

Travel time tracking with FME

(HERE API + FME Desktop + FME Server)

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abley

Introduction



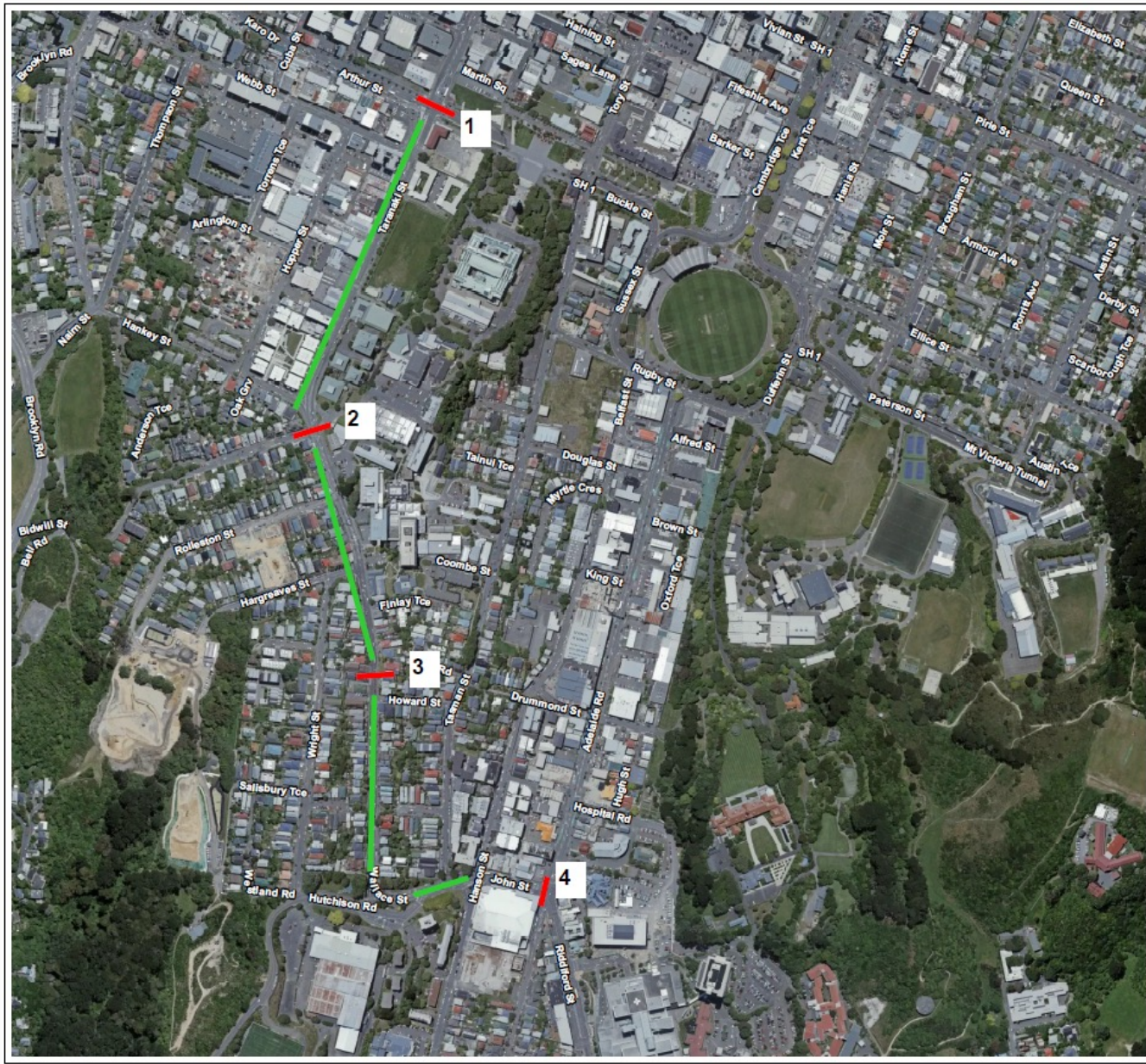
MOHAMED MAAZ
SPATIAL ADVISER

BSc. Environmental Science + Geography

1.5 years FME

Straight connections > Curved Connections





LEGEND

A3 SCALE: 1:5,000
0 50 100 150 200 250 (m)

1. Street Name sourced from the LINZ Data Service and licensed for re-use under the Creative Commons Attribution 3.0 New Zealand licence.
2. LINZ Aerial Basemap Copyright LINZ CC BY 4.0.
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<https://www.linz.govt.nz/data/linz-data/linz-basemaps/data-attribution>

Created On:	
Created By:	
Approved By:	
TT Proj Ref:	
TT Map Ref:	
TTMAPREF1433	

FIGURE No.



Using location technology to solve
global challenges



HERE Routing API

- Live routing & travel time estimates
- Free 250,000 requests per month

[https://router.hereapi.com/v8/routes?apikey={KEY}&origin=@Value\(start\)&destination=@Value\(end\)&via=@Value\(via\)&return=polyline,typicalDuration&spans=duration,baseDuration,length&transportMode=car](https://router.hereapi.com/v8/routes?apikey={KEY}&origin=@Value(start)&destination=@Value(end)&via=@Value(via)&return=polyline,typicalDuration&spans=duration,baseDuration,length&transportMode=car)

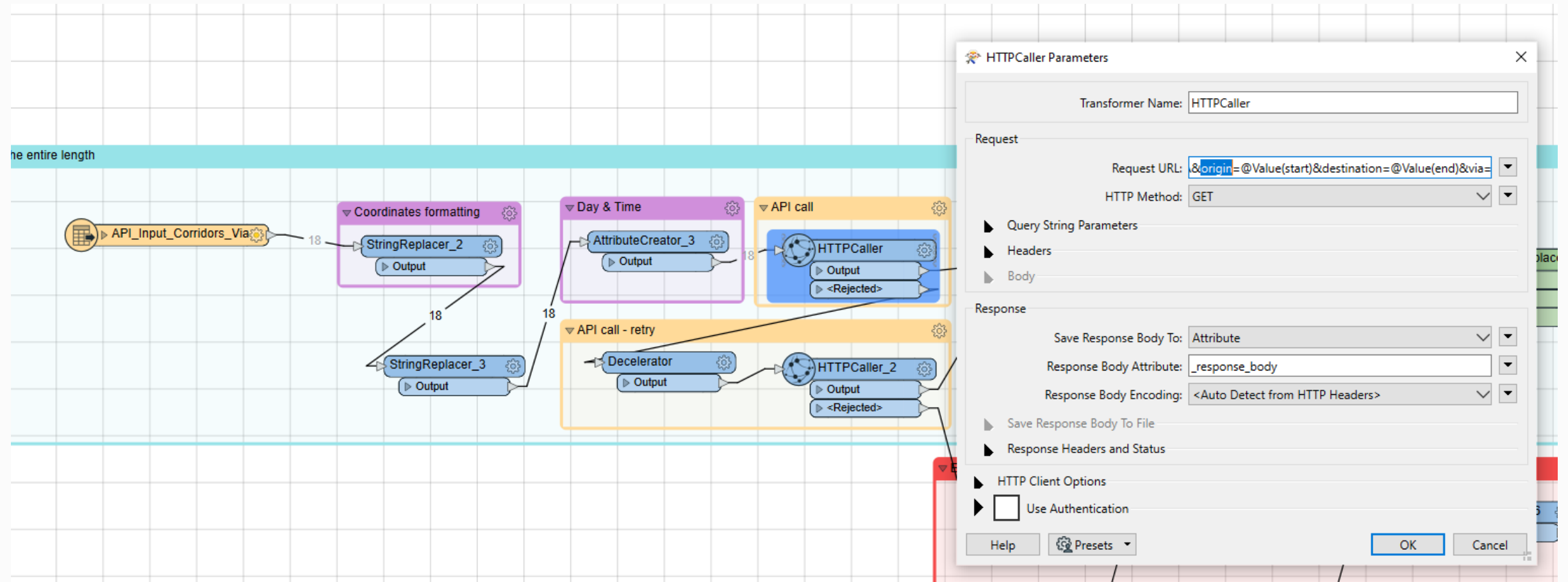
Results returned as a JSON object

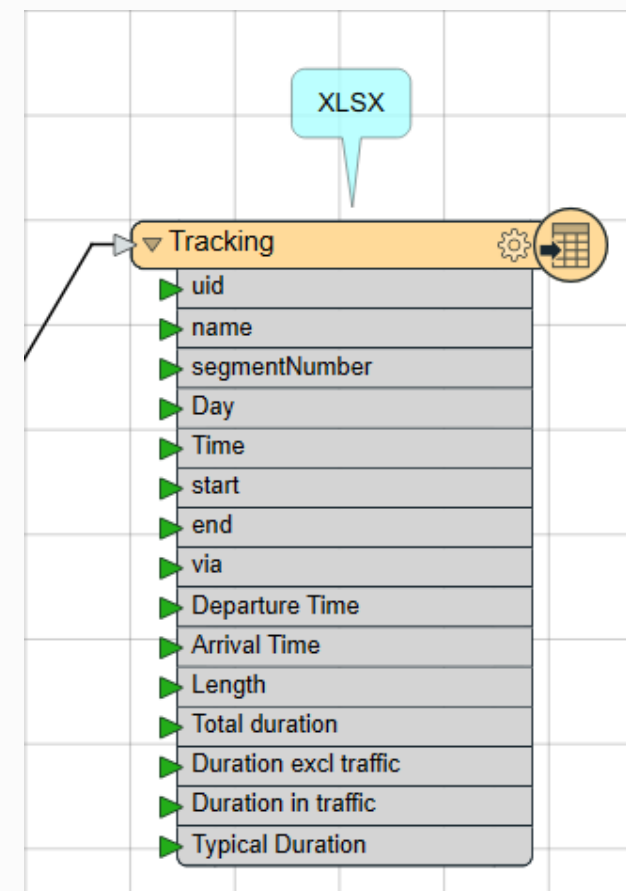
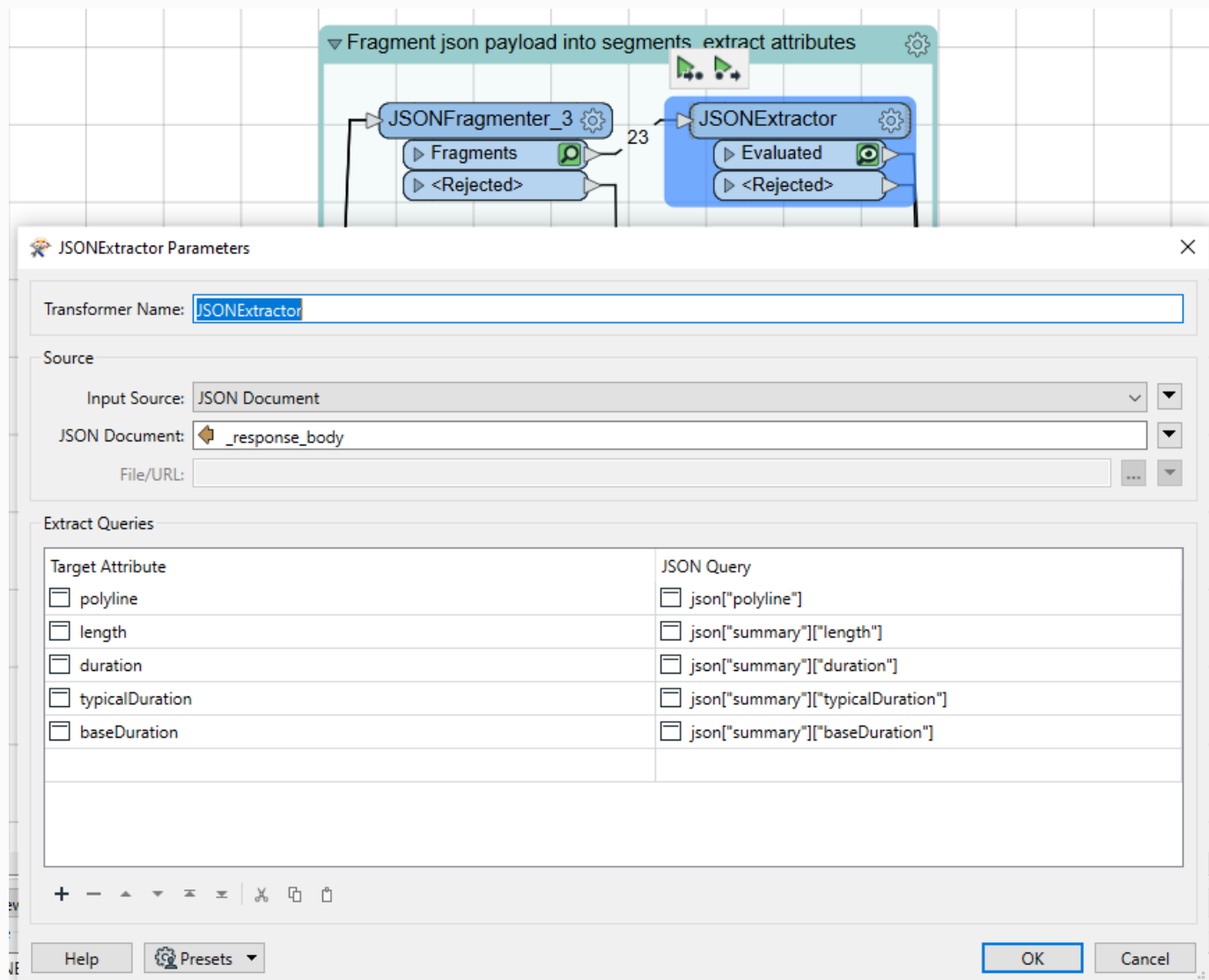
Origin

Destination

Via

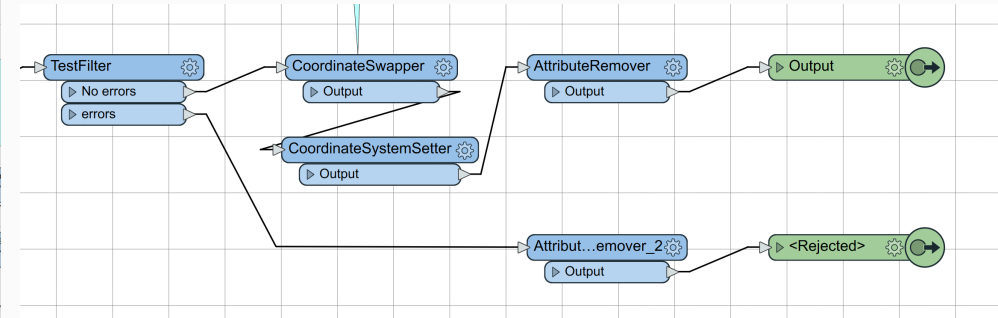
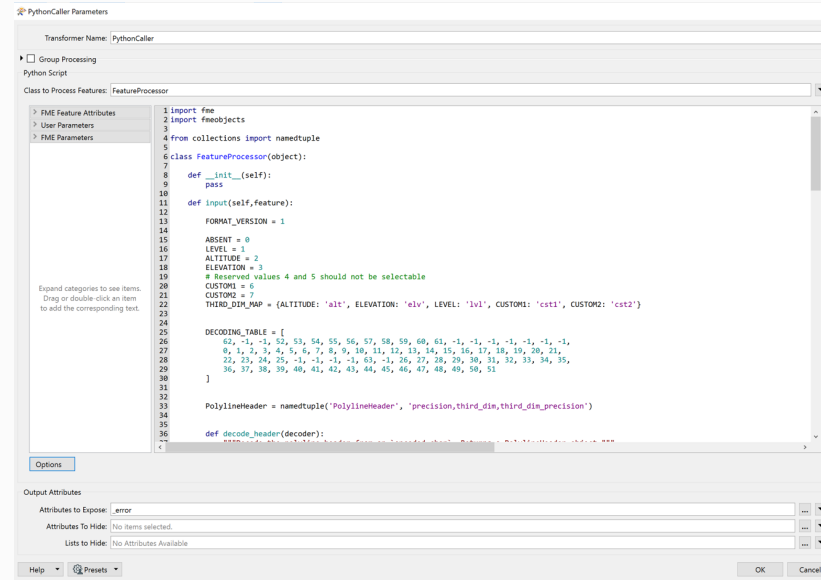
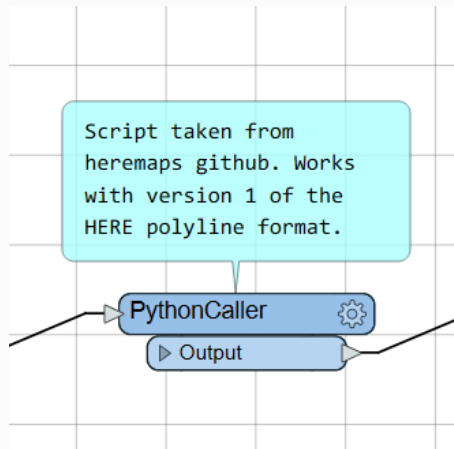
name	start	end	via		
Shelly Bay	-41.31510312259171, 174.81327234631053	-41.31171111282099, 174.79354744252166	-41.31648437030439, 174.80965170007994;-41.31908102121155, 174.80108337923392;-41.31908102121155, 174.80108337923392		
Taranaki St	-41.29734173265442, 174.77618314468663	-41.30717421046878, 174.7777052294466	-41.30226354071121, 174.77433450036042;-41.304552377357744, 174.7750769836365;-41.304552377357744, 174.7750769836365		
Johnsonville Road between Corlett Street and Broderick Road	-41.22650689013289, 174.807156559564	-41.22488544888135, 174.80730121326226	-41.22559078177086, 174.80718946932836!passThrough=true		
Johnsonville Road between Broderick Road and Corlett Street	-41.22488544888135, 174.80730121326226	-41.22650689013289, 174.807156559564	-41.22559078177086, 174.80718946932836!passThrough=true		
Johnsonville Road between Broderick Road and Moorefield Road	-41.224629074882465, 174.8073574713275	-41.221769364440696, 174.8074068371173	-41.22311614878134, 174.80727999117175!passThrough=true		
Johnsonville Road between Moorefield Road and Broderick Road	-41.221894998528185, 174.80750728177986	-41.224629074882465, 174.8073574713275	-41.22311614878134, 174.80727999117175!passThrough=true		
Broderick Road between Johnsonville Road and shopping centre access	-41.22473840972053, 174.80718031478025	-41.224557476912366, 174.80567686247673	-41.22463629120135, 174.8064387117434!passThrough=true		
Broderick Road between shopping centre access and Johnsonville Road	-41.224557476912366, 174.80567686247673	-41.22473840972053, 174.80718031478025	-41.22463629120135, 174.8064387117434!passThrough=true		
Broderick Road between shopping centre access and Moorefield Road	-41.224483425798184, 174.80530783264044	-41.22432995577393, 174.80396450533738	-41.224420480079225, 174.80475572732254!passThrough=true		
Broderick Road between Moorefield Road and shopping centre access	-41.22432995577393, 174.80396450533738	-41.224483425798184, 174.80530783264044	-41.224420480079225, 174.80475572732254!passThrough=true		
Moorefield Road between Broderick Road and Johnsonville Road	-41.2241591872336, 174.8038361363624	-41.221649525460016, 174.80719044239498	-41.2228386782562, 174.80512750977448!passThrough=true		
Moorefield Road between Johnsonville Road and Broderick Road	-41.22173043276366, 174.8070944224062	-41.2241591872336, 174.8038361363624	-41.2228386782562, 174.80512750977448!passThrough=true		
SH1/Centennial Hwy between Fraser Avenue and Jarden Mile	-41.226762436826405, 174.80732360240194	-41.2472666025159, 174.81327934193777	-41.24149023761175, 174.81005470281957!passThrough=true		
SH1/Centennial Hwy between Jarden Mile and Fraser Avenue	-41.2472666025159, 174.81327934193777	-41.22702426256687, 174.80734776307438	-41.22746643525855, 174.80776611078988!passThrough=true		
SH1/Centennial Hwy between Glover Street and Jarden Mile	-41.2421294998873, 174.8131882376419	-41.24733922147204, 174.8132465911735	-41.24520823455338, 174.81386800739216!passThrough=true		
SH1/Centennial Hwy between Jarden Mile and Glover Street	-41.24733922147204, 174.8132465911735	-41.2421294998873, 174.8131882376419	-41.24287060178423, 174.81346881587646!passThrough=true		
SH1/Centennial Hwy between Hurling Place and Jarden Mile	-41.231382576467404, 174.81308731820727	-41.24733922147204, 174.8132465911735	-41.24488260077551, 174.8140461718015!passThrough=true		
SH1/Centennial Hwy between Jarden Mile and Hurling Place	-41.24733922147204, 174.8132465911735	-41.231382576467404, 174.81308731820727	-41.23250685129187, 174.80740163775414!passThrough=true		



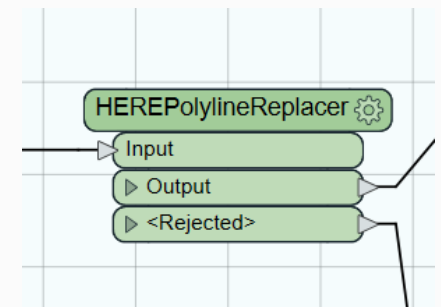


Polyline = BG3x15uCsl4ttKoGrYkD3N4IzjBoKzoB8B7GUnGTvH7B3DvC_E3D3D7LzKnf3XnVnQrJjlrJrJl3lrJvC3D7BvH_E

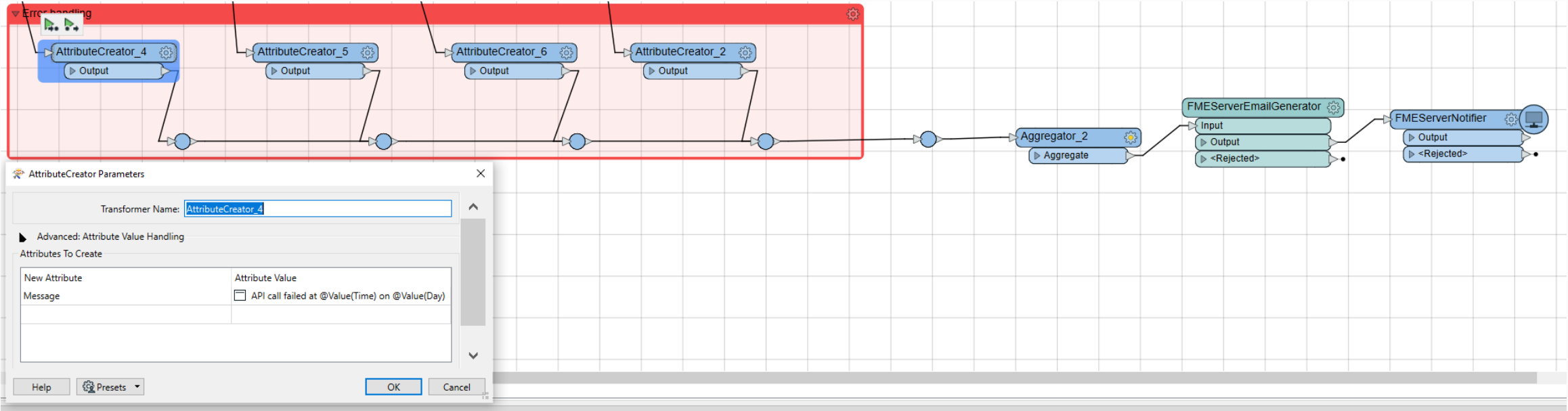
<https://github.com/heremaps/flexible-polyline/blob/master/python/flexpolyline/decoding.py>



```
39
40 # if an error was generated, output it instead of the polyline
41 if feature.getAttribute('_error'):
42     self.pyoutput(feature)
43     return
44
45 # The addCoordinates function will only add 3D coordinates if the original geometry is 3D (:
46 # So, set the geometry dimension based off the dimension of the polyline
47 if len(decodedline[0]) == 3:
48     feature.setDimension(3)
49 else:
50     feature.setDimension(2)
51 feature.removeGeometry()
52 feature.addCoordinates(decodedline)
53 self.pyoutput(feature)
```



Error handling





Schedules >

Editing

Category

Transportation



Description (optional)

Enabled

☐

Schedule Type

Repeat On Interval



Repeat every

15

Minutes



Date Range

Start (optional)

2022-04-08 16:45



Start Immediately ☐

End (optional)

2022-04-14 00:15



Does Not Expire ☐

Skip if Job In Progress

☐

Run Workspace

Automations



Server Apps



Schedules



Build Schedule

Manage Schedules

Jobs



Workspaces

Workspace Viewer

Projects



Files & Connections



ADMIN

User Management



System Configuration



Engine Management



Name

Day, Time

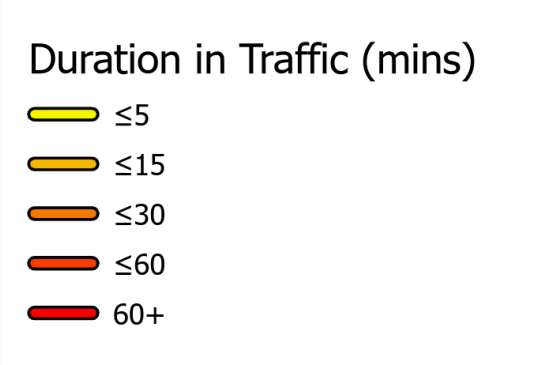
Total Duration

Duration in traffic

uid	name	segmentNum	Day	Time	start	end	via	Departure Time	Arrival Time	Length	Total duration	Duration excl traffic	Duration in traffic	Typical Duration		
Shelly Bay_1	Shelly Bay	1	Friday	1645	-41.31510312259171,174	-41.311711111282099,174	-41.31648437030439,174	2022-04-08T16:45:05+12	2022-04-08T16:45:49+12	441	44	39	5	48		
Shelly Bay_2	Shelly Bay	2	Friday	1645	-41.31510312259171,174	-41.311711111282099,174	-41.31648437030439,174	2022-04-08T16:45:49+12	2022-04-08T16:47:20+12	873	91	72	19	83		
Shelly Bay_3	Shelly Bay	3	Friday	1645	-41.31510312259171,174	-41.311711111282099,174	-41.31648437030439,174	2022-04-08T16:47:20+12	2022-04-08T16:48:26+12	472	66	45	21	55		
Shelly Bay_4	Shelly Bay	4	Friday	1645	-41.31510312259171,174	-41.311711111282099,174	-41.31648437030439,174	2022-04-08T16:48:26+12	2022-04-08T16:50:48+12	764	142	120	22	126		
Taranaki St_1	Taranaki St	1	Friday	1645	-41.29734173265442,174	-41.30717421046878,174	-41.30226354071121,174	2022-04-08T16:45:06+12	2022-04-08T16:46:53+12	588	107	76	31	112		
Taranaki St_2	Taranaki St	2	Friday	1645	-41.29734173265442,174	-41.30717421046878,174	-41.30226354071121,174	2022-04-08T16:46:53+12	2022-04-08T16:47:33+12	263	40	23	17	37		
Taranaki St_3	Taranaki St	3	Friday	1645	-41.29734173265442,174	-41.30717421046878,174	-41.30226354071121,174	2022-04-08T16:47:33+12	2022-04-08T16:50:14+12	520	161	53	108	92		
Johnsonville Road betw	Johnsonville Road betw	1	Friday	1645	-41.22650689013289,174	-41.22488544888135,174	-41.22559078177086,174	2022-04-08T16:45:06+12	2022-04-08T16:45:31+12	184	25	19	6	32		
Johnsonville Road betw	Johnsonville Road betw	1	Friday	1645	-41.22488544888135,174	-41.22650689013289,174	-41.22559078177086,174	2022-04-08T16:45:06+12	2022-04-08T16:45:30+12	184	24	21	3	25		
Johnsonville Road betw	Johnsonville Road betw	1	Friday	1645	-41.224629074882465,174	-41.221769364440696,174	-41.22311614878134,174	2022-04-08T16:45:06+12	2022-04-08T16:46:04+12	322	58	33	25	59		
Johnsonville Road betw	Johnsonville Road betw	1	Friday	1645	-41.221894998528185,174	-41.224629074882465,174	-41.22311614878134,174	2022-04-08T16:45:07+12	2022-04-08T16:46:46+12	307	99	33	66	52		
Broderick Road betwee	Broderick Road betwee	1	Friday	1645	-41.22473840972053,174	-41.224557476912366,174	-41.22463629120135,174	2022-04-08T16:45:07+12	2022-04-08T16:45:47+12	127	40	12	28	20		
Broderick Road betwee	Broderick Road betwee	1	Friday	1645	-41.224557476912366,174	-41.22473840972053,174	-41.22463629120135,174	2022-04-08T16:45:07+12	2022-04-08T16:45:36+12	127	29	18	11	32		
Broderick Road betwee	Broderick Road betwee	1	Friday	1645	-41.224483425798184,174	-41.22432995577393,174	-41.224420480079225,174	2022-04-08T16:45:07+12	2022-04-08T16:45:48+12	113	41	11	30	21		
Broderick Road betwee	Broderick Road betwee	1	Friday	1645	-41.22432995577393,174	-41.224483425798184,174	-41.224420480079225,174	2022-04-08T16:45:07+12	2022-04-08T16:45:32+12	113	25	10	15	17		
Moorefield Road betw	Moorefield Road betw	1	Friday	1645	-41.2241591872336,174	-41.221649525460016,174	-41.2228386782562,174	2022-04-08T16:45:07+12	2022-04-08T16:46:29+12	401	82	39	43	51		
Moorefield Road betw	Moorefield Road betw	1	Friday	1645	-41.22173043276366,174	-41.2241591872336,174	-41.2228386782562,174	2022-04-08T16:45:08+12	2022-04-08T16:46:34+12	390	86	37	49	44		
SH1/Centennial Hwy be	SH1/Centennial Hwy be	1	Friday	1645	-41.226762436826405,174	-41.2472666025159,174	-41.24149023761175,174	2022-04-08T16:45:08+12	2022-04-08T16:49:14+12	2859	246	209	37	247		
SH1/Centennial Hwy be	SH1/Centennial Hwy be	1	Friday	1645	-41.2472666025159,174	-41.22702426256687,174	-41.22746643525855,174	2022-04-08T16:45:08+12	2022-04-08T16:47:44+12	2749	156	141	15	174		
SH1/Centennial Hwy be	SH1/Centennial Hwy be	1	Friday	1645	-41.2421294998873,174	-41.24733922147204,174	-41.24520823455338,174	2022-04-08T16:45:08+12	2022-04-08T16:46:29+12	617	81	57	24	81		
SH1/Centennial Hwy be	SH1/Centennial Hwy be	1	Friday	1645	-41.24733922147204,174	-41.2421294998873,174	-41.24287060178423,174	2022-04-08T16:45:08+12	2022-04-08T16:46:24+12	625	76	72	4	76		
SH1/Centennial Hwy be	SH1/Centennial Hwy be	1	Friday	1645	-41.231382576467404,174	-41.24733922147204,174	-41.24488260077551,174	2022-04-08T16:45:08+12	2022-04-08T16:48:00+12	2474	172	141	31	179		
SH1/Centennial Hwy be	SH1/Centennial Hwy be	1	Friday	1645	-41.24733922147204,174	-41.231382576467404,174	-41.23250685129187,174	2022-04-08T16:45:09+12	2022-04-08T16:48:06+12	2531	177	166	11	187		
Shelly Bay_1	Shelly Bay	1	Friday	1700	-41.31510312259171,174	-41.311711111282099,174	-41.31648437030439,174	2022-04-08T17:00:07+12	2022-04-08T17:01:07+12	441	60	39	21	48		
Shelly Bay_2	Shelly Bay	2	Friday	1700	-41.31510312259171,174	-41.311711111282099,174	-41.31648437030439,174	2022-04-08T17:01:07+12	2022-04-08T17:02:33+12	873	86	72	14	82		
Shelly Bay_3	Shelly Bay	3	Friday	1700	-41.31510312259171,174	-41.311711111282099,174	-41.31648437030439,174	2022-04-08T17:02:33+12	2022-04-08T17:04:19+12	472	106	45	61	55		
Shelly Bay_4	Shelly Bay	4	Friday	1700	-41.31510312259171,174	-41.311711111282099,174	-41.31648437030439,174	2022-04-08T17:04:19+12	2022-04-08T17:07:17+12	764	178	120	58	126		
Taranaki St_1	Taranaki St	1	Friday	1700	-41.29734173265442,174	-41.30717421046878,174	-41.30226354071121,174	2022-04-08T17:00:07+12	2022-04-08T17:02:46+12	588	159	76	83	110		
Taranaki St_2	Taranaki St	2	Friday	1700	-41.29734173265442,174	-41.30717421046878,174	-41.30226354071121,174	2022-04-08T17:02:46+12	2022-04-08T17:03:32+12	263	46	23	23	35		
Taranaki St_3	Taranaki St	3	Friday	1700	-41.29734173265442,174	-41.30717421046878,174	-41.30226354071121,174	2022-04-08T17:03:32+12	2022-04-08T17:05:40+12	520	128	53	75	93		
Johnsonville Road betw	Johnsonville Road betw	1	Friday	1700	-41.22650689013289,174	-41.22488544888135,174	-41.22559078177086,174	2022-04-08T17:00:08+12	2022-04-08T17:01:14+12	184	66	19	47	32		
Johnsonville Road betw	Johnsonville Road betw	1	Friday	1700	-41.22488544888135,174	-41.22650689013289,174	-41.22559078177086,174	2022-04-08T17:00:08+12	2022-04-08T17:00:27+12	184	19	21	-2	25		
Johnsonville Road betw	Johnsonville Road betw	1	Friday	1700	-41.224629074882465,174	-41.221769364440696,174	-41.22311614878134,174	2022-04-08T17:00:08+12	2022-04-08T17:01:53+12	322	105	33	72	59		
Johnsonville Road betw	Johnsonville Road betw	1	Friday	1700	-41.221894998528185,174	-41.224629074882465,174	-41.22311614878134,174	2022-04-08T17:00:08+12	2022-04-08T17:01:41+12	307	93	33	60	51		
Broderick Road betwee	Broderick Road betwee	1	Friday	1700	-41.22473840972053,174	-41.224557476912366,174	-41.22463629120135,174	2022-04-08T17:00:08+12	2022-04-08T17:01:03+12	127	55	12	43	20		
Broderick Road betwee	Broderick Road betwee	1	Friday	1700	-41.224557476912366,174	-41.22473840972053,174	-41.22463629120135,174	2022-04-08T17:00:09+12	2022-04-08T17:00:33+12	127	24	18	6	32		



Duration in traffic =
Total Duration –
Base Duration



Thank You

MOHAMED MAAZ

SPATIAL ADVISER

Mohamed.maaz@abley.com

