



Migration to



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**please be sure that your audio is connected
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If you would like to ask a question,
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Meeting dialog

*This session may be recorded for training or
distribution





Home of the M.O.L.E.® Profiler

Migration to



Mark



Paul



Rex



Home of the M.O.L.E.® Profiler

Migration to



Current version
MAP 3.00i
download @
www.ECD.com

M.O.L.E.(r) MAP V3.00i C:\ECD\MOLEMAP\Sample\SampleBasic

File Edit View Wizards M.O.L.E.(r) Machine-Oven Assembly-Board Process-Paste Profile Tools Help

Start Engineer

Basic Profiling

Breadometer

MEGARIDERU20

MiniMOLERH

OvenCHECKER

Recent Environments

- C:\ECD\...\Sample\SampleBasic
- C:\ECD\...\SampleWaveRIDER
- C:\ECD\...\SampleBreadometer
- C:\ECD\...\SampleOvenRIDER
- C:\ECD\...\SampleVaporWATCH
- C:\ECD\...\SampleOvenCHECKER
- C:\ECD\...\SampleMiniMOLERH
- C:\ECD\...\SampleMegaRIDER20

Recent Runs (.xmg)

- mm_engineer2_10,

M.O.L.E. MAP Software

Driver part number here
Kather - Easy Profile 256 - NC - 100

00 x (Relative Time) 01:00 x 02:00 x 03:00 x 04:00 x 05:00 x

“Optimizing your Machine, Assembly & Process (M.A.P.)”

ECD



ECD - University

Product Design
& Development

New Product
Introduction

Production

Machine
Maintenance

Requirements

Characterization

Verification



Profile
Specification

Recipe
Creation

Product
Verification

Oven
Verification

ThQM

Profiling A to Z

SMGSPC 201

Verification 101

SMGSPC 101

M.A.P. 201

OvenRIDER®

M.A.P. 101

WaveRIDER®

SMGSPC 301

M.A.P. 301

OvenCHECKER®

Migration to MAP



Migration to



Thermal Quality Management

Reduce Scrap and Increase Yields

Requirements

Stage 1 Define Requirements

Why do we profile?

- Identify heat sensitive components
- Choose soldering technology

Characterization

Stage 2 Machine Recipe Development

What is the oven recipe?

- Develop machine settings required for production that meet the above requirements
- Assure all solder joints experience the required temperature profile
- Assure sensitive components do not experience long term damage

Verification

Stage 3 Collect Data

How are we doing?

- Assure the temperature profile developed during characterization is being repeated
- Proof your thermal process is in control





Migration to



Agenda

- **SPC to MAP**
 - SMGSPC
 - WRSPC
 - ORSPC
- **File Management**
- **My Old Profiles**
- **MAP Profile**
- **MOLE® Profilers**



Migration to



SPC to MAP

Download at www.ecd.com/download

ECD
Home of the **M.O.L.E.**
Thermal Profiler

We Set the Standard of Excellence for Thermal Process Yield-Improvement Tools...Worldwide!

[中国简体] Chinese

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ECD PRODUCT DOWNLOADS

Current Software	How to download		
Software	Version	Status	Notes
M.O.L.E.® MAP	V3.00i	LATEST	Now incorporates SuperM.O.L.E.® Gold SPC, WaveRIDER® SPC and OvenRIDER® SPC into one application.
SuperM.O.L.E.® Gold SPC	V5.22f	LATEST	Software and help system.
WaveRIDER® SPC	V5.23a	LATEST	Software and users guide.
OvenRIDER® SPC	V5.23b	LATEST	With the new KPI Tab
AutoM.O.L.E.®. Xpert3	V5.21h	LATEST	30-day free trial

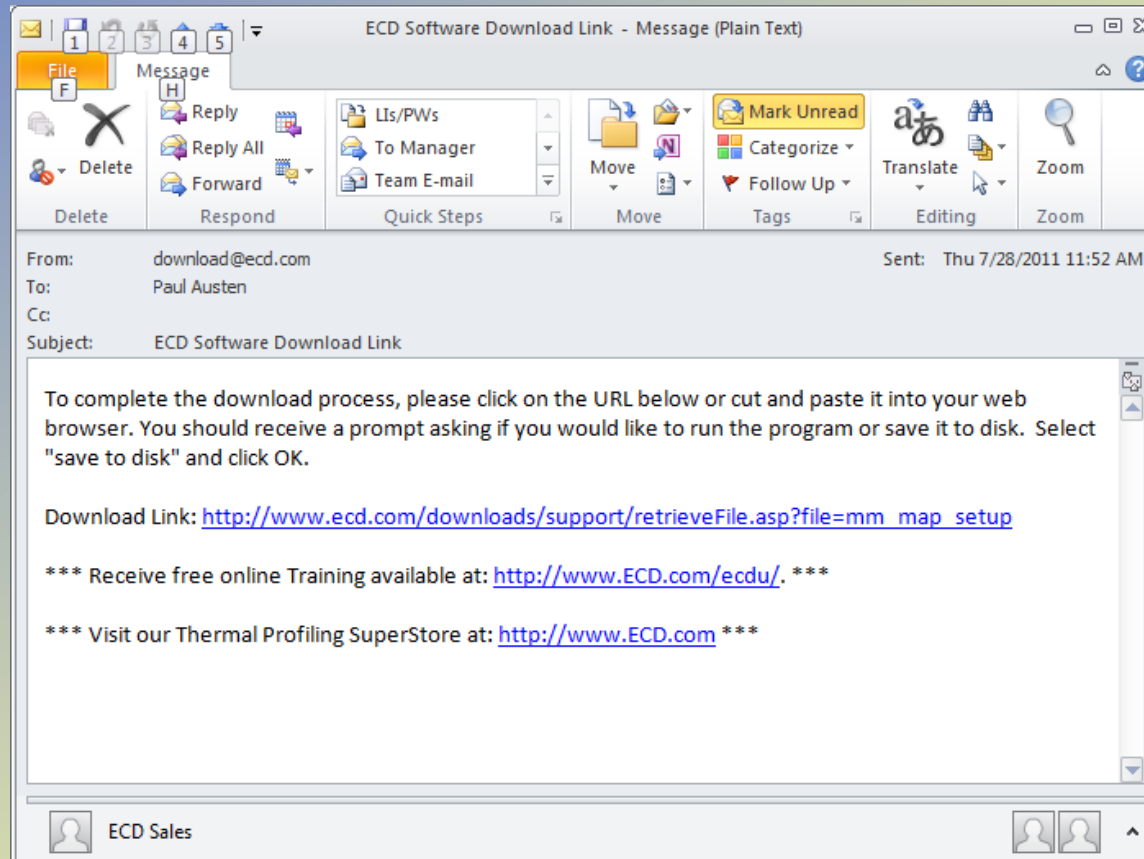


Migration to



SPC to MAP

E-mail from download@ecd.com



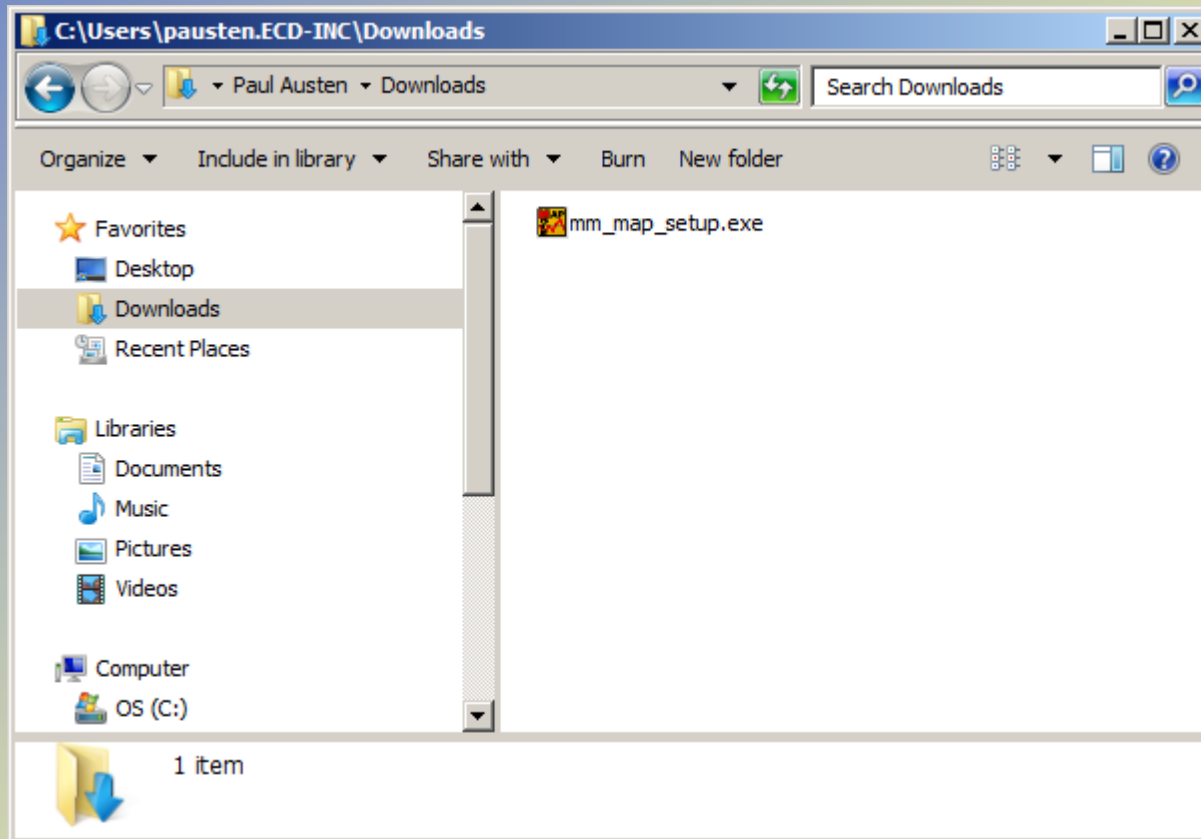


Migration to



SPC to MAP

Download and run mm_map_setup.exe



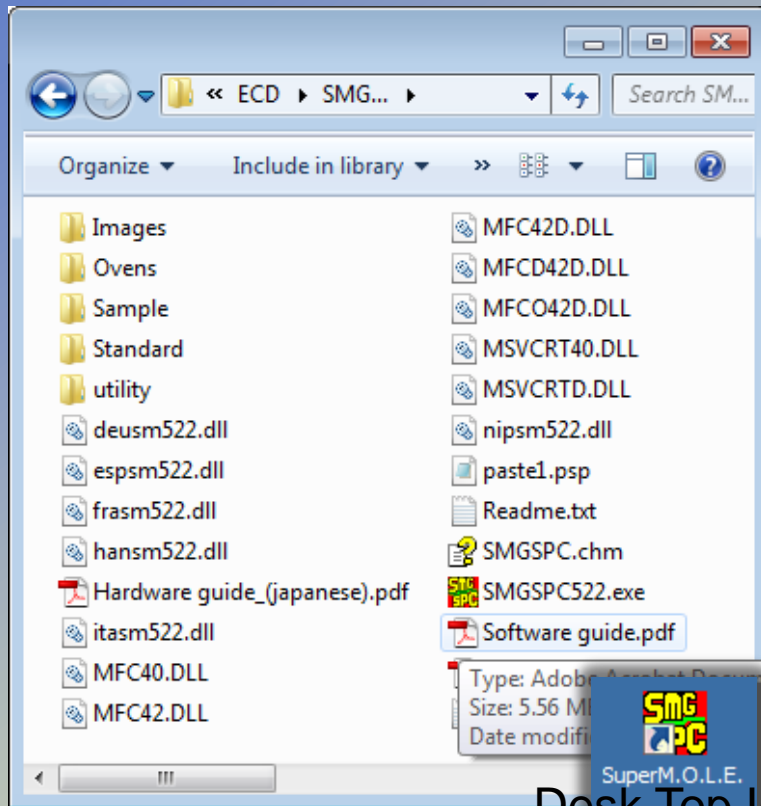


Migration to



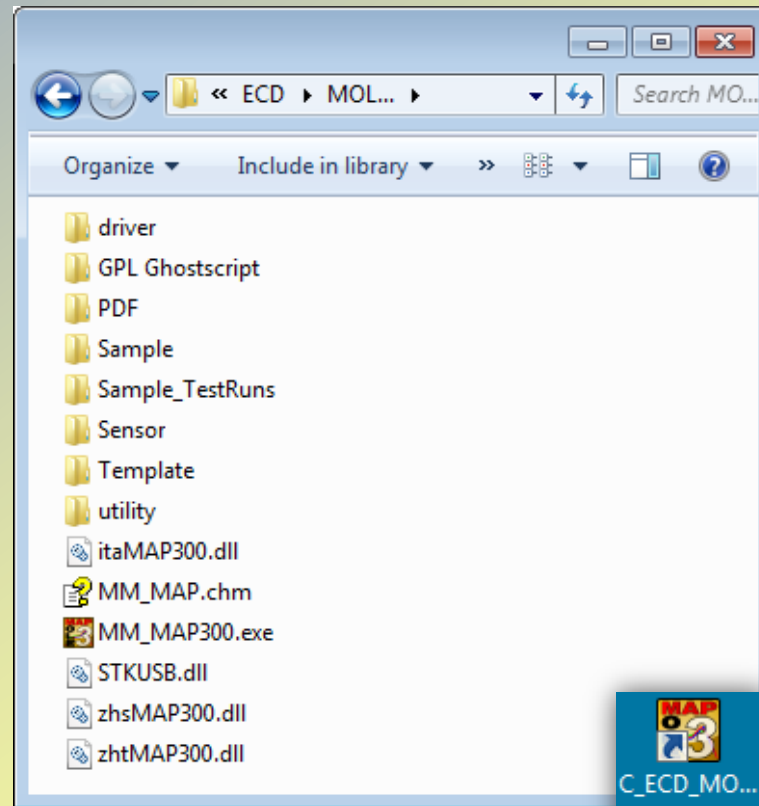
SPC to MAP – Program Location

SPC



Desk Top Icon

MAP



Desk Top Icon



Home of the M.O.L.E.® Profiler

Migration to



Questions

- $\sqrt{\text{SPC}}$ to MAP
- File Management
- My Old Profiles
- MAP Profile
- MOLE® Profilers

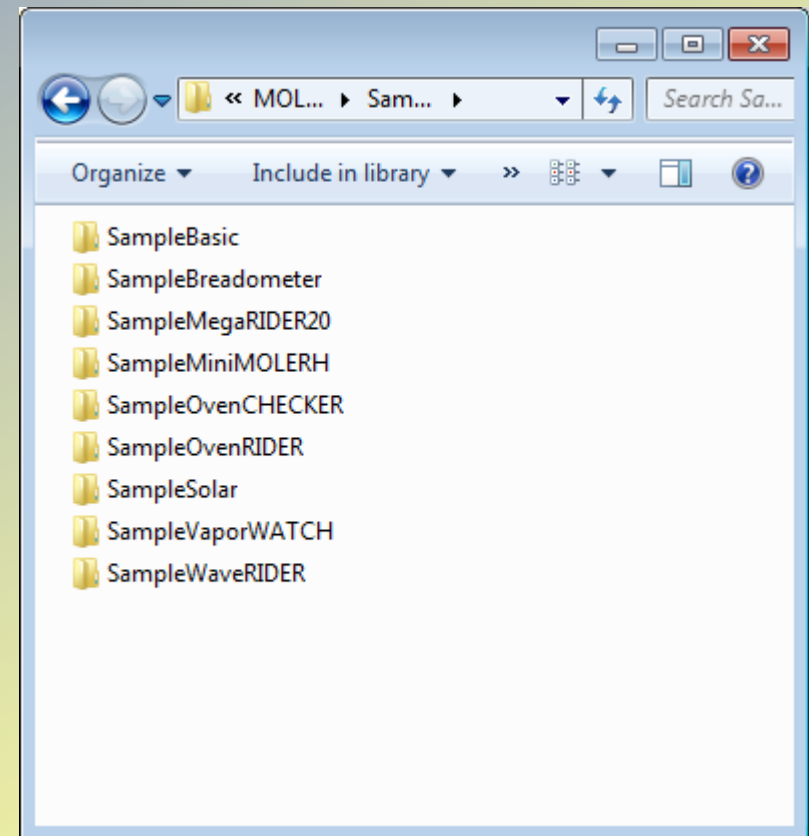
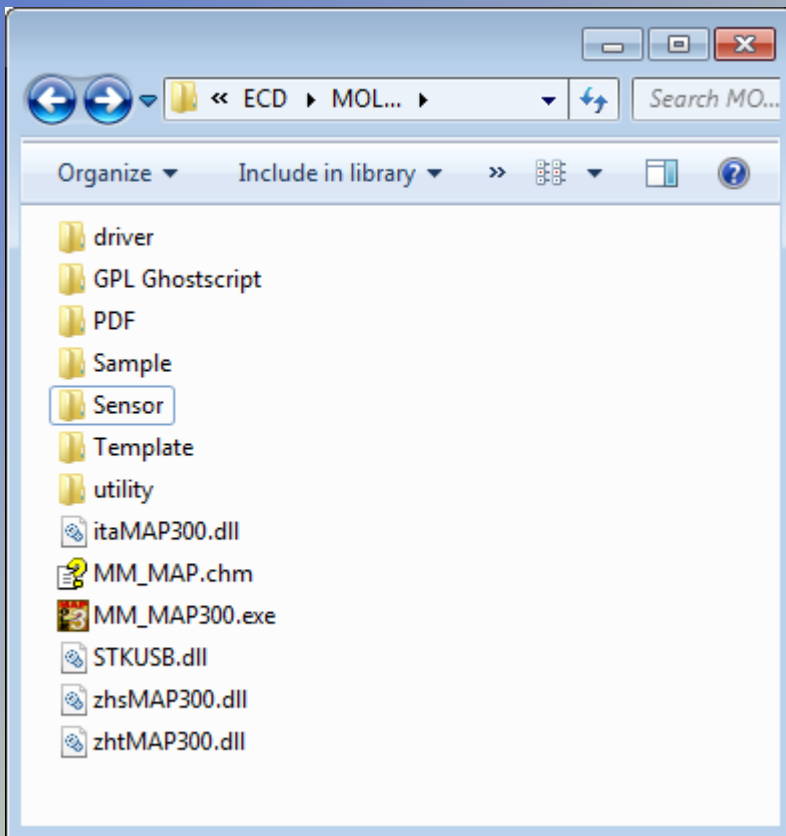


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Migration to



SPC to MAP – MAP Sub Directories



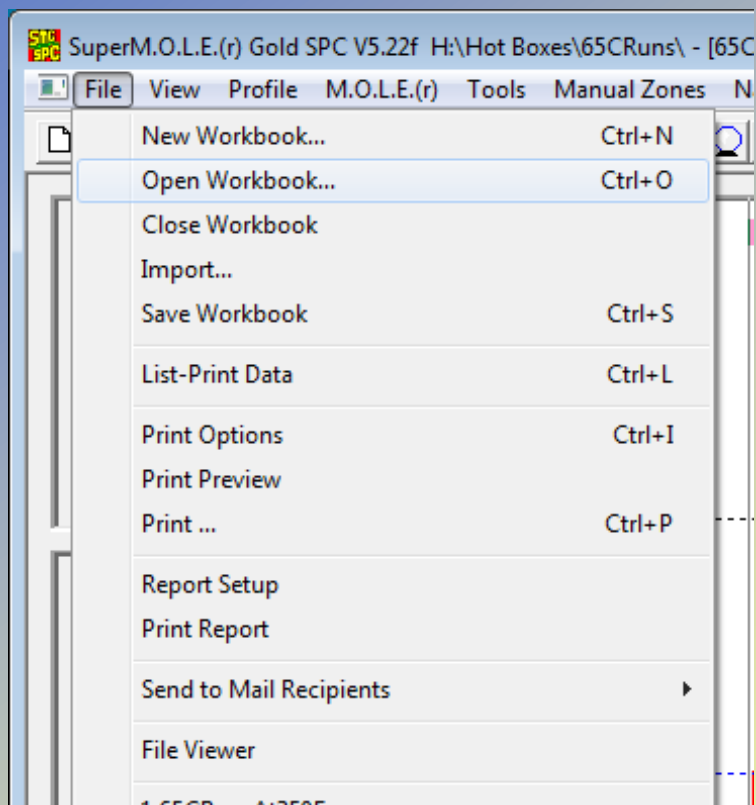


Migration to

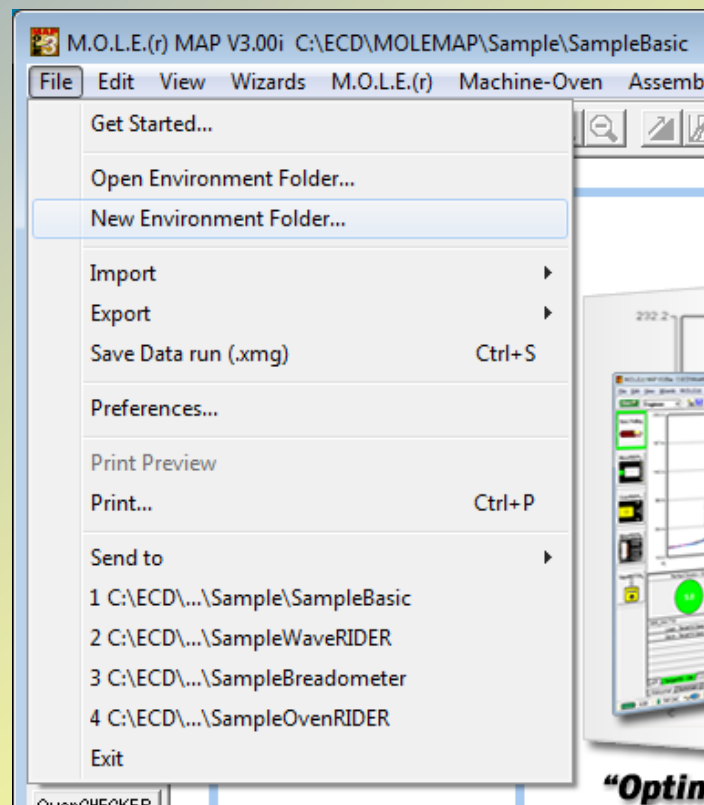


File Management – Working Files

SPC



MAP





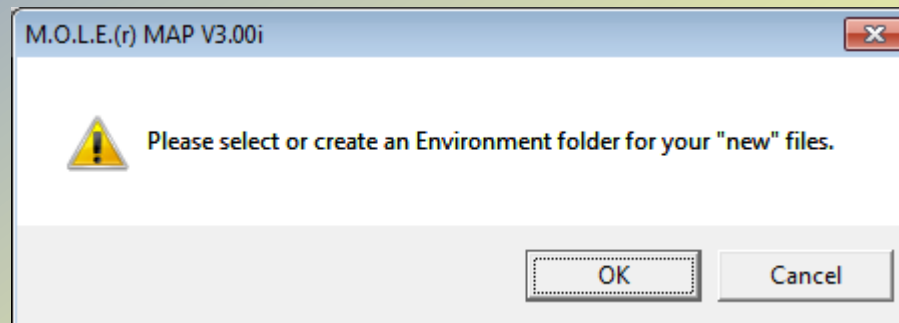
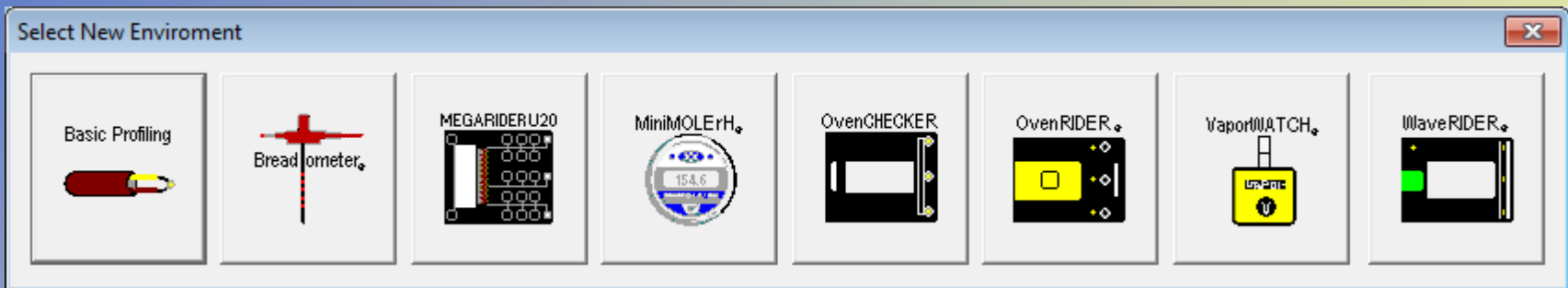
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Migration to



File Management – Working Files

MAP



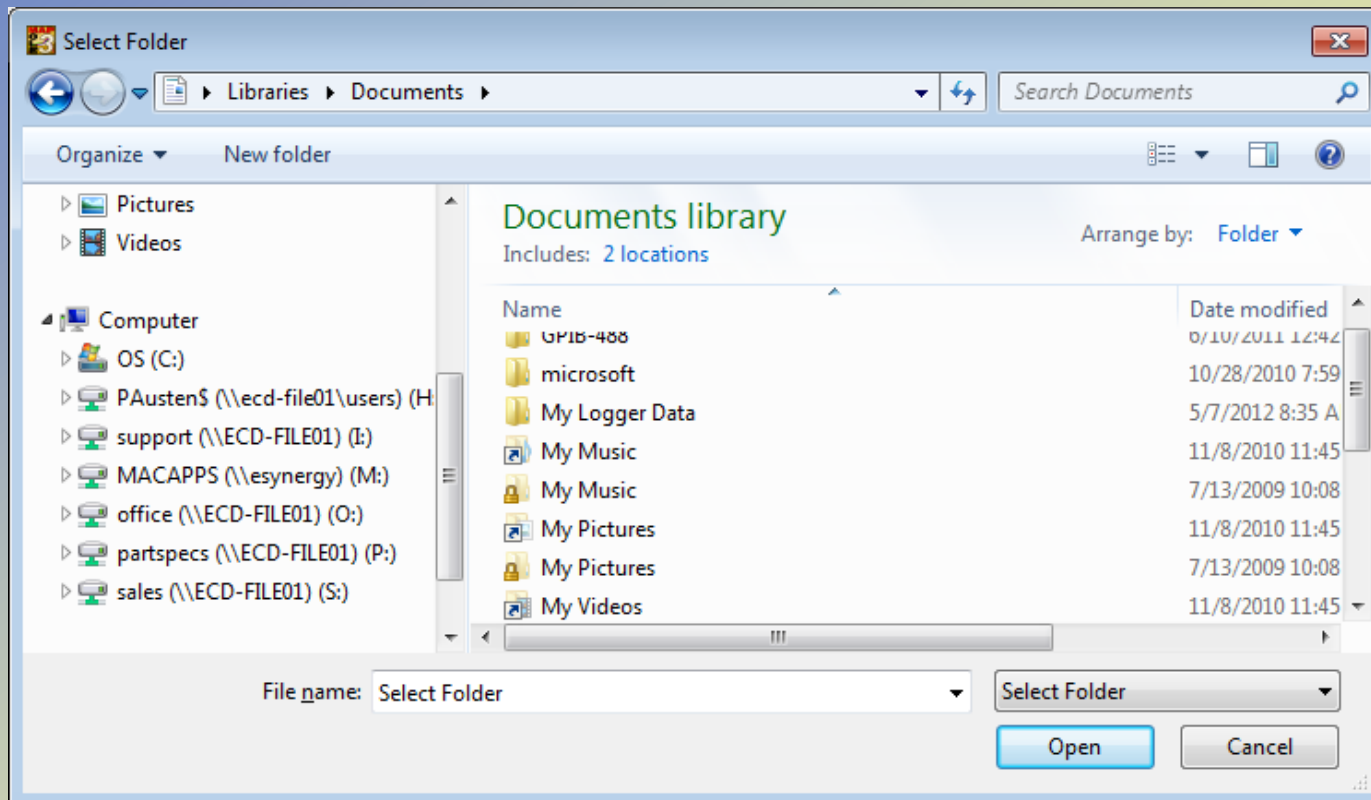


Migration to



File Management – Working Files

MAP





Migration to



File Management – Spreadsheet

SuperM.O.L.E.(r) Gold SPC V5.22f C:\ECD\SMGSPC\Sample\ - [SMSample.mpc]

File Edit View Format M.O.L.E.(r) Window Help

SPC

	A	D	E	F	G	H	I	J	K	L	M	N
1	USER 1	USER 4	USER 5	General	General	General	General	M.O.L.E.(r)	M.O.L.E.(r)	Oven	Channel 1	Channel 1
2		Machine:		Company:	Date:	Time:	File Tag:	Temp:	Batt:	Conveyor:	Peak:	Minimum:

M.O.L.E.(r) MAP V3.00i C:\ECD\MOLEMAP\Sample\SampleBasic

File Edit View Wizards M.O.L.E.(r) Machine-Oven Assembly-Board Process-Paste Profile Tools Help

Start Engineer

	A	B	C	D	E	F	G	H	I	J	K	L	M	
Basic Profiling	SPC								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	
	2	DataRun - File Name	Date	Time	User 1	User 2	User 3	User 4	User 5	Maximum Positive Slope	Time Between Temperature	Slope: Temperature to Peak	Maximum Temperature	Time Above Temperature Total (+
Breadometer	3									Channel 1 =0-150=	Channel 1 150-183°C	Channel 1 183-Peak	Channel 1	Channel 1 183°
	4									°C/sec	sec	°C/sec	°C	sec
	Filter Reset	All	All	All	All	All	All	All	All	All	All	All	All	
MEGARIDERU20	1	mm_engineer2_10,	05/10/2012	16:07:30						N/A	N/A	N/A	46.5	
	2	mm_engineer2_april 27, 201	05/04/2012	08:17:11						17.534	0.0	0.081	200.6	
	3	mm_engineer2_april 27, 2012 (0	05/03/2012	14:38:48						17.534	0.0	0.081	200.6	
	4	MM_ENGINEER2_January 30, 20	04/23/2012	16:36:35						N/A	N/A	N/A	87.9	
	5	MM_ENGINEER2_January 26, 20	04/23/2012	16:35:35						N/A	0.0	N/A	OPEN	
	6	SampleBasicTestText.xmg	04/18/2012	15:31:37						7.339	92.2	1.689	453.3	
	7	8.xmg	04/12/2012	19:38:06						N/A	N/A	N/A	N/A	
MiniMOLerH	8	VP-8 Test.xmg	03/20/2012	11:40:07						N/A	N/A	N/A	235.2	
	9	MM_ENGINEER2_09, 2012(12.32	03/09/2012	12:36:35						11.240	0.0	23.762	1870.7	
	10	MM_ENGINEER2_09, 2012(12.12	03/09/2012	12:13:08						20.948	0.0	22.332	1291.7	
	11	MM_ENGINEER2_09, 2012(11.54	03/09/2012	11:56:08						155.277	0.0	2.192	1831.8	



Home of the M.O.L.E.® Profile

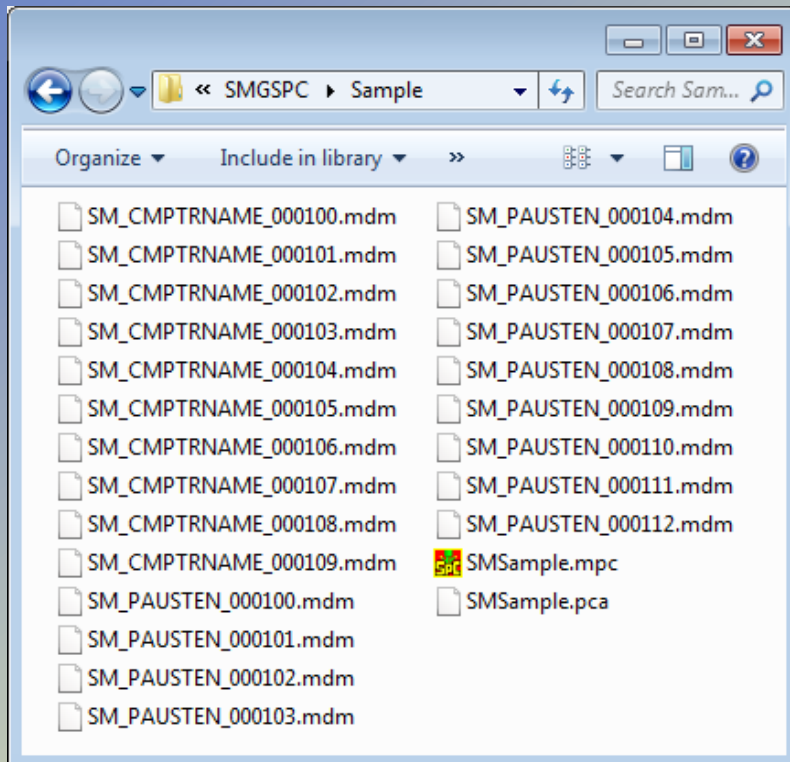
Migration to



File Management – File Extensions

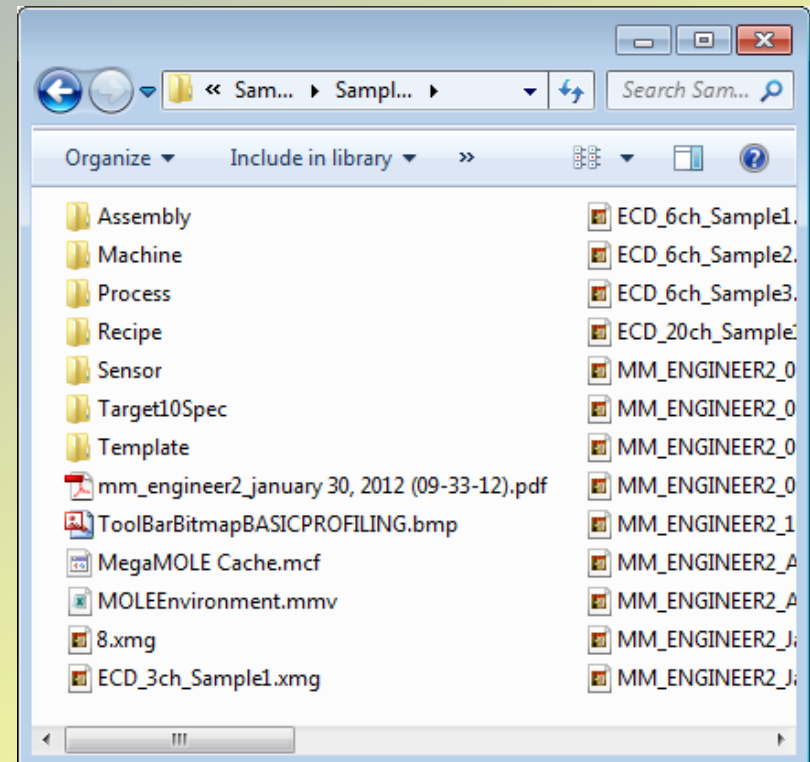
SPC – File extensions

- *.MDM Profile files
- *.MPC Workbook file
- *.PCA Text archive



MAP – File extensions

- *.XMG Profile files
- *.XLS Export to Excel file
- *.BAK Removed profiles





Migration to



Questions

- ✓ **SPC to MAP**
- ✓ **File Management**
- **My Old Profiles**
- **MAP Profile**
- **MOLE® Profilers**

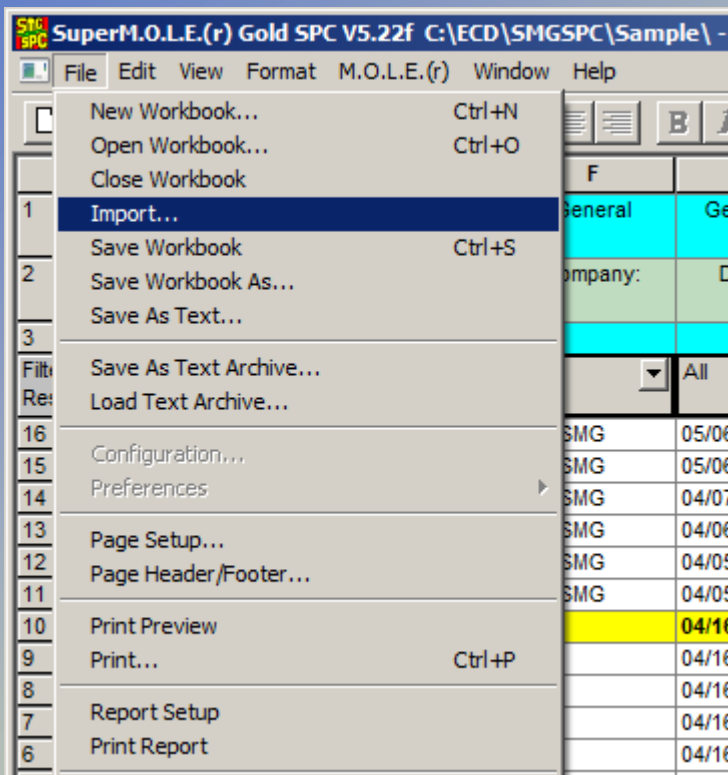


Migration to

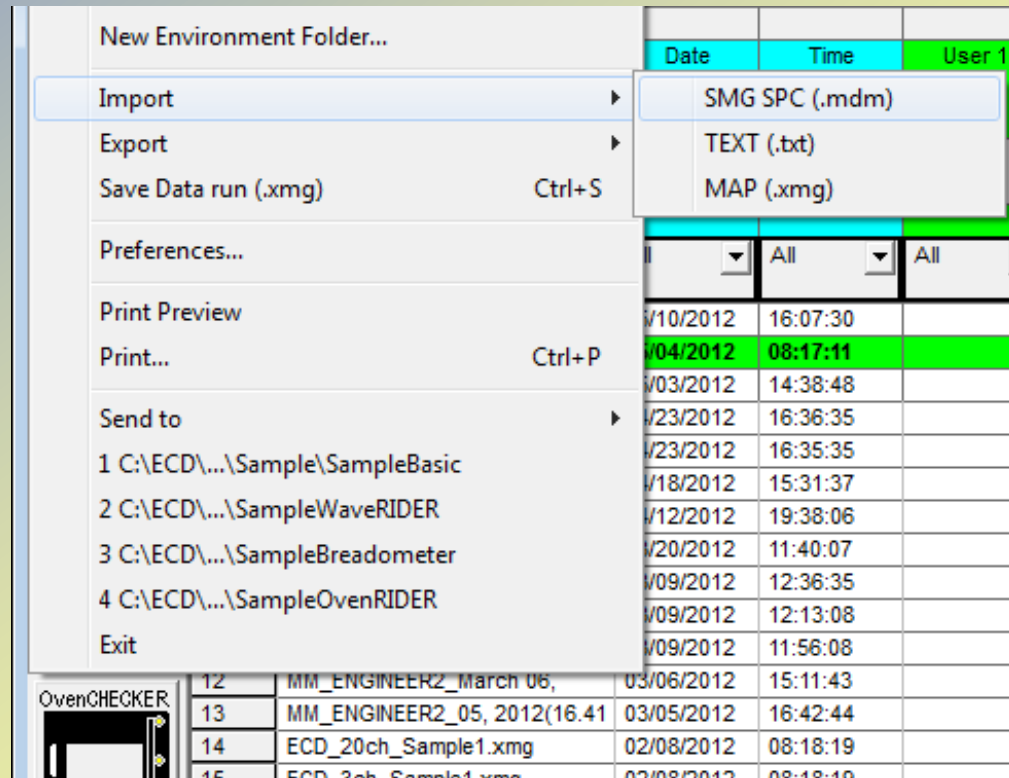


My Old Profiles - Import

SPC



MAP



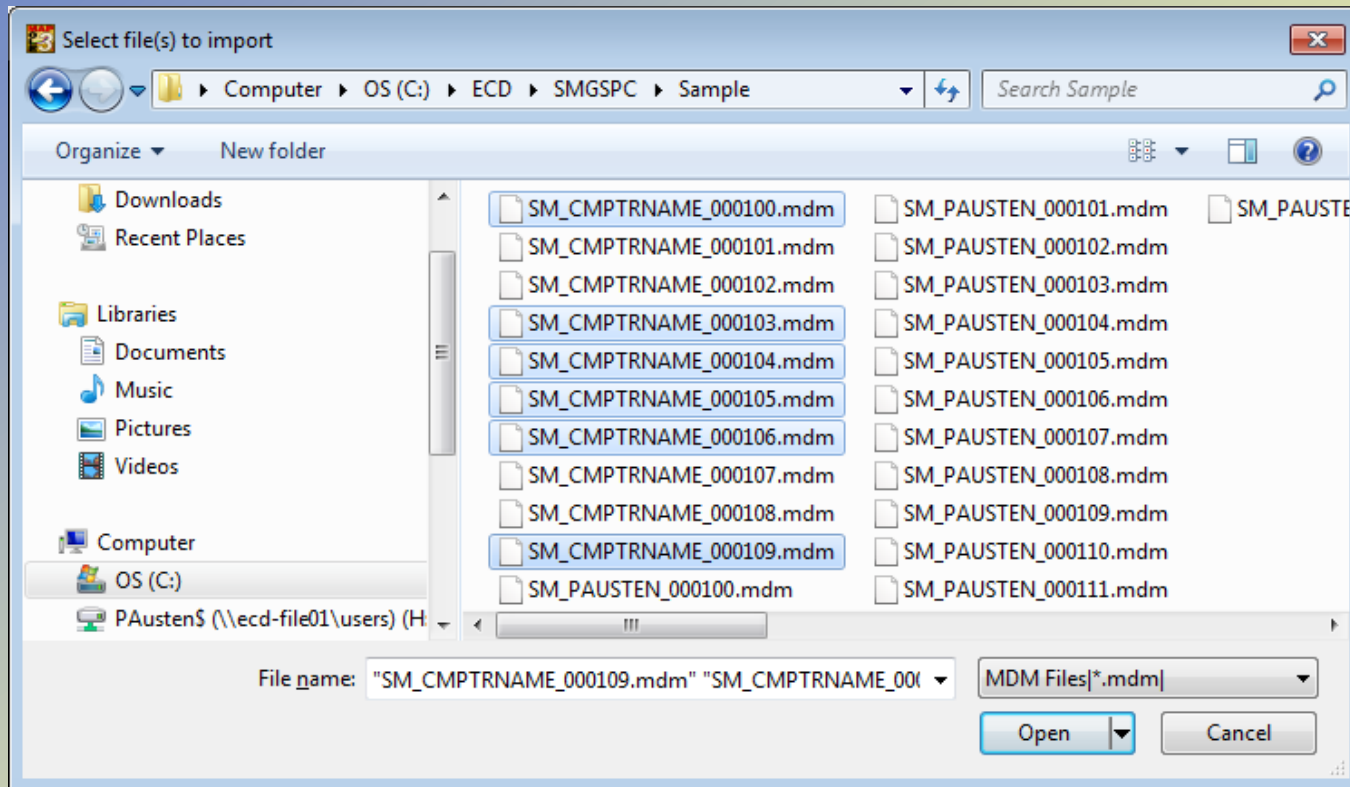


Migration to



My Old Profiles – Import *.MDMs

MAP



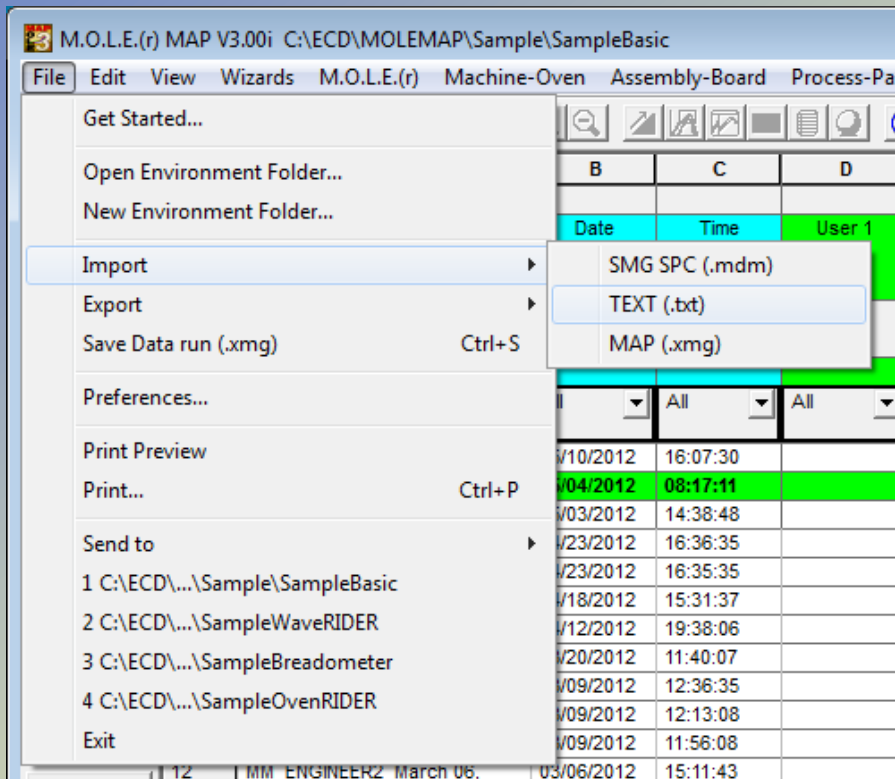


Migration to



My Old Profiles – Import *.TXTs

MAP





Migration to



My Old Profiles – Import *.TXT

Data Import Formatter

Rows to ignore Columns to ignore Sampling Rate Comma separated
 Tab separated

Units

	A	B	C	D	E	F
1	°C	°C	°C	°C	°C	°C
2	26.938157	24.296789	24.296789	24.370248	24.076385	24.076385
3	26.938157	24.223326	24.296789	24.296789	24.076385	24.002907
4	26.425065	24.223326	24.296789	24.223326	24.076385	24.002907
5	25.985076	24.223326	24.223326	24.223326	24.076385	23.929424
6	25.838373	24.076385	24.149858	24.223326	24.002907	23.855936
7	26.131759	24.149858	24.149858	24.149858	24.002907	23.855936
8	25.69165	24.149858	24.223326	24.223326	24.002907	23.929424
9	25.618281	24.149858	24.149858	24.223326	24.002907	23.855936
10	26.05842	24.149858	24.149858	24.223326	23.929424	23.855936
11	26.351746	24.076385	24.149858	24.149858	23.929424	23.782444
12	25.911727	24.076385	24.149858	24.149858	23.929424	23.782444
13	25.765014	23.929424	24.002907	24.076385	23.782444	23.635443
14	26.351746	24.002907	24.076385	24.149858	23.855936	23.708946
15	26.644992	24.002907	24.002907	24.076385	23.782444	23.635443
16	26.864873	23.929424	24.002907	24.002907	23.782444	23.635443
17	26.938157	24.002907	24.002907	24.002907	23.782444	23.635443
18	27.3045	23.855936	23.929424	23.929424	23.708946	23.635443

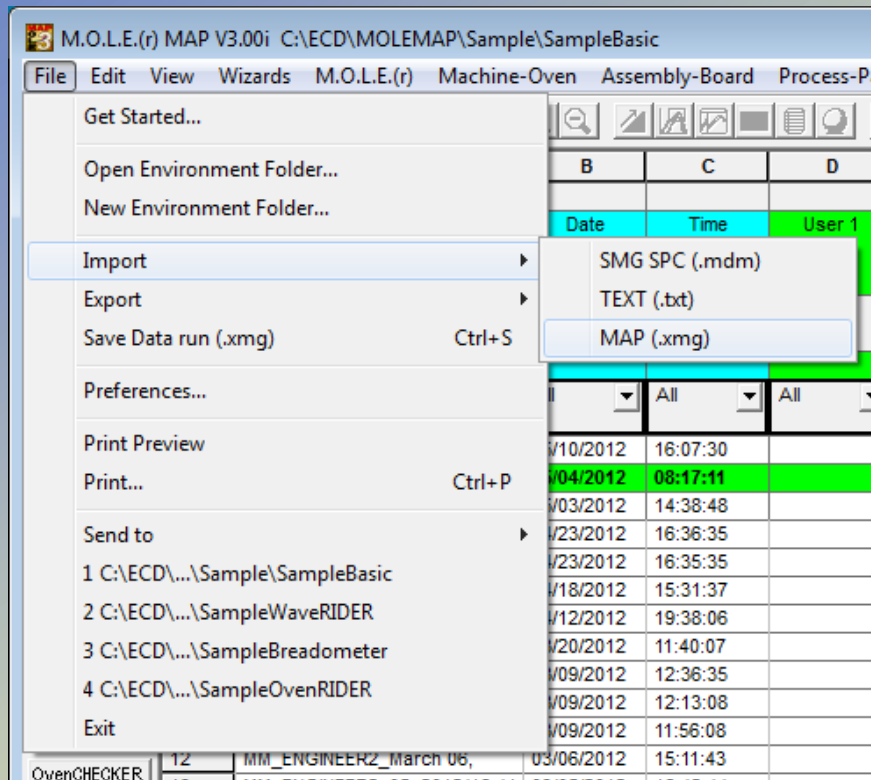


Migration to



My Old Profiles – Import *.XMGs

MAP



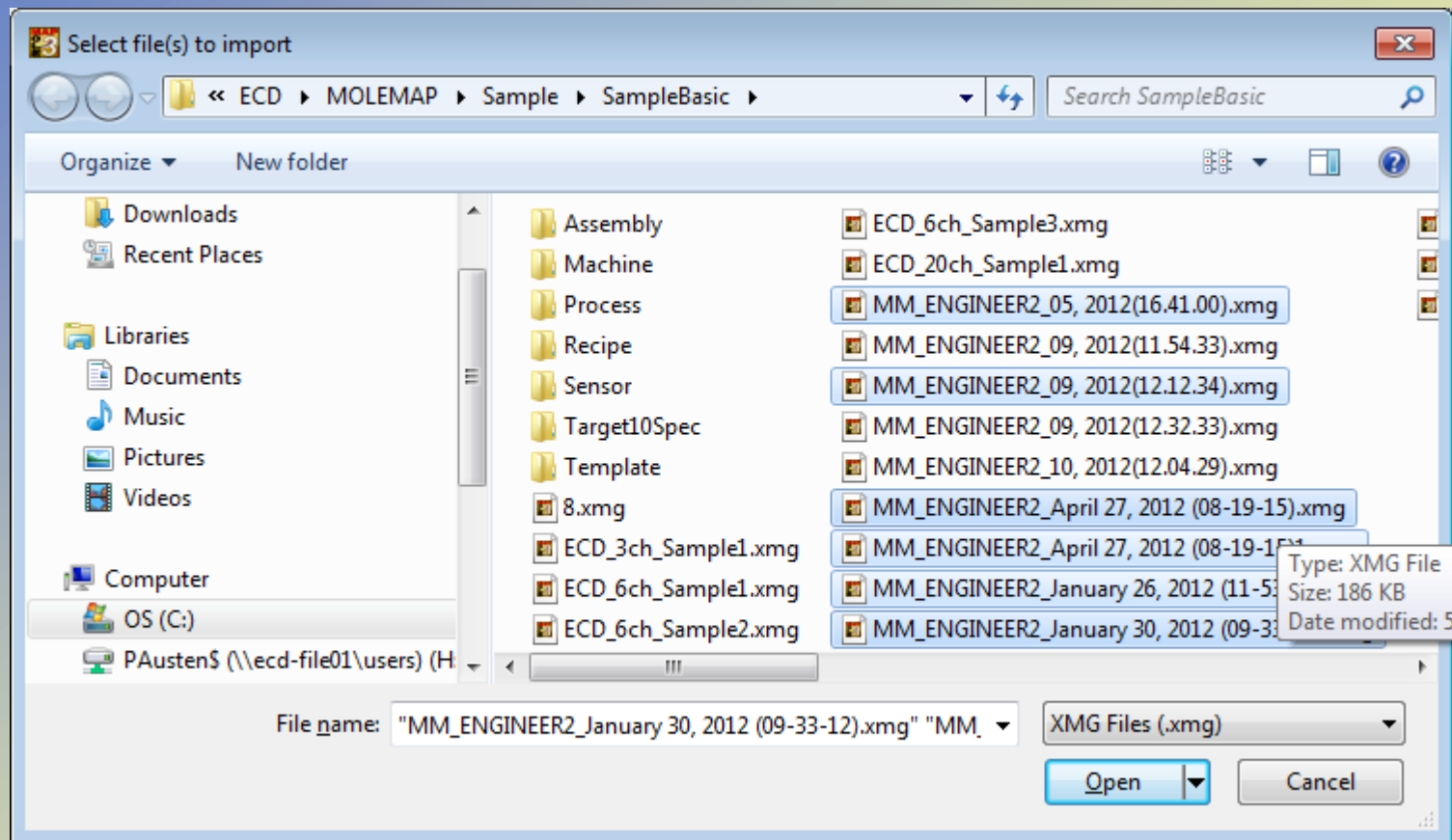


Migration to



My Old Profiles – Import *.XMGs

MAP – Method 1



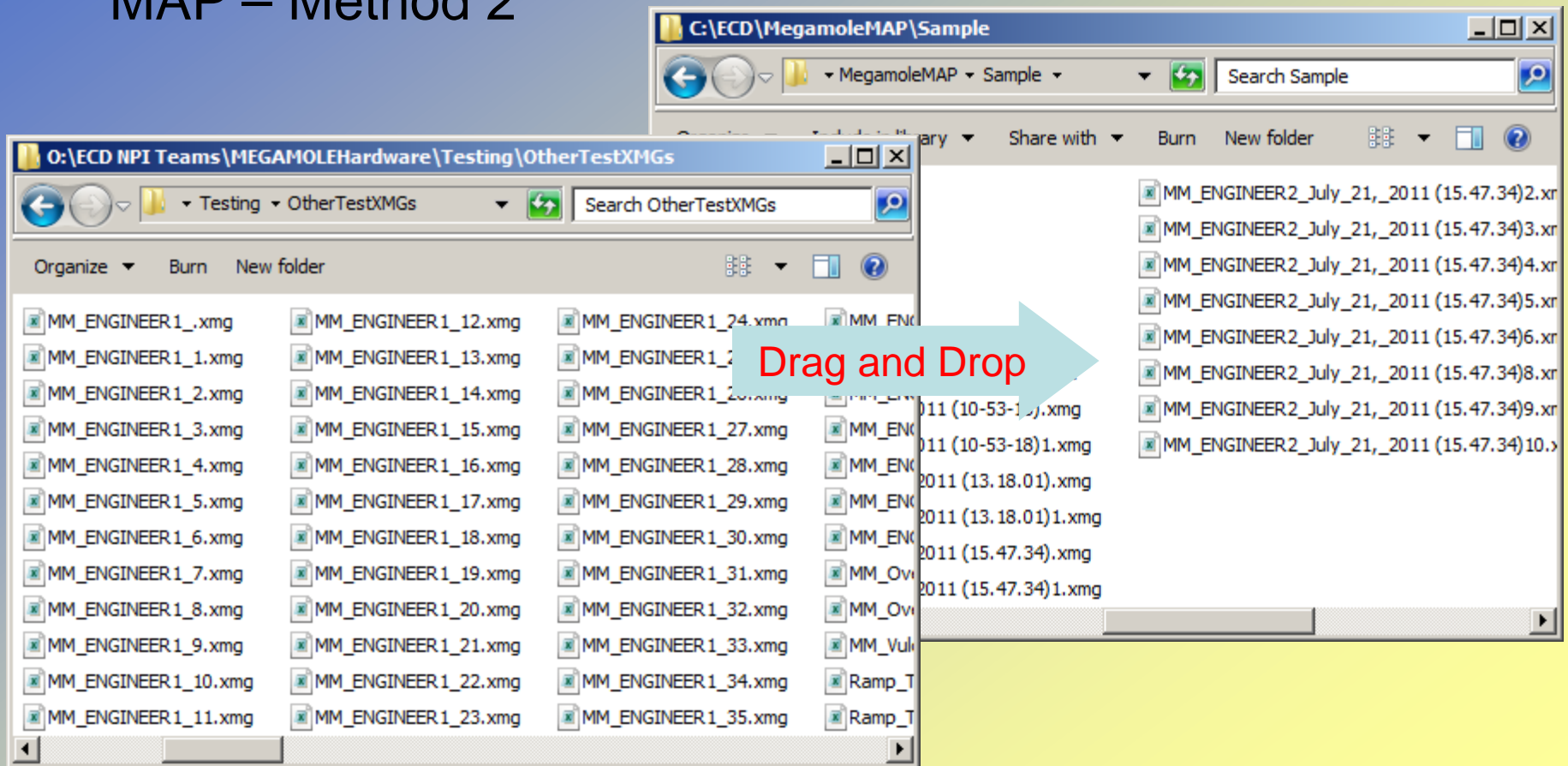


Migration to



My Old Profiles – Import *.XMGs

MAP – Method 2





Migration to



Questions

- ✓ **SPC to MAP**
- ✓ **File Management**
- ✓ **My Old Profiles**
- **MAP Profile**
- **MOLE® Profilers**



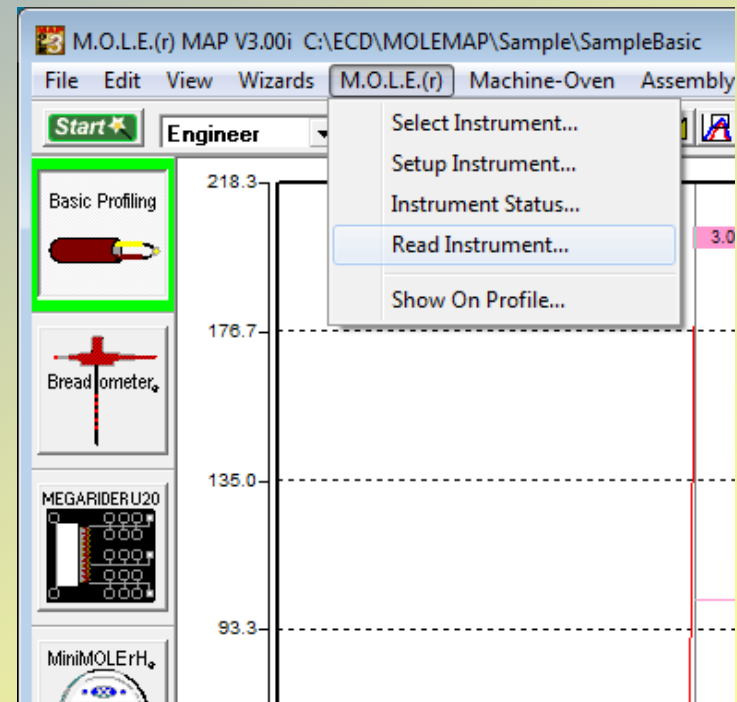
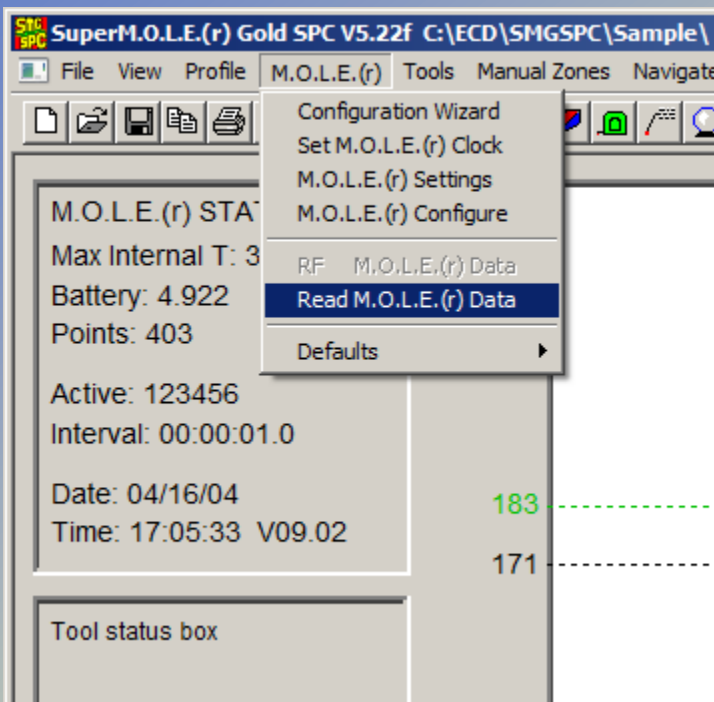
Migration to



MAP Profile – Reading the MOLE

SPC

MAP



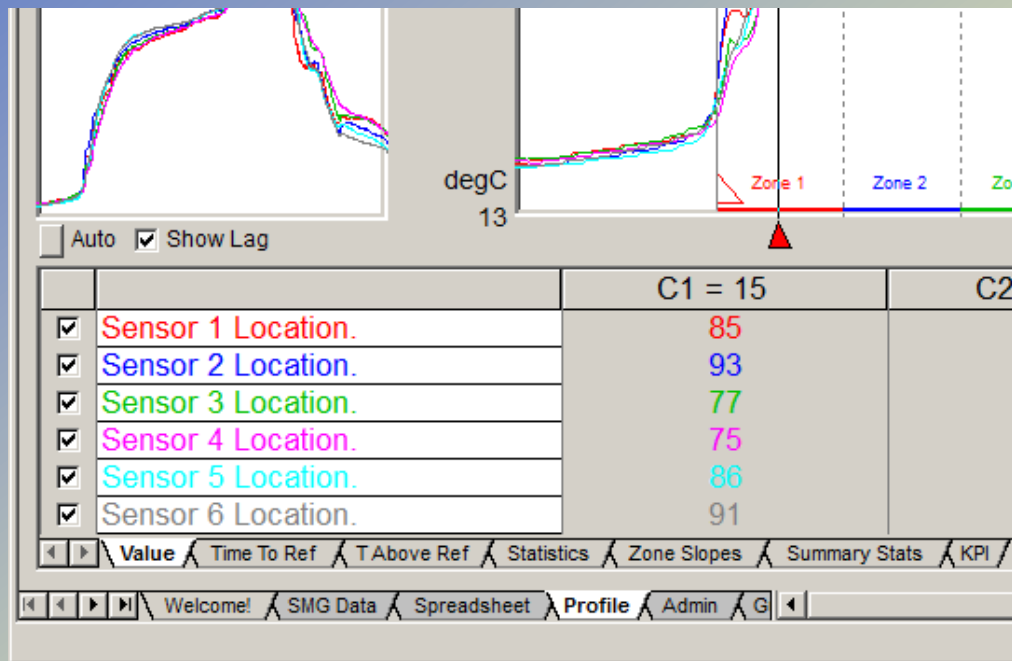


Migration to

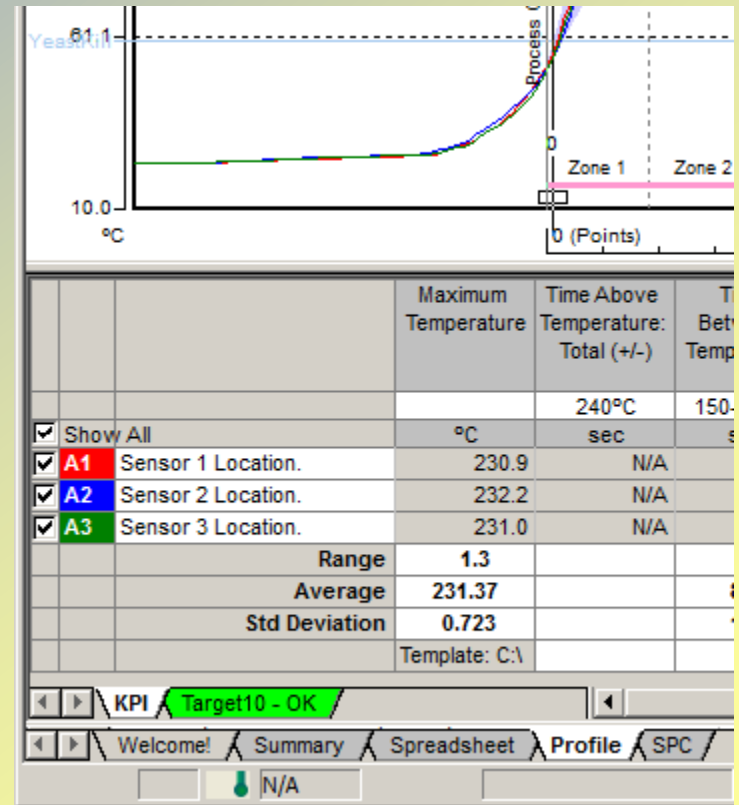


MAP Profile – Profile Tabs

SPC



MAP





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Migration to



Questions

- ✓ **SPC to MAP**
- ✓ **File Management**
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- ✓ **MAP Profile**
- **MOLE® Profilers**



Migration to



MOLE® Profilers - SPC

Super MOLE Gold





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Migration to

M.O.L.E. MAP

Software

MOLE® Profilers - MAP

- Super MOLE Gold
- V-MOLE
- MEGAMOLE
- Super MOLE Gold²
 - WaveRIDER
 - OvenRIDER
- MiniMOLE rH
- PTP VP-8





Migration to



Questions

- ✓ **SPC to MAP**
- ✓ **File Management**
- ✓ **My Old Profiles**
- ✓ **MAP Profile**
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Migration to



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