Table 1: KS-test results for input features, using a significance level of 0.05 and the Bonferroni correction method. Results are indicated with R if the null hypotesis can be rejected or with N otherwise. An astesisk indicates the network that performed better (has the minimum KS distance) if the null hypothesis is rejected in every network

feature	uncond	cond
level_equivalent_diameter	N	N
level_major_axis_length	R*	R
level_minor_axis_length	N	N
level_solidity	R	R*
nodes	R	R*
distmap-skew	R	R*
distmap-kurt	R	N

Table 2: KS-test results for non-input features, using a significance level of 0.05 and the Bonferroni correction method. Results are indicated with R if the null hypotesis can be rejected or with N otherwise. An astesisk indicates the network that performed better (has the minimum KS distance) if the null hypothesis is rejected in every network

feature	uncond	cond
level_area	N	N
level_convex_area	N	N
level_eccentricity	R*	R
level_euler_number	R	R*
level_extent	R	R*
level_filled_area	N	N
level_orientation	N	N
level_perimeter	N	N
level_hu_moment_0	N	R
level_hu_moment_1	R*	R
level_hu_moment_2	R	R*
level_hu_moment_3	R	N
level_hu_moment_4	N	R
level_hu_moment_5	N	R
level_hu_moment_6	R	N
level_centroid_x	R*	R
level_centroid_y	R*	R
number_of_artifacts	R	R*

Table 2: KS-test results for non-input features, using a significance level of 0.05 and the Bonferroni correction method. Results are indicated with R if the null hypotesis can be rejected or with N otherwise. An astesisk indicates the network that performed better (has the minimum KS distance) if the null hypothesis is rejected in every network

feature	uncond	cond
number_of_powerups	R	N
number_of_weapons	R	R*
number_of_ammunitions	R*	R
number_of_keys	R	R*
number_of_monsters	R*	R
number_of_obstacles	R	R*
number_of_decorations	R	R*
walkable_area	N	N
walkable_percentage	N	N
start_location_x_px	R	R*
start_location_y_px	R	R*
artifacts_per_walkable_area	R	R*
powerups_per_walkable_area	R	N
weapons_per_walkable_area	R	R*
ammunitions_per_walkable_area	R*	R
keys_per_walkable_area	R	R*
monsters_per_walkable_area	R	R*
obstacles_per_walkable_area	R	R*
decorations_per_walkable_area	R	R*
avg-path-length	R	R*
diameter-mean	R	R*
art-points	R*	R
assortativity-mean	R*	R
betw-cen-min	N	N
betw-cen-max	R	R*
betw-cen-mean	R*	R
betw-cen-var	R*	R
betw-cen-skew	R	R*
betw-cen-kurt	R	R*
betw-cen-Q1	R*	R
betw-cen-Q2	R*	R
betw-cen-Q3	R*	R
closn-cen-min	R*	R
closn-cen-max	R	R*
closn-cen-mean	R*	R
closn-cen-var	R	R*

Table 2:   KS-test results for non-input features, using a significance level of 0.05 and the Bonferroni correction method. Results are indicated with R if the null hypotesis can be rejected or with N otherwise. An astesisk indicates the network that performed better (has the minimum KS distance) if the null hypothesis is rejected in every network

feature	uncond	cond
closn-cen-skew	R*	R
closn-cen-kurt	R*	R
closn-cen-Q1	R*	R
closn-cen-Q2	R	R*
closn-cen-Q3	R	R*
distmap-max	R*	R
distmap-mean	R*	R
distmap-var	R*	R
distmap-Q1	R*	R
distmap-Q2	R	R*
distmap-Q3	R	R*

Table 3:   KS statistic values for the tests. The value is correlated with the distance of the cumulative distributions of the true and generated data

feature	uncond-s	cond-s
level_area	0.031279	0.043398
level_convex_area	0.047838	0.052632
level_eccentricity	0.144434	0.223453
level_equivalent_diameter	0.031279	0.043398
level_euler_number	0.226311	0.180055
level_extent	0.127875	0.104340
level_filled_area	0.035879	0.042475
level_major_axis_length	0.106716	0.116343
level_minor_axis_length	0.076357	0.078486
level_orientation	0.058878	0.068329
level_perimeter	0.080957	0.060942
level_solidity	0.121435	0.113573
level_hu_moment_0	0.077277	0.098800
level_hu_moment_1	0.125115	0.190212
level_hu_moment_2	0.121435	0.104340
level_hu_moment_3	0.106716	0.076639
level_hu_moment_4	0.070837	0.121884

Table 3: KS statistic values for the tests. The value is correlated with the distance of the cumulative distributions of the true and generated data

feature	uncond-s	cond-s
level_hu_moment_5	0.079117	0.094183
level_hu_moment_6	0.091076	0.059095
level_centroid_x	0.726771	0.777470
level_centroid_y	0.812328	0.815328
number_of_artifacts	0.467341	0.369344
number_of_powerups	0.128795	0.083102
number_of_weapons	0.383625	0.241921
number_of_ammunitions	0.359706	0.422899
number_of_keys	0.963201	0.943675
number_of_monsters	0.514259	0.574331
number_of_obstacles	0.519779	0.438596
number_of_decorations	0.823367	0.784857
walkable_area	0.034959	0.046168
walkable_percentage	0.051518	0.081256
start_location_x_px	0.232751	0.166205
start_location_y_px	0.529899	0.382271
artifacts_per_walkable_area	0.553818	0.390582
powerups_per_walkable_area	0.181233	0.088643
weapons_per_walkable_area	0.397424	0.242844
ammunitions_per_walkable_area	0.399264	0.444137
keys_per_walkable_area	0.959522	0.938135
monsters_per_walkable_area	0.597056	0.591874
obstacles_per_walkable_area	0.665133	0.518006
decorations_per_walkable_area	0.897884	0.845799
nodes	0.180313	0.159741
avg-path-length	0.174793	0.156048
diameter-mean	0.155474	0.141274
art-points	0.115915	0.139428
assortativity-mean	0.427032	0.456802
betw-cen-min	0.006440	0.006464
betw-cen-max	0.376265	0.347184
betw-cen-mean	0.371665	0.384118
betw-cen-var	0.362069	0.375894
betw-cen-skew	0.250230	0.238227
betw-cen-kurt	0.215271	0.207756
betw-cen-Q1	0.218951	0.258541
betw-cen-Q2	0.279669	0.287165
betw-cen-Q3	0.301748	0.318560

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Table 3: KS statistic values for the tests. The value is correlated with the distance of the cumulative distributions of the true and generated data

feature	uncond-s	cond-s
closn-cen-min	0.624655	0.655586
closn-cen-max	0.173873	0.133887
closn-cen-mean	0.207912	0.213296
closn-cen-var	0.314402	0.278856
closn-cen-skew	0.632935	0.644506
closn-cen-kurt	0.378105	0.406279
closn-cen-Q1	0.201472	0.208680
closn-cen-Q2	0.176633	0.169898
closn-cen-Q3	0.171113	0.163435
distmap-max	0.214351	0.238227
distmap-mean	0.159154	0.202216
distmap-var	0.192272	0.214220
distmap-skew	0.152714	0.107110
distmap-kurt	0.137994	0.084026
distmap-Q1	0.201472	0.208680
distmap-Q2	0.176633	0.169898
distmap-Q3	0.171113	0.163435

Table 4: Corrected p-values using Bonferroni method

feature	uncond	cond
level_area	1.000000e+00	1.000000e+00
level_convex_area	1.000000e+00	1.000000e+00
level_eccentricity	3.203350e-08	5.274459e-22
level_equivalent_diameter	1.000000e+00	1.000000e+00
level_euler_number	1.051357e-22	1.114460e-13
level_extent	4.541127e-06	1.922426e-03
level_filled_area	1.000000e+00	1.000000e+00
level_major_axis_length	1.060657e-03	1.058078e-04
level_minor_axis_length	4.758482e-01	3.395852e-01
level_orientation	1.000000e+00	1.000000e+00
level_perimeter	2.148826e-01	1.000000e+00
level_solidity	2.649796e-05	2.124674e-04
level_hu_moment_0	4.074087e-01	6.589815e-03
level_hu_moment_1	9.779487e-06	1.816326e-15
		Continued on next page

Table 4: Corrected p-values using Bonferroni method

feature	uncond	cond
level_hu_moment_2	2.649796e-05	1.922426e-03
level_hu_moment_3	1.060657e-03	4.646614e-01
level_hu_moment_4	1.000000e+00	2.495058e-05
level_hu_moment_5	2.969827e-01	1.747566e-02
level_hu_moment_6	3.173520e-02	1.000000e+00
level_centroid_x	2.720185e-250	1.263132e-285
level_centroid_y	4.022221e-313	2.723494e-314
number_of_artifacts	1.768827e-102	4.055502e-63
number_of_powerups	3.503463e-06	1.500697e-01
number_of_weapons	1.735132e-68	4.330549e-26
number_of_ammunitions	5.282114e-60	2.739392e-83
number_of_keys	0.000000e+00	0.000000e+00
number_of_monsters	1.874772e-124	4.438253e-155
number_of_obstacles	3.544692e-127	1.020608e-89
number_of_decorations	1.422909e-321	4.121210e-291
walkable_area	1.000000e+00	1.000000e+00
walkable_percentage	1.000000e+00	2.092123e-01
start_location_x_px	4.085103e-24	2.123218e-11
start_location_y_px	3.028440e-132	9.750062e-68
artifacts_per_walkable_area	1.297132e-144	8.624320e-71
powerups_per_walkable_area	6.130510e-14	5.296084e-02
weapons_per_walkable_area	1.249309e-73	2.653075e-26
ammunitions_per_walkable_area	2.496041e-74	4.829900e-92
keys_per_walkable_area	0.000000e+00	0.000000e+00
monsters_per_walkable_area	2.341589e-168	8.331551e-165
obstacles_per_walkable_area	2.346143e-209	7.877455e-126
decorations_per_walkable_area	0.000000e+00	0.000000e+00
nodes	8.834832e-14	2.130799e-10
avg-path-length	7.611113e-13	7.638737e-10
diameter-mean	8.430551e-10	9.359119e-08
art-points	1.117706e-04	1.650707e-07
assortativity-mean	5.053350e-80	1.523040e-90
betw-cen-min	1.000000e+00	1.000000e+00
betw-cen-max	8.086915e-66	1.434635e-55
betw-cen-mean	3.542549e-64	2.070974e-68
betw-cen-var	4.891902e-55	5.050308e-59
betw-cen-skew	3.829013e-28	3.017244e-25
betw-cen-kurt	2.227206e-20	8.710051e-19
betw-cen-Q1	3.848983e-21	4.810963e-30

Table 4: Corrected p-values using Bonferroni method

feature	uncond	cond
betw-cen-Q2	1.379923e-35	1.804461e-37
betw-cen-Q3	1.034416e-41	1.644635e-46
closn-cen-min	1.911063e-184	1.371244e-202
closn-cen-max	1.082671e-12	8.660043e-07
closn-cen-mean	6.820595e-19	6.777393e-20
closn-cen-var	4.501303e-41	1.054396e-31
closn-cen-skew	2.056190e-189	9.669788e-196
closn-cen-kurt	1.760014e-66	9.755770e-77
closn-cen-Q1	1.235166e-17	5.717695e-19
closn-cen-Q2	3.740492e-13	5.455660e-12
closn-cen-Q3	3.081734e-12	5.768903e-11
distmap-max	3.438308e-20	3.017244e-25
distmap-mean	2.362809e-10	1.046636e-17
distmap-var	6.608149e-16	4.399457e-20
distmap-skew	2.146329e-09	1.012498e-03
distmap-kurt	2.362741e-07	1.267447e-01
distmap-Q1	1.235166e-17	5.717695e-19
distmap-Q2	3.740492e-13	5.455660e-12
distmap-Q3	3.081734e-12	5.768903e-11

Table 5: Features that belong to group F1 in at least one test. Group F1 contains the features for which the null hypotesis is rejected for both the unconditioned and conditioned network.

feature	uncond-vs-cond
level_eccentricity	F1
level_euler_number	F1
level_extent	F1
level_major_axis_length	F1
level_solidity	F1
level_hu_moment_1	F1
level_hu_moment_2	F1
level_centroid_x	F1
level_centroid_y	F1
number_of_artifacts	F1
number_of_weapons	F1
number_of_ammunitions	F1

Table 5: Features that belong to group F1 in at least one test. Group F1 contains the features for which the null hypotesis is rejected for both the unconditioned and conditioned network.

feature	uncond-vs-cond
number_of_keys	F1
number_of_monsters	F1
number_of_obstacles	F1
number_of_decorations	F1
start_location_x_px	F1
start_location_y_px	F1
artifacts_per_walkable_area	F1
weapons_per_walkable_area	F1
ammunitions_per_walkable_area	F1
keys_per_walkable_area	F1
monsters_per_walkable_area	F1
obstacles_per_walkable_area	F1
decorations_per_walkable_area	F1
nodes	F1
avg-path-length	F1
diameter-mean	F1
art-points	F1
assortativity-mean	F1
betw-cen-max	F1
betw-cen-mean	F1
betw-cen-var	F1
betw-cen-skew	F1
betw-cen-kurt	F1
betw-cen-Q1	F1
betw-cen-Q2	F1
betw-cen-Q3	F1
closn-cen-min	F1
closn-cen-max	F1
closn-cen-mean	F1
closn-cen-var	F1
closn-cen-skew	F1
closn-cen-kurt	F1
closn-cen-Q1	F1
closn-cen-Q2	F1
closn-cen-Q3	F1
distmap-max	F1
distmap-mean	F1
distmap-var	F1

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Table 5:   Features that belong to group F1 in at least one test. Group F1 contains the features for which the null hypotesis is rejected for both the unconditioned and conditioned network.

feature	uncond-vs-cond
distmap-skew	F1
distmap-Q1	F1
distmap-Q2	F1
distmap-Q3	F1

Table 6:   Features that belong to group F2 in at least one test. Group F2 contains the features for which the null hypotesis is rejected for the unconditioned network and not rejected for the conditioned network.

feature	uncond-vs-cond
level_hu_moment_3	F2
level_hu_moment_6	F2
number_of_powerups	F2
powerups_per_walkable_area	F2
distmap-kurt	F2

Table 7:   Features that belong to group F3 in at least one test. Group F3 contains the features for which the null hypotesis is not rejected for both the unconditioned and conditioned network.

feature	uncond-vs-cond
level_area	F3
level_convex_area	F3
level_equivalent_diameter	F3
level_filled_area	F3
level_minor_axis_length	F3
level_orientation	F3
level_perimeter	F3
walkable_area	F3
walkable_percentage	F3
betw-cen-min	F3

Table 8: Features that belong to group F4 in at least one test. Group F4 contains the features for which the null hypotesis is not rejected for the unconditioned network and rejected for the conditioned network.

feature	uncond-vs-cond
level_hu_moment_0	F4
level_hu_moment_4	F4
level_hu_moment_5	F4