
THREADNET: GETTING STARTED

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RUN THE APP: ThreadNet()

- Install R and Rstudio, if necessary
- Install the ThreadNet package from GitHub
 - Enter these commands in the Rstudio Console window (R is case sensitive)
install.packages('devtools')
library('devtools')
install_github('ThreadNet/ThreadNet')
- Run the ThreadNet App
ThreadNet()

OVERVIEW OF THREADNET

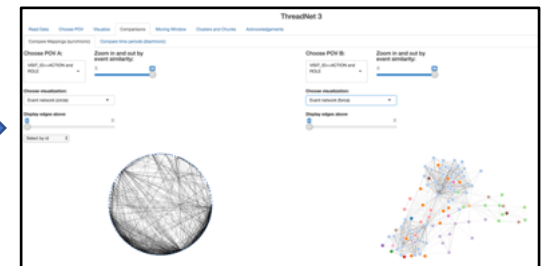
READ DATA

tsStamp	VISIT	WORKSTN_ID	ACTION_CODE	ROLE	CLINIC	DXN1
2/2/15 8:53	1	BCAHHURDRM	CHECKIN TIME	Admin Tech	HH	Benign neoplasm
2/2/15 8:53	1	BCAHHURDRM	MR_SNAPSHOT	Admin Tech	HH	Benign neoplasm
2/2/15 8:53	1	BCAHHURDRM	MR_REPORTS	Admin Tech	HH	Benign neoplasm
2/2/15 8:53	1	BCAHHURDRM	MR_SNAPSHOT	Admin Tech	HH	Benign neoplasm
2/2/15 8:53	1	BCAHHURDRM	MR_REPORTS	Admin Tech	HH	Benign neoplasm
2/2/15 8:55	1	BCAHHURDRM	MR_SNAPSHOT	Admin Tech	HH	Benign neoplasm
2/2/15 8:55	1	BCAHHURDRM	MR_REPORTS	Admin Tech	HH	Benign neoplasm
2/2/15 8:56	1	BCAHHURDRM	MR_SNAPSHOT	Admin Tech	HH	Benign neoplasm
2/2/15 8:56	1	BCAHHURDRM	MR_REPORTS	Admin Tech	HH	Benign neoplasm
2/2/15 8:56	1	URDERMOT3	AC_VISIT_NAVIGATOR	Licensed Nurse	HH	Benign neoplasm
2/2/15 8:56	1	URDERMOT3	MR_HISTORIES	Licensed Nurse	HH	Benign neoplasm
2/2/15 8:56	1	URDERMOT3	MR_ENC_ENCOUNTER	Licensed Nurse	HH	Benign neoplasm
2/2/15 8:56	1	URDERMOT3	MR_VN_VITALS	Licensed Nurse	HH	Benign neoplasm
2/2/15 8:56	1	URDERMOT3	MR_REPORTS	Licensed Nurse	HH	Benign neoplasm
2/2/15 8:56	1	URDERMOT3	FLWSHEET	Licensed Nurse	HH	Benign neoplasm
2/2/15 8:56	1	URDERMOT3	MR_VN_CHIEF_COMPLAINT	Licensed Nurse	HH	Benign neoplasm

CHOOSE POV

1. Define Threads
2. Define Events
3. Select Subset
4. Save POV

VISUALIZE/COMPARE



ThreadNet 3

Read Data

Acknowledgements

Select a file that contains your data.

Please select a .csv or .xes file

Browse...

No file selected

1. Select a data file.
2. Files can be .csv or .xes.
3. Here we use OneDayOneClinic.csv
4. It contains 25 patient visits (4060 rows)

ThreadNet 3

Read Data Choose POV Acknowledgements

Select a file that contains your data.

Please select a .csv or .xes file

Browse... OneDayOneClinic.csv
Upload complete

Select columns to include in analysis:

VISIT_ID ACTION ROLE WORKSTATION_ID CLINIC_SITE DAY_OF_WEEK DXN1 weekday month

Show 10 entries

Search:

tStamp	VISIT_ID	ACTION	ROLE	WORKSTATION_ID	CLINIC_SITE	DAY_OF_WEEK	DXN1	weekday	month	
All	All	All	All	All	All	All	All	All	All	
1	2015-03-02T12:58:00Z	66	MR_REPORTS	Technician	COPHDERM6	REC	Tuesday	Contact_dermatitis	Monday	March
2	2015-03-02T12:58:00Z	66	UCW_RELATED_ENCOUNTERS	Technician	COPHDERM6	REC	Tuesday	Contact_dermatitis	Monday	March
3	2015-03-02T12:58:00Z	66	AC_VISIT_NAVIGATOR	Technician	COPHDERM6	REC	Tuesday	Contact_dermatitis	Monday	March
4	2015-03-02T12:58:00Z	66	MR_REPORTS	Technician	COPHDERM6	REC	Tuesday	Contact_dermatitis	Monday	March
5	2015-03-02T12:58:00Z	66	MR_HISTORIES	Technician	COPHDERM6	REC	Tuesday	Contact_dermatitis	Monday	March
6	2015-03-02T12:58:00Z	66	MR_VN_VITALS	Technician	COPHDERM6	REC	Tuesday	Contact_dermatitis	Monday	March
7	2015-03-02T12:58:00Z	66	FLWSHEET	Technician	COPHDERM6	REC	Tuesday	Contact_dermatitis	Monday	March
8	2015-03-02T12:58:00Z	66	MR_ENC_ENCOUNTER	Technician	COPHDERM6	REC	Tuesday	Contact_dermatitis	Monday	March
9	2015-03-02T12:58:00Z	66	MR_VN_CHIEF_COMPLAINT	Technician	COPHDERM6	REC	Tuesday	Contact_dermatitis	Monday	March
10	2015-03-02T12:58:00Z	66	UCW_RELATED_ENCOUNTERS	Technician	COPHDERM6	REC	Tuesday	Contact_dermatitis	Monday	March

After the file is loaded, you can:

1. Select columns to include or drop
2. Select a subset of the data. This can be useful if the file is large (greater than ~50K rows will be slow).

Showing 1 to 10 of 4,060 entries

Previous 1 2 3 4 5 ... 406 Next

ThreadNet 3

Read Data Choose POV Acknowledgements

Select time scale for graphs:

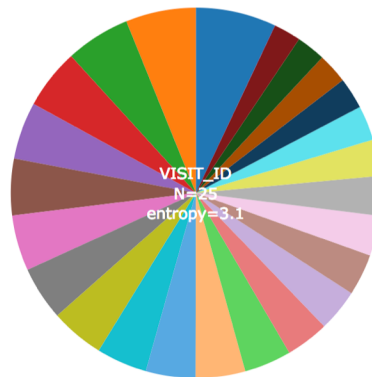
auto mins hours days weeks

Step 1: Define Threads Step 2: Define Events Step 3: Select Subset Step 4: Save POV

Threads are defined by contextual features that **STAY THE SAME** during a thread. At least **ONE** is required.

Select columns to define threads:

VISIT_ID ACTION ROLE WORKSTATION_ID CLINIC_SITE DAY_OF_WEEK DXN1 weekday month



CHOOSE Point of View (POV)

1. Select a context factor to define the point of view for the thread.
2. Each value of this context factor will be one thread.
3. The pie charts show the number of occurrences in each thread.

ThreadNet 3

CHOOSE Point of view (POV)

1. Choose context factors that define events within the threads
2. You can select multiple context factors
3. Only the combinations that occur in the data are used in the analysis.

[Read Data](#) [Choose POV](#) [Acknowledgements](#)

Select time scale for graphs:

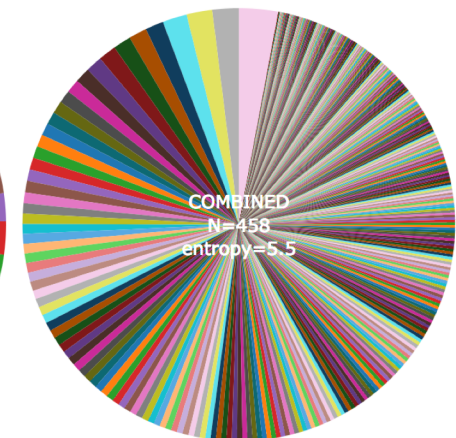
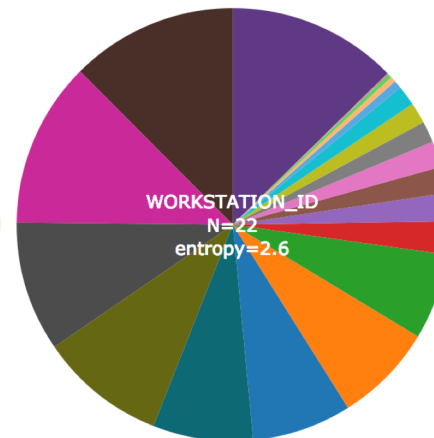
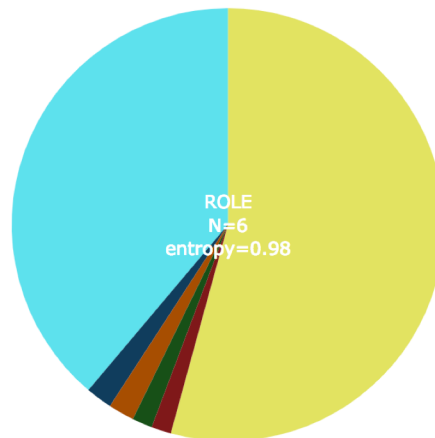
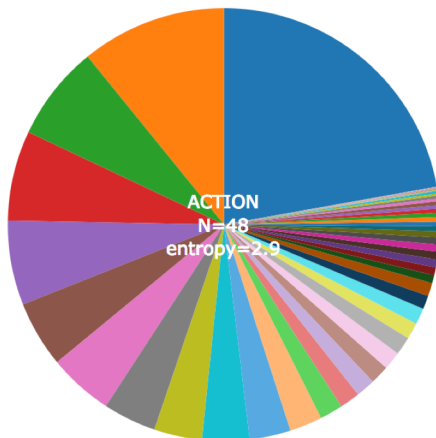
auto mins hours days weeks

[Step 1: Define Threads](#) [Step 2: Define Events](#) [Step 3: Select Subset](#) [Step 4: Save POV](#)

Events are marked by contextual features that **CHANGE** within the threads. At least **ONE** is required.

Select columns to mark events:

VISIT_ID ACTION ROLE WORKSTATION_ID CLINIC_SITE DAY_OF_WEEK DXN1 weekday month



Step 1: Define Threads Step 2: Define Events Step 3: Select Subset Step 4: Save POV

Optional: you can choose a subset of this POV for comparison.

Show entries

ACTION_ROLE_WORKSTATION_ID	tStamp	VISIT_ID	ACTION	ROLE	WORKSTATION_ID	CLINIC_SITE	DAY_OF_WEEK	DXN1	
<input type="text" value="All"/>	<input type="text" value="All"/>	<input type="text" value=","/>	<input type="text" value="All"/>	<input type="text" value=","/>	<input type="text" value="All"/>	<input type="text" value="All"/>	<input type="text" value="All"/>	<input type="text" value="Contact_dermatitis"/>	
3807	REMOVED_FROM_ARRIVAL_LIST+Technician+DERMXRM3	2015-03-02T13:42:00Z	5	REMOVED_FROM_ARRIVAL_LIST	Technician	DERMXRM3	REC	Tuesday	Contact_dermatitis
2896	MR_REPORTS+Technician+CCPHDERM6	2015-03-02T12:58:00Z	66	MR_REPORTS	Technician	CCPHDERM6	REC	Tuesday	Contact_dermatitis
3911	UCW_RELATED_ENCOUNTERS+Technician+CCPHDERM6	2015-03-02T12:58:00Z	66					Tuesday	Contact_dermatitis
764	AC_VISIT_NAVIGATOR+Technician+CCPHDERM6	2015-03-02T12:58:00Z	66					Tuesday	Contact_dermatitis
2895	MR_REPORTS+Technician+CCPHDERM6	2015-03-02T12:58:00Z	66					Tuesday	Contact_dermatitis
2014	MR_HISTORIES+Technician+CCPHDERM6	2015-03-02T12:58:00Z	66					Tuesday	Contact_dermatitis
3667	MR_VN_VITALS+Technician+CCPHDERM6	2015-03-02T12:58:00Z	66	MR_VN_VITALS	Technician	CCPHDERM6	REC	Tuesday	Contact_dermatitis
967	FLWSHEET+Technician+CCPHDERM6	2015-03-02T12:58:00Z	66	FLWSHEET	Technician	CCPHDERM6	REC	Tuesday	Contact_dermatitis
1810	MR_ENC_ENCOUNTER+Technician+CCPHDERM6	2015-03-02T12:58:00Z	66	MR_ENC_ENCOUNTER	Technician	CCPHDERM6	REC	Tuesday	Contact_dermatitis
3342	MR_VN_CHIEF_COMPLAINT+Technician+CCPHDERM6	2015-03-02T12:58:00Z	66	MR_VN_CHIEF_COMPLAINT	Technician	CCPHDERM6	REC	Tuesday	Contact_dermatitis

CHOOSE POV
You can pick a subset of the data here for comparison.

- Contact_dermatitis
- Acne
- Actinic_keratosis
- Alopecia
- Atopic_Dermatitis
- Bullous_pemphigoid
- Epidermolysis_bullosa
- History_of_malignant_neoplasm
- Neoplasm
- Contact_dermatitis

Showing 1 to 10 of 936 entries (filtered from 4,060 total entries)

Read Data

Choose POV

Acknowledgements

Select time scale for graphs:

auto mins hours days weeks

Step 1: Define Threads

Step 2: Define Events

Step 3: Select Subset

Step 4: Save POV

Save this POV to continue. You can create and compare multiple POVs.

Enter label for this POV mapping

VISIT_ID>>ACTION+ROLE+ and WORKSTA

Save this POV

CHOOSE POV

1. ThreadNet suggests a name for the POV but you can change it.
2. Each POV must have a unique name.
3. Click to save the POV

ThreadNet 3

Read Data Choose POV Visualize Comparisons Moving Window Clusters and Chunks Acknowledgements

Choose POV:

VISIT_ID>>ACTION and ROLE

Range of threads to include:

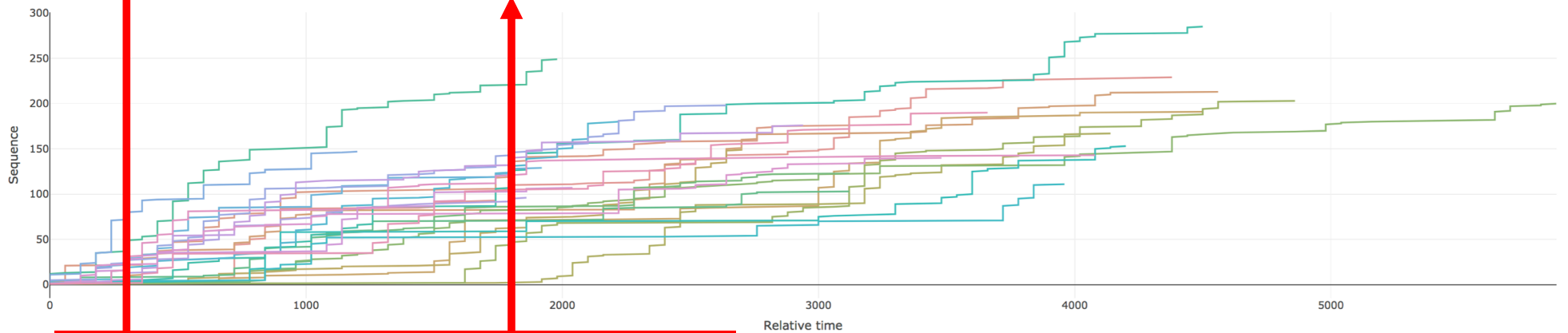


Zoom in and out by event similarity:



Zooming does not apply to some visualizations.

Thread Trajectories Whole Sequences Contextual Factors N-grams Event network (circle) Event network (force) Other networks Role Maps Data Table



VISUALIZE

1. Once you have saved a POV, you can visualize it.
2. You can switch between POV and visualizations.
3. For further information please check the extended manual.

MORE INFORMATION

- Visit ThreadNet web site: <http://routines.broad.msu.edu/ThreadNet/>
- User manual: Visualizing and Comparing Patterns of Action using *ThreadNet 3*
- Links to other related material