IDM Symposium: Day 1 Developer Insights

The IDM software team is hosting a full day of dedicated software workshops Monday April 18th 2016.

Monday 4/18/2016 Symposium Developer Focused Tracks

| *8:30am-5:30pm* | Workshop | **Computation Modeling Platform Services (COMPS)** |

COMPS will be available for use by subscribed collaborators providing access to a High Performance Computing environment and various modeling tools, including EMOD. Users will learn how to do the following:

- Create Demographic, Temperature, Humidity and Rainfall input files.
- Upload and execute EMOD using a HPC cluster.
- Create a simulation sweep across a bounded parameter space.
- Graph the inset chart output of simulation and view the various channels of output.
- Graph multiple simulations inset chart output.
- Learn about the extensive tagging system in COMPS that allows you to categorize your work for retrieval and visualization.
- Understand how to use the COMPS dashboard.
- Learn about the services supported by the COMPS RESTful API.

| *8:30am-12:30pm* | Workshop | **Introduction to the EMOD Software** |

At IDM, one of the key tools used for quantitative analysis is EMOD (Epidemiological MODeling software). EMOD is an individual-based, stochastic simulation that supports disease campaign planning, data gathering, new product development, and policy decisions. Attendees of the EMOD Basics session will cover:

- Introduction to disease modeling.
- Learn when and why to use EMOD.
- Overview of the model components.
- Learn how to run the model and view results.

| *1:30pm-3:30pm* | Workshop | **Advanced DTK (Python pre- and post-processing)** |

This session will discuss and demonstrate new capabilities within the DTK that allow for extending the DTK functionality with Python. New in EMOD v2.5, EMOD users and developers can now write Python scripts that will run as part of the DTK execution during either start-up, shutdown, or both. This allows for a huge variety of options for pre- and post-processing, including input file reformatting, and output file transformation. With this capability, input files no longer have to be in JSON format, and output files can be in a preferred format, aggregated, or merged.

IDM Symposium: Days 2 and 3 Disease Modeling Sessions

The scientific sessions for this year's symposium will focus on disease surveillance. These sessions will occur Tuesday April 19th and Wednesday 20th 2016. To date, specialized surveillance networks have been created for polio, influenza, Ebola and other diseases but each of these networks have faced unique challenges that affect response capabilities. Talks at the symposium will address how current disease surveillance approaches can be improved and how analysis can make better use of current data.

Tuesday 4/19/2016 IDM Symposium Disease Modeling

| *9:00am-10:30am* | **General** | **General Session 1** |

Dylan George, *In-Q-Tel, formerly White House Office of Science and Technology Policy*

	Session	Scott Dowell, *BMGF*
		Busiku Hamainza, *Zambia National Malaria Control Center*

10:45am-12:15pm	**General Session**	**General Session 2**
		Vince Seaman, *BMGF*
		Sarah Volkman, *Harvard School of Public Health*
		Bryan Greenhouse, *UCSF*

1:20pm-2:50pm	**Workshop**	**EMOD**
		Christopher Lorton, *IDM*

1:20pm-2:50pm	**Breakout**	**Surveillance**
		Neil Abernethy, *University of Washington*
		Trevor Bedford, *Fred Hutchinson Cancer Research Center*
		Sam Scarpino, *University of Vermont, Santa Fe Institute*
		Jarad Niemi, *Iowa State University*

1:20pm-2:50pm	**Breakout**	**HIV Cascade of Care**
		Ruanne Barnabas, *University of Washington*
		Elvin Geng, *UCSF*
		Anna Bershteyn, *IDM*
		Maya Petersen, *UC Berkeley*

1:20pm-2:50pm	**Breakout**	**User Interfaces for Model Dissemination**
		Andy South, *LSTM*

3:00pm-4:30pm	**Breakout**	**Serious Gaming**
		Jonathan Bloedow, *IDM*

3:00pm-4:30pm	**Breakout**	**Malaria Genetics and Parasitology**
		Edward Wenger, *IDM*
		Romberto Amato, *University of Oxford*
		Wes Wong, *Harvard School of Public Health*
		TBD-RTSS, *Harvard School of Public Health*
		Andre Lin Ouedraogo, *IDM*

3:00pm-4:30pm	**Breakout**	**Dengue, Chikungunya, Zika, and Aedes aegypti**
		Alex Perkins, *University of Notre Dame*
		Quirine TenBosch, *University of Notre Dame*
		Bobby Reiner, *University of Indiana*
		Ben Althouse, *IDM*
		Michael Johansson, *CDC*

3:00pm-4:30pm	**Breakout**	**Typhoid**
		Jason Andrews, *Stanford University*
		Nick Feasey, *Liverpool School of Tropical Medicine*

Paul Arora, *The Hospital for Sick Children, Toronto*
Jillian Gauld, *IDM*

3:00pm-4:30pm	**Breakout**	**Algorithms**
		TBD

4:35pm-5:20pm	**Keynote**	Pete Gething, *University of Oxfor*

Hyatt Regency, Wednesday 4/20/2016 IDM Symposium - Disease Surveillance

9:00am-10:30am	**General Session**	**General Session 3**
		Melissa Penny, *Swiss Tropical*
		David Smith, *IHME*
		Mike Famulare, *IDM*

10:45am-12:15pm	**General Session**	**General Session 4**
		Joseph Eisenberg, *University of Michigan*
		Hugh Sturrock, *UCSF*
		Samson Kiware, *Ifakara Health Institute*

1:20pm-3:20pm	**Breakout**	**Malaria Field Operations, Surveillance, and Vector Control**
		TBD, *University of Oxford*
		Adam Bennett, *UCSF*
		Caitlin Bever, *IDM*
		Gerry Killeen, *Ifakara Health Institute*
		TBD, *University of Notre Dame*
		Jaline Gerardin, *IDM*

1:20pm-3:20pm	**Breakout**	**Enteric Diseases**
		Duncan Steele, *BMGF*
		Kurt Long, *Swiss Tropical*
		Dennis Chao, *IDM*
		Andrew Brouwer, *University of Michigan*
		Alicia Kraay, *University of Michigan*

1:20pm-3:20pm	**Breakout**	**Vaccine-Preventable Diseases**
		TBD

1:20am-3:20pm	**Breakout**	**HIV Dynamics at Country-scale**
		Steven Goodreau, *University of Washington*
		Susie Cassels, *UC-Santa Barbara*
		Guy Harling, *Harvard School of Public Health*
		Krisztina Vasarhelyi, *UBC*
		Sandy Rutherford, *SFU*
		Dan Klein, *IDM*

1:20pm-2:50pm	**Workshop**	**COMPS**
		Nick Karnik, *IDM*
		Bryan Ressler, *IDM*

| *3:00pm-4:30pm* | **Workshop** | **EMOD** |
| | | Jonathan Bloedow, *IDM* |