



Walt Disney World Swan and Dolphin Resort  
Orlando, Florida

## DWF™ and Effective Facility Information Management

Robert Fahlin - Applied Spatial Technologies

- FM13-1** Learn how to unleash the power of DWF to address the facility information management and documentation needs of your organization. Learn how embedded Autodesk technologies can provide an end-to-end solution for CAD operators, administrators, and others responsible for the management and dissemination of facility information. DWF provides the catalyst to bring facility drawings and data together in an easy-to-access format.

### **About the Speaker:**

Bob spent nearly 15 years in the health care industry working for the largest healthcare provider in central Massachusetts. From operations, to compliance, to planning, and safety, he has faced the issues head-on and has developed practical solutions for meeting the challenges confronting facility management professionals. With a career built on a solid foundation in the mechanical trades and a lifetime history of working with Autodesk technologies, Bob has gained national recognition for his effective, innovative approach towards managing facility information and operations. Over the past several years, Bob has worked with facility management professionals across the country, in a variety of industries, providing consultation services and Autodesk-based software solutions that bring a sense of organization to the chaos that is facility management. Some of the largest names in their respective industries now employ the solutions and practices that Bob has developed.

**[bfahlin@appliedspatial.com](mailto:bfahlin@appliedspatial.com)**



### About the speaker



Bob spent nearly 13 years in the health care industry working for the largest healthcare provider in central Massachusetts. From operations, to compliance, to planning, and safety, he has faced the issues head-on and has developed practical solutions for meeting the challenges confronting facility management professionals. With a career built on a solid foundation in the mechanical trades and a lifetime history of working with Autodesk technologies, Bob has gained national recognition for his effective, innovative approach towards managing facility information and operations. Over the past several years, Bob has worked with facility management professionals across the country, in a variety of industries, providing consultation services and Autodesk-based software solutions that bring a sense of organization to the chaos that is facility management. Some of the largest names in their respective industries now employ the solutions and practices that Bob has developed.

Bob is currently the President and CTO of Applied Spatial Technologies, Inc. the developer of the FMDesktop™ suite of Facility Management products. Autodesk interviewed Bob earlier this year concerning FMDesktop™ and its embedded DWF™ technology. In a customer story that appears on their web site Autodesk described the FMDesktop™ suite as “Industry-Leading Facilities Management Solutions” (see customer story on the following page).

## Industry-Leading Facilities Management Solutions Built Using DWF Open Platform



*"It made a lot of sense to develop our product on an open platform like DWF. An open solution means easy access to the data contained in the DWF files for our end-users."*

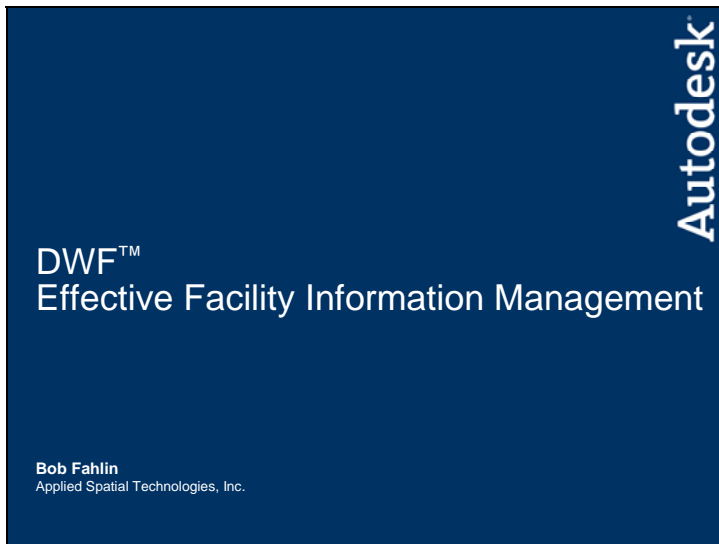
-Bob Fahlin, President and CTO Applied Spatial Technologies

Applied Spatial Technologies, a leading developer of facilities management software, leverages the strength and simplicity of the Autodesk® DWF™ Toolkit to build its FMDesktop solution.

### Project Summary

Applied Spatial Technologies (Applied Spatial) is a leading provider of facilities management software. Applied Spatial selected the DWF™ file format as the perfect platform to build FMDesktop™, its popular facilities maintenance software. As an Autodesk DWF developer, they simply utilized the Autodesk® DWF™ Toolkit made available to developers free of charge from the Autodesk website. By leveraging the DWF file format, FMDesktop allows building managers to transform floor plans and other visual drawings into lightweight files that can easily be accessed and shared through a simple browser interface. As a result, facilities managers get access to the information they need - when they need it - without any of the hassles associated with larger file formats. By using DWF as the platform for its FMDesktop solution, Applied Spatial enables facilities managers to:

- Easily view floor plans and other data intensive drawings
- Utilize complex CAD information without having to be trained on CAD software
- Readily access graphical images that aid in day-to-day facilities management



In this session we are going to discuss DWF technology and how to effectively apply that technology to help us manage our facility information. We'll take a look at some real-world examples of how DWF technologies can be applied in your facilities to improve communications and streamline the management process.

Since we have a lot of material to discuss **please hold your questions** during the presentation. We will field questions about midway through the presentation and again towards the end.



Notes

As we begin to discuss the topic of facility management it's important to frame precisely what we mean when we say "Facility Management".

## What is Facility Management?

Many Things to Many People...

### ▪ People

- Occupants
- Employees
- Vendors

### ▪ Places

- Properties
- Buildings
- Floors
- Spaces

### ▪ Things

- Furnishings
- Finishes
- Infrastructure



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Often the concept of facilities management is discussed in convoluted, abstract terms and can mean many things to many people. For our discussion we'll reduce the entire concept of facilities management down to its lowest common denominator.

In simplest terms, facility management is the management of the people, places and things that make our facilities what they are. Occupants, Employees, Vendors, Properties, Buildings, Floors, Spaces, Furnishings, Finishes and Infrastructure. These are the things that we manage.

## What is Facility Management?

Four Primary Functions...

- **Space & Asset Management**
  - Allocations
  - Inventory
- **Project Management**
  - Construction / Renovation
  - Move Management
- **Emergency Management**
  - Disaster Planning
  - Recovery
- **Maintenance Management**
  - Demand Maintenance
  - Scheduled Maintenance



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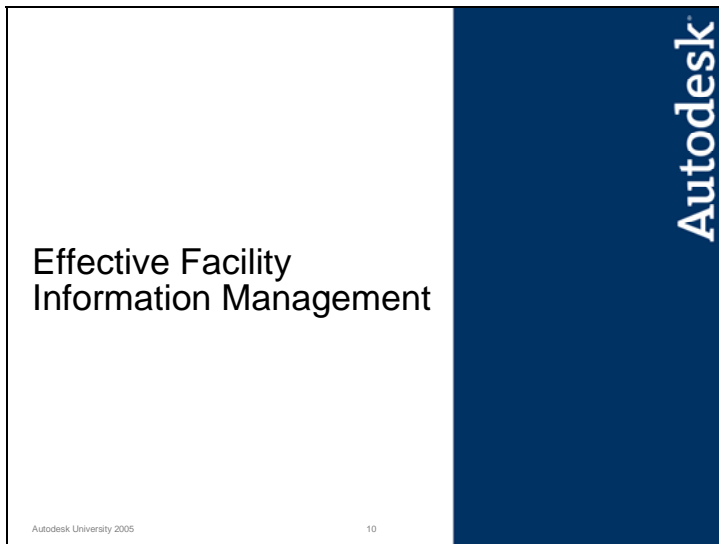
Today's facility managers are tasked with a wide range of responsibilities. These responsibilities can vary wildly from on organization to another. In general these responsibilities can be plugged into one of four primary functions:

**Space & Asset Management**

**Project Management**

**Emergency Management**

**Maintenance Management**



Given the complexity of issues facing today's facility managers:

- Safety
- Compliance
- Preparedness etc.

Effectively managing your facilities means effectively managing information...

### Effective Facility Information Management It's All About the Data!!!

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Drawings, spreadsheets, maintenance schedules, occupancies and vacancy calculations... facility management is all about managing data!

## How Are You Managing Your Facilities? The ancient art of getting by...

**Hopes & Prayers Method**

**Index Card Method**

**Spreadsheet Method**

**Crayola Method**

**CAFM System**



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If you've been in the facility management game long enough then you've seen, and likely used, virtually every method of managing facility information:

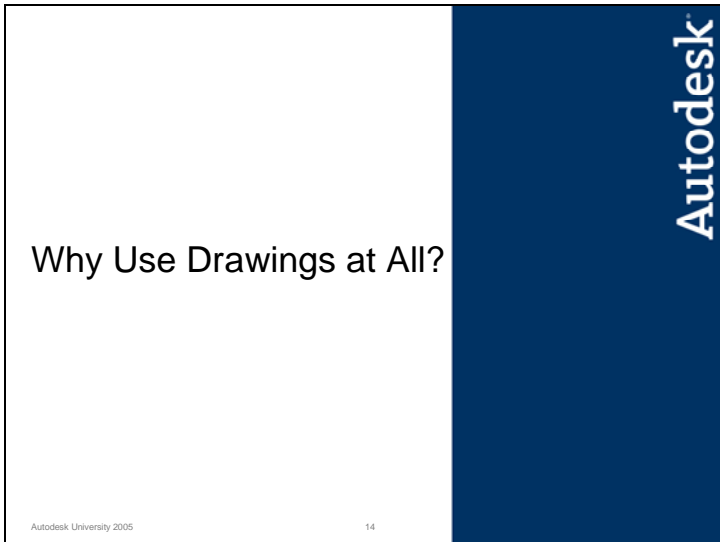
**Hopes & Prayers Method**

**Index Card Method**

**Spreadsheet Method**

**Crayola Method**

**CAFM System**



Notes

So, if facility management is all about the data, why use drawings at all?

This is a great question and one that separates those that continue to use spreadsheets to manage their facility information and those that use CAFM Systems.

## Why Use Drawings At All?

It's the difference between accuracy and effectiveness...

### Space Allocations

- Accurate

United Health Associates  
 7272 Corporate Drive  
 Fayerly, Massachusetts 01928  
 Phone: (978) 653-6500

Occupancy By Cost Center

| Cost Center | Category                 | Building           | Floor                 | Area     |
|-------------|--------------------------|--------------------|-----------------------|----------|
| 0001        | Administration           | 01 Corporate Drive | Administration        | 17 2,404 |
|             |                          |                    | Estimate              | 4,264    |
| 0002        | Legal Services           | 01 Corporate Drive | Administration        | 17 1,204 |
|             |                          |                    | Estimate              | 1,884    |
| 0003        | Marketing                | 01 Corporate Drive | Administration        | 17 943   |
|             |                          |                    | Estimate              | 943      |
| 0004        | Marketing Administration | 01 Corporate Drive | Administration        | 17 301   |
|             |                          | 7272B Drive        | Administrative Office | 2 1,818  |
|             |                          |                    | Estimate              | 2,119    |
| 0005        | Physical Services        | 01 Corporate Drive | Administration        | 17 1,204 |
|             |                          |                    | Estimate              | 4,264    |
| 0006        | Human Resources          | 01 Corporate Drive | Administration        | 17 304   |



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When it comes to conveying information about your facilities, tabular information is accurate...

But...

## Why Use Drawings At All?

It's the difference between accuracy and effectiveness...

### Space Allocations

- Accurate & Effective



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...A drawing is far more effective in conveying the same information and provides us the ability to visualize what the information really means.

## Why Use Drawings At All?

It's the difference between accuracy and effectiveness...

### Vacancies

- Accurate



| United Health Associates                                                       |                           | Vacant Space Summary |        |
|--------------------------------------------------------------------------------|---------------------------|----------------------|--------|
| 1221 Corporate Center<br>Fayette, Massachusetts 01525<br>Phone: (508) 534-5555 |                           |                      |        |
| Category                                                                       | Building                  | Floor                | Area   |
| 11 Corporate Center                                                            |                           |                      |        |
|                                                                                | Administration 1F         |                      | 12,000 |
|                                                                                | Office 2, 3, 4, 5         |                      | 4,500  |
|                                                                                | Medical 6, 7, 8           |                      | 12,250 |
| Administration 2, 3, 4, 5                                                      |                           |                      |        |
|                                                                                | Administration 2, 3, 4, 5 |                      | 1,200  |
|                                                                                | Administration 2, 3, 4, 5 |                      | 6,000  |
|                                                                                | Administration 2, 3, 4, 5 |                      | 5,000  |
| Total Vacant Space                                                             |                           |                      | 23,950 |

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The same concept applies to vacancy information. A simple tabular listing is accurate...

## Why Use Drawings At All?

It's the difference between accuracy and effectiveness...

### Vacancies

- Accurate & Effective



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...But a drawing is far more effective.

## Why Use Drawings At All?

It's the difference between accuracy and effectiveness...

**Fire Evacuation**


- Accurate

**United Health Associates** Fire Evacuation Routes

100 Pleasant St.  
Fayett, Massachusetts 01505  
Phone: (508) 954-6555

From the Treatment Area make your way to the patient Waiting Area. From the patient Waiting Area make your way down the south corridor to the stairwell and exit to the street.

As an alternative route, from the patient Waiting Area make your way down the north corridor to the Main Waiting Area. From the Main Waiting Area make your way east to the Elevator Lobby stairwell and exit to the street.



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There are some areas of facility management where tabular information, while accurate, is **not at all effective**. As an example; directions to emergency exits in the case of a fire.

## Why Use Drawings At All?

It's the difference between accuracy and effectiveness...

### Fire Evacuation

- Accurate & Effective



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A drawing is far more effective at conveying this information.

Questions?

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Any questions on what we have covered so far?



Notes

Now that we've framed what Facility Management means, and have made the argument for the virtues of graphically representing our facility data, it leads us to the question: why DWF.

## Why DWF?

No CAD skills required...

### Other Advantages...

- Secure
- Portable
- Scaleable
- Intelligent (with a little help)



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There are many reasons why DWF is a good choice for facility management. First and foremost there are no CAD skills required to work with DWF files.

DWF offers additional advantages:

**Secure**

**Portable**

**Scaleable**

**Intelligent**

### DWF With Attitude

Bring data and drawings together...

Drawing Files

AutoCAD Drawings

AutoCAD & Facility Link

Data Source

Database

Intelligent DWF

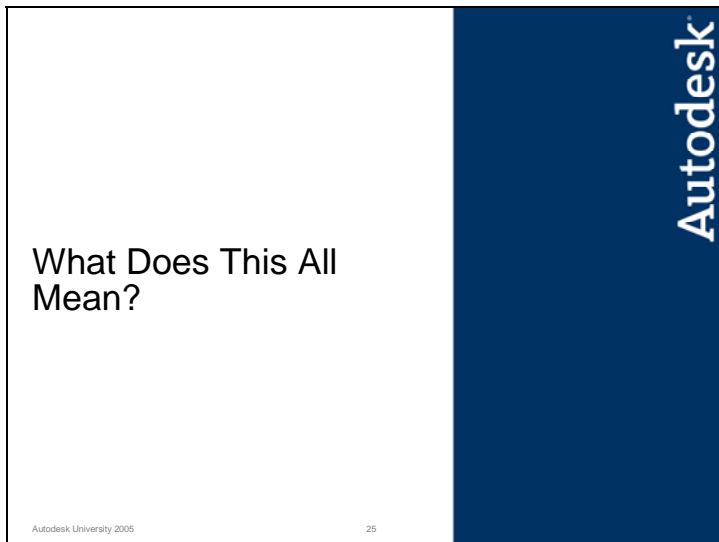
Dynamic DWF

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Notes

With a little ingenuity DWF files can be made highly intelligent, combining the efficiency of graphics with the power of live data.



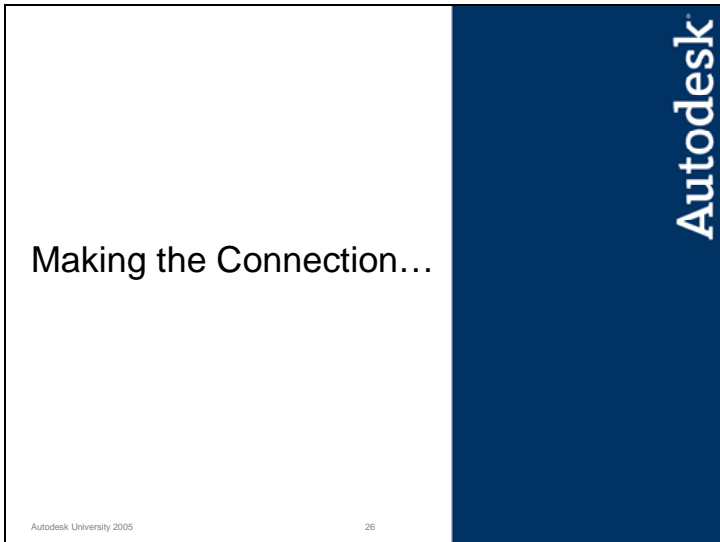
Notes

Ok so I know what you're saying. This is a great display of techno-jargon, but what does this all mean to you.

Great question...

**Warning!!!**

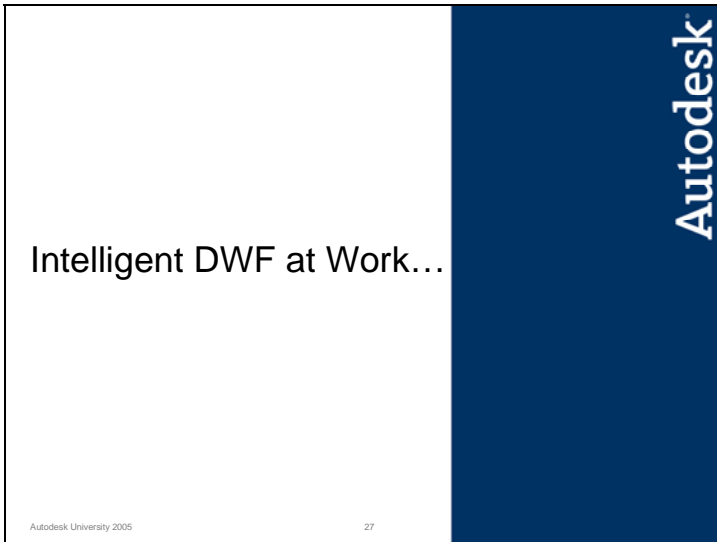
Please fasten your seatbelts and keep your hands inside the vehicle at all times. This is about to get **REALLY** exciting...



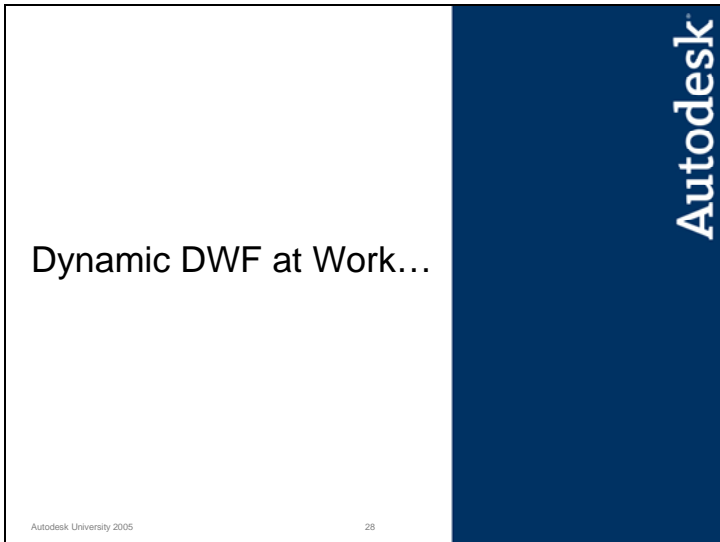
Notes

First things first...

Let's open a facility drawing in AutoCAD and see how we can turn a static drawing into a powerful facility management tool.

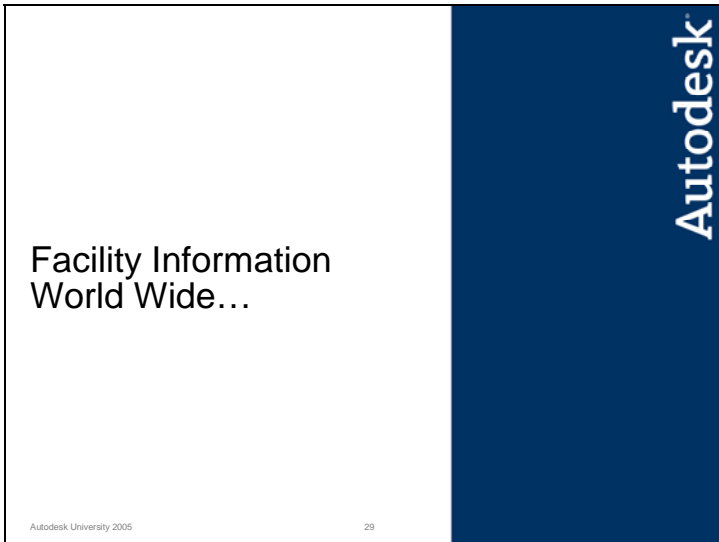


With our “Intelligent DWF” file now exported, let’s take a look at what it can do.



Notes

While “Intelligent DWF” files provide us a great way to navigate our facility information and do some basic reporting, “Dynamic DWF” opens a whole new world of possibilities.



Notes

The power and usefulness of DWF is not limited to the desktop. DWF technology is just as “at home” on the web as it is on the desktop.



Notes

The floor is open for any questions that you may have.

The Autodesk logo is displayed in white text on a dark blue rectangular background. The word "Autodesk" is written in a clean, sans-serif font, with a registered trademark symbol (®) at the end.

We hope this session was helpful. Thank you for taking the time to listen; please enjoy the rest of the conference...

