High-Utility Anonymization of Event Logs for Process Mining: Supplementary Material

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Abstract. In this document, we list the selected event logs, their characteristics, and their descriptive statistics. Also, attached to this document the anonymized event logs.

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1 Evaluation Supplementary Material

1.1 Dataset Selection

Table 1 shows the selected event logs and their descriptive statistics.

Table 1: Descriptive Statistics of Event Logs

event log	# Traces	# Tasks	# Events	# Edges	Case Variant	Trace Length		Case Duration		
						Min	Max	Min	Max	Avg
*BPI*12 [3]	13087	23	262200	116	4366	3	175	1.85 s	4.51 m	1.23 w
$BPI13_i$ [8]	7554	4	65533	16	1511	1	123	inst.	2.11 y	1.73 w
$BPI14_i$ [1]	46616	39	466737	497	22632	1	178	14 s	1.07 y	5.07 d
*BPI*17 [4]	31509	24	1202267	181	3942	10	180	3.35 m	9.4 m	3.13 w
$BPI20_r$ [2]	7065	51	86581	500	1478	3	90	12.61 h	3.26 y	2.87 m
Hospital [7]	1143	624	150291	903	981	1	1814	inst.	3.17 y	1.06 y
Sepsis [6]	1050	16	15214	115	846	3	185	2.03 m	1 y	4 w
Unrine. [5]	1650	10	6973	25	50	2	35	10.1 m	2.32 y	3.7 w

References

1. van Dongen, B.B.: Bpi challenge 2014 . 4tu.researchdata. collection. (2014). https://doi.org/10.4121/uuid:c3e5d162-0cfd-4bb0-bd82-af5268819c35
2. van Dongen, B.B.: Bpi challenge 2020 . 4tu.researchdata. collection. (2020). https://doi.org/10.4121/uuid:52fb97d4-4588-43c9-9d04-3604d4613b51
3. van Dongen, B.: BPI Challenge 2012 (4 2012). https://doi.org/10.4121/uuid:3926db30-f712-4394-aebc-75976070e91f

4. van Dongen, B.: BPI Challenge 2017 (2 2017). https://doi.org/10.4121/uuid:5f3067df-f10b-45da-b98b-86ae4c7a310b
5. Gunst, P.: Urineweginfectie (UWI-casus) logboek (8 2020). https://doi.org/10.4121/12826727.v1
6. Mannhardt, F.: Sepsis cases-event log. Eindhoven University of Technology. Dataset pp. 227–228 (2016)
7. Mannhardt, F.: Hospital Billing - Event Log (8 2017). https://doi.org/10.4121/uuid:76c46b83-c930-4798-a1c9-4be94dfeb741
8. Steemanvan, W.: Bpi challenge 2013 . 4tu.researchdata. collection. (2014). https://doi.org/10.4121/uuid:a7ce5c55-03a7-4583-b855-98b86e1a2b07