# **FMEinsider**

Winter 2012 - 2013









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#### Founders' Perspective:

## Missions, Mars, and FME 2013

There's something about a star-strewn night sky that frees the imagination. For science fiction fans, it's the imaginary setting of our favorite stories, books, movies and television shows. And for a team of scientists and engineers this past summer, it was the ultimate destination and the culmination of years of work as the Mars rover Curiosity

touched down on the Martian surface, sending its first images back to Earth.

The NASA team named Curiosity's landing site "Bradbury Landing" in in tribute to the late author of *The Martian Chronicles*. Here at Safe we were caught up in the excitement too, and are celebrating this achievement — and the release of FME® 2013! - with a new

Follow Don on Twitter @DonAtSafe

Follow Dale on Twitter @DaleAtSafe

Mars-themed splashscreen and a trip through the annals of classic sci-fi.

In this issue of the FME Insider, see how FME assists an Austrian firm in creating possible 3D worlds, and how a modern-day John Carter bends the workspace-time continuum in Ireland with one single FME Desktop license. In Germany, an FME Server-based notification system prototype is looking to make the *Riverworld* safer to navigate, and in Norway, FME Server is transported into the cloud to drive a central cadastral data maintenance and distribution system.

Dale beams in his thoughts to us in an interview on the past, present, and future of FME and our industry, and, of course, we present some of the highlights of FME 2013, including the new MapTextLabeller transformer — a hyperspace jump forward for cartographic annotation. And join us for the FME "Out of This World" World Tour 2013 — coming soon to a spaceport near you!

Funny thing about science fiction — with time, it often becomes science fact. And that's a lot like the evolution of FME. Features and functionality that start out as ideas from our users are the basis of every new release, and 2013 is the best one yet. So please do share your data transformation ideas, wants, and needs with us — the future of FME is yours!

Having won the first round of rock-paperscissors-lizard-Spock, Don gets to choose the first stop on the 2013 World(s) Tour.

### FME 2013 Has Landed!

On the evening of August 5th, 2012, the control room at NASA's Jet Propulsion Laboratory erupted into cheers and tears as the Mars rover Curiosity successfully touched down on Mars and sent back its first images, the culmination of years of work by a talented team. We have a pretty darn talented team here at Safe Software too — and every year, we celebrate their efforts and the launch of a better-than-ever version of FME. Here are a few of the highlights for 2013!

Every release brings new formats, and notable this year are the addition of non-spatial formats including Salesforce®, Socrata, and CouchDB™. Plus, you can now read and write zip files! Esri Shape files can now be written with spatial indexes, and of course we've kept up to date with the latest releases of your favorite GIS, CAD, and database applications.

Smart-Delete mode is a new usability feature in FME Desktop that will save you both time and wear-and-tear on your mouse-clicking finger by automatically repairing connections when a transformer is deleted. Improved zooming tools and new shortcuts make navigation a breeze.

As 3D data becomes ever more popular and available, we've

enhanced that toolkit with new format support including X3D (VRML), Autodesk® Infrastructure Modeler, and CityGML 2.0 plus ADE Extensions. New 3D transformers SolidBuilder, SurfaceBuilder, and SurfaceOnSurfaceOverlayer assist in constructing 3D geometry, and the GeometryValidator provides powerful QA abilities for both 3D and 2D geometries.

Point cloud handling also has some new tools. The PointCloudExpressionEvaluator performs calculations on components like color, intensity, and number of returns, while the PointCloudFilter operates in a similar fashion to the TestFilter, enabling you perform tests on color and intensity and manipulate the results. Six new point cloud formats have been added, including ASTM E57.

This is just a sampling of What's Great in FME 2013! You can delve into the details with Mark Ireland, the FME Evangelist at **www.safe.com/Evangelist2013**, or view the "Unveiling FME 2013: A Special Launch Day Event" webinar at **www.safe.com/Launch2013**. Congratulations to the FME team on another job well done!

### **Barsoomian Feats of Data Transformation**

In 1917, Edgar Rice Burroughs published *A Princess of Mars*, and the world met John Carter. When this Confederate soldier finds himself transported to Mars — Barsoom, as the locals call it — he realizes he can perform superhuman feats of strength and agility, aided in no small part by the lesser gravity of the planet. We'd like to introduce you to another John — well, Jon — who found himself transported to a new land. And he too performs superhuman feats, aided by FME. This is his story.

When Jon Hawkins arrived at Waterford City Council in Ireland seven years ago, the position of GIS Coordinator had been vacant for a year and a half. As the sole member of the one-man GIS Section, his first task was to get the Ordnance Survey Ireland (OSi) data up to date, and that's when he first encountered FME. The quarterly update of the OS data was very manual, and Jon cut his teeth (as he puts it) on automating this recurring translation to four different formats – AutoCAD®, Geomedia®, MapInfo® TAB, and Esri SHP. And so it started...

Jon started to explore other transformers, and soon was styling his output formats, and merging, tiling and clipping datasets. As he

started to investigate the needs and wants of the multitude of potential end users for his data at the authority, it became apparent that many couldn't use it, due to their software systems or expertise, and he set out to make data as widely available as possible. With FME, he created workflows to support user-friendly data dissemination for the water network, housing, planning, sewage network, and road network groups — all in different formats and platforms — including web delivery and mobile devices for field crews.

Data uploading was up next. When a custom-coded application for uploading planning data failed, he re-created it in FME, and by adding additional writers, he extended the data usage too, with KML and CSV outputs to support alternate open platforms and open data initiatives. That was soon followed by data download. When the Council chose to use an external third-party FME-based system called MapAlerter for

location-based text message and email alerts, Jon set up a system to monitor, download, and process alerts submitted on MapAlerter via Dropbox and tweet the results – alerting the public to accidents, broken water mains, and the like via its social media channels.

Jon recently project-managed and implemented a front-end mobile incident capture system, with a third-party company, for reporting on things like abandoned cars, dumping, and graffiti that require the dispatch of city resources. It uses both iPhone® and Geomedia technologies. Without an in-house CRM system, Jon used FME to manage the data

flow – generating emails, updating databases with relevant details pulled from other systems, and inserting tasks into departmental task lists. Python® assists in the email generation, and the

alerts are evaluated for importance and scheduling – should it be sent immediately if reported in the middle of the night, or in the morning?

Did we mention that Jon was, until very recently, a one-man GIS Section? Not only that, he is doing all of this with **one single FME Desktop license**. "I have to be organized," he tells us. "If I didn't have FME, I wouldn't get half the things done that I need to. Pretty much any project that crosses my desk, I'm using FME to organize and analyze it, and re-using pieces from earlier projects."

Edgar Rice Burroughs provided inspiration for generations of writers to come by pushing the boundaries of fiction. We hope that Jon's story can provide some inspiration for you – he certainly has amazed and inspired us!

For more resource on FME for governments, go to **www.safe.com/Government** 

## **Building Alternate Worlds with FME**

Ray Bradbury was a master of visualization. His distinctive style, sometimes called "Midwest Surrealism", often combined elements of reality – the small American towns of his youth – with vivid flights of imagination. His classic *The Martian Chronicles* – mandatory reading for any sci-fi fan – transported us to his Mars, and his words let us picture, explore, and experience this alternate world. It's fitting that the NASA team named their Mars rover Curiosity's landing site "Bradbury Landing".

Creating virtual worlds — albeit a little closer to home than Mars — is what UVM Systems of Austria excels at. They too sometimes combine reality with possibilities — and the results are remarkable. Their CityGRID® product suite handles 3D data from assembly through to viewing, and FME is a key part of the process.

When CityGRID started out ten years ago, buildings were created via photogrammetry. Since this technique relied on deriving information from overhead images, the difference between the edges of a roof and the actual footprint of the building couldn't be identified. To create more realistic models, they started incorporating footprints from GIS data, creating roofs with overhangs. Four years ago, they made what Dr. Gerald Forkert, Managing Director of UVM calls "one of the best decisions we ever made" — and brought FME into the data preparation mix.

Creating a complete 3D world that could contain hundreds or thousands of individual models is picky and time-consuming work. UVM decided to create a set of custom FME transformers to automate production tasks. Reading from a multitude of source data formats, FME collects and prepares the structure linework, creating models automatically in CityGRID's internal format, ready for use in the final world. When it encounters quality issues – like a footprint that exceeds its photogrammetrically derived roof, or holes, those are flagged for human intervention using CityGRID's hands-on modeling tools.

These generated models — along with a host of other data — are built into a complete 3D scene that is optimized for viewing, whether standalone or streaming. FME assists here as well, reading in point cloud data, terrain, orthophotos, and assorted 3D models. The final product is a fully navigable virtual world. Sometimes it is a representation of reality, but more often it is being used to visualize proposed changes, like this simulation of a planned railway. This image is partly reality, and partly proposed construction and reclamation

(many of the trees and the pond don't exist), and they seamlessly illustrate what the final result will be. Because stakeholders can examine the project from any point of view, transparency is increased, and the public consultation phase is greatly eased.

This second scene was built for residents of a town concerned about the effect of the proposed construction of a nearby windpark. This world is incredibly detailed, combining terrain, orthophotos, LiDAR, and generated models, with the extra step of texturizing the sides of buildings with ground-level high-res photos taken by Gerald himself. The windmills were created with Autodesk 3D Studio, and then placed. Through four public consultation events, residents checked out the view from their gardens and usual dog walking routes — and much more easily understood what the

effects of the project would be.

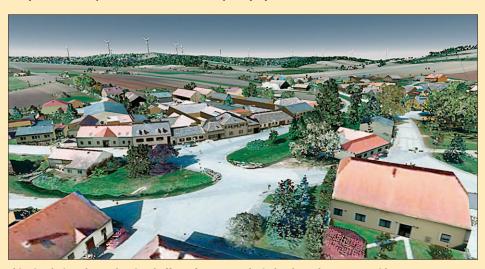
Recently, swisstopo selected CityGRID to assist in modeling the some 2.7 million (yes, million) buildings in Switzerland. As they are already FME users, UVM's custom transformers will plug right into their current workflows and ease the integration. As Gerald told us, "Tailoring the software is so easy now – whatever the customer's environment is, because it's FME, all it takes is a few adjustments on the readers and we're ready to go to production. We couldn't be happier."

Still images can't do justice to UVM's work. To see what it's like to be transported into one of their virtual worlds, check out their YouTube channel at www.safe.com/uvmchannel

To learn more about FME and 3D, go to **www.safe.com/3d** 



This planned railway simulation combines reality and proposed construction and reclamation elements.



This simulation shows the visual effect of a proposed windpark on the town's residents.

## A Hyperspace Jump Forward for Labelling

Labels. Perhaps one of the simplest ways to communicate information — be it a sticker on a box of files or a "Don't Panic" on the cover of your copy of The Hitchhiker's Guide to the Galaxy - these snippets of text convey just the right amount of information to tell you what you need to know. Cartographic labels, on the other hand, are tricky. Placement, collision avoidance, orientation, and text styling all contribute to the usability of your map, enhancing and not interfering with the spatial information.

MapText, Inc., experts in map labelling, is behind the new MapTextLabeller transformer, an optional add-on available in FME 2013. If your annotation requirements go beyond the basics, check it out - this rule-based transformer works some label magic, with features like a variety of placement options, word spreading, curved labels, route shields and automatic leadering when there just isn't enough space. Conflict resolution is also rule-based, with position hierarchies, gradual font reduction, and obstacle handling.

Dmitri Bagh, Safe's Scenario Creation and Testing Analyst, has been putting the MapTextLabeller through its paces, and created this example for us, showing just a few of the placement options available. He's also working on some complex examples that you can check out in our upcoming 2013 webinar series. So, whether you're producing cartographic output or CAD files with complex annotation, join us in early 2013 to see how the MapTextLabeller can help automate your cartographic labelling requirements!

Register for the MapTextLabeller webinar at **www.safe.com/LabelWebinar** 



A few of the label placement options using the MapTextLabeller transformer.

## FME Server, the Cloud and Everything

Science has some pretty concrete ideas on how the Earth came to be. Science fiction, on the other hand, has some pretty entertaining ones – like being commissioned by mice (er – hyper intelligent pan-dimensional beings, that is) in Douglas Adams' *The Hitchhiker's Guide to the Galaxy*. Luxury planet designer Slartibartfast was justifiably proud of his award-winning coastline work on the fjords of Norway.

That stunning topography is home to Norsk Eiendomsinformasjon AS, a company owned by the Ministry of Trade and Industry that distributes land information to the professional market in Norway. The distribution is largely accomplished through their online marketplace Infoland®, and Safe partner Geodata AS of Oslo plays a big part in making that happen — with FME Server.

FME Server is a popular choice for mapping agencies – so what's the big deal here? Well, Geodata has taken the considerable step of moving all of this into the cloud – Amazon Web Services, to be exact. FME assists in the constant automated maintenance of a master geodatabase, stored on Amazon's cloud infrastructure, and Geodata's own GDO (Geodata Online) Web Services integrate with the Infoland storefront to handle data requests.

When GDO receives an order from Infoland, FME Server takes over. First, it checks that the area of interest is valid, and then calculates the appropriate UTM and local NTM zones. It clips the requested themes, and then prepares them, according to the Norwegian FKB standard, for the requested output format – SOSI (the Norwegian national standard, supported by Geodata's own FME plugin), DXF, or shapefiles – in the desired coordinate system. GDO passes the zipped results back to Infoland for delivery. Typical processing time is around thirty seconds, and in 2012, more than 4,500 orders were handled automatically.

Knut Olav Sunde, Product Manager GDO Content, tells us about their architecture decisions. "The cloud has big advantages in cost efficiency and instant scalability — up and down," he says. "And the choice of FME Server is a simple one. It's effective, quick to set up new services, and making everything work is so easy." If there was an award for innovation with FME Server, we certainly think that this project would be a worthy candidate!

To learn more about FME Server, go to www.safe.com/FMEServer



Norway is home to both stunning fjords and ambitious FME Server projects.

## Sailing On with FME Server Sensor Notifications

Philip José Farmer is probably best known for his *Riverworld* series, but it's one of his lesser-known works, the 1952 short story "Sail On! Sail On!" that's dear to a mapper's heart. As Columbus sails out in search of new lands in 1492, he pushes on despite the crew's increasing apprehension. If only they'd had 52°North of Germany's Sensor Web technology! They might have received a notification via FME Server warning them to turn back and avoided sailing off the edge of the flat earth and into orbit.

52°North is a non-profit open source initiative headquartered in Muenster, Germany, that focuses on developing new concepts and technologies in the field of geoinformatics. Founded in 2004 by the Institute for Geoinformatics of the University of Muenster and con terra GmbH, their partner network now includes numerous industry, government and academic members. The Federal IT Services Institute under the authority of the Federal Ministry of Transport, Building and Urban Development (DLZ-IT BMVBS) is one of those, and their use case was behind an impressive FME Server-based prototype presented at the 2012 INTERGEO trade fair.

Most commercial ships on inland waterways in the EU are outfitted with Class A Automated Identification System (AIS) transceivers, which monitor and broadcast information such as ship ID, position, course, and speed. They also provide dimensions, including ship height, and current draft – the depth of the vessel below the waterline, which will change depending upon the weight of the cargo onboard. This information becomes crucial when a ship needs to pass under a bridge – as is knowing the current water level.

If the ship's captain wants to receive notifications from the warning system, he subscribes with the notification server. From then on, the latest AIS information is pushed to FME Server, which monitors bridge clearance in proximity to the ship. When the ship approaches a bridge, FME Server pulls in two other datasets. First, an extensive network of sensors provides current water levels up to every minute. This data is provided through the OGC® Sensor Observation Service (SOS) interface, which is coupled to DLZ-IT's PEGELONLINE system. The current level is compared with a static database of bridge heights, and FME does an on-the-fly calculation of the current available clearance. By looking at the ship's dimensions and current draft, provided by the AIS system, FME Server can then determine whether the ship will fit, or if there is a danger of collision — and send a notification such as a text message or email to the captain, advising him immediately.

While it's still in the prototype stage (water level prediction models will need to be added for real-world use), con terra and 52° North are excited about the future possibilities of combining FME Server's capabilities with their ongoing development. "This prototype shows how efficiently and flexibly open standards and the FME Notification Server can be coupled to build powerful event notification systems that fulfill the needs of our customers in the near future," says Christian Dahmen, consultant at con terra. We're excited to see what they come up with next. Sail On!

Learn more about working with real-time and sensor data at www.safe.com/realtime



An FME Server-based prototype collects sensor data and sends notifications to ensure safe passage under bridges.



# FME Server 2013: The Next Generation

Talk about your hands-off data challenges! With Mars an average of 225,000,000 kilometers away from us, the scientists at NASA have accomplished amazing things communicating with the rover Curiosity and retrieving data from its array of sensors. Back here on Earth, more and more FME users are taking advantage of FME Server to get more hands-off with their data too – and FME Server 2013's new features and enhancements are making that more possible than ever.

Last year saw the introduction of notifications and complex event processing, and we've continued along that trajectory with FME Server's notification services, putting real-time data handling within your reach. Instantly receive, process, respond to, and deliver data — including sensor data — using common protocols like HTTP and email. And new for 2013 — we've added mobile device protocols including Apple Push and Google Messaging, bringing the mobile network into your workflow.

We've also made FME Server 2013 easier for everyone to use – administrators and end users alike – with a greatly improved unified web interface. It is permissions-driven, combining ease-of-use with granular security. The scheduling interface has been improved, and upgrading from earlier versions of FME Server is easier than ever. Performance gains are a mandated part of every new release, and 2013 sees more jobs per second processed.

When it comes to getting your hands off your data, FME Server just keeps getting better and better! For a complete list of What's Great in FME 2013 – both Desktop and Server – check out

www.safe.com/WhatsGreat2013

### **FME User Spotlight:**

### **Adam Jonasson, City of Grand Forks** North Dakota GIS Services, GIS Coordinator,

#### FME User for 3 years

#### What are you working on right now?

Right now we are working on a mapping application to review crime statistics. Our police records application doesn't have spatial data and addresses are saved in a different address format than our GIS database – plus they have multiple ways to enter an incident - as a standard address, an intersection, or hundred block of a certain street or avenue. With some tricky geocoding and joins to the non-spatial data, we're mapping six years of data, and it takes less than 25 minutes to run. We could never accomplish this daily task without FME.

# We hear you have something in common with the Mars rover Curiosity...

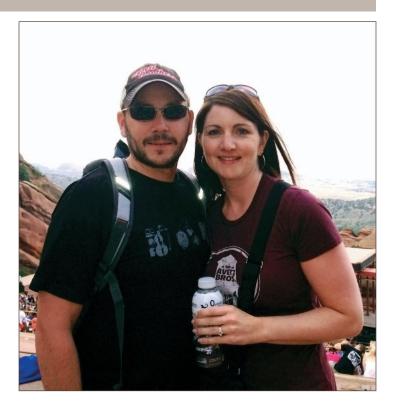
This spring, we worked with earthmine Inc out of Berkeley, California to collect street-level 3D 360-degree images. Earthmine uses a similar image collection system to the system that is used on the Mars rover. They collected over 400 miles of street-level images for the city of Grand Forks. We are using those photos for GIS data collection and general city information.

#### Do you have any tips for other FME Users?

There is always a way! If you think that FME can't do what you need done, just sleep on it and try it again the next day. Many times I have left for the day thinking there isn't a way to accomplish what I need to do, but by the next morning I have thought of something new to try or found a new tool in FME to use.

#### What are you doing when you're not working?

I am married with three kids and two dogs - we just got two whippet pups in November. I enjoy the outdoors, especially camping in the summer with my family. We keep our camper on an island on a Minnesota lake for 5 weeks in the summer. I also enjoy listening to music and traveling to see some of my favorite performers. This past



summer my wife and I drove 15 hours, each way, to see a concert at Red Rocks in Denver, CO. It was fantastic!

If you were an FME Transformer, which one would you be? If I had to pick one that I use the most, it would be the Joiner. I think just about every script I run has a join of some sort in it. I would say that that fits me as well; if I were a transformer I would make a good Joiner, as I like bringing people and data together to get things done.

## Dale Lutz on Captain Kirk, Cellphones, and FME

"The original Star Trek™ is on Netflix! I can't believe how good it still is." Dale Lutz, VP of Development and co-founder of Safe Software, is grinning from ear to ear as he talks via a hands-free cellphone in his electric car, through the Internet to a Vonage VOIP connection, on the other end of which is your editor, who happens to be sitting two countries over at the time. Though we've planned this interview to talk about the evolution of FME as Safe nears its 20th anniversary, we do need to enthuse over our common love of sci-fi television for a few minutes first.

FME Insider: Doctor Who vs. Captain Kirk. Go.

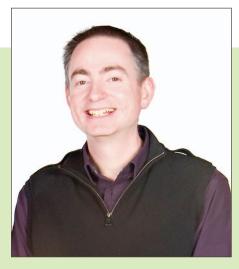
**Dale Lutz:** Captain Kirk, hands down. Look at the technology that Star Trek predicted. Communicators, the electronic Captain's Log,

Uhura's earpiece, doors that knew you were approaching... this was pure imagination in the sixties. It would have boggled their minds back then to see our cellphones, iPads®, Bluetooth® earpieces...

**FI:** What would have boggled your mind back in 1993, as you and Don were starting out?

**DL:** The power of mobile technology. Awesome maps in your hand - everywhere. Ubiquitous Internet access. And the effect of all of this on our lives as spatial professionals. Spatial exploded beyond its old boundaries as a tool just used by specialists. It touches everyone's lives now.

**FI:** You once said "We'll never do raster." What else comes to mind you wouldn't have predicted?



**DL:** I don't think I'll ever live that down. The fact that FME has such a beautiful GUI, that we do raster, yes, and now point clouds – back in the day, 40,000 features was an unbelievable target. Today it's billions, on a regular basis. And

Continued on page 7

# **Set Phasers to FUN! FME World Tour 2013**

The countdown has begun! Mission Control at Safe's headquarters in Surrey, Canada is putting the final touches on this year's FME World Tour — and it's going to be "out of this world". Equipped with bad puns and space trivia, the crew of the FME shuttle will be embarking on a mission to points near and far, exploring new frontiers of data transformation and boldly taking interoperability where no FME release has gone before.

Join your fellow spacefarers and our intrepid crew when we touch down on your home planet for a stellar day of FME education, user presentations, and networking -

- Get a hyperspace jump on new features and functionality in FME 2013
- Learn how to bend the workspace-time continuum with how-to and best practice sessions
- Get tips and new ideas from fellow FME users
- Get technical assistance from FME Certified Professionals
- Enjoy fun, food, and space swag!

Our mission includes stops in over 40 locations so far – and there are more worlds yet to be explored. Check out the current itinerary at **www.safe.com/worldtour** - and if you can't make it in person, open a hailing frequency and join the live broadcast from Vancouver on April 16th, 2013.



Here's what some of last year's attendees had to say –

"Learned a lot about new features in 2012. Informative as always. Thanks!" – B.A.

"Don and Dale are two froopy dudes who really know where their towels are." - Z.B.

"Very informative and entertaining presentation, thank you!" – E.S.

"After this event, I grok FME like never before!" – R.H.

Space is limited, so don't be the expendable crew member... reserve your seat and sign up today!

that there would be more than, say, ten or fifteen supported data formats – we're right around 300 now! Databases on the Internet, Google Fusion Tables<sup>TM</sup>, ArcGIS® Online – the fact that we have this kind of processing power and storage in the cloud now is a game changer.

**FI:** What else do you see out on the "frontier" that's making its way into our professional lives?

**DL:** I think we're right on the edge of daily use of 3D. We've been talking about it for a while, and it seems the hype is dying down and we're moving into the quiet adoption phase. The tools are becoming more powerful, and commonplace. And the democratization of data collection — like UAVs that operate at a fraction of the cost of an aircraft or satellite. I think we'll see the time, soon, when highly accurate laser

scans are available to anybody.

**FI:** How does Safe keep on top of what's coming next?

**PL:** We spend a LOT of time listening - and reading, and talking to customers. We have to stay on top of trends and emerging technologies, and try to evaluate which of those are going to make their way into our users' lives, and which are still in the "transporter phase" — really really cool, but not likely to be a part of your professional life any time soon. There's a fine balance between speculative R&D and continuing to make FME the best it possibly can be for the users who rely on it everyday.

FI: Thanks for spending your morning commute with us.

**DL:** Lutz out!

#### **World Tour Cities**

#### **North America**

- Atlanta, GA April 9
- Austin, TX April 8
- Calgary, AB April 11
- Denver, CO April 10
- Edmonton, AB April 12
- Los Angeles, CA April 11
- Montreal, QC April 17
- Oklahoma City, OK April 8
- Ottawa, ON April 9
- Quebec City, QC April 18
- San Francisco, CA April 9
- Saskatoon, SK April 12
- Seattle, WA April 12
- St. Louis, MO April 10
- Toronto, ON April 10
- Vancouver, BC April 16
- Victoria, BC April 4
- Washington, DC April 8
- Winnipeg, MB April 11

#### Europe

- Barcelona, Spain June 4
- Berlin, Germany June 17
- Birmingham, United Kingdom May 21
- Bristol, United Kingdom May 22
- Brussels, Belgium May 28
- Dublin, Ireland April 18
- Fribourg, Switzerland May 23
- Leeds, United Kingdom April 16
- London, United Kingdom April 17
- Madrid, Spain June 6
- Malmo, Sweden May 30
- Manchester, United Kingdom May 20
- Milan, Italy May 14
- Vienna, Austria June 11

#### Asia Pacific

- Auckland, New Zealand May 13
- Brisbane, Australia May 9
- Canberra, Australia April 15
- Hong Kong May 28
- Pinang, Malaysia May 16
- Melbourne, Australia May 10
- Perth, Australia May 14
- Singapore May 22
- Sydney, Australia May 7

#### **Live Online from Mission Control**

- Live broadcast of Vancouver event April 16
- \* Additional cities will be added. Dates and locations subject to change. Please check

**www.safe.com/worldtour** for up-to-date information.

#### **Connect with Us Online**

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- **@FMEEvangelist:** Find out about cool features in FME and get helpful tips
- @FMEBetaBuilder: Receive automated updates on new FME betas

#### **About FME**

The FME technology platform makes it possible to transform spatial data to use and share. It solves more spatial data transformation challenges across more formats than any other solution, making it easier for professionals to solve data interoperability headaches and help their organizations meet their business goals and required standards.

Today, FME is the dominant technology for spatial data transformation. It powers our FME Desktop and Server software and the solutions of more leading spatial data application vendors than any other technology. It's used by tens of thousands of customers worldwide across a wide range of industries. FME is made by the experts at Safe Software. Learn more about achieving total spatial data mastery at www.safe.com

# Now Playing! Transformers: Revenge of the Workspace

Welcome to the FME Channel on YouTube — all FME, all the time! Watch as our heroes square off to do battle with data transformation challenges, and emerge victorious time after time. A selection of playlists will guide you through well over 200 available videos, from World Tour user presentations to FME Desktop and Server tutorials, to application and data type-specific advice.

The FME Channel is constantly updated with new topics of interest – subscribe on YouTube to hear about new episodes first. And remember, on the FME Channel, all of the transformers are good guys!

Watch now at www.safe.com/fmechannel



Steve MacCabe,
Product Support Specialist –

Joined Safe Software in January 2011

What is your role at Safe?

I provide support for FME Server (and FME Desktop), and customer training. Webinars are a big part too – I usually present our monthly FME Server webinar, and help produce a variety of other FME-related topics throughout the year.

That's a bit of a change for you, isn't it?

It sure is – after spending many years working on projects that can span months or even years, it's really fun to come to work and not know what lies ahead on any given day! The tasks are always changing, and we get to use many different GIS, CAD and database products while having fun solving problems and making our FME customers happy.

# When you're not doing that, where would we find you?

I have too many hobbies and not enough time. But if I was to list them in the order that I get to do them - ice hockey, cycling, exercising... then there's golfing, mountain biking, fishing and the outdoors... and I have my Private Pilot License, too.

# We heard you had an alternate career in mind at one point...

I dreamed of being an astronaut! Right up until university. I was fascinated with rockets and everything about it. These days, though, I explore the skies with my telescope and alien worlds with a round of Halo 4. Recently we launched some rockets off at

home... great fun! Watching technology develop through programs like the Ansari X Prize is exciting – I may very well still make it into space one day.





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