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## **SEPARATE**



Storm Event Partitioning And Rainfall Analytics for Tipping-bucket rain gauge Evaluation

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## **Example Datasets**

To help users get started quickly, we include two example datasets:

Fi	ilename	Description
E	xampleData_FixedInterval.xlsx	Example dataset logged at regular intervals using fixed time steps.
E	xampleData_CumulativeTips.xlsx	Example dataset with cumulative tip logging style (e.g., HOBO loggers).

Each file contains two columns:

- 1. **Timestamp** in the format MM/DD/YY HH:MM:SS
- 2. Rainfall Value either:
  - Cumulative tip count (Cumulative Tips format), or
  - Rainfall per interval (Fixed Interval format)

Both files are preformatted to match SEPARATE's input requirements. You can use them to test the interface, explore SEPARATE's options, or verify that your installation is working correctly. For more information about rain gauge data types, GUI parameter selection, and underlying data processing methods, see the Supplement or our detailed Instruction Manual.

The ExampleOutputs folder contains results from running both datasets (named accordingly) using a 15-minute duration storm intensity for plotting.

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* Criterion for Fixed Minimum Inter-event Time (MIT) Selection • Independent Storms Criterion (ISC) • For User-Defined MIT Fixed Minimum Inter-event Time • For Statistically Independent Storms Maximum Inter-event Test Interval • Additional Exclusion Criteria  □ Minimum Event Rainfall Depth □ tip units □ Minimum Event Duration  Output Options  *Output Directory • Datasets/Outputs/Fixed_Interval Browse  *Image File Format  .png	SEPARATE v1.0	- 🗆 ×			
*Rainfall Record Data	Storm Event Partitioning And Rainfall Analytics for Tipping-bucket rain gauge Evaluation © 2025 Brendan P. Murphy & Scott R. David				
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*Rainfall Record Type  *Tip Magnitude					
* Tip Magnitude • 0.2 Tip Units mm  Partitioning Criteria  * Criterion for Fixed Minimum Inter-event Time (MIT) Selection • Independent Storms Criterion (ISC)  • For User-Defined MIT  Fixed Minimum Inter-event Time hours  • For Statistically Independent Storms  Maximum Inter-event Test Interval 48 hours  • Additional Exclusion Criteria  F Minimum Event Rainfall Depth tip units  Minimum Event Duration hours  Output Options  *Output Options  *Output Directory • Datasets/Outputs/Fixed_Interval Browse  *Outputs Prefix • Ex_Fixed  *Image File Format png  Rainfall Record Timeseries Date Range • Start Date End Date  Separated Storm Event Profiling (all storms) • Finclude Tabular Storm Event Data  Finclude Graphical Storm Event Profiles  Intensity Interval for Storm Profiles 15 minutes					
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Separate Storms	·				
	intensity interval for Storm Profiles 15 minutes				
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	Partitioning Progress:				

Figure: Fixed interval usage example.

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Storm Event Partitioning And Rainfall Analytics for Tipping-bucket rain gauge Evaluation © 2025 Brendan P. Murphy & Scott R. David				
Inputs				
*Rainfall Record Data  ExampleData_CumulativeTips.xls  Excel Sheet Name  * Rainfall Record Type  * Tip Magnitude  * Tip Magnitude  * Tip Units mm				
Partitioning Criteria				
* Criterion for Fixed Minimum Inter-event Time (MIT) Selection • Independent Storms Criterion (ISC) • For User-Defined MIT				
Fixed Minimum Inter-event Time hour	rs			
For Statistically Independent Storms     Maximum Inter-event Test Interval	rs			
Additional Exclusion Criteria				
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✓ Minimum Event Duration  0.2  hour	s			
Output Options				
*Output Directory  *Outputs Prefix  tasets/Outputs/Cumulative_Tips  Ex_Tips	Browse			
*Image File Format .png .				
Rainfall Record Timeseries Date Range •				
Start Date End Date				
Separated Storm Event Profiling (all storms) •				
☑ Include Tabular Storm Event Data				
☑ Include Graphical Storm Event Profiles				
Intensity Interval for Storm Profiles 15 minutes				
Separate Storms				
Partitioning Progress:				

Figure: Cumulative tips usage example.