or DXF file. The structural model is then used to generate the input data files for ***ADAPT-PT***. This eliminates the time-consuming (and often error-prone) process of determining span lengths, tributaries and load distributions.

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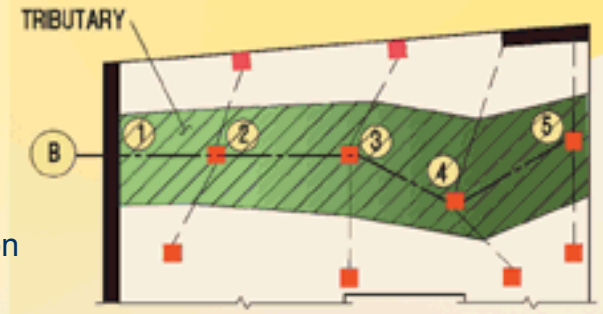
ADAPT PT

Industry Standard Production Tool of Engineers who Design Post-Tensioned Structures

- Three-dimensional display of the design strip
- Detailed calculation of reinforcement and code check at the face-of-support and at 1/20th points along each span
- Allows wind and/or seismic moments to be combined with gravity moments for design
- Graphical summary of the design with tendon layout, rebar amount and length
- Graphical presentation of design values: moments, stresses, shear, prestressing and hyperstatic actions
- User-designed tabular report

Post-Tensioning

- Tendon profiles can be generated using the program's library of shapes
- Includes friction, seating loss and elongation calculations
- Allows one- or two-end stressing; eccentric anchoring
- Provides the option of using either the effective force method or a true variable force method for tendon selection
- Determines the post-tensioning needed based on what is specified for the percentage of dead load to be balanced
- Determines the required tendon profile and adjusts the tendon force based on what is specified for cover requirements and average precompression
- Automatically calculates secondary (hyperstatic) actions
- Automatic stress (serviceability) and strength checks



PARTIAL PLAN
TRIBUTARY OF FRAME AT LINE B

Codes

The program comes in ACI, IBC (International Building Code), and a number of other building codes.

Technical Support and Training

Prompt and competent technical support is provided by ADAPT software developers and engineers who are engaged in the design of concrete structures on a daily basis. The support is either through ADAPT headquarters in California, or through regional representatives in Europe and Asia. Training is offered at ADAPT's Headquarters in the San Francisco Bay area, at the client's office or via scheduled seminars worldwide.

Hardware Requirements

PC compatible computer, Windows operating system, minimum of 128 MB RAM, 10 GB hard drive.

Units

- SI
- MKS
- American Customary

Authors

Many talented engineers and software developers have been involved in the creation of this software over the years. All have made significant contributions. The work was inspired and led by Dr Bijan O. Aalami, Professor Emeritus of San Francisco State University, a California Structural Engineer and a world leader and teacher in the design of concrete buildings, bridges, special structures andpost-tensioning.

Warranty

No warranty, expressed or implied is made with respect to the sold software, either by the authors, or by the seller, either expressed or implied toward the merchantability of fitness to particular purpose, beyond replacing the original software medium and hardware in event of physical defects, for a period of six months from the date of first shipment of software.

ADAPT is now serving engineers in over 70 countries around the world

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