Ontar 3-Day Workshop PcModWin®/MODTRAN® and Optional 1 Day Imaging sensor design

25- 28 July 2017

21 February 2016

Ontar Customers & Potential Ontar Customers:

Ontar is offering a 3-day workshop on Atmospheric Transmission and Radiance; and sensor performance at the Rolling Ridge Conference Center in North Andover, MA. This workshop will cover all version of PcModWin®/MODTRAN® and their application to sensor evaluation. Particular emphasis will be given to the recently released PcModWin6 with MODTRAN 6. The cost, including room and meals, will be $1600 for 3 days, 4 nights. We encourage you to bring your family. A tentative agenda is attached.

July 2017

Mon	Tue	Wed	Thu	Fri
24	25 PcModWin & Atm Models	26 PcModWin & Atm Models	27 PcModWin & Atm Models	28 NVESD NV-IPM Optional

We are also offering an optional additional day on Atmospherics and Sensor Design. The Night Vision Integrated Performance Model (NV-IPM) coupled to PcModWin provides target acquisition range and probability of success. NV-IPM supersedes NVESD's NVThermIP and other models. Sensor design [visible, near infrared (NIR), short wave infrared (SWIR), mid-wave and long-wave infrared (MWIR, LWIR)] depends upon atmospheric conditions. Cost $600

This workshop will be conducted by Dr. Gerald Holst of JCD Publishing. Jerry has written 9 books on sensor design, modeling, and testing. He has been a SPIE conference chairman for the last 28 years, taught courses internationally, and is a SPIE Fellow.

The Rolling Ridge Conference Center is located on a peninsula surrounded by Lake Cochichewick in North Andover, Massachusetts, just 25 miles north of Boston., The 40 room Georgian estate on 38 acres of woods, rolling hills and lakefront is the perfect setting for conferences, meetings etc. Excellent, freshly prepared food in the Lakeside Gallery Dining Room, filled with original art by the Andovers Artists Guild, enhances the stay whether for one day or several. Two labyrinths, nature trails, and Ridge wellness provide opportunity for relaxation, and recreation, A swimming pool, canoeing on the lake and the labyrinths are also available for recreational activities. Additional information can be obtained at http://www.rollingridge.org/contact-us/getting-here/

Dining area   Small Conference   Large Conference   Coffee/Tea area
                          Room   Room

Please let us know if you would like a Price Quote for these workshops. Reference the following product numbers: **WkShop-2017 – 3d; WkShop 2017 - 1d** or **WkShop – 2017 4d**

1. **WkShop-2017 - 3d**: - 3 days PcModWin®/MODTRAN® Atmospheric models and senor performance, Price $1600 (including room and meals)
2. **WkShop 2017 - 1d**: – 1 day NVESD NV-IPM system development, Price $600 (including meals and 1 night accommodations)
3. **WkShop – 2017 - 4d**: 4 days combination of Atmospheric models and NVESD NV-IPM, Price $1950.

Also, please let us know if you have any special dietary consideration, so that we can make appropriate meal arrangements. There will be a social evening on Wednesday the14th at the Institute for Industrial Art and History (IIAH) in North Andover.

Thank you for your support and interest in our products.

John Schroeder
Ontar Corporation

Suggested Workshop Agenda for 2017
**Please make changes and recommendations

The goal of the workshop is to help you solve your problems using software tools with emphasis on PcModWin ®/MODTRAN®. We will use PcModWin6, however the discussions will apply equally well to users of older versions such as PcModWin5 and PcModWin4, The workshop will cover both basic model calculations and advanced capabilities such as detailed aerosol modeling. **Customers are encouraged to bring their specific scenarios and share them with the group**. At this time, we encourage your ideas on additional topics to discuss.

1st Day

    0900 - 0915   Introductions

    0915 - 1030   Overview of Models
                   - MODTRAN/PcModWin (versions 5 & 6)
                   - FASCODE/PcLnWin
                   - HitranPC, - LidarPC, - NVTherm/NVESD IPM

    1030 - 1045   Break

    1045 - 1215   Introduction to PcModWin/MODTRAN
                   - Overview, features & limitations, geometry etc.

    1215 - 1330   Lunch

    1330 - 1500   Solving basic PcModWin/MODTRAN test cases
                   - Inputs, outputs, plots etc.   **PcModWin Express**

    1500 - 1515   Break

    1515 - 1645   Solving problems with MODTRAN and Informal
                   discussion and question/answer period

2nd Day:

    0845 - 1030   PcModWin®/MODTRAN® Model Capabilities cont
                   - band models, model atmospheres, custom atmospheres, aerosols, clouds, fog,
etc.

    1030 - 1045   Break

    1045 - 1215   PcModWin®/MODTRAN® Model Capabilities cont.
                   - solar/lunar scattering, radiance

                   Alternate: **Attendees' specific topics**

    1215 - 1330   Lunch

1330 - 1500	Solving basic PcModWin/MODTRAN test cases - Inputs, outputs, plots etc.	**PcModWin Standard**
1500 - 1515	Break	
1515 - 1645	Solving problems with MODTRAN and advanced aerosol modeling	

3rd Day:

0845 - 1015	Advanced MODTRAN inputs - inputs, outputs, etc.
1015 - 1030	Break
1030 - 1200	Advanced MODTRAN Test Cases **PcModWin Pro** **Alternate**: **Attendees' specific topics**
1200 1300	Lunch
1300 - 1430	HITRANPC, LIDARPC, NVTherm/NVESD IPM
1430 - 1445	Break
1445 - 1600	Other models continued **Alternate**: **Attendees' specific topics**
1600 - 1630	Informal discussion and question/answer period

** This is a possible agenda, and somewhat "formal". It can certainly be more informal e.g. start with the firs PcModWin/MODTRAN input screen and work our way through to the end. We can also put more emphasis on solving specific problem, and less on the "theory".

4<u>th</u> Day: Imaging sensor design

    0845 - 1030   History of imaging system design

    1030 - 1045   Break

    1045 - 1215   Ratches model, FLIR92, NVTherm, NVThermIP, NVIPM
                        How sampling theory affected model evolution

    1215 - 1330   Lunch

    1330 - 1500   Imaging system chain analysis (MTF analysis)
                        How atmospheric transmission affects the signal to noise ratio

    1500 - 1515   Break

    1515 - 1645   System design – the importance of the atmospheric transmission
                        MWIR/LWIR design
                        SWIR design and natural illumination

Ontar Workshop Purchase Request

I am interested in attending the Ontar Workshop 24-28 July 2017. Please send me a purchase request. This PDF is a form and can be interactively completed. Press the tab key to advance to the next field

Name: _____

Organization: _____

Address 1: _____

Address 2: _____

City/State/Providence/Postal Code: _____

_____

Country: _____

Email: _____

Telephone: _____

I am interested in a quote for the following: (Please email to **jschroeder@ontar.com**)

1. ☐ **WkShop-2017 - 3d**: - 3 days PcModWin®/MODTRAN® Atmospheric models and senor performance, Price $1600 (including room and meals)

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