```
[
  {
    "id": "672c2e02.e187f",
    "type": "function",
    "z": "c030ea18.227328",
    "name": "Convert to TrackLine",
    "func": "var msg1 = {};\nif (msg.payload) {\n    msg1.payload = msg.payload;\n\n msg1.payload.layer = \"Track\";\n    msg1.payload.name = \"Track line\";\n    \n delete msg1.payload.radius;\n}\nreturn msg1;",
    "outputs": 1,
    "noerr": 0,
    "x": 582,
    "y": 209,
    "wires": [
      [
        "163c9ecb.cd0731"
      ]
    ]
  },
  {
    "id": "eeca7a33.81c228",
    "type": "function",
    "z": "c030ea18.227328",
    "name": "Convert to TrackPins",
    "func": "var msg1 = {};\nif (msg.payload) {\n    msg1.payload=msg.payload;\n\n msg1.payload.layer = \"Pins\";\n    msg1.payload.iconColor = \"blue\";\n msg1.payload.name=Date().toString();\n    msg1.payload.icon = \"fa-wifi\";\n    \n delete msg1.payload.radius;\n}\nreturn msg1;",
    "outputs": 1,
    "noerr": 0,
    "x": 583,
    "y": 169,
    "wires": [
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        "70de8592.565134"
      ]
    ]
  },
  {
    "id": "960ba7c5.2d19f8",
    "type": "function",
    "z": "c030ea18.227328",
    "name": "Convert to Worldmap",
    "func": "var msg1 = {};\nif (msg.payload) {\n    msg1.payload=msg.payload;\n\n msg1.payload.layer = \"Current Location\";\n    msg1.payload.name = \"Current Location\";\n    msg1.payload.iconColor = \"orange\";\n    msg1.payload.icon = \"wifi\";\n}\nreturn msg1;",
    "outputs": 1,
    "noerr": 0,
    "x": 577,
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        "y": 128,
        "wires": [
            [
                "70de8592.565134"
            ]
        ]
    },
    {
        "id": "210849b.ada12b6",
        "type": "worldmap",
        "z": "c030ea18.227328",
        "name": "HERE geolocation",
        "lat": "51.839617",
        "lon": " 5.877225",
        "zoom": "",
        "layer": "OSM grey",
        "cluster": "",
        "maxage": "12000",
        "usermenu": "show",
        "layers": "show",
        "panit": "false",
        "hiderightclick": "false",
        "coords": "none",
        "path": "",
        "x": 957,
        "y": 181,
        "wires": []
    },
    {
        "id": "163c9ecb.cd0731",
        "type": "worldmap-tracks",
        "z": "c030ea18.227328",
        "name": "Map Track",
        "depth": "200",
        "x": 580.5,
        "y": 263,
        "wires": [
            [
                "70de8592.565134"
            ]
        ]
    },
    {
        "id": "a1ed1743.cfaee8",
        "type": "function",
        "z": "c030ea18.227328",
        "name": "LoRa Cloud geolocation",
        "func": "\nvar loracloud_token = \"AQEAHGaMit81n00TPjZtvdL/
Dktp9DbJJcEHw1pC3K/xVE6dpJNu\"\nvar dev_url = \"https://gls.loracloud.com/api/
v3/solve/singleframe\";\n\n\n\nvar data = {\n   \"gateways\": [],\n

\"frame\":[]\n   };\nif (msg.payload.metadata.gateways[0]) {\n\tdata[\"gateways\"]
[0] = {\n\t\t\t\"gatewayId\": msg.payload.metadata.gateways[0].gtw_id,
\n\t\t\t\"latitude\": msg.payload.metadata.gateways[0].latitude,\n\t\t\t\"longitude\":
msg.payload.metadata.gateways[0].longitude,\n\t\t\t\"altitude\":
msg.payload.metadata.gateways[0].altitude,\n\t\t\t};\n}\nif
(msg.payload.metadata.gateways[1]) {\n\tdata[\"gateways\"][1] =
{\n\t\t\t\"gatewayId\": msg.payload.metadata.gateways[1].gtw_id,\n\t\t\t\"latitude\":
msg.payload.metadata.gateways[1].latitude,\n\t\t\t\"longitude\":
msg.payload.metadata.gateways[1].longitude,\n\t\t\t\"altitude\":
msg.payload.metadata.gateways[1].altitude,\n\t\t\t};\n}\nif
(msg.payload.metadata.gateways[2]) {\n\tdata[\"gateways\"][2] =
{\n\t\t\t\"gatewayId\": msg.payload.metadata.gateways[2].gtw_id,\n\t\t\t\"latitude\":
msg.payload.metadata.gateways[2].latitude,\n\t\t\t\"longitude\":
msg.payload.metadata.gateways[2].longitude,\n\t\t\t\"altitude\":
msg.payload.metadata.gateways[2].altitude,\n\t\t\t};\n}\nif
(msg.payload.metadata.gateways[3]) {\n\tdata[\"gateways\"][3] =
{\n\t\t\t\"gatewayId\": msg.payload.metadata.gateways[3].gtw_id,\n\t\t\t\"latitude\":
msg.payload.metadata.gateways[3].latitude,\n\t\t\t\"longitude\":
msg.payload.metadata.gateways[3].longitude,\n\t\t\t\"altitude\":
msg.payload.metadata.gateways[3].altitude,\n\t\t\t};\n}\n\n\n\n\n\n\n\nif
(msg.payload.metadata.gateways[0]) {\n   data[\"frame\"][0] =
[msg.payload.metadata.gateways[0].gtw_id,msg.payload.metadata.gateways[0].rf_c
hain,msg.payload.metadata.gateways[0].timestamp,msg.payload.metadata.gateway
s[0].rssi,msg.payload.metadata.gateways[0].snr]\n}\nif
(msg.payload.metadata.gateways[1]) {\n   data[\"frame\"][1] =
[msg.payload.metadata.gateways[0].gtw_id,msg.payload.metadata.gateways[0].rf_c
hain,msg.payload.metadata.gateways[0].timestamp,msg.payload.metadata.gateway
s[0].rssi,msg.payload.metadata.gateways[0].snr]\n}\nif
(msg.payload.metadata.gateways[2]) {\n   data[\"frame\"][2] =
[msg.payload.metadata.gateways[0].gtw_id,msg.payload.metadata.gateways[0].rf_c
hain,msg.payload.metadata.gateways[0].timestamp,msg.payload.metadata.gateway
s[0].rssi,msg.payload.metadata.gateways[0].snr]\n}\nif
(msg.payload.metadata.gateways[3]) {\n   data[\"frame\"][3] =
[msg.payload.metadata.gateways[0].gtw_id,msg.payload.metadata.gateways[0].rf_c
hain,msg.payload.metadata.gateways[0].timestamp,msg.payload.metadata.gateway
s[0].rssi,msg.payload.metadata.gateways[0].snr]\n}\n\n\n\nvar msg = {\n
\"method\" : \"POST\",\n   \"url\" : dev_url,\n   \"headers\" : {\n
\"Ocp-Apim-Subscription-Key\" : \"AQEAHGaMit81n00TPjZtvdL/
Dktp9DbJJcEHw1pC3K/xVE6dpJNu\",\n   \"Content-Type\": \"application/
json\"\n   },\n   \"payload\" : JSON.stringify(data)\n   };\n\nreturn msg;
\n",
    "outputs": 1,
    "noerr": 0,
    "x": 361,
    "y": 363,
    "wires": [
      [
        "c87ad6e9.c88f8"
      ]
    ]

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    },
    {
        "id": "c87ad6e9.c88f8",
        "type": "http request",
        "z": "c030ea18.227328",
        "name": "",
        "method": "use",
        "ret": "txt",
        "url": "",
        "tls": "",
        "x": 565,
        "y": 416,
        "wires": [
            [
                "c141234b.2e4128"
            ]
        ]
    },
    {
        "id": "e9935a07.14b73",
        "type": "function",
        "z": "c030ea18.227328",
        "name": "Convert to GPS-json",
        "func": "var msg1 = {};\n\nif (msg.payload.result.locationEst) {\n\n
msg1.payload = msg.payload;\n    msg1.payload.date = Date().toString();\n
msg1.payload.lon = msg.payload.result.locationEst.longitude;\n    msg1.payload.lat =
msg.payload.result.locationEst.latitude;\n\n    // processed with Google\n    if
(msg.payload.result.locationEst) {\n        msg1.payload.radius =
msg.payload.result.locationEst.toleranceHoriz;\n        delete
msg1.payload.result.locationEst.toleranceHoriz;\n    }\n    \n    // processed with
HERE\n    if (msg.payload.result.locationEst.toleranceHoriz) {\n
msg1.payload.radius = msg.payload.result.locationEst.toleranceHoriz;\n    }\n\n
delete msg1.payload.result.locationEst.toleranceHoriz;\n}\n\nreturn msg1;",
        "outputs": 1,
        "noerr": 0,
        "x": 566,
        "y": 450,
        "wires": [
            [
                "bab88ca4.94a518"
            ]
        ]
    },
    {
        "id": "fe0736dd.3e148",
        "type": "function",
        "z": "c030ea18.227328",
        "name": "Convert to TrackLine",
        "func": "var msg1 = {};\nif (msg.payload) {\n    msg1.payload = msg.payload;\n\n
msg1.payload.layer = \"Track\";\n    msg1.payload.name = \"Track line\";\n    \n
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delete msg1.payload.radius;\n}\nreturn msg1;",
    "outputs": 1,
    "noerr": 0,
    "x": 574,
    "y": 575,
    "wires": [
      [
        "f2de102.4a3af7"
      ]
    ]
  },
  {
    "id": "179e9571.ca5b23",
    "type": "function",
    "z": "c030ea18.227328",
    "name": "Convert to TrackPins",
    "func": "var msg1 = {};\nif (msg.payload) {\n   msg1.payload=msg.payload;\n\n msg1.payload.layer = \"Pins\";\n   msg1.payload.iconColor = \"red\";\n msg1.payload.name=Date().toString();\n   msg1.payload.icon = \"signal-stream\";\n \n   delete msg1.payload.radius;\n}\nreturn msg1;",
    "outputs": 1,
    "noerr": 0,
    "x": 575,
    "y": 535,
    "wires": [
      [
        "70de8592.565134"
      ]
    ]
  },
  {
    "id": "8a25a860.fcb66",
    "type": "function",
    "z": "c030ea18.227328",
    "name": "Convert to Worldmap",
    "func": "var msg1 = {};\nif (msg.payload) {\n   msg1.payload=msg.payload;\n\n msg1.payload.layer = \"Current Location\";\n   msg1.payload.name = \"Current Location\";\n   msg1.payload.iconColor = \"orange\";\n   msg1.payload.icon = \"wifi\"; \n}\nreturn msg1;",
    "outputs": 1,
    "noerr": 0,
    "x": 569,
    "y": 494,
    "wires": [
      [
        "70de8592.565134"
      ]
    ]
  },
  {

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    "id": "bab88ca4.94a518",
    "type": "switch",
    "z": "c030ea18.227328",
    "name": "",
    "property": "payload",
    "propertyType": "msg",
    "rules": [
        {
            "t": "nnull"
        }
    ],
    "checkall": "true",
    "outputs": 1,
    "x": 335,
    "y": 481,
    "wires": [
        [
            "fe0736dd.3e148",
            "8a25a860.fcb66",
            "179e9571.ca5b23"
        ]
    ]
},
{
    "id": "f2de102.4a3af7",
    "type": "worldmap-tracks",
    "z": "c030ea18.227328",
    "name": "Map Track",
    "depth": "200",
    "x": 572.5,
    "y": 629,
    "wires": [
        [
            "70de8592.565134"
        ]
    ]
},
{
    "id": "c141234b.2e4128",
    "type": "json",
    "z": "c030ea18.227328",
    "name": "Convert to JSON",
    "pretty": false,
    "x": 350,
    "y": 425,
    "wires": [
        [
            "e9935a07.14b73"
        ]
    ]
```

        },
        {
            "id": "de666f76.1a99e8",
            "type": "worldmap",
            "z": "c030ea18.227328",
            "name": "LoRaWANgeolocation",
            "lat": "51.839617",
            "lon": " 5.877225",
            "zoom": "",
            "layer": "Esri Satellite",
            "cluster": "",
            "maxage": "12000",
            "usermenu": "show",
            "layers": "show",
            "panit": "false",
            "hiderightclick": "false",
            "coords": "none",
            "path": "",
            "x": 988,
            "y": 359,
            "wires": []
        },
        {
            "id": "70de8592.565134",
            "type": "worldmap",
            "z": "c030ea18.227328",
            "name": "LoRaWANgeolocation",
            "lat": "51.839617",
            "lon": " 5.877225",
            "zoom": "",
            "layer": "Esri Satellite",
            "cluster": "",
            "maxage": "12000",
            "usermenu": "show",
            "layers": "show",
            "panit": "false",
            "hiderightclick": "false",
            "coords": "none",
            "path": "",
            "x": 932,
            "y": 456,
            "wires": []
        },
        {
            "id": "33904170.e35066",
            "type": "function",
            "z": "c030ea18.227328",
            "name": "Convert to GPS-json",
            "func": "var msg1 = {};\n\nif (msg.payload.location) {\n\n   msg1.payload =
msg.payload;\n   msg1.payload.date = Date().toString();\n   msg1.payload.lon =

msg.payload.location.lng;\n   msg1.payload.lat = msg.payload.location.lat;\n\n   //
processed with Google\n   if (msg.payload.accuracy) {\n   msg1.payload.radius =
msg.payload.accuracy;\n   delete msg1.payload.accuracy;\n   }\n   \n   //
processed with HERE\n   if (msg.payload.location.accuracy) {\n
msg1.payload.radius = msg.payload.location.accuracy;\n   }\n\n   delete
msg1.payload.location;\n}\n\nreturn msg1;",
      "outputs": 1,
      "noerr": 0,
      "x": 574,
      "y": 84,
      "wires": [
        [
          "3eebd796.68d308"
        ]
      ]
    },
    {
      "id": "3eebd796.68d308",
      "type": "switch",
      "z": "c030ea18.227328",
      "name": "",
      "property": "payload",
      "propertyType": "msg",
      "rules": [
        {
          "t": "nnull"
        }
      ],
      "checkall": "true",
      "outputs": 1,
      "x": 360,
      "y": 118,
      "wires": [
        [
          "672c2e02.e187f",
          "960ba7c5.2d19f8",
          "eeca7a33.81c228"
        ]
      ]
    },
    {
      "id": "938e13bc.bdea28",
      "type": "http request",
      "z": "c030ea18.227328",
      "name": "",
      "method": "use",
      "ret": "txt",
      "url": "",
      "tls": "",
      "x": 557,

```json
        "y": 34,
        "wires": [
            [
                "a8b35a7d.246ba",
                "5098a8ee.548358"
            ]
        ]
    },
    {
        "id": "a8b35a7d.246ba",
        "type": "json",
        "z": "c030ea18.227328",
        "name": "Convert to JSON",
        "pretty": false,
        "x": 349,
        "y": 84,
        "wires": [
            [
                "33904170.e35066"
            ]
        ]
    },
    {
        "id": "a756bd2e.bbbf08",
        "type": "mqtt in",
        "z": "c030ea18.227328",
        "name": "crazyturtletracker",
        "topic": "crazyturtletracker/devices/crazyturtle01/up",
        "qos": "2",
        "datatype": "json",
        "broker": "8303d8e5.1bf908",
        "x": 109,
        "y": 365,
        "wires": [
            [
                "a1ed1743.cfaee8",
                "a0e73d82.045898"
            ]
        ]
    },
    {
        "id": "d23afafd.7979c",
        "type": "mqtt in",
        "z": "c030ea18.227328",
        "name": "crazyturtletracker",
        "topic": "crazyturtletracker/devices/crazyturtle01/up",
        "qos": "2",
        "datatype": "json",
        "broker": "8303d8e5.1bf908",
        "x": 96,
```

```
    "y": 70,
    "wires": [
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            "4ebf4c7.499df34"
        ]
    ]
},
{
    "id": "4ebf4c7.499df34",
    "type": "function",
    "z": "c030ea18.227328",
    "name": "Ask HERE Geolocation API",
    "func": "var here_appid = \"XOyGdOnvBrVKhZyfitdr\";\nvar here_appcode = \"RXSjLqX23VkvgwojT0WB6g\";\nvar here_apikey = \"zJ_o4jdgoryZBFCWMQiwyOp9nbTLFWKDIEkHSiomgvw\"\nvar dev_url = \"https://pos.ls.hereapi.com/positioning/v1/locate?apiKey=\"+here_apikey;\n\nvar data = {\n    \"wlan\": []\n        };\n\nif (msg.payload.payload_fields.macaddress.mac_1) {\n\tdata[\"wlan\"][0] = {\n\t\t\t\"mac\": msg.payload.payload_fields.macaddress.mac_1,\n\t\t\t};\n}\n\nif (msg.payload.payload_fields.macaddress.mac_2) {\n\tdata[\"wlan\"][1] = {\n\t\t\t\"mac\": msg.payload.payload_fields.macaddress.mac_2,\n\t\t\t};\n}\n\n\n\nvar msg = {\n        \"method\" : \"POST\",\n        \"url\" : dev_url,\n    \"headers\" : {\n                    \"Content-Type\": \"application/json\"\n                },\n        \"payload\" : JSON.stringify(data)\n        };\n\nreturn msg;\n\n",
    "outputs": 1,
    "noerr": 0,
    "x": 344,
    "y": 34,
    "wires": [
        [
            "938e13bc.bdea28"
        ]
    ]
},
{
    "id": "a0e73d82.045898",
    "type": "debug",
    "z": "c030ea18.227328",
    "name": "",
    "active": true,
    "tosidebar": true,
    "console": false,
    "tostatus": false,
    "complete": "false",
    "x": 133,
    "y": 471,
    "wires": []
},
{
```

```json
        "id": "5098a8ee.548358",
        "type": "debug",
        "z": "c030ea18.227328",
        "name": "",
        "active": true,
        "tosidebar": true,
        "console": false,
        "tostatus": false,
        "complete": "false",
        "x": 828,
        "y": 124,
        "wires": []
    },
    {
        "id": "8303d8e5.1bf908",
        "type": "mqtt-broker",
        "z": "",
        "name": "",
        "broker": "mqtt://eu.thethings.network",
        "port": "1990",
        "clientid": "",
        "usetls": false,
        "compatmode": true,
        "keepalive": "60",
        "cleansession": true,
        "birthTopic": "",
        "birthQos": "0",
        "birthRetain": "false",
        "birthPayload": "",
        "closeTopic": "",
        "closeQos": "0",
        "closeRetain": "false",
        "closePayload": "",
        "willTopic": "",
        "willQos": "0",
        "willRetain": "false",
        "willPayload": ""
    }
]
```