

SEPARATE

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*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 in the `Example_Datasets` folder:

Filename	Description
<code>FixedInterval_TBRG_Example.xlsx</code>	Example dataset logged at regular intervals using fixed time steps.
<code>CumulativeTips_TBRG_Example.xlsx</code>	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 are preformatted to match SEPARATE’s input requirements. You can use these files to test the interface, explore SEPARATE’s options, or verify that your installation is working correctly. In the ouputs folder, you can find the results from each of these runs below, using a 15-min. storm intensity for plotting.

SEPARATE v1.0

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Inputs

*Rainfall Record Data

/ExampleData_FixedInterval.xlsx

Browse

Excel Sheet Name

* Rainfall Record Type

Fixed Interval

* 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

☒ Minimum Event Rainfall Depth

0.2

tip units

☒ Minimum Event Duration

0.2

hours

Output Options

*Output Directory

rs/Scott/Desktop/Example_Runs

Browse

*Outputs Prefix

Ex_Fixed

*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 Profile

15

minutes

Separate Storms

Partitioning Progress:


Figure: Fixed interval usage example.

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Inputs

*Rainfall Record Data

/ExampleData_CumulativeTips.xl

Browse

Excel Sheet Name

* Rainfall Record Type

Cumulative Tips

* 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

☒ Minimum Event Rainfall Depth

0.2

tip units

☒ Minimum Event Duration

0.2

hours

Output Options

*Output Directory

rs/Scott/Desktop/Example_Runs

Browse

*Outputs Prefix

Ex_Tips

*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 Profile

15

minutes

Separate Storms

Partitioning Progress:

Figure: Cumulative tips usage example.