



Message *from* the Chairman

When I took over as Chairman of the Virtis/Opis Task Force in July 1999 we had just recently released the first version of the Virtis and Opus software. This first version was primarily for the analysis, rating and design of steel girder bridges. Since that time we released three additional versions, each adding new and improved capabilities for bridge designers and raters. Now steel, reinforced concrete, prestressed concrete and timber superstructures are available within a single package. We are currently working on reinforced concrete frame structures and a report writer tool that will allow the user to produce customizable output reports. Beginning in July, we will begin working on a floor system module (girder-floorbeam-stringer systems).

We are continuing our emphasis of obtaining and responding to user comments and enhancement requests. A significant portion of the Task Force meetings are dedicated to reviewing and prioritizing the user requests. In August the Task Force will meet concurrently with the User

Group in Albuquerque to hear the prioritized needs of the users firsthand.

Over the past year we have seen the use of these systems grow tremendously. The number of consultant licenses has increased dramatically to 42 during this same period. We have provided 19 training workshops to more than 300 engineers in 12 states.

The contract for the Substructure portion of Opus is just getting underway. The Task Force has discussed the delivery sequence of the various modules proposed in the project solicitation. The modules will be as proposed with a concerted effort to deliver them in a top down approach.

We are indeed proud of our accomplishments but at the same time know there is much work to do. I am very thankful for the dedicated efforts of the entire Task Force team and the volunteers from the many states providing technical review and testing assistance. Together we will continue to make the Virtis and Opus software among the very best available.

-Ken Hurst



NEW Faces on the Task Force

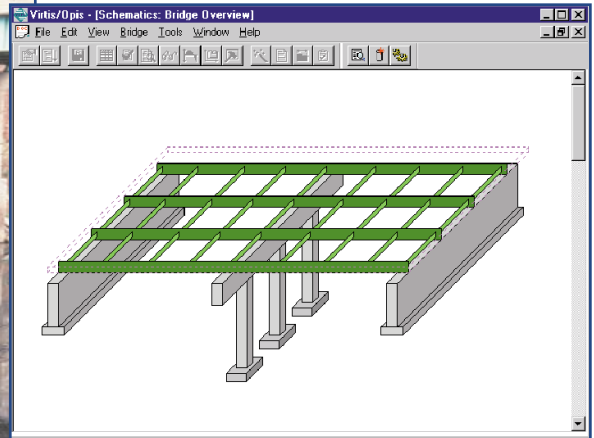
Time flies when you're having fun! It is hard to believe but in the past year, two long-time Task Force members completed their second terms of service and two new members are just beginning to join the fun. Many thanks to Gale Barnhill of Nebraska and Anthony Gugino of California who have served the Task Force, the Virtis and Opus licensees and their state very well during the last six plus years. Gale in particular helped lead the transition effort from the AASHTO BARS product (he was the BARS Task Force Chairman) to Virtis, the

new bridge load rating system. Their efforts have gone a long way toward shaping these products and guiding the direction of their development.

A very special welcome to George Conner from the Alabama DOT and Kevin Western from the Minnesota DOT. George began his first term of service in July 2000 and was part of the original Virtis visioning team in 1994. Kevin is the Assistant Bridge Design Engineer at MnDOT and will begin his first term July 1 this year.



Superstructure and substructure design in one package!



Opis Substructure Project to Begin

Last year at this time, AASHTO distributed a project solicitation to the states seeking interest in supporting the development of the LRFD substructure portion of Opis. The result of the solicitation is that 16 states are contributing funds for this important development effort.

During the past nine months, the Task Force and Contractor

have been discussing the most appropriate and speediest ways to design, develop and deliver the substructure modules to the project participants and future licensees. It was decided to deliver interim products or modules as detailed in the solicitation but in a slightly different order. The contractor team will begin work with pier design and develop the basic model and tools neces-

sary to describe and analyze a pier. This fundamental module will be followed by interactive design and specification checking tools for the cap, column/shaft and footing components.

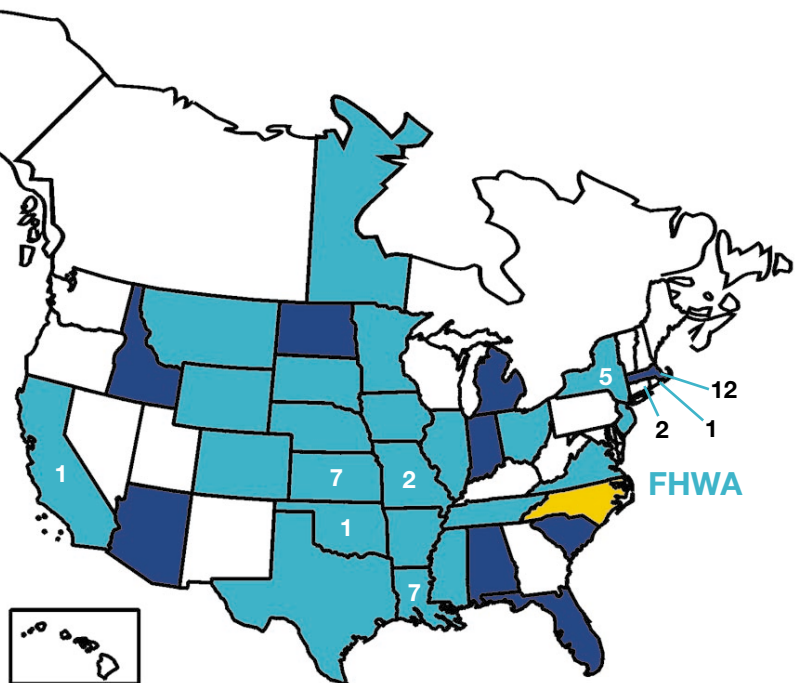
The work plan for the first year of this five year project has been approved by the Task Force and once the contract is finalized, work is estimated to begin in May, 2001.

Current Licensees

- Opis Only
- Virtis Only
- Virtis and Opis

41 Consultant Licenses of Virtis and/or Opis

NOTE: The number of consultant licenses are indicated on each state.



Virtis/Opis VERSION 4.0

NEW FEATURES

Virtis and Opis Version 4.0 was released in December 2000. The new features added to the system were based on consensus of the User Group and in accordance with the first year of the five-year strategic plan. The new features include:

- Timber superstructure rating
- Deterioration analysis
- Public and private Bridge Explorer folders
- Improved management of output
- Report Tool - LFD and LRFD reports
- Support for Windows 2000
- Support for Sybase Adaptive Server
- BRASS updates for AASHTO Interim Specification modification
- Two new haunch definitions for steel superstructures
- Minor improvements to the GUI



% Thickness Loss	Support Number	Start Distance (ft)	Length (ft)	End Distance (ft)
10.0	1	0.00	2.00	2.00
15.0	1	159.00	2.00	161.00

6.10.2.1 Web Slenderness (w/o longitudinal stiffeners)
 Limit State: STRENGTH-I Stage: 3 Location: 80.5 ft
 Vehicle: HL-93 (SD) Flex Sense: Positive Flexure Pass/Fail: Passed

6.10.3.1.2 Yield Moment (Composite)
 Limit State: STRENGTH-I Stage: 3 Location: 80.5 ft
 Vehicle: HL-93 (SD) Flex Sense: Positive Flexure Pass/Fail: General Comp.

User Group Meeting Planned for August

The BRASS/Virtis/Opis combined User Group has scheduled its annual meeting from August 23 to 25 in Albuquerque, according to User Group President Will Dooley of the Federal Highway Administration.

As was done last year, the User Group meeting is preceded by a one day Virtis/Opis training session on August 22nd. Those planning to participate in this session are asked to bring a laptop computer with the software installed. The 2 ½ day meeting will feature product updates, work plan overviews, discussions with the Virtis/Opis Task Force, future plans and plenty of discussion for prioritizing future enhancements to the systems. Call Will Dooley at (505) 820-2025 for more information.

TRAINING WORKSHOPS Available

Over the past two years twelve different states have sponsored Virtis and/or Opis training workshops and more than 300 engineers have been trained. Workshops have been held in Alabama, Arizona, California, Colorado (2), Florida, Louisiana, Maine, Massachusetts (2), Michigan, Minnesota (3), Oklahoma (2) and Texas.

On-site training is available through AASHTO or by contracting directly with the Contractor. The two-day workshop is primarily hands-on with plenty of examples and interaction between the students and trainers. The workshop may be tailored specifically towards Virtis, Opis or both at the request of the sponsor and is typically limited to 15-20 students to maximize the student benefit.

For more information contact Angel Williams at AASHTO or Cheryl Epperson at Michael Baker Jr., Inc.

Coming in Version 4.1

The next release of Virtis and Opis is planned for the fall 2001. The work plan for this release includes the following:

- Frame structures
- More improvements for management of output
- Report Tool - additional capabilities
- Support for Microsoft Data Engine/SQL Server
- Improved data exchange between databases
- Integration with Pontis (at the data base level)
- Numerous minor improvements

In addition, the work plan for the coming year calls for adding a floor system module for rating girder-floorbeam-stringer systems, report writer enhancements, further integration of the BRIDGEWare products and various enhancements requested by the User Group.



Support Web site

The product support web site is established to provide a communication tool between the users and the contractor. The web site contains many useful features and information such as:

- Frequently asked questions and Technical notes
- Support center for entering incidents (enhancements, bugs, etc)
- Tutorial and example problems
- User Group information
- Product brochure
- Links to the AASHTOWare web site
- Product Downloads
 - Service Packs and software updates
 - Patches
 - User documentation
 - Database documentation

Users should register by calling Jim Duray at Michael Baker Jr., Inc. The web site address: aashto.bakerprojects.com

Virtis/Opis Task Force and Management Team

Kurt Johnson	Project Manager, AASHTO
Kenneth Hurst	Task Force Chairman Kansas Department of Transportation
George Conner	Alabama Department of Transportation
Anthony Gugino	California Department of Transportation
George A. Christian	New York Department of Transportation
Doug Horton	Virginia Department of Transportation

Contractor for Virtis/Opis Development:

Michael Baker Jr., Inc.

420 Rouser Road
Coraopolis, Pennsylvania 15108

Contact: Jeffrey J. Campbell, P.E.

Telephone: (412) 269-4600

INTERNET: jcampbell@mbakercorp.com

Subcontractors:

BridgeTech, Inc., Laramie, WY

Cambridge Systematics, Inc.,
Cambridge, MA

Modjeski and Masters, Inc.,
Harrisburg, PA

Paul D. Thompson, Denver, CO