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■ Winter 2009 - 2010

Founders' Perspective

Mission: Spatial Data for Everyone

FME® 2010 has launched, propelling users into a whole new galaxy of possibilities in spatial data access. This new release brings us one step closer to achieving Mission: Spatial Data for Everyone.

Designed with the feedback we've received from FME astronauts like you over the past year, FME 2010 makes even more of your spatial data accessible, increases your productivity, and gives you a wider range of deployment options.

In this issue of the Safe Insider, you get a chance to

examine some of the stars of this new release. For example, you'll find out about the great new usability enhancements in FME Workbench, how you can become more productive by taking advantage of the dynamic workflow options now available across all formats, and how you can integrate

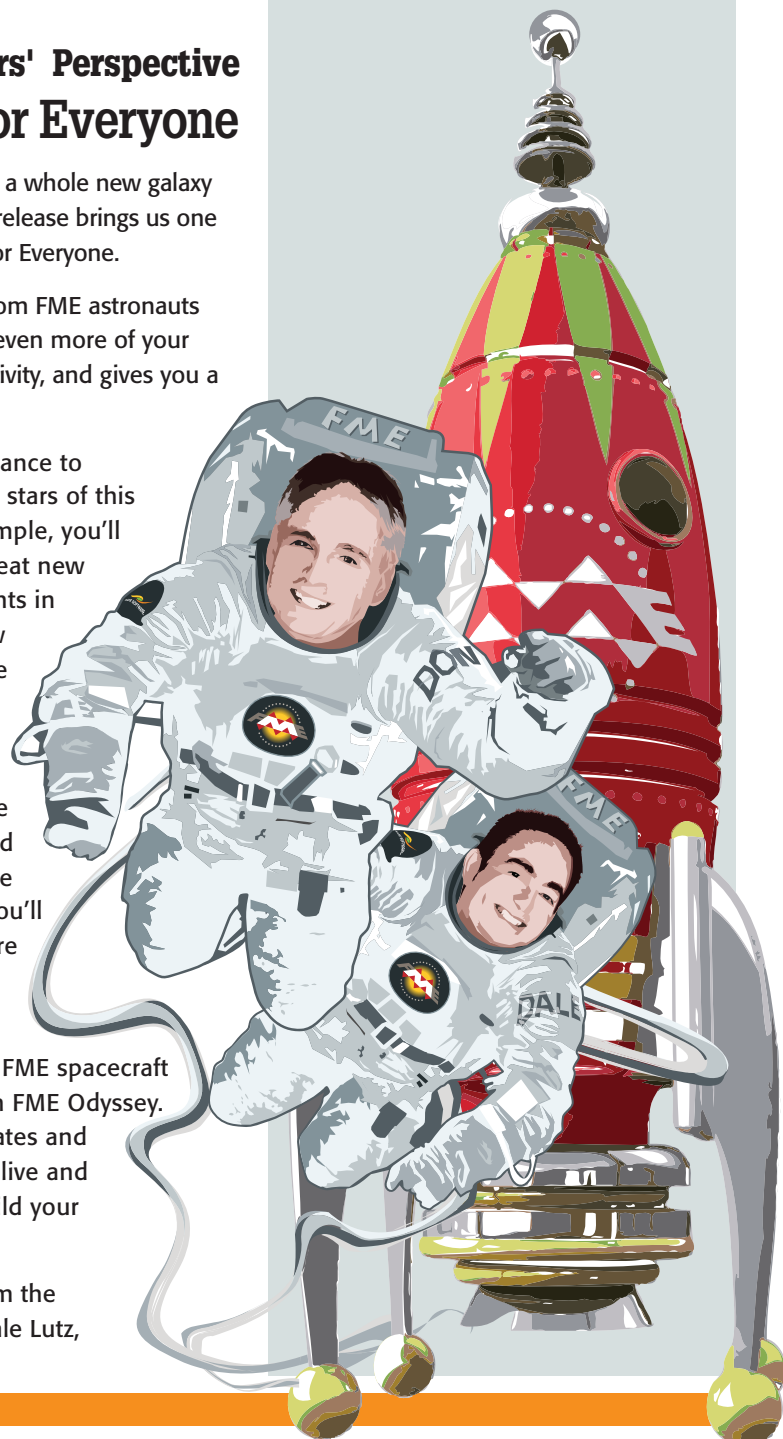
FME Server security into your deployment. You'll also hear about the many ways customers are taking advantage of FME to make their data more accessible.

Want to explore more? We're undocking the FME spacecraft for an unprecedented adventure – 2010: An FME Odyssey.

Rocketing through 10 cities in the United States and Canada, you'll get a chance to meet with us live and in-person for a day of cosmic FME fun to build your spatial-ETL expertise.

So until we see you then, happy FMEing! From the FME control center this is Don Murray and Dale Lutz, over and out.

"FME 2010 brings us one step closer to achieving Mission: Spatial Data for Everyone."



FME Desktop 2010: Taking Spatial Data Access to the Outer Limits

At Safe, we're on a quest to deliver spatial data access to everyone. Now with FME 2010, we've taken a giant step forward in achieving this goal. After a year-long journey, we're pleased to introduce the release that will make spatial data access easier than ever before.

Designed in response to customer feedback, FME Desktop 2010 promises to deliver exciting new enhancements that are sure to please even the most

discerning users. In fact, over 22% of the new functionality introduced is a direct result of the feedback we received from our FME user community.

Explore the universe of possibilities. Check out the highlights in the articles below to discover for yourself how FME 2010 will help you take spatial data access to the outer limits. Be sure to also catch the What's Great in FME 2010 Spotlight at www.safe.com/FME2010.

"Oh FME, how did I ever live without you?"

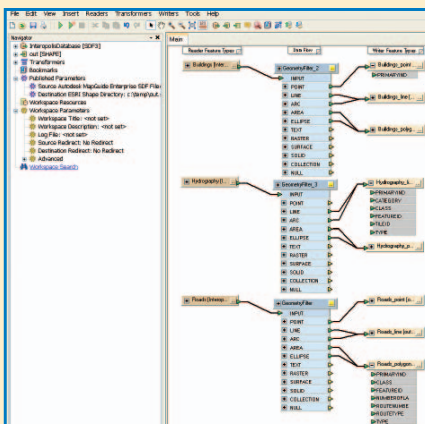
A tweet on Twitter.com by FME fan Laura Cerquozzi (@geographygeek) of The Weather Network

Maximize Your Workspace Flexibility: Introducing Dynamic Workflows

Have you ever wished you could avoid tweaking your workspace every time your source dataset's schema changed? Or save time by using a single workspace on multiple datasets with varying schemas? Or perhaps even perform the same operation on dozens of input feature types with one workspace? Well dream no more, because your hopes have turned into reality!

FME 2010 introduces dynamic workflows, launching you into a whole new realm of flexibility. First previewed in the Generic Writer last year, dynamic schema capabilities are now available across all formats, helping you break your dependence on source and destination schemas.

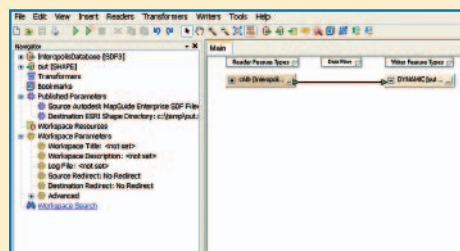
Before: Static Workflow



Dynamic workflows allow you to use the source schema or a schema template to determine the destination schema at runtime, creating workspaces that are schema-independent. This means that you can design workspaces to perform translations on any dataset, regardless of its schema, and also include transformations that you wish to perform on your source data.

This is a huge time saver in a wide variety of scenarios. For example, if your source dataset's schema changes, you no longer need to make any modifications to your workspace before running it. You can also create a single workspace to perform quick translations and even transformations on multiple source datasets whose schema is unpredictable. Additionally, you can build one workspace to perform the same translation or transformation task on multiple feature input types, such as tables within a database.

After: Dynamic Workflow



In all of these scenarios, building your workspace with a dynamic workflow saves you time in both the design and the maintenance of your work. Even better, it cuts down on the number of workspaces you need to create in the first place.

Plus, you can gain further control within your dynamic workspace by setting the Feature Types to Read parameter. This restricts which feature types are read into the workspace, regardless of any other changes to the source data's schema. Additionally, you can un-pair the destination schema from the source schema and instead use a reader resource to reference a data model template or a table defining a data model which the destination's schema will adhere to.

The possibilities are nearly limitless, especially when you think about dynamic workflows within the FME Server environment. Want to learn more about this flexible combination? Check out the article on the next page. Want to dig deeper into dynamic workflows? Check out the tech brief at www.safe.com/DynamicWorkflows.

Rocket Your Data Sharing Productivity

Many GIS folks are facing increasing demands to share their spatial data with decision makers who may not have any background in GIS. To achieve this, we've found that many FME users turn to output formats that are familiar to these end users, such as Google™ Earth™ (KML) and Adobe® Acrobat® (PDF).

So we thought we'd ask customers what we could do to make creating outputs in these formats even faster and easier – and you responded. FME 2010 introduces these exciting new enhancements, which are sure to increase your productivity as you seek to share your data with non-GIS users.

Many of the great changes are related to transformers – improving existing ones, and creating new ones that add flexibility and speed to your workspace design experience. For example, FME users working with KML output datasets will benefit from the latest refinements to the KMLStyler, which has been simplified to make

output settings more easily understandable. New KML transformers such as the KMLTourBuilder and the KMLViewSetter make it easy to create a guided end user experience through your output dataset, and the new KMLTimeSetter helps you create timeline playbacks for data which is time sensitive, such as analysis for a tsunami or tornado event.

FME users working with PDF get their own goodie bag, with the shiny new ability to select the order in which features are drawn, add tooltips to your datasets, write multiple pages and specify coloring options. You can also write raster data and create links in your output PDF – including links that run workspaces on FME Server, and links to other PDF files that contain an adjacent dataset or further details.

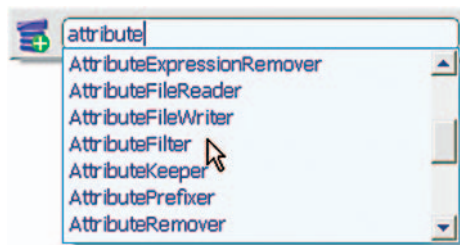
Find great examples created with these new enhancements by visiting www.safe.com/KMLTour and www.safe.com/PDFLinks.

Usability Skyrockets to New Heights

Improving the user experience within FME is always of critical importance to us here at Safe. That's why for FME 2010 we were extra diligent to introduce usability enhancements that would deliver increased productivity to our customers. Here are just a few highlights of how FME 2010 will save you valuable time:

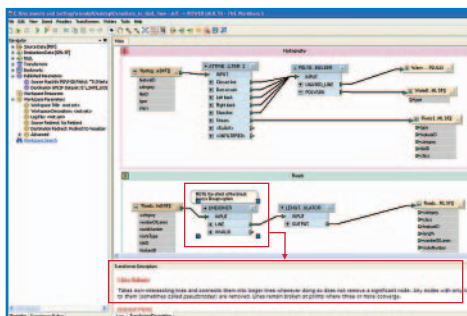
Quick Add Transformers

Save time searching, clicking and dragging transformers into your workspace. Now you can simply type to add the transformers you need.



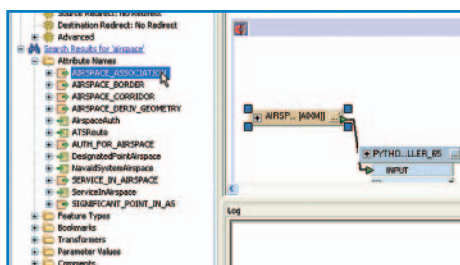
Workbench Layout Improvements

Work more efficiently with the newly enhanced FME Workbench. For example, full transformer help now automatically appears in the lower pane when a transformer is selected.



Workspace Search

Quickly find what you're looking for in your workspace. Use the workspace search function to easily locate attribute names, transformers, parameter values and other objects in your workspace.



Expert
Tip!



"With FME 2010 you can now filter log window messages by type. This option makes it much easier to read the log file especially when you're processing large amounts of data. Just go to Tools > Options > Runtime to select your settings."

Mark Ireland is a Senior Product Specialist in Safe's Professional Services department.

All these usability enhancements mean more time for you. To learn more about FME 2010, visit www.safe.com/FME2010 and access demos, tech briefs, and more.

FME Server 2010: A New Universe of Spatial Data Sharing

FME Server 2010 introduces exciting new enhancements to help you more efficiently meet your diverse data access requirements. Catch the highlights by checking out the articles below, and by visiting www.safe.com/FME2010 for the What's Great in FME 2010 Spotlight and more.

The Dynamic Workflows Revolution

So you've heard about the time you'll save by using dynamic workflows in FME Server's authoring environment, FME Desktop. (Not yet? Check out the Dynamic Workflows article, page 2.) These new capabilities allow you to use the source schema to determine the destination schema at runtime, creating workspaces that are schema-independent. But how do these new dynamic capabilities benefit FME Server users?

In addition to saving time and maintenance on the authoring side, dynamic workflows present two highly valuable advantages for FME Server users: server maintenance and flexibility.

FME Server maintenance efforts can be immediately decreased with dynamic workflows by requiring fewer workspaces to be created, published and kept up-to-date. Since these new workspaces are schema-independent, they can be used on a much wider set of data sources. And because they can be used to perform the same

transformation task on any feature input type, they can be used to power self-serve data conversion services for end users.

This capability introduces a whole new level of flexibility. You can now create simple upload and transformation services for end users that clip data, translate a dataset's format, and reproject a dataset's coordinate system — all with no concerns about the source dataset's schema.

Ulf Månsson of SWECO, a Safe Software reseller in Sweden, has already found dynamic workflows to be a huge benefit for his customers, including the City of Göteborg. They've been using FME Server to perform coordinate system conversion on their data to meet new national requirements. With the new dynamic workflows, they can now more easily offer services that enable end users to upload their own datasets and convert them to the new national coordinate system, SWEREF 99.

"Our clients can now focus on the tasks that are interesting, not schema mapping," says Ulf. Dynamic workflows have also made a positive impact on Ulf's own daily work.

"As consultants, this makes us more efficient as we can give our clients their results and feedback immediately. We work on projects with thousands of datasets, and dynamic workflows are now saving us tremendous amounts of time. For example, we can now easily replicate huge datasets, not only files but even entire spatial databases with a single workspace.

"It's a feature you adopt so quickly, I can hardly even remember how it used to be before. This is a huge step forward for FME, FME Server and mankind!"

Learn more about saving time and effort with dynamic workflows by visiting: www.safe.com/DynamicWorkflows.

Using FME Server to Power a Turnkey Data Sharing Solution

Dotted Eyes®, a well-established GIS and CAD solution provider and an FME reseller in the United Kingdom, recently introduced an innovative solution that uses FME Server to simplify the process of sharing map data with internal and external users.

Dotted Eyes' new web application, Contractor Portal™, automatically extracts and converts map data into the end user's preferred formats, making it easier to share and license geographic information. It integrates the power of FME Server's data conversion capabilities with an intuitive mapping interface to offer a turnkey data sharing solution that removes the time and complexity involved in managing

license agreements and data requests – enabling organizations to free up valuable GIS resources for other critical projects while ensuring that current map data is available at all times so project work can start straight away.

The solution enables users to pan and zoom in the map interface, draw a polygon around the data they require and choose their desired output layers and formats from a pre-defined list. The user's order is then automatically processed by FME Server which crops the data for delivery by download or on disk. The license manager can log in at any time to export information to a .csv file for internal audit purposes such as proving compliance with data licensing terms.

Continued on bottom of page 5

Secure Data Access with FME Server

Brand new in FME 2010, FME Server answers the #1 customer request from 2009 with the introduction of specialized security. We recently sat down with FME Server Product Manager Ken Bragg to get the full scoop on what this new capability provides.

The new security capabilities of FME Server sound exciting. What do they mean for customers?

Security in FME Server enables users to continue meeting their data access requirements while empowering administrators to control exactly who they want to give access to. Customers can now specify exactly who has permission to use and manage their FME Server deployment.

So will this enhancement make every aspect of FME Server secure?

Yes, all FME Server components must authenticate when communicating with FME Server. The authentication framework is role-based, and each authenticated user can be assigned to roles which are authorized to access specific FME Server resources. For example, a DataDownloader role could be created which would enable access only to the data download service

in the web user interface. A higher level WorkspaceAuthor role could be created which would allow publishing of workspaces from FME Desktop to FME Server.

Is FME Server security easy to implement?

Absolutely. The security features can be enabled directly in the FME Server installer and then configured in the familiar, easy-to-use web user interface.



What if an organization already has an established security framework?

That's no problem. FME Server's security framework is equipped to be used either stand-alone or integrated into an organization's existing security framework within their environment.

Does FME Server support customers' existing Active Directory security framework?

Yes, FME Server is equipped to integrate security directly from an organization's own Microsoft® Active Directory® framework using an LDAP Login Module.

Can FME Server Web Services be SSL Enabled?

Certainly. Administrators can turn SSL on in FME Server to ensure that communication between web clients and FME Server is encrypted for maximum control. That's why you'll now see "https" in each FME Server URL when SSL is enabled, rather than just "http."

What if customers want more granular security?

We've designed FME Server security to meet the most common security needs of organizations everywhere. However, some clients may prefer to implement more granular security measures, and to support this we've built an API that enables organizations to customize FME Server security.

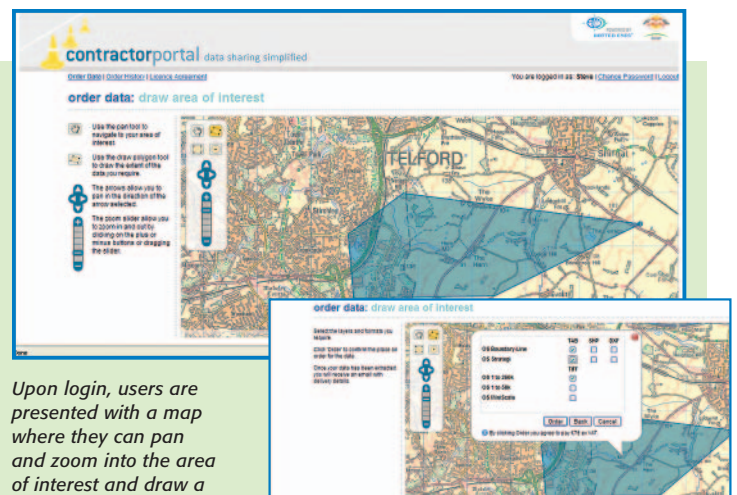
Where can users learn more about FME Server security?

More details can be found in the FME Server Security Spotlight at www.safe.com/FMEServerSecurity.

A record of when a contractor completed their online license agreement and who acted as a signatory is also maintained.

"Contractor Portal aims to revolutionize the way in which GIS departments deliver their services by removing the repetitive low value items from a GIS professional's task list so that they can focus instead on real, high value GIS services and analysis," says Benjamin Allan, Managing Director of Dotted Eyes. "FME Server is an integral part of both network and hosted versions of Contractor Portal as it enables the seamless supply of data without manual intervention."

To see Contractor Portal in action for yourself, contact Craig Dean at Dotted Eyes (craig.dean@dottedeyes.com) for a personal demo.



Upon login, users are presented with a map where they can pan and zoom into the area of interest and draw a polygon to define the area required.

Users can select their preferred layers and formats from a pre-defined list. Once the order is placed, FME Server cuts out the data and an email is sent to confirm the delivery method (download or media).



FME User Spotlight:

**Matthew Austin, Physical Scientist,
National Oceanic and Atmospheric Administration (NOAA),
FME User for 7+ Years**

Please describe your role at NOAA.

I provide project management and GIS consulting services to NOAA's Office of Coast Survey which is responsible for producing nautical charts for the coastal waters of the United States.

Tell us about an interesting GIS project you've worked on in your career.

I recently worked at the NOAA Pacific Islands Fisheries Science Center in Honolulu, Hawaii. I used FME to create a tool that dynamically creates fish catch reports and maps for fisheries management in the Pacific Islands region using an ecosystem-based approach.

How do you use FME in your organization?

We use FME to process a wide variety of source data that is used to create navigation products such as nautical charts and hydrographic surveys. We also use FME to distribute Coast Survey data to customers in readily useable formats.

Do you have any tips or tricks for using FME?

I suggest browsing the transformers portal on *fmepedia.com*. The real benefit of FME is the value that it adds to the dataset, not just the translation.

Do you have any interesting hobbies or interests?

I grew up surfing in California. I routinely make the three hour trip to the beach from Washington, DC whenever there is a good swell.

Building Realistic 3D Models with FME 2010

Decision makers continue to demand high-quality data in an easy-to-understand format. To help users meet this ongoing challenge we have included dramatic 3D improvements in FME 2010, adding new formats and vastly improving FME's texture support.

FME 2010 now enables users to integrate additional types of 3D data through new support for popular authoring formats Google Sketchup™ and COLLADA, interchange format Autodesk™ 3ds and OpenFlight, a format used for flight simulations.

This expanded format support helps by making it easy for users to produce more realistic 3D visualizations. For example, new COLLADA support allows users to easily integrate individual COLLADA files

into a KMZ file. This efficient approach offers enhanced data quality and time savings compared with performing the same task using raw KML.

But even with access to more data formats, a creative imagination is still often needed to view a 3D model that has no textures. Textures provide valuable context, allowing end users to focus on making decisions instead of becoming distracted by attempts to situate the model in real life.

With FME 2010, Safe has extended FME's core architecture to provide enhanced texture support for virtually all 3D formats. Using an initial set of Appearance transformers, FME users are now able to create and manipulate textures with ease, enabling the construction of accurate and realistic 3D models. With FME's support

for presentation formats like Adobe 3D PDF, these 3D models can then be easily shared with decision makers in a way that is easy for them to understand.

Want to see more? Check out an example of FME's new 3D capabilities by visiting www.safe.com/Gavle.



Using FME, you can integrate a variety of data types to create a realistic, integrated 3D model.

Coming Soon: 2010: An FME Odyssey

Safe Software will be blasting off and flying to a city near you in March. Join Safe co-founders Don Murray and Dale Lutz as well as a crew of Safe experts for 2010: An FME Odyssey – a whirlwind tour of FME regional user meetings in 10 cities across North America. These no-cost events promise to deliver a day full of education and networking.

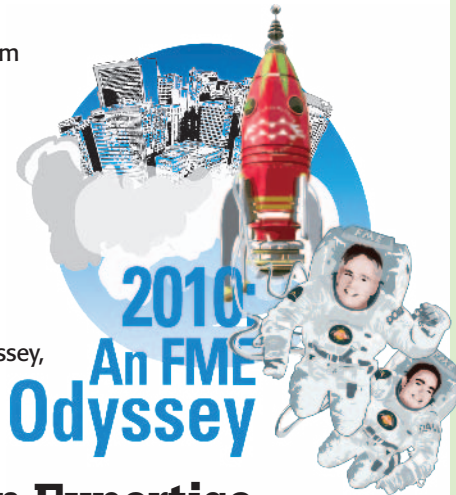
Our mission for 2010: An FME Odyssey is to make it even easier for you to solve your data access challenges. You'll learn all about the latest and greatest enhancements in FME 2010 through presentations and demos. You will also have the opportunity to discover how your peers are navigating the vast universe of data challenges through informative FME user presentations and casual networking opportunities.

Our expert Pro Services staff will also be on hand to share FME best practices, offer helpful tips and tricks and lead the ever popular "Ask an Expert" session where they will answer any questions that have left you feeling spaced out.

2010: An FME Odyssey will touch down in 10 cities from March 22 – 29, 2010. Find the city nearest you below:

- Tampa – March 22
- Washington DC – March 25
- Atlanta – March 23
- San Francisco – March 25
- Houston – March 23
- Toronto – March 26
- Chicago – March 24
- Calgary – March 26
- Denver – March 24
- Vancouver – March 29

To register or for more details about 2010: An FME Odyssey, visit www.safe.com/FMEOdyssey.



FME Users Gather to Gain Expertise

Excitement was in the air in October and November, with more than 100 FME users coming together to build their FME expertise and knowledge at FME User Meetings around the world. These events gave us a great opportunity to connect and interact with FME users across the globe as well as support our FME resellers.

In Australia, FME users converged on Sydney for an FME User Meeting co-hosted by Safe and Lagen Spatial. Safe VP of Development Dale Lutz was in attendance



and wowed the audience by demonstrating the key highlights of FME 2010. Over in Europe, FME User Meetings were hosted in the Netherlands by Vicia Solutions and in Austria by axmann geoinformation. For the Austrian event, Safer Dean Hintz was on hand to feature innovative FME case studies while in the Netherlands Safe's Chief Scientist Kevin Wiebe gave a sneak peek at FME 2010.

In addition to informative presentations from Safe and our resellers, each FME User Meeting also provides opportunities to network with other nearby FME users and learn how they use FME.

To find out about upcoming FME User Meetings, visit www.safe.com/UserGroups.

Austrian users listen to Dean Hintz from Safe Software present on FME and the INSPIRE SDI.



Hong Kong was the site of a private FME training course in November. To inquire about private FME training, contact training@safe.com or your local FME reseller.

FME 2010 Training Update

Want to become a more productive FME user? With 30 FME training courses offered in 2010 in North America and more offered around the world, now is a great opportunity.

Upcoming FME Courses:

- Surrey, CAN - January
- Calgary, CAN - January
- Houston, USA - February
- Kranzberg, GER - February
- Muenster, GER - February / March
- Surrey, CAN - March
- Albany, USA - March
- St. Louis, USA - March
- Seattle, USA - March
- Wiesbaden, GER - March

To see more course listings and to register, check out www.safe.com/TrainingCalendar.

FME International User Conference Update

The next FME International User Conference is planned for late Spring 2011 in Vancouver, Canada. Sign up to receive email updates at www.fmeuc.com/2011Update.

Safe in the News

Curious how other people are using FME? Find out by visiting our News Room. Here you can read how one American Department of Transportation used FME to create a single statewide repository of transportation information. You will also find other news articles including a detailed review of FME Desktop by Professional Surveyor magazine. Check out our News Room by visiting www.safe.com/NewsRoom.

About Safe Software

Safe Software powers the flow of spatial data with its software platform, FME. The recognized standard in spatial ETL (extract, transform and load), FME is the only complete solution for data conversion. It delivers the most extensive format support for data translation and integration, and provides unlimited flexibility in data model transformation and data distribution.

FME is used by thousands of customers worldwide in a variety of industries including government, utilities, and petroleum. Its powerful data access technology also makes FME the choice of leading GIS, CAD, and database vendors for integration into their own solutions. Designed for true data interoperability, FME unleashes spatial data so people can use it where, when, and how they want to. For more information, visit www.safe.com.

Connect Online with Safe Software

Follow Us On Twitter™

You can now interact with us in a whole new way: look us up on Twitter and let us know what you are doing with FME.



Follow Us: @SafeSoftware

- Read news and learn what Safe is up to: @SafeSoftware
- Get answers for your technical problems: @FMEDoctors
- Receive updates on new FME betas: @FMEBetaBuilder
- Find out about cool features in FME: @FMEEvangelist

Interact on our Blogs

Our blogs are read by thousands of people every month; visit them to find out why!

- **It's All About Data** (blog.safe.com)
Thoughts on spatial data interoperability
- **FME Evangelist** (evangelism.safe.com)
An insider's look at FME development

Join our User Forum

FME Talk

Exchange technical questions and answers with over 2,000 FME users.

Check it out today! www.FMETalk.com



Employee Profile: Ryan Proulx

Joined Safe Software in September 2000

What is your role here at Safe?

As the FME Program Manager, I manage the development of each new FME release. This involves extensive collaboration with teams throughout Safe to ensure that each FME release is completed on time and includes what our users want.

Tell us about an interesting project you have been involved with.

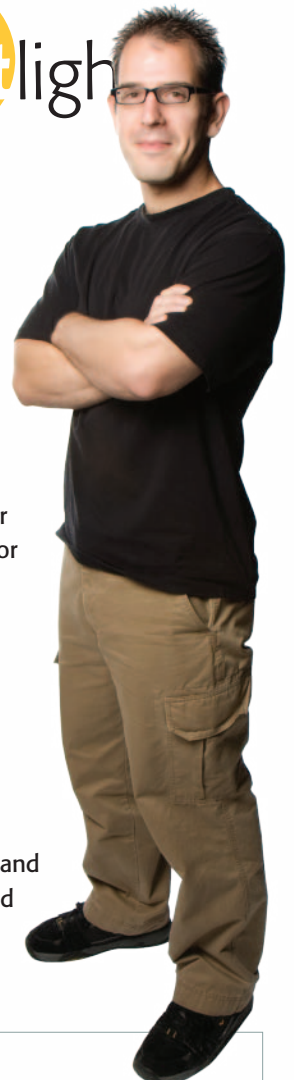
I have been overseeing the development of the FME Data Inspector which is a technology preview in FME 2010. The FME Data Inspector lets users easily inspect data within a 3D environment.

Your identical twin brother also works for Safe. What has that been like?

At first people kept mixing Regan and me up. When I got married, everyone was relieved because my wedding band finally let people distinguish between us.

How do you spend your free time?

Several Safers – including myself – own Suzuki® SV650 motorcycles and wound up starting a small riding club. I also enjoy playing hockey and watching my hometown team play (Vancouver Canucks™), though my wife Karin is probably a bigger Canucks fan than I am.



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