

# 95% Solution

- a group of program utilities combined with a structured work process that provides the design engineer and planner 95% of the GIS capability needed for day-to-day tasks
- developed by Savannah District, U.S. Army Corps of Engineers
- available for MicroStation™ and ArcView GIS™
- focuses on six key principles ...

## 1. Re-Engineering Thematic Files

Clean and optimize existing graphic files to eliminate unnecessary elements and boost performance. Create new graphic files utilizing the most up-to-date technology, such as user-defined line styles. Create seamless thematic mapping fence to fence. (Example – Fort Bragg’s GIS: 1000 files @ 983Mb reduced to 66 files @ 80 Mb.)

## 2. Quick Access to Commonly Used Data

Common data is accessed through a simple user interface called the **Spatial Data Retrieval System (SDRS)**. SDRS gives the end-user “one button” access to frequently used data. Typically, data queries include building numbers (names), road names, utility themes, and environmental themes. Other custom queries can be streamlined and included in the Menu System for everyone to use.



*SDRS in Microstation allows easy access to TSSDS themes using common names.*

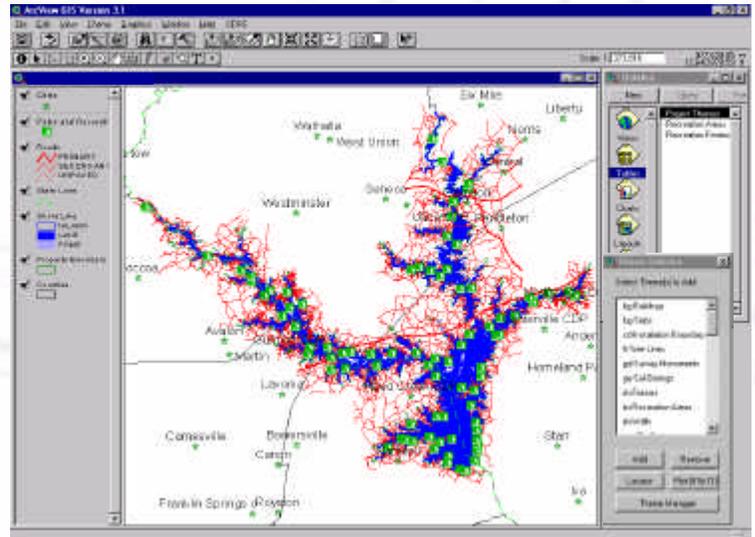
## 3. TSSDS Compliant

The foundation GIS is compliant with the Tri Service Spatial Data Standard. Any new requirements are closely coordinated with the Tri-Service CADD/GIS Technology Center to assure that all participants benefit.

## 4. Protection of Original Map Files

All data viewed, searched, queried, and plotted can be read-only to the users. Owners of the underlying data edit and update the data and other users see the changes when the files are refreshed.

5. Full GIS Not Required at Every Station  
 From experience, 95% of GIS is locating and reviewing attributes. The **95% Solution**, through the **SDRS**, provides this capability. Full GIS capability is left to the one or two individuals responsible for the system. The GIS expert creates the GIS products and performs the specialized spatial requirements - the 5% not covered by the 95% Solution. However, an expert should not have to run GIS queries for data used repeatedly. **SDRS** can enhance the productivity of the GIS expert also.



*SDRS in ArcView standardizes theme symbology and layer priority. The order is set to display polygons on the bottom and line work on top.*

## 6. Formal Plotting

Hard copy output is used in all phases of planning, design, construction, and maintenance of a facility. The **95% Solution** through the **SDRS** provides quick interactive formal and random plotting of map products. The **95% Solution** automates the plotting process to produce finished plots using your border and sheet facet.



*Automated plotting with formal border.*

a. **Formal plotting** Automatically plot with your border sheet, legend, title, and key map according to a predefined grid system (such as facet number).

b. **Random plotting** Since a specific site usually involves more than one facet of the formal plotting grid, the user can choose any scale, place a representative custom facet and plot with similar borders and legends as with formal plotting. The user can also choose the specific themes applicable to the site and again the plot is generated automatically.

**Why?** - Automate mundane tasks such as plotting so that the user is free to design and plan.

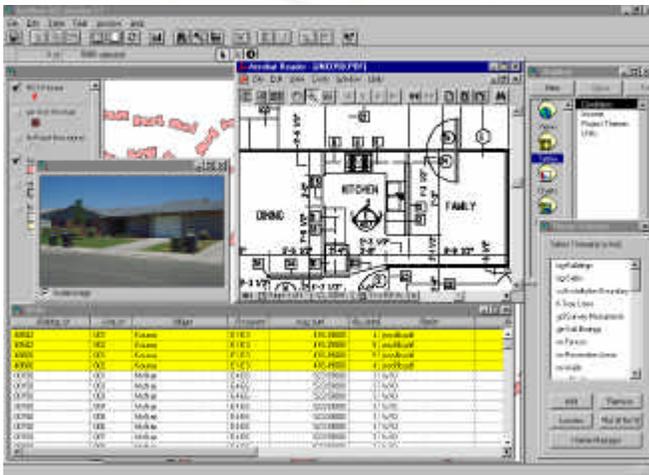
- Protect the non-owner from accidentally trashing the data, yet give the user "real time" update of new data.

- Provide the user an easy system to become productive as quickly as possible. Realize Returns-On-Investment (ROI) early in the implementation.

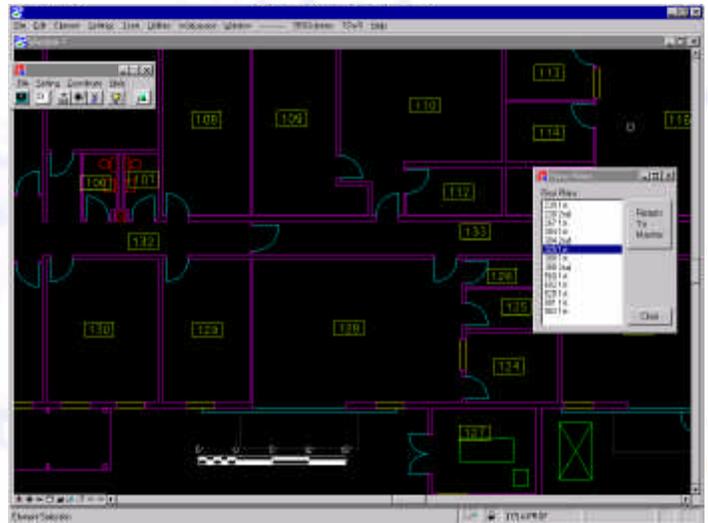
## Where Else is it Used?

The **95% Solution** equally applies within a building or facility. An Army medical center realized that the same six functions applied to exterior infrastructure could play a vital role in managing a hospital or any other facility. Consequently, the medical center system is a combination of interior management and exterior (medical complex) management. This application can be used for any complex interior system or facility.

Information pertaining to square footage, occupant, and owner stored in a current database can be linked to existing building floor plans.



Typical floor plan, database, and photograph.



**95% Solution** applied to floor plan.

Maintenance requirements such as square footage of painted surface, square footage of carpeted floors, or type of HVAC equipment with preventative maintenance requirements can be part of the system.

Commercial-off-the-shelf (COTS) facility maintenance software packages can be linked to graphics to assist in more efficient operations.

## Who to Call?

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Click the "95% Solution" button for more information



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