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■ WINTER 2008–2009

Revvng Up Your Productivity

Hop in, start the ignition and go! FME 2009 is ready to surpass speed records and increase your productivity around every twist and turn as you work to solve your latest data interoperability challenges.

Since our last release in March, the Safe team has put the pedal to the metal to deliver the fastest, most efficient FME ever: FME 2009. A large portion of the improvements we made to FME 2009 were thanks to great insights and requests from you. So please keep them coming!

This issue of the Safe Insider introduces you to the many ways you can use FME 2009 and its new capabilities to boost your productivity – like creating workspaces faster, converting data in less time and providing data users with more efficient access to your spatial data. For example, you'll learn about the new "dynamic schema mapping" mode in the Generic Writer and several of the FME Workbench usability enhancements. You'll also find some practical and innovative customer

examples that demonstrate how other users are working with FME – including the preparation of data to create a 3D virtual world, and running quality assurance testing before depositing data into a centralized database.

Many of these great examples come from our recent travels around the globe, where we've met with FME fans in Australia, the

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Middle East, Europe, and North America. There seems to be an overwhelming desire by FME users to accelerate their learning by networking and continuing to build their skills at events like the FME Regional User Groups and Seminars, training courses, and the FME International User Conference. The feedback we receive clearly indicates that users find themselves to be more productive at tackling their own data conversion challenges after interacting with other FME pit crews, sharing their ideas and honing their FME knowledge.

At our office in Surrey, BC, we recently celebrated Safe's 15th Anniversary! It's thanks to you, our dedicated user base, that we've seen great success over these years. It's been a pleasure to serve each of you, and we plan to continue helping you solve your data interoperability challenges for many more years to come. Cheers to each of you!



Safe Software Co-founders:
Don Murray and
Dale Lutz

Faster Than a Ferrari: **FME Desktop 2009**

Zoom... That's the sound of an FME Desktop 2009 user clicking away to create sophisticated workspaces in FME Workbench. Yes indeed, the latest tweaks and handy new usability features in this latest version of FME will certainly help both novice and experienced users speed up the data conversion process. In this section, we've highlighted some of these new features and enhancements in FME 2009, one that even helps you slow things down, just in case your web service is not quite ready to handle FME's lightning quick performance. For a quick summary of all the key updates to FME 2009, check out the "What's Great in FME 2009" flyer included in this newsletter (in print) and available for download at www.safe.com/fme2009.

Take Your Productivity to a Whole New Level with FME 2009

Over the past year, we've seen many interesting examples of how FME has helped improve productivity for our customers. The Dublin Region Project Office recently used FME to bring their disparate data into a centralized, web-enabled GIS that reduced the number of steps to access data down from 20 – 30 mouse clicks to only two. GeoGR in Switzerland also used FME to implement a 24/7 online data distribution system that decreased the time required for processing data requests from two to three days to just a few minutes.

Now with FME 2009, users are experiencing even greater productivity gains with the new performance enhancements we've made in our latest release. The enhanced FME engine improves the performance of hundred of functions, including raster conversion, polygon clipping, transformers, and more.

Based on test results, FME 2009 is 20% faster overall, with some conversions running almost 20 times faster than previous versions. This mean more speed for your data conversion processes, especially when working with large datasets.

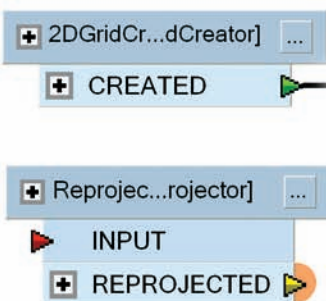
Gavin Park of Infoterra, UK recently took FME 2009 for a test drive and was wowed by the improved Raster Mosaic and Raster Reprojection tools in 2009 which made it possible to convert 30GB of TIF raster data into mosaic TIF and ERDAS IMG files. Gavin's data is supplied at various scales, and the detailed scales (1:10,000) can amount to over 10,000 tiles.

"On a rather worn laptop, FME 2009 was able to mosaick 19 tiles in 32.9 seconds, which wasn't possible in FME 2008 even after running for 12 hours. So you can imagine why the performance difference made me rather happy!" says Gavin.

FME 2009 will help users to improve their productivity and increase the speed of data access overall. We look forward to seeing even more innovative examples in how FME is used to solve spatial data access challenges.

Take FME 2009 for a drive! Download it from www.safe.com/fme2009 and experience the performance improvements in the latest version for yourself.

Quick Connect: *Less of a Drag, Faster Results*

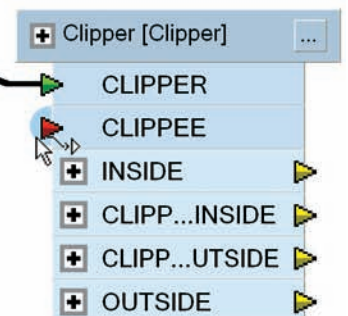


FME 2009 features many refinements to the FME Workbench user interface that make it easier and faster to use. For those of you who loved the new "Drag and Insert" (aka "pink dot") feature introduced in FME 2008, you're particularly going to appreciate the Quick Connect capability introduced in 2009. This new time saving enhancement eliminates the hassle of clicking, holding, and dragging the mouse to connect input and output ports – which can be tricky in large workspaces or when working over a VPN connection.

Now using Quick Connect, you just click your output port (any feature or attribute port) to highlight it with an orange dot, click your desired input port, and the connection line between the two ports appears. Done! To easily connect one output port to many inputs or vice versa, simply hold down the CTRL key.

You can also take advantage of Quick Connect alongside other handy features in FME Workbench, removing the need to zoom out and squint to find microscopic ports. Instead, use the pan tool, the overview window, or bookmarks which each make it possible to swiftly and precisely locate your ports.

Psssttt – if you haven't used bookmarks before, this is a great time to acquaint yourself with these little treasures. Visit www.safe.com/bookmarks to learn more about bookmarks and other FME best practices that make designing and managing your workspaces that much easier.



New Time Savers: Transformer Settings Box Enhancements

FME 2009 comes with many enhancements to improve your user experience. These are particularly noticeable in FME Workbench, where transformer settings boxes have undergone usability refinements that make building a workspace faster for FME gurus and newbies alike.

Attributes List

Many transformers now operate on more than one attribute, saving you the hassle of using the transformer multiple times in same workspace.

Mandatory Fields Highlighted in Red

So you've opened the settings dialogue for a transformer you're not yet familiar with. Which settings fields are you required to fill in? Why, the red ones of course!

Resize Boxes

Sometimes it would be really great to make the settings box bigger so you can read the whole setting you've selected. Now you can, with resizable boxes.

Help Button

Now you can get an overview of the transformer you're using and its setting options just by clicking the embedded help button. No more searching the documentation – this button brings you right to the page you need.

Default Options

This one's the Gold Medal winner. Now you can take the settings you've just selected, and make them the default for this transformer – just for the workspace you're building, or for every workspace. How much time is this going to save you?

Check out more enhancements to FME 2009 in the What's Great flyer at www.safe.com/fme2009.

Slowing Things Down with the Decelerator

FME 2009 is so fast that sometimes you might actually need to slow it down! The most common example occurs when you want FME to communicate with web services that can't handle its lightning speed.

The Decelerator, FME's newest transformer, addresses exactly this. It allows you to specify the slowdown amount either by identifying a delay per feature, or a maximum number of features per second. The first option imposes the specified number of seconds delay between features, and the second ensures that no more than the specified number of features will be output within the duration of one second.

When used in conjunction with the HTTPFetcher transformer, the Decelerator slows down FME's web request to avoid overwhelming the target server or surpassing its allowed limit of requests per second. Having the two options available ensures that you can impose the restrictions necessary to communicate with your desired web service.

Dmitri Bagh, our Scenario Creation and Testing Analyst here at Safe, demonstrates a great example of this feature in action on fmpedia. Check it out here: www.safe.com/decelerator.



Saving Time with FME Server 2009

Since its debut in March 2008, FME Server has been creating quite a buzz among FME users who face the tough challenge of improving access to spatial data. And with FME 2009, we've raised the bar even higher to deliver more time-saving benefits. This section highlights how one of our first FME Server customers is already starting to reap significant benefits from their FME Server deployment. It also debuts an exciting enhancement to the Generic Writer in 2009 that will enable you to provide an even more flexible data download experience. With all of the value and features packed into the latest version of FME Server, we suspect that you'll no longer be able to resist exploring how it can fit into your future plans. Has FME Server peaked your interest? Email us at sales@safe.com or call us at 604-501-9985 ext. 287 to request a personalized web demo.

FME Server: *Powering Faster, More Efficient Data Access*

GeoGR Inc., a public-private partnership based in Switzerland's largest canton Graubünden, recently implemented a new data access and sharing system that uses FME Server as its translation and distribution backbone. Replacing a paper-based process, the new system has dramatically decreased wait times for data users from three days down to just three minutes.

The system was implemented by GeoGR in response to a growing need among data users for a faster way to access all of the region's spatial data, which is authored and stored by numerous government institutions, as well as private surveying and utilities companies. Prior to the new system's availability, data users needed to contact the authoring institutions directly and wait for the data to be manually compiled and delivered days later by email or postal mail.

GeoGR commissioned Safe Reseller TYDAC to create their new data access system based on TYDAC's own Neapoljs Mercato, which uses FME Server for its web-based data translation and distribution capabilities.

Based on these capabilities, FME Server plays two critical roles in the GeoGR system. First, it enables the GeoGR system to maintain an up-to-date central database for users to access without impacting the data authors' existing infrastructure. Specifically, the GeoGR system schedules FME workspaces to gather the source vector and raster data from the author's datasets. This automated process routinely updates the central PostGIS database so

that users are always accessing the most current data available.

"The biggest fear of data authors in our area was that our new system would force them to change their spatial data storage infrastructures," says Peter Huser, CEO of GeoGR Inc. "Using FME Server, we were able to centralize our area's geo-related data and make it accessible to users while allowing our data providers to leave their existing databases intact."

Secondly, FME Server provides system users with the ability to download the data they need in the format and data model they require. Users simply select the data they wish to purchase using the GeoGR system's WebGIS viewer, and then select the output format such as ASCII Grid, AutoCAD DXF, GeoTIFF, the Swiss INTERLIS (Tydac) format, Geodatabase, Shape, and others.

Once the request is submitted, FME Server converts the data on the fly and then makes the output dataset available in the web interface for the user to download. Alternatively, users have the option of downloading pre-processed, "off-the-shelf" datasets that the system regularly generates in a variety of formats through FME workspaces.

"During implementation, we were impressed by FME Server's surprisingly fast performance and how easy it was to use for altering data structures," Peter explains.

Moving forward, GeoGR will be able to evolve their system to support changing user requirements by creating new workspaces and publishing them to FME Server. Because FME supports a growing list of over 200 formats, they know that they can continue providing users with the data they need, in the format their applications require.

"I'm now confident that we have a system which can mature with our users and our technology. I believe we've made a wise investment which will continue to bring us value far into the future."

Read more about GeoGR's story in their case study by visiting www.safe.com/GeoGR.

Powered by the translation and distribution capabilities of FME Server, the GeoGR data accessibility system enables users to select the data they wish to purchase and specify the format and data model they require.



Generic Writer: *New Setting Adds Flexibility to Data Download in FME Server*

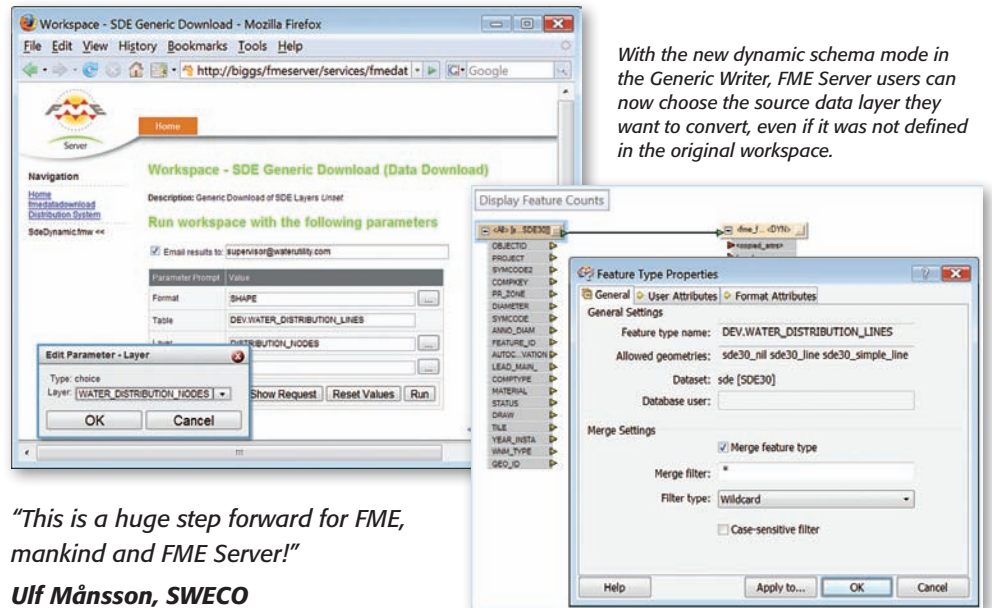
Introduced in FME 2007, the Generic Writer offers a handy way for you to address end users' diverse requests for datasets in different formats, while minimizing the number of workspaces required. And now based on your feedback, we've made this writer even more flexible for use with FME Server.

In FME 2009, the Generic Writer is no longer limited to the schema included in a workspace as it now includes support for changing data source schemas at runtime. This means that regardless of what schema you include in the workspace, when end users access it via FME Server they can choose any data layer they want. That's right – FME Server users can now convert specific data layers of a dataset into any of FME's 200+ supported formats and you don't need to try to define every possible schema or output format in your workspace.

Let's take a deeper look at how this works. When creating a workspace in FME Workbench in 2009, you can select "dynamic schema mode" as a setting for the Generic Writer. This ensures that any feature types and attributes read from a single source dataset will be written by the

generic writer, regardless of the original source dataset's schema. Once you've published your workspace to FME Server, your end users will have an even faster and more flexible way to request data in the format and data model they require. Not only can they choose the destination format and coordinate system, but they can also select to download any layer in your spatial database – even if this layer did not exist when you created the workspace.

The enhanced Generic Writer saves time for schema-agnostic translations with minimal transformation requirements. You'll benefit from being able to create and manage a single workspace, while your end users benefit from an even more flexible data download service. If you're already using SpatialDirect you will also appreciate the fact that FME Workbench now provides the same flexibility that you experienced through mapping files in previous releases.



With the new dynamic schema mode in the Generic Writer, FME Server users can now choose the source data layer they want to convert, even if it was not defined in the original workspace.

"This is a huge step forward for FME, mankind and FME Server!"

Ulf Månsson, SWECO

SpatialDirect to FME Server: *Why Right Now is the Best Time to Upgrade*

Now with the release of FME Server 2009, there are even more reasons to upgrade. Check out the new capabilities highlighted in the "What's Great in FME 2009" flyer at www.safe.com/fme2009. Plus, as a refresher from our Spring 2008 issue, here are the five other top reasons to upgrade:

1. FME Server is backwards compatible with SpatialDirect.
2. FME Server provides more ways to distribute your spatial data:
 - Data Download: Clip, manip', zip and ship
 - Data Streaming: Clip, manip' and view
 - Workspace Sharing: Author, publish, run
 - KML Network Link: Click and view
 - and more
3. FME Server is workspace driven. No more mapping files!
4. FME Server provides an intuitive web user interface. Make changes from your desktop and publish directly to the server.
5. FME Server is free to SpatialDirect customers with a current Annual Maintenance Contract. A priceless reason to upgrade indeed!

To discuss upgrading and see how FME Server can work for you, contact your account manager to arrange a free web conference. Email sales@safe.com or call 604-501-9985 ext. 287.

FME User Spotlight: **David Frame, GISP**

City of Tampa, Florida, USA, FME User for 8+ Years

What is your role at the City of Tampa?

I am a GIS Database Administrator at the City of Tampa. I'm currently responsible for the administration of spatial data in Oracle and non-spatial data in SQL Server. I also perform spatial ETL tasks using FME on a regular basis.

What is the most challenging GIS project you've worked on in your career?

A few years ago, our Police Department was migrating to a computer-aided dispatch system and they needed access to the City's road network data, including X,Y coordinates and the left/right-sides of the street. The problem was that our data represented streets as single lines.

I had to dust off my trigonometry manuals but I was able to get them the information they needed.

What FME transformer do you use most often?

Since we extract data from disparate systems in various formats we use the Feature Merger transformer in most of the FME workspaces we run. This allows us to merge datasets and use attributes not associated with the original dataset for further processing in FME.

What do you like to do in your spare time?

These days my spare time is spent remodelling our home. I also enjoy maintaining my saltwater aquarium where I keep various species of tropical fish.



Best Practice: **FME and Business Process Automation**

We're always excited to share best practices and innovative examples of how customers are using FME. Recently, the City of Tampa told us how they successfully used FME as part of an automated business process system to help eliminate hours of manual work and hands-on project management time.

The City of Tampa uses AutoMate™, a business process automation platform from Network Automation that brings FME and other applications into a scheduled workflow to automatically fulfill spatial data requests. On the 5th of every month, the system connects to the Hillsborough County FTP server for parcel data, zips up the files and sends them to a designated directory on the City's server where the files are unzipped. AutoMate then initiates FME to run at the command line level to convert the parcel data into a MapInfo TAB

format so it can be integrated with City-owned attribute data. Once prepared, the data files are copied to a GIS publication server and an email is sent confirming that the task is complete.

Prior to implementing this system, David Frame, GIS Database Administrator for the City of Tampa was spending over one and a half days manually performing all the necessary tasks for obtaining the required data, preparing the files and getting them into the hands of the people requesting them. He wanted a solution that would not only decrease the time involved in performing the manual tasks and managing the process, but would also eliminate the worry of completing this task every month.

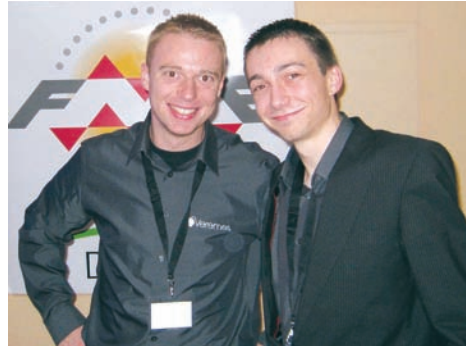
Now with this integrated system, AutoMate streamlines all of these processes by automatically putting the data where it

needs to be for FME to convert it every month. "By using FME with our automated business process system, I literally don't think about this task anymore. It's automatically done and all I do now is wait for an email confirmation," says David. "What used to take hours out of my day is now reduced to just a few minutes."

The City of Tampa has successfully leveraged this automated system for other projects that have required disparate data to be integrated from different places. For example, they're currently in the process of migrating MapInfo, ESRI and CAD data into Oracle Spatial. Since the routines are already set up, all they need to do is change the output destination to help them easily migrate the required data to their new spatial database.

Fostering Community through FME Regional User Groups

November and December were jam packed with FME regional user group activity as FME users joined Safe Software leaders and resellers in France, Germany and Washington DC to share insights and best practices. FME regional user groups continue to provide a valuable opportunity for you to enhance your FME skills and network with other local users – often in your local language. They also provide a great forum for prospective FME users, including your colleagues, to learn more about the value of FME in solving tough spatial data challenges. In this section, we'll highlight two customer presentations from the FME User Group in Germany. To keep track of our user group schedule for 2009, visit www.safe.com/usergroups.



Mattieu Ambrosy and Fabien Marty of reseller Veremes enjoyed the France FME User Group in December.

Presentation Spotlight: **Building a Virtual World with FME**

At the FME User Group in Germany, Rick Klooster from the City of Apeldoorn, Netherlands wowed the crowd with his illustration on how FME was used to process GIS and CAD data for the City's multi-user 3D virtual world. Named "Virtual Apeldoorn", this virtual city enables online visitors to use an avatar to fly around and interact with a nearly perfect representation of the real city. During his presentation, Rick highlighted the important time-saving role FME played (thanks to help from Safe reseller partner, Red Geographics) in the data preparation phase of this complex four year project. Used extensively for data conversion and transformation, FME supported the generation of 3D building polygons (by overlaying 2D footprints with AHN Lidar data) and the ground layer (by overlaying large scale base map data with a terrain model generated from the 3D coordinates of sewer manhole lids). Not only is this new virtual world providing a new means of communication and marketing for the City, it's also showcasing the value of spatial data in a very attractive way! Give this masterpiece a try for yourself at www.virtueelapeldoorn.nl.

Presentation Spotlight: **Improving Urban Design and Financial Engineering Quality with FME**

FME user Wibold Jongsma shared interesting insights into how the City of Amsterdam plans to use FME to improve inter-department communication between urban designers and financial engineers. With the help of Safe partner Vicrea Solutions, FME will be used next year to convert and load urban designs - created in MicroStation - into Oracle Spatial for direct access by financial engineers. Because FME can automatically extract calculations and details from CAD drawings directly, the City is set to reap new benefits by eliminating errors and conflict that often result from time-consuming manual communication between the two departments.

The City also plans to use FME to help improve overall data quality. Specifically, FME will be used to validate the quality of the CAD data by verifying that all features are drawn on the right level and consist of the right geometry. If errors are discovered, drawings will be returned to the urban design team as CAD files which can be overlaid on the original files for quick comparison. In the future, the City will also use FME to automatically filter and correct small data errors, thereby improving efficiency in its spatial planning process.

Safe Turned 15!



December 13th marked Safe Software's 15 year anniversary. We know we couldn't have come this far without the support of our valued customers. Thank you for choosing Safe Software to help you solve your spatial data access challenges. We look forward to serving you for many more years to come.

FME 2009 Training Update

Interest in FME training continues to increase each year as FME users seek out ways to build their spatial ETL skills. That explains why Safe's trainers have been so busy lately, teaching 51 FME courses since October 2007 to over 500 students worldwide! As a result of this increased demand, we're raising the training bar even higher in 2009. First, we've introduced a complimentary bonus workshop for several FME Desktop* training courses. Offered as an optional third day, each workshop focuses on a commonly-requested topic like Smallworld, spatial databases or KML. Second, our 2009 schedule now includes public training dedicated to FME Server. Lastly, we're offering you a new benefit to signing up for training at our Surrey, Canada headquarters – a brand new state-of-the-art classroom.

Check out the 2009 training schedule and register online at: www.safe.com/2009training. For information on onsite training, email us at: training@safe.com.

**Applies to select courses offered directly from Safe Software in North America in 2009.*



Safe Software Trainer Ken Bragg (top row, center) visits Egypt to deliver one of the first FME Server training classes to employees from ESRI North East Africa/QSIT and Apache.

Suggestion Box

What do you want to read about in the next Safe Insider? Whether you're interested in learning more about the upcoming user conference or want to hear more user tips and tricks, we want to hear from you. Share your ideas with us by sending an email to newsletter@safe.com.



Safe in the News

From "3D data translation and transformation" to "sophisticated quality control mechanisms," Safe continues to make headlines. Visit www.safe.com/pressroom to read the latest news.

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.

Save the Date:

2009 FME International User Conference

Join us at the 2009 FME International User Conference in beautiful Whistler, BC, Canada from June 11 – 12th, 2009. This annual event is an intimate and interactive gathering where FME users from around the globe come together to share best practices, enhance their skills and network with other industry professionals.

The 2009 conference theme will focus on "Bringing the World Together" to help you discover how organizations worldwide are using FME to cross data boundaries and eliminate barriers to spatial data access.

For more details and to sign-up to receive automatic updates, visit www.fmeuc.com. Registration opens in February 2009. We hope to see you there!

Spotlight

Miles Wheeler: *Account Manager*

Joined Safe Software in 2003

What do you do here at Safe?

As an account manager, I help our customers find solutions to their data challenges. Since I'm based out of our head office, I always enjoy it when I have the opportunity to hit the road for a tradeshow or site visit and meet up with some of our customers in person.

Could you share a memorable experience from one of your trips?

When visiting Tampa in 2004 I was out for dinner with several co-workers and customers when it became clear that we were all big hockey fans. It just so happened that game five of the NHL Stanley Cup Finals was occurring that same night across the street and so immediately after dinner we raced over and managed to grab tickets to the game.

What is a fun fact about you?

I've been an active volunteer of the Lions Bay Search and Rescue Team since 1995. As a volunteer, it's not unusual for me to receive a phone call in the middle of the night to search for a person who went missing in a forest or on top of a mountain.

What keeps you busy in your free time?

Keeping me busy has been the birth of my son James, which big brother Taylor is certainly excited about. Despite the busyness, I've been able to play in all of my team's soccer games and in the future hope to teach my sons how to play "the beautiful game."



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