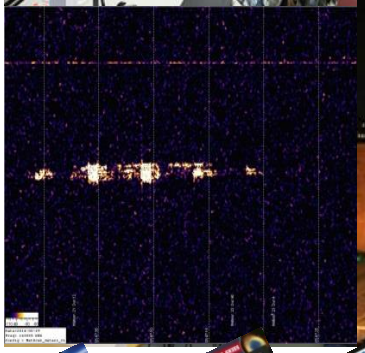
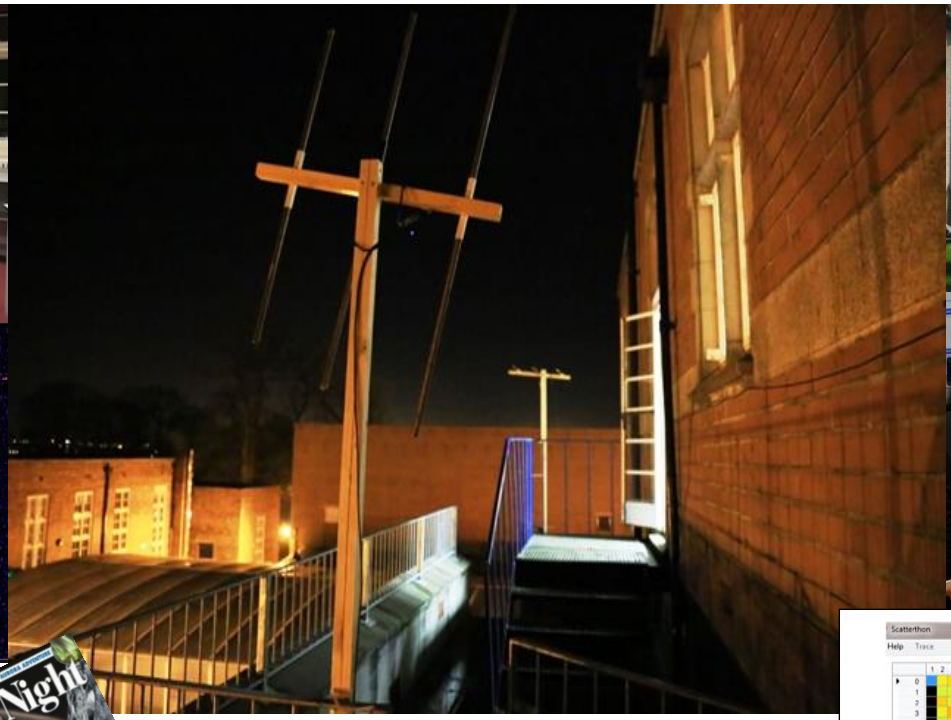
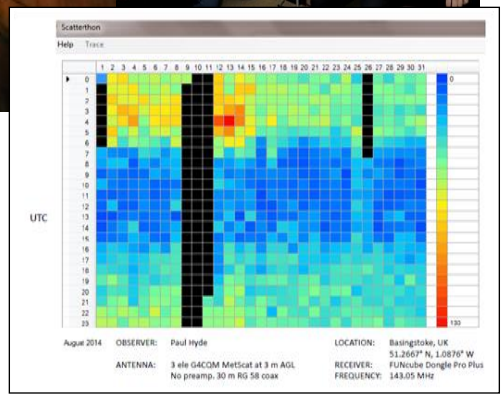
Practical Meteor Observing

Scatterthon Software Development





2015



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Scatterthon

What we cover today

Today we introduce a useful meteor observing data cleansing tool – Scatterthon…

- *Scatterthon: Raison d'etre*
- *I/O and Installation*
- *Recommended Workflow*
- *Scatterthon Turbocharged*
- *Event Coverage Solutions*
- *Cross-platform Future*

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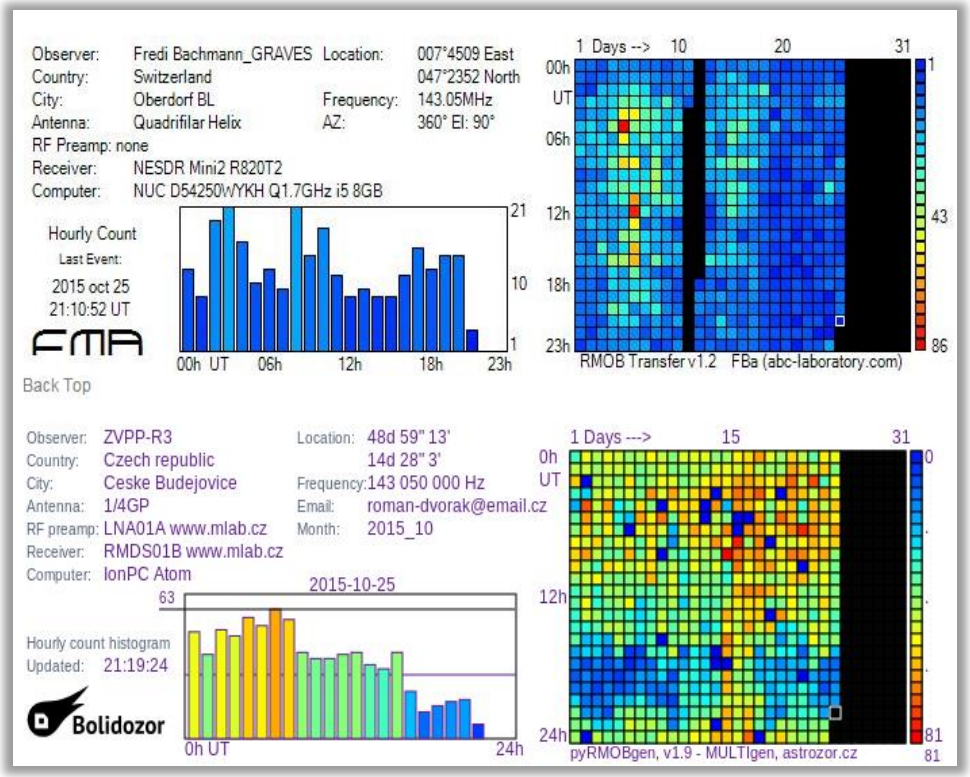
Scatterthon

Why is it here…

Scatterthon brings the ability to quickly check, classify and visualise your meteor observing data…

- *Inspiration: RMOB*
- *Believe it when you see it*
- *When speed matters*
- *Visualise your efforts*
- *Compare and contrast*



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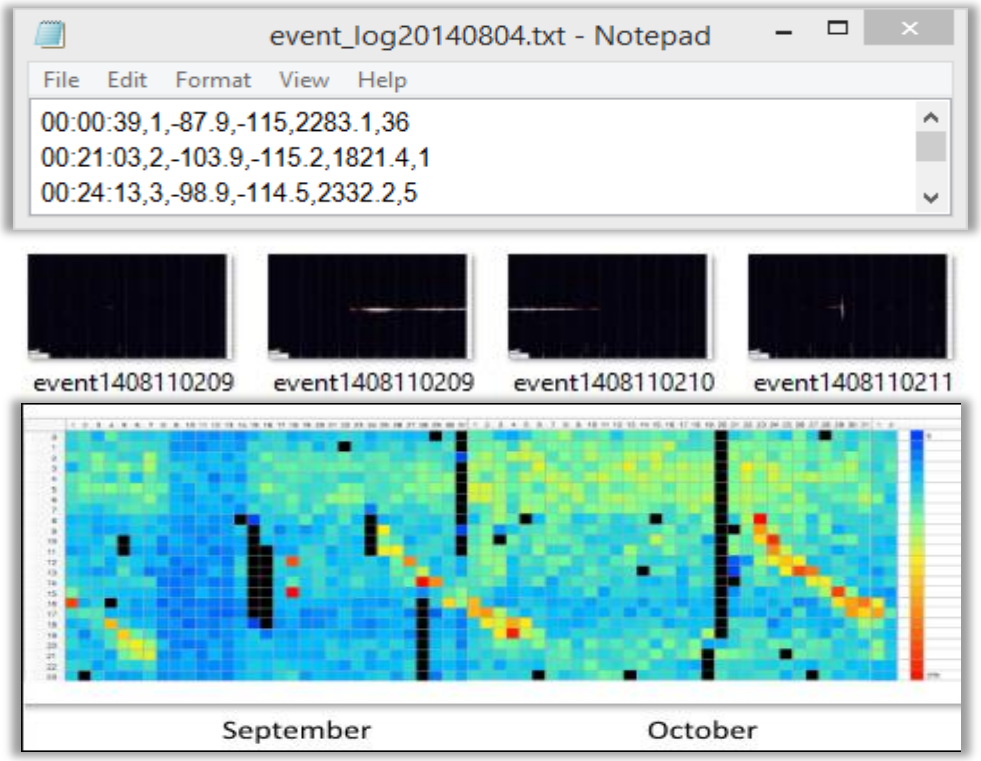
Scatterthon

Inputs, Outputs and Installation

From SpectrumLab to RMOB-style visualization, all by virtue of just three files on your Windows OS...

- *Consists of:*
  - *Scatterthon.exe*
  - *Scatterthon.exe.config*
  - *LogFileViewer.dll*
- *Inputs:*
  - *Logs*
  - *Screenshots*
- *Outputs:*
  - *Files*
  - *Screens*
  - *Stats*



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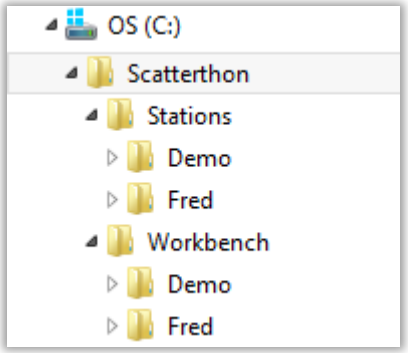
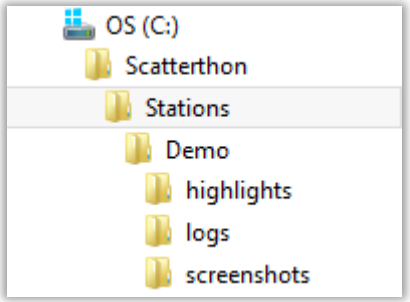
Scatterthon

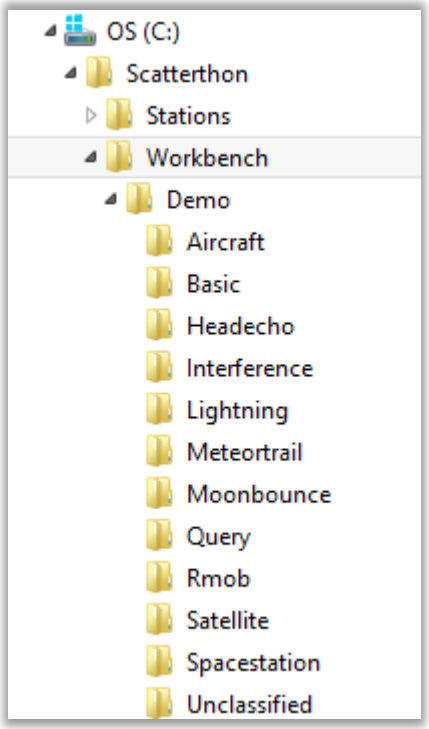
Inputs, Outputs and Installation

The folder structure is highly nested in order to accommodate multiple stations and types of outputs…

- *C:\Scatterthon*
  - *Stations*
  - *Workbench*
- *"Stations" contains:*
  - *Inputs by station name*
- *"Workbench" contains:*
  - *Outputs by station name*
  - *Scatterthon software*







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Scatterthon

Recommended Workflow

Copy files > Configure > Calibrate > Capture "Before" >Split/Merge/Classify > Normalize > Enjoy results!

- *Copy Files*
- *Configure*
- *Calibrate*
- *Capture "Before"*
- *Split/Merge/Classify*
- *Normalize*
- *Enjoy the results!*

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Scatterthon

Recommended Workflow

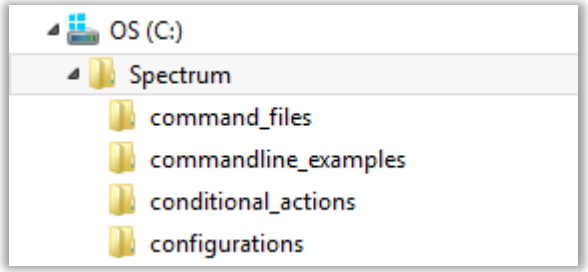
Copy files *> Configure > Calibrate > Capture "Before" >Split/Merge/Classify > Normalize > Enjoy results!*

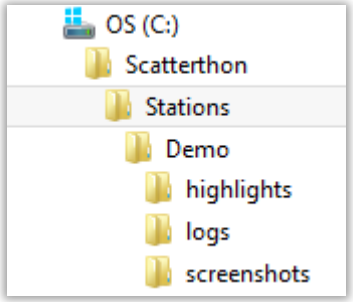
Copy Files from…

- *C:\Spectrum*
  - *Log files*
- *C:\Spectrum\Screenshots*
  - *Screenshots*

To your chosen station…

- *C:\Scatterthon\Stations*
  - *\Demo\logs*
  - *\Demo\screenshots*





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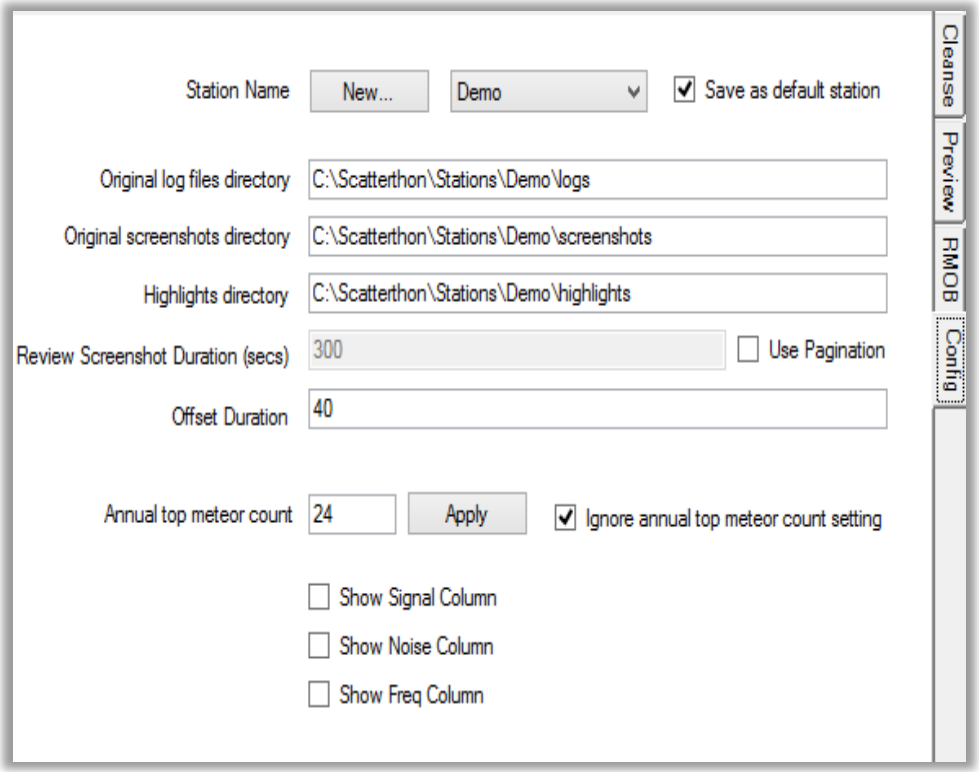
Scatterthon

Recommended Workflow

*Copy files > **Configure** > Calibrate > Capture "Before" >Split/Merge/Classify > Normalize > Enjoy results!*

1. *Create new Station*
2. *Specify where to…*
   - *Find log files*
   - *Find screenshots*
   - *Store highlights*
3. *Click "Save"*
4. *Click "Reload"*

- *Offset Duration next…*



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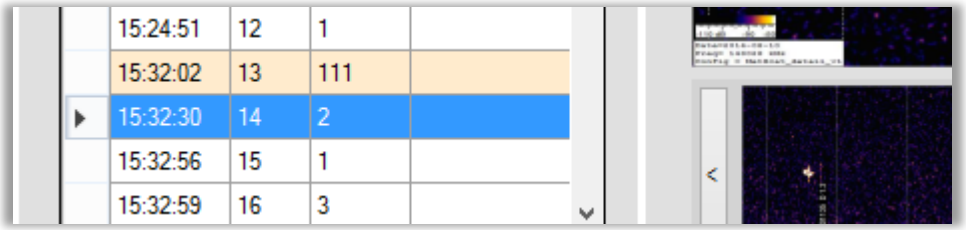
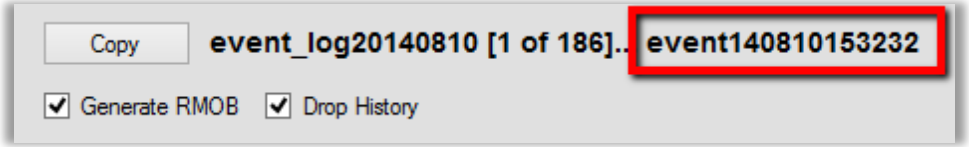
Scatterthon

Recommended Workflow

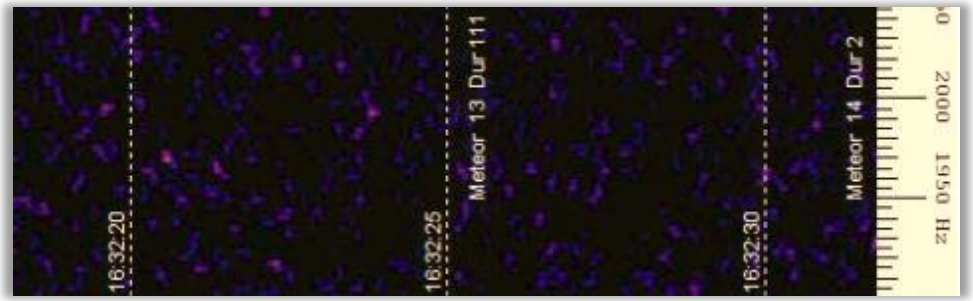
*Copy files > Configure > **Calibrate** > Capture "Before" >Split/Merge/Classify > Normalize > Enjoy results!*

- *Offset Duration*
- *Helps synchronise:*
  - *Timestamp in log files*
  - *Event stamp in images*
  - *Timestamp on image files*





1. *Sort by Duration (Desc)*
2. *Spot blanks > 3*
3. *Config and "Reload"*
4. *Very satisfying!*



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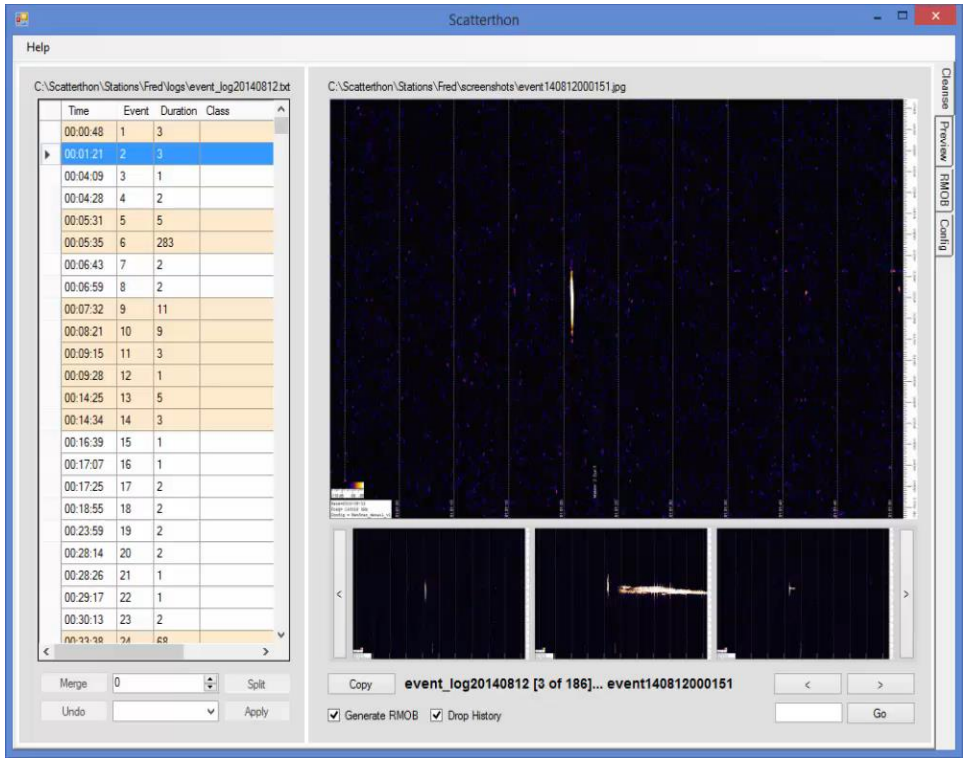
Scatterthon

Recommended Workflow

*Copy files > Configure > Calibrate > **Capture "Before"** >Split/Merge/Classify > Normalize > Enjoy results!*

1. *Go to "Cleanse" tab*
2. *Click "Next" until end*
3. *Click "RMOB" tab*
4. *Uncleansed view ready*

- ***Tip**: Export for reference!*



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Scatterthon

Recommended Workflow

*Copy files > Configure > Calibrate > Capture "Before" >**Split**/Merge/Classify > Normalize > Enjoy results!*

- *Split event log entry*

1. *Select row to split*
2. *Enter number of events*
3. *Click "Split"*

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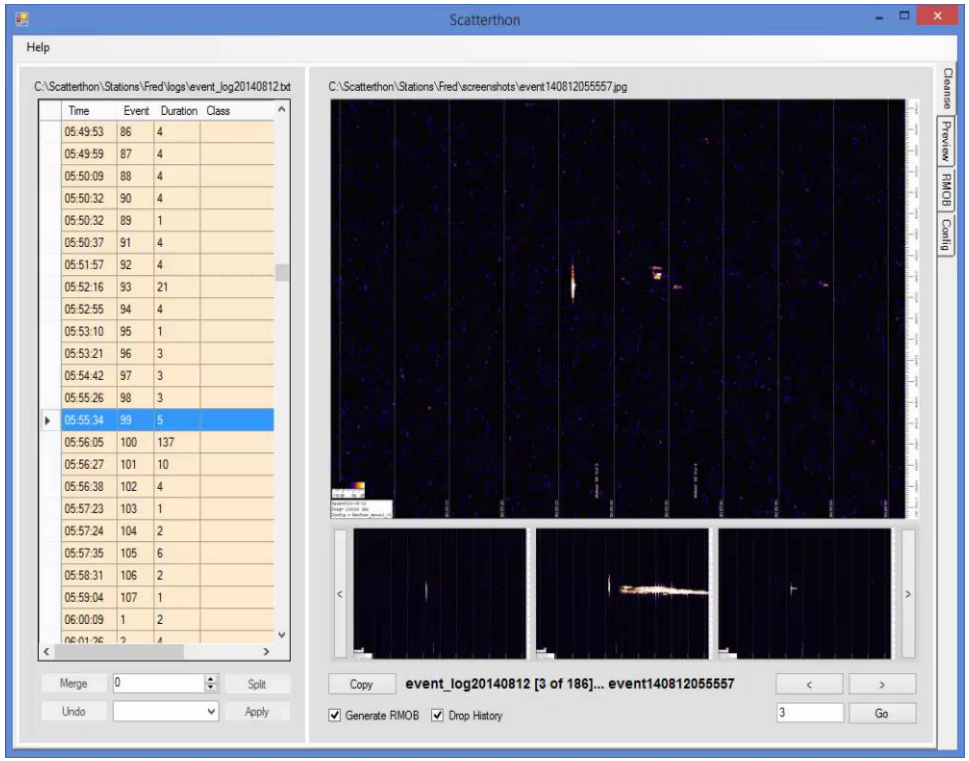
Scatterthon

Recommended Workflow

*Copy files > Configure > Calibrate > Capture "Before" >Split/**Merge**/Classify > Normalize > Enjoy results!*

- *Merge several log entries*

1. *Select rows to merge*
2. *Click "Merge"*



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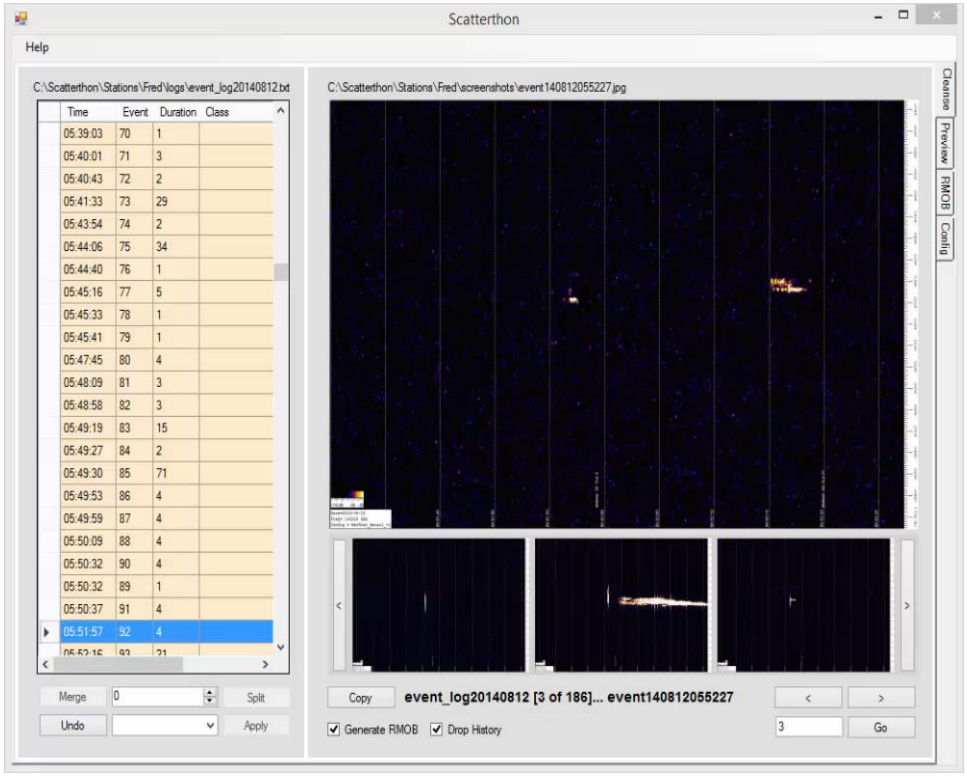
Scatterthon

Recommended Workflow

*Copy files > Configure > Calibrate > Capture "Before" >Split/Merge/**Classify** > Normalize > Enjoy results!*

- *Classify event types*
- *Mark events as "removed"*

1. *Select rows to classify*
2. *Select classification*
3. *Click "Apply"*



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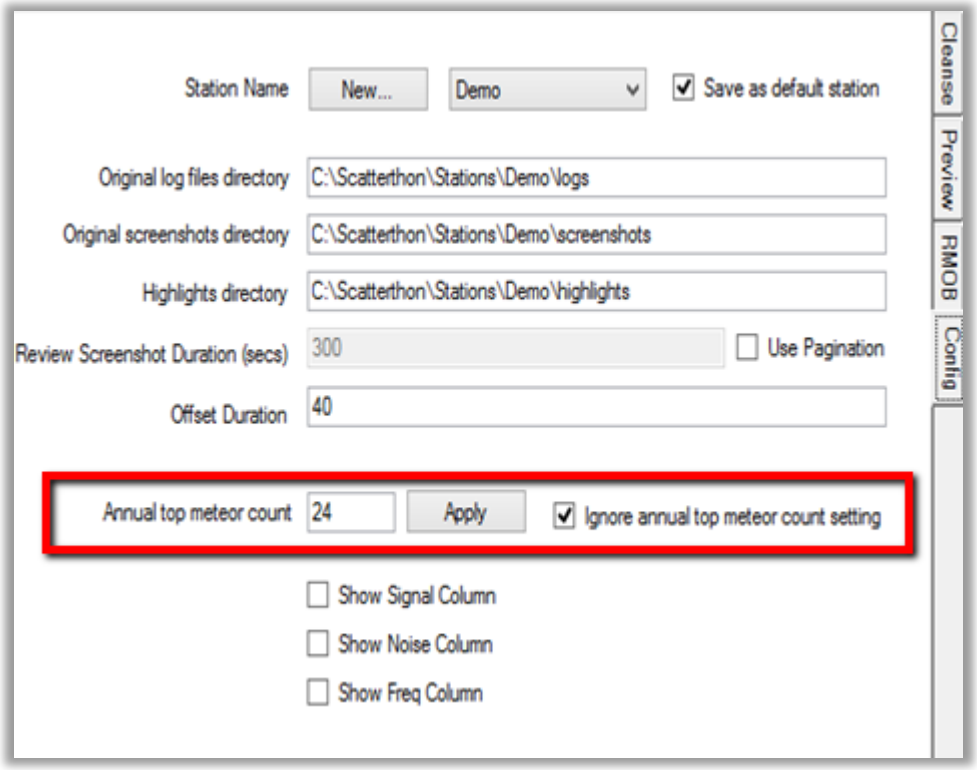
Scatterthon

Recommended Workflow

*Copy files > Configure > Calibrate > Capture "Before" >Split/Merge/Classify > **Normalize** > Enjoy results!*

- *Normalize across months…*

1. *Untick "Ignore annual…"*
2. *Enter highest count*
3. *Click "Apply"*
   - *Apply that for each month retrospectively, if necessary…*
   - *Rolling highest count is applied automatically*



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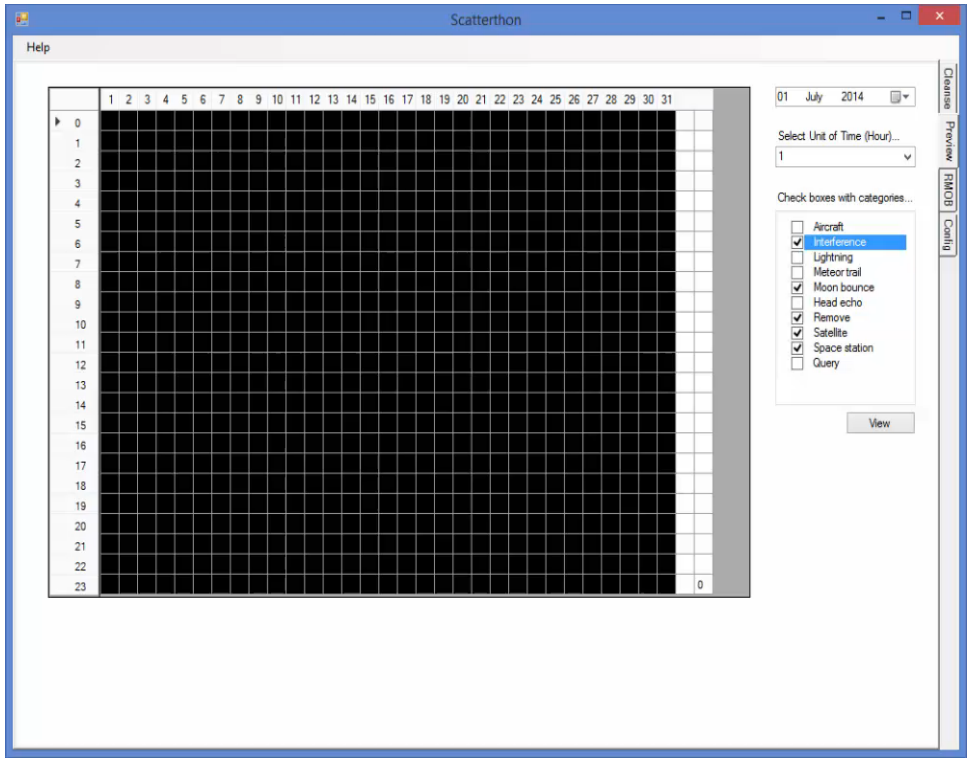
Scatterthon

Recommended Workflow

Copy files > Configure > Calibrate > Capture "Before" >Split/Merge/Classify > Normalize > ***Enjoy results!***

- *View Classifications*
  - *By Month*
  - *By Category*
  - *By Unit of Time*

- *Demo*
  - *Month and Unit of Time*



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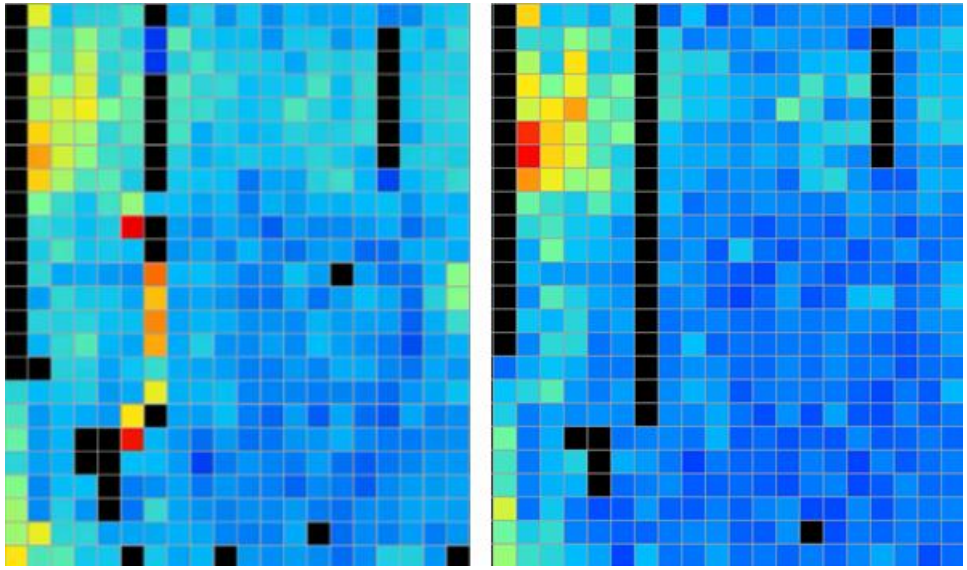
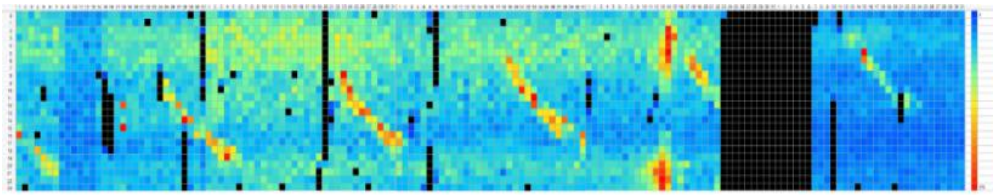
Scatterthon

Recommended Workflow

Copy files > Configure > Calibrate > Capture "Before" >Split/Merge/Classify > Normalize > ***Enjoy results!***

- *View RMOB*
  - *Import*
  - *Export*
  - *Concatenate*





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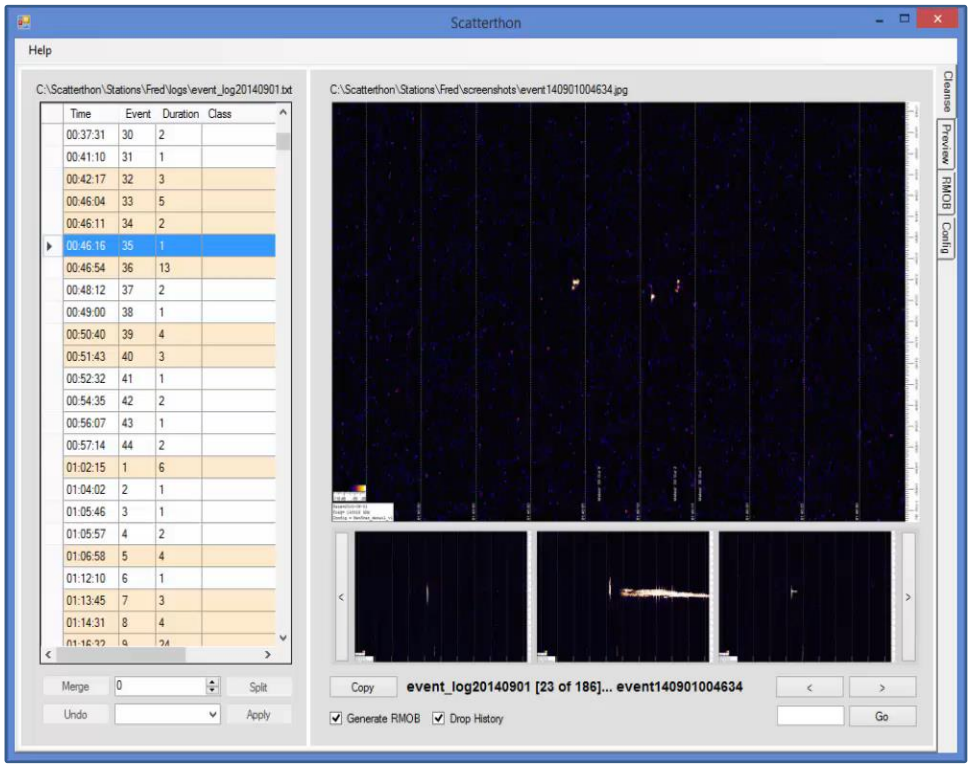
Scatterthon

Scatterthon Turbocharged

Productivity improvements with keyboard shortcuts for splitting, merging and classification operations

- *Splitting Shortcuts*
- *Ctrl, Number + Enter*



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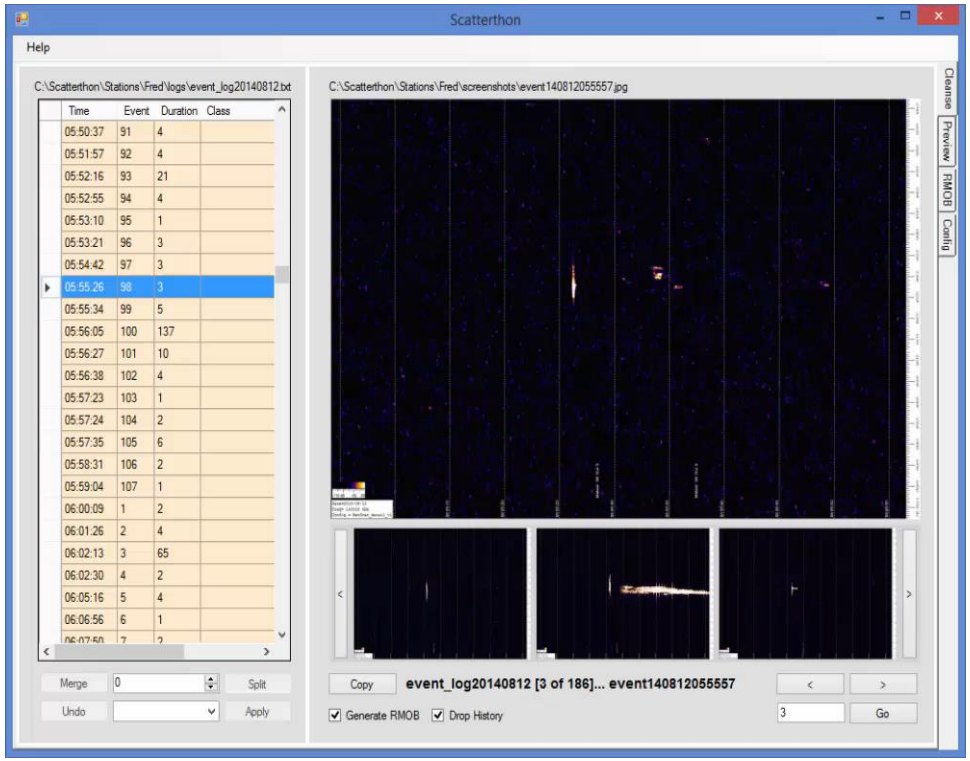
Scatterthon

Scatterthon Turbocharged

Productivity improvements with keyboard shortcuts for splitting, merging and classification operations

- *Merging Shortcuts*
- *Shift + Enter*



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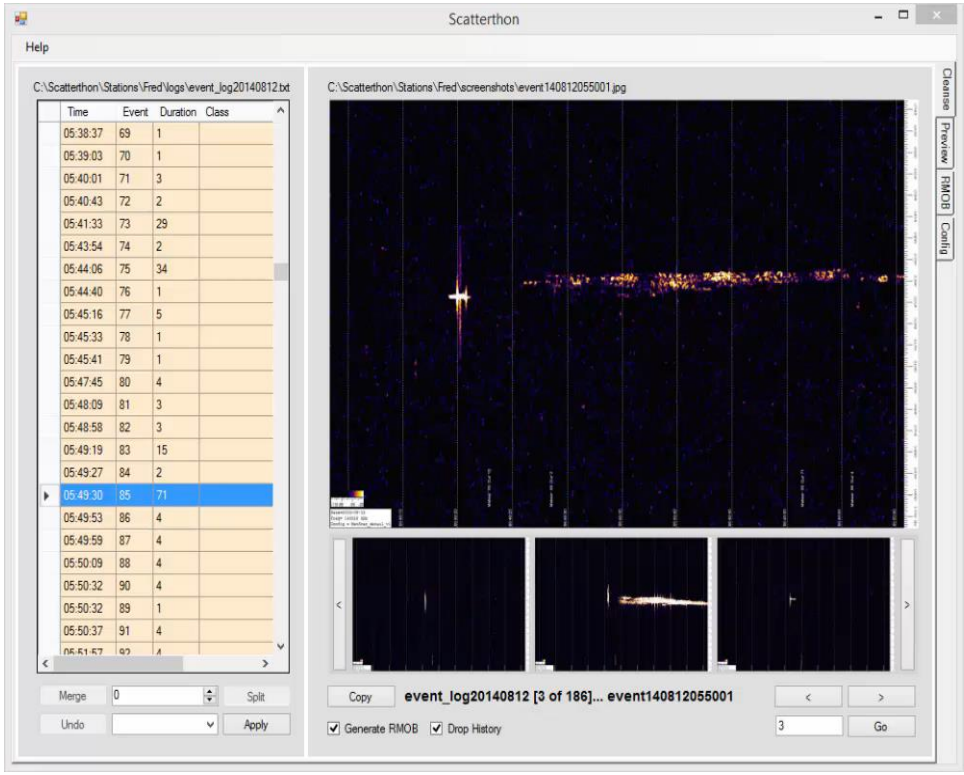
Scatterthon

Scatterthon Turbocharged

Productivity improvements with keyboard shortcuts for splitting, merging and classification operations

- *Classification Shortcuts*
- *Alt, Number + Enter, Enter*



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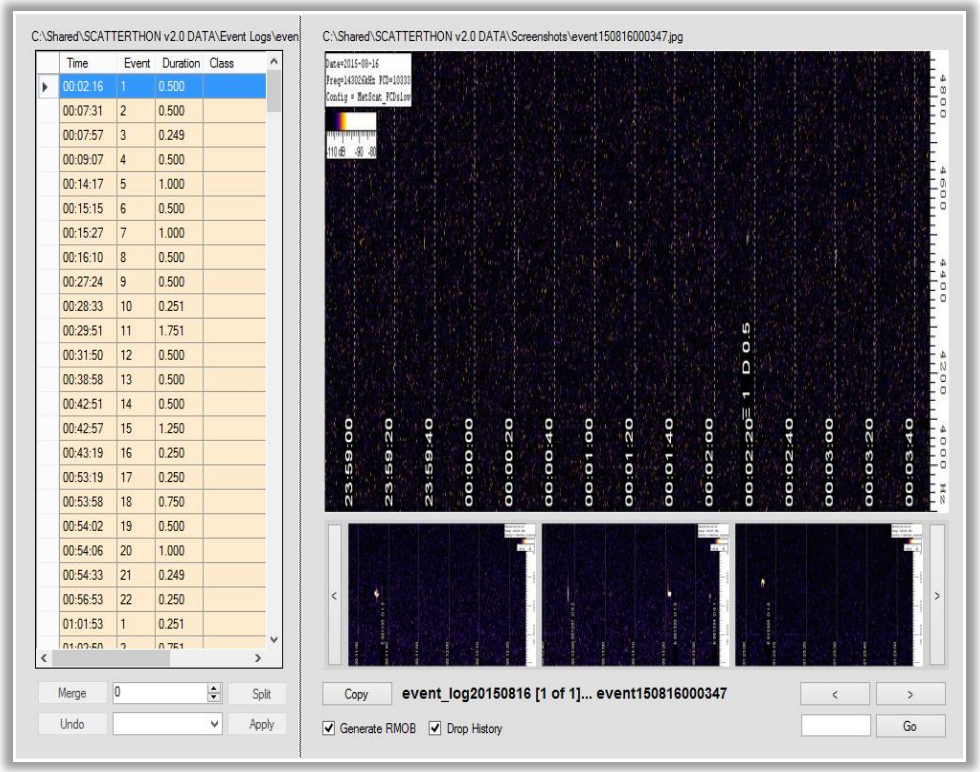
Scatterthon

Event Coverage Solutions

The data we cannot see is the data we cannot classify. We need continuous visual capture.

- *5-minute screen captures*
- *Pop-out Images*
- *Pagination*



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Scatterthon

Cross-platform Future?

We plan to make Scatterthon open source, available on GitHub for future multiplatform development

- *Open source on GitHub*
- *MONO*
- *Browser based*
- *ASP.NET 5*

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Scatterthon

Any Questions?

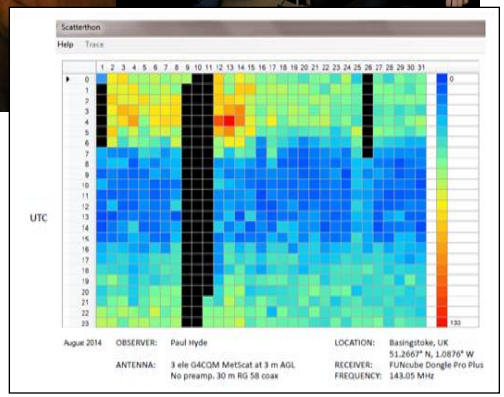
If you have any questions, now is the time to ask…

- *Contact Details*
  - *07415 094 820*
  - *info@radioastro.org.uk*

Practical Meteor Observing

Scatterthon Software Development

2015



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