

# ONPASS links to ESRI MapObjects Software



ONPASS with ESRI MapObjects GIS features is now ready. It has taken over a year to design, program and test this new release. Major changes involve display and function of the graphic elements, such as streets, planning areas, boundaries, parcels and students. Key features such as the original ONPASS minimum path assignment (boundary optimization) and the scenario manager were modified to work with the ESRI platform. Ten new reports have been added, bringing the total to 35.

ONPASS V12.0 is now in it's 32nd year of use with school districts. Version 1.0 was a time share main-frame application, command driven with one function - boundary assignment. The original logic came from a study to allocate people to bomb shelters. Today, ONPASS is a part of the MasterPlan Suite of 12 applications for boundary planning, enrollment forecasting, and bus routing.

There is nothing obscure or hidden about the assignment logic used in ONPASS. At the heart of ONPASS is a minimum path algorithm that simultaneously assigns students to all the schools in the district. ONPASS gives the planner a framework for asking those "what if" questions about the future. More than a mapping system, ONPASS is not to be confused with a theoretical model; rather, it is a practical, workable and economical procedure for performing a difficult and time consuming job.

## 32 Years of Service

*"The most significant thing about the whole process was it's integrity. We based our decisions on an accurate [ONPASS] database which accounted for each student in the school district. Moreover, we incorporated factors that would change the enrollment from year to year so that our plan would reflect not only the present situation, but the next five years as well."*

Excerpts from a discussion with Dr. Frank Brunetti, Director of Research, Development, and Planning for the Cupertino Union School District, published in ONLINE, by Urban Decision Systems June 1975. Cupertino closed 19 schools between 1973 and 1980 using ONPASS V1.0 software.



Ventura County, California

# CEFPI's Holds 80<sup>th</sup> Annual Conference in Chicago



The Windy City will play host to CEFPI's 80<sup>th</sup> annual international conference, *Building Connections*, September 27-30, 2003. Join your colleagues at the conference on educational facility planning and explore what schools can do to create high performing, healthy, safe and

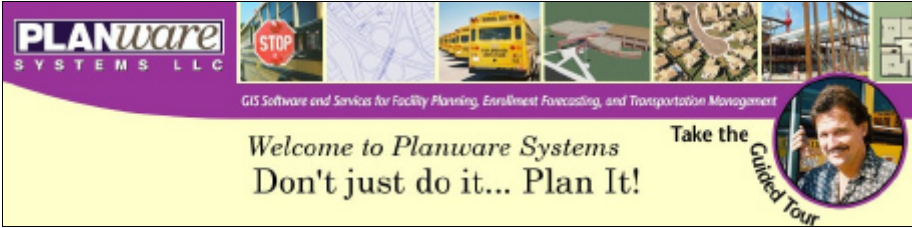
sustainable buildings that foster student achievement and provide community centers. The Council is an international professional association whose members are involved in planning, designing, constructing, equipping and maintaining school facilities.

CEFPI was founded in 1921 as The National Council on Schoolhouse Construction and is the primary advocate and resource for planning effective, high performing,

healthy, safe and sustainable educational facilities. Fostering and disseminating best practices in creative school planning, CEFPI is the educational facilities expert, the only organization whose sole mission is improving the places where children learn.

For additional information and conference registration materials, please visit the website at <http://www.cefpi.org/chicago2003> or contact CEFPI at 480-391-0840.

## Planware Systems Web Site Updated

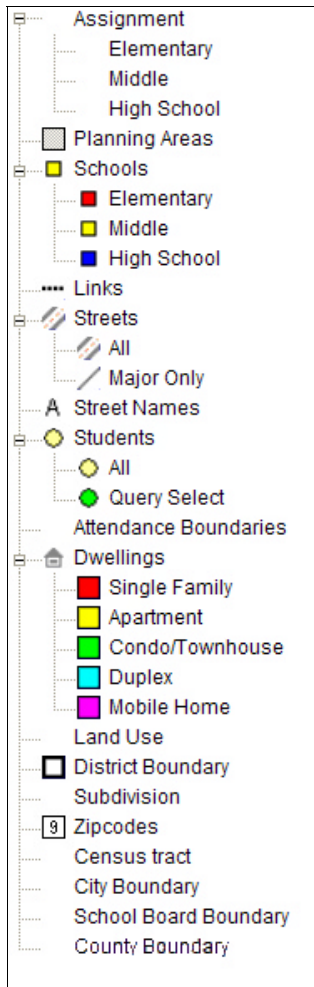


Check out our new web site at [www.planware.net](http://www.planware.net). The design was done by Jeff Maust of Maust Graphics in Fort Collins, CO and programmed by Tristan Harward of Fairview Design in Ojai, CA. The Guided Tour driver is Brent Carman of Morgan Hill Unified School District.

Schedule a Guided Tour to the Planware Systems software by clicking on the driver and filling

out the form. A sales representative will guide you through the features by running the software. The "Guest" account will then be left on our server for you to use over the next week or so. This is not a PowerPoint slide presentation but an actual execution of our software. Don't buy software untested. Compare it to your present methods and you will agree ONPASS is a winner.

## Map Navigation with Layer Catalog



Moving through layers of data can sometimes be a difficult and sometimes confusing task. ONPASS users can now add and subtract layers with a catalog located on the screen. By clicking the layer name or icon it will be drawn on the screen. Multiple layers can be drawn on top of one another with the user controlling which layer appears on top. The Assignment layer will contain only those school types found in the district.

A Boolean logic query allows the user to display students by school, grade level, ethnicity, gender, inter and intra-district transfer status or in and out migration.



The screen shot above shows out-migration students from the previous year in blue and this year's in-migration students are red.

## ONPASS Calculates Next School

An enhanced feature in ONPASS will allow users to modify the student record independently in each scenario. In the menu item Process, is a new command called "Next School". This command will read the school number from the Assignment file and place it on the student record. There are two sets of choices the user must select from. Do you want the school number based on this year's grade or next year's grade. It could go in the present attending school field or in a field titled "Nextsch".

This feature offers many possibilities for reporting and analysis. It was recently used in the Oxnard HSD to assign 8th grade students from the Intermediate schools to the High School attendance areas. Next years grade was selected and the "Nextsch" variable was the target for the school number. Reports were then written to list the students by their middle school and print their next year's high school on the same line as the student name and address. A second report sorted the students by high school and listed the students name and other information along with the 8th grade feeder school.

## Street Map Includes Entire County

With the release of ONPASS v12.0, the entire county street map will be included at installation. A default zoom can be set for any area within the county. When the user boots the system, the district boundaries will be displayed or any sub area desired. Inter-district transfers are now calculated and displayed within the county boundaries.

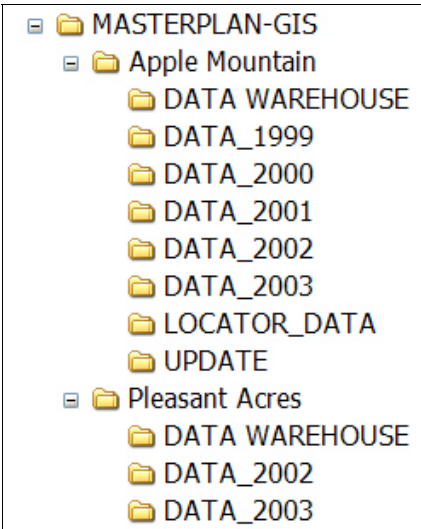
## Data Warehousing Included in MasterPlan Data Structure

Planware System's unique Scenario Manager now contains a data warehousing folder. This new folder contains aggregated data from previous school years to allow reporting and analysis. Up to 10 years of historical student data can be stored and accessed.

Historical data is also available for external statistical processing with SPSS or other programs. The data structure shown on the right begins with MASTERPLAN-GIS, the school district name and then multiple years of data. The Locator Data and UPDATE folder are for processing the street directories and updating the student data files. Within each data

folder are scenario folders for storing unique student assignment information.

County Offices of Education, consulting and Transportation companies can now toggle between different districts without leaving the software. In the structure above two districts are shown—Apple Mountain and Pleasant Acres.



## File Sharing with Client Server Architecture

ONPASS V12.0 now uses a new type of programming architecture for processing data. A client/server structure has been used to improve the efficiency of processing when in a multi-user network environment. The client sends a data request to the server and the server fulfills the client request by performing the task requested. The client-based process is the front end of the application that the user sees and provides the interface between the user and the rest of the application.

File and record locking, controlled by the server allow many users to share the same data without over-writing records. Passwords and permission levels are controlled by the server.

## Student Information System Improves Communication

Communication with students, parents, school board members and administrators is the ultimate goal of the planning process. Planning decisions always involve geography and students. The MasterPlan Student Information System allows the planner to query individual students, groups of students by planning area or grade levels. Students effected by a boundary change can be selected and reported. School, grade level, street or planning area reports can be printed or published to a WEB site.

## LOCATOR Now Runs On Internet



Planware Systems classic LOCATOR application has just gotten better. Clients rave about the automatic street directories and

the school locator feature. Now the school locator has added a map of the school attendance area, the location of the address and school. Parents can access LOCATOR over the internet, enter their address and see a map showing which schools serve their address.

When new schools are opened or closed and boundaries changed, the address to school assignment and maps are automatically updated. School and district street directories are still available in the non-web LOCATOR version.



## Planware Events

Visit with Planware Systems at one of the trade shows listed below. Learn about show discounts on our web site at [www.planware.net](http://www.planware.net)

**9/27- 9/30, Chicago, IL:** Council of Educational Facility Planners, International (CEFPI) Annual Conference and Trade Show

**10/31 - 11/4 2003, Charlotte, NC:** Association of School Business Officials (ASBO) Conference

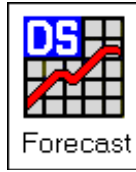
**11/19 - 11/21 2003, Santa Barbara, CA:** California Educational Technology Professionals Association (CETPA)

## Version 12.0 Adds Many New Features

- Entire county map delivered with district data.
- ESRI Shape files can now be imported and exported to and from ArcView. County GIS files such as housing tracts and city boundaries can be displayed.
- Improved street display with curved and double line streets.
- Improved street name sizing and labeling.
- Student icon display is now offset from the center of the street and displayed on the even or odd side of the street.
- Software written in Microsoft C#, linked with ESRI MapObjects and compiled with Visual Studio .Net.
- Relief map delivered with data.
- GIS layers are displayed and selected in an ESRI style catalog panel on the screen.
- Software built with Client/Server architecture for multiple users. File and record locking available under password security system.
- Improved attendance boundary planning under the optimization and manual modes.
- Improved scenario management rules and procedures.
- Improved map navigation with zoom and pan controls.
- Enhanced seamless integration to 20 year enrollment forecasting.
- Data Warehousing built in for longitudinal enrollment analysis and data archiving.

*April Planware News will feature Transportation*

## FORECAST/DS Included In MasterPlan Software Suite



Typically, single number projection techniques do not account for uncertainty. With FORECAST/DS, enrollment projections are presented as a probability distribution. The planner can take into account the probability of events, such as shifts in birth rates, catastrophes, or the relocation of a large industrial plant.

The basic cohort method of enrollment prediction was modified to accommodate probabilistic input and output. The method requires the planner to give separate estimates for new housing units and the number of students estimated to come from housing units by housing type and use cohort coefficients.

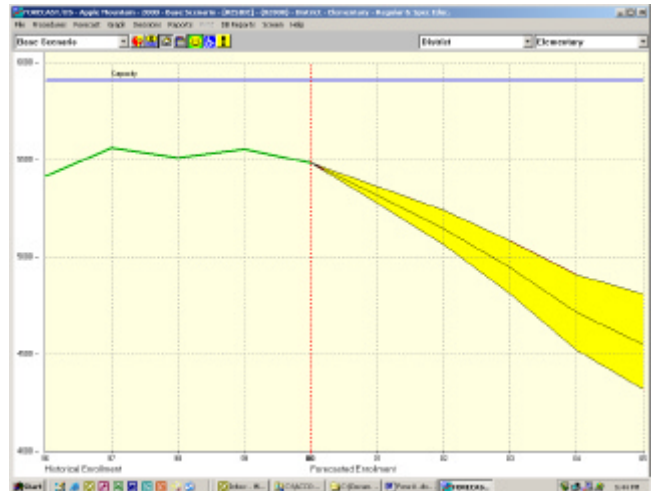
Three estimates must be given for each variable; a high, a low and a most likely, with the span between the high and low estimate representing a 90 percent confidence interval. In other words, you are 90 percent confident that the value will fall somewhere between the low and high estimate. The model says that there is only a 5 percent probability the high estimate will be greater than the estimate or a 95 percent probability that it will be less than the high value. The same is true on the other end of the distribution. There is only a 5 percent prob-

ability that the low estimate will be lower and a 95 percent probability that it will be higher.

A Monte Carlo simulation procedure combines these various estimates into a probability distribution of enrollment predictions to arrive at the final school and grade level prediction distribution.

*"You can't plan for tomorrow  
If you don't know where  
your students are today."*

Chuck Hanna, Director of Ancillary Services. Broken Arrow School District, Broken Arrow, OK



The screen image above shows the confidence band in yellow. The green line is the historical enrollment and to the right of the red vertical red line a five year enrollment forecast.

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