

NEW STATIC SPEEDS FOR PTV XSERVER

AFFECTED PARAMETERS AND VALUES

This document should give an overview of the parameters of the PTV xServer Routing Profiles which were adapted due to the new initial speed value adaptation. Check the Blog Posts [Precise, accurate, reliable – new static speeds for better route calculation within PTV xServer](#) and [New Static Speeds - FAQ PTV xServer](#) for more information.

The following tables show the parameters and values which are affected by the new initial speed adaptions for dataCompatibilityVersion 1 & 2 as well as PTV xServer API Version 1 & 2.

PTV xServer API Version 1

Table 1 - Affected parameters & values of truckfast

DataCompatibilityVersion 1

```

<Vehicle>
  <Speed>
    <SpeedRangeByNetworkClass minimumSpeed="55" maximumSpeed="80"/>
    <SpeedRangeByNetworkClass minimumSpeed="30" maximumSpeed="65"/>
    <SpeedRangeByNetworkClass minimumSpeed="23" maximumSpeed="55"/>
    <SpeedRangeByNetworkClass minimumSpeed="20" maximumSpeed="45"/>
    <SpeedRangeByNetworkClass minimumSpeed="18" maximumSpeed="40"/>
    <SpeedRangeByNetworkClass minimumSpeed="15" maximumSpeed="30"/>
    <SpeedRangeByNetworkClass minimumSpeed="7" maximumSpeed="12"/>
    <SpeedRangeByNetworkClass minimumSpeed="4" maximumSpeed="6"/>
  </Speed>
  ...
</Vehicle>
<Course>

<Network rampMalus="10">
  <MalusByNetworkClass malus="0"/>
  <MalusByNetworkClass malus="0"/>
  <MalusByNetworkClass malus="0"/>
  <MalusByNetworkClass malus="0"/>
  <MalusByNetworkClass malus="15"/>
  <MalusByNetworkClass malus="50"/>
  <MalusByNetworkClass malus="100"/>
  <MalusByNetworkClass malus="100"/>
</Network>
  ...
</Course>
<Algorithm aStarAggressiveness="1.3">
  <LevellingScopeByNetworkClass searchSpace="-1"/>
  <LevellingScopeByNetworkClass searchSpace="-1"/>
  <LevellingScopeByNetworkClass searchSpace="-1"/>
  <LevellingScopeByNetworkClass searchSpace="200"/>
  <LevellingScopeByNetworkClass searchSpace="20"/>
  <LevellingScopeByNetworkClass searchSpace="10"/>
  <LevellingScopeByNetworkClass searchSpace="10"/>
  <LevellingScopeByNetworkClass searchSpace="10"/>
</Algorithm>

```

DataCompatibilityVersion 2

```

<Vehicle>
  <Speed maximumSpeed="80">
    <SpeedRangeByNetworkClass minimumSpeed="55" maximumSpeed="85"/>
    <SpeedRangeByNetworkClass minimumSpeed="35" maximumSpeed="78"/>
    <SpeedRangeByNetworkClass minimumSpeed="30" maximumSpeed="70"/>
    <SpeedRangeByNetworkClass minimumSpeed="20" maximumSpeed="62"/>
    <SpeedRangeByNetworkClass minimumSpeed="15" maximumSpeed="51"/>
    <SpeedRangeByNetworkClass minimumSpeed="10" maximumSpeed="36"/>
    <SpeedRangeByNetworkClass minimumSpeed="5" maximumSpeed="10"/>
    <SpeedRangeByNetworkClass minimumSpeed="4" maximumSpeed="9"/>
  </Speed>
  ...
</Vehicle>
<Course>

<Network rampMalus="10">
  <MalusByNetworkClass malus="0"/>
  <MalusByNetworkClass malus="10"/>
  <MalusByNetworkClass malus="15"/>
  <MalusByNetworkClass malus="35"/>
  <MalusByNetworkClass malus="40"/>
  <MalusByNetworkClass malus="90"/>
  <MalusByNetworkClass malus="100"/>
  <MalusByNetworkClass malus="100"/>
</Network>
  ...
</Course>
<Algorithm aStarAggressiveness="1.3">
  <LevellingScopeByNetworkClass searchSpace="-1"/>
  <LevellingScopeByNetworkClass searchSpace="-1"/>
  <LevellingScopeByNetworkClass searchSpace="-1"/>
  <LevellingScopeByNetworkClass searchSpace="200"/>
  <LevellingScopeByNetworkClass searchSpace="50"/>
  <LevellingScopeByNetworkClass searchSpace="20"/>
  <LevellingScopeByNetworkClass searchSpace="10"/>
  <LevellingScopeByNetworkClass searchSpace="10"/>
</Algorithm>

```

Table 2 - Affected parameters & values of truckslow

DataCompatibilityVersion 1

```
<Vehicle>
  <Speed>
    <SpeedRangeByNetworkClass minimumSpeed="55" maximumSpeed="70"/>
    <SpeedRangeByNetworkClass minimumSpeed="30" maximumSpeed="60"/>
    <SpeedRangeByNetworkClass minimumSpeed="23" maximumSpeed="52"/>
    <SpeedRangeByNetworkClass minimumSpeed="20" maximumSpeed="42"/>
    <SpeedRangeByNetworkClass minimumSpeed="18" maximumSpeed="38"/>
    <SpeedRangeByNetworkClass minimumSpeed="15" maximumSpeed="28"/>
    <SpeedRangeByNetworkClass minimumSpeed="7" maximumSpeed="12"/>
    <SpeedRangeByNetworkClass minimumSpeed="4" maximumSpeed="6"/>
  </Speed>
  ...

```

DataCompatibilityVersion 2

```
<Vehicle>
  <Speed maximumSpeed="80">
    <SpeedRangeByNetworkClass minimumSpeed="55" maximumSpeed="85"/>
    <SpeedRangeByNetworkClass minimumSpeed="35" maximumSpeed="72"/>
    <SpeedRangeByNetworkClass minimumSpeed="30" maximumSpeed="68"/>
    <SpeedRangeByNetworkClass minimumSpeed="20" maximumSpeed="59"/>
    <SpeedRangeByNetworkClass minimumSpeed="15" maximumSpeed="50"/>
    <SpeedRangeByNetworkClass minimumSpeed="10" maximumSpeed="34"/>
    <SpeedRangeByNetworkClass minimumSpeed="5" maximumSpeed="10"/>
    <SpeedRangeByNetworkClass minimumSpeed="4" maximumSpeed="9"/>
  </Speed>
  ...

```

The table only shows the values for the parameter `<SpeedRangeByNetworkClass>` because the other parameters are derived from `truckfast.xml`.

Table 3 - Affected parameters & values of carfast (default)

DataCompatibilityVersion 1

```
<Vehicle>
  <Speed>
    <SpeedRangeByNetworkClass minimumSpeed="70" maximumSpeed="135"/>
    <SpeedRangeByNetworkClass minimumSpeed="35" maximumSpeed="125"/>
    <SpeedRangeByNetworkClass minimumSpeed="25" maximumSpeed="85"/>
    <SpeedRangeByNetworkClass minimumSpeed="25" maximumSpeed="60"/>
    <SpeedRangeByNetworkClass minimumSpeed="20" maximumSpeed="50"/>
    <SpeedRangeByNetworkClass minimumSpeed="18" maximumSpeed="40"/>
    <SpeedRangeByNetworkClass minimumSpeed="9" maximumSpeed="16"/>
    <SpeedRangeByNetworkClass minimumSpeed="4" maximumSpeed="6"/>
  </Speed>
  ...
</Vehicle>
<Course>
  <BasicDataRules>
    <Network rampMalus="10">
      <MalusByNetworkClass malus="0"/>
      <MalusByNetworkClass malus="0"/>
      <MalusByNetworkClass malus="0"/>
      <MalusByNetworkClass malus="10"/>
      <MalusByNetworkClass malus="20"/>
      <MalusByNetworkClass malus="50"/>
      <MalusByNetworkClass malus="100"/>
      <MalusByNetworkClass malus="100"/>
    </Network>
  ...
  <Course>
    <Algorithm aStarAggressiveness="1.3">
      <LevellingScopeByNetworkClass searchSpace="-1"/>
      <LevellingScopeByNetworkClass searchSpace="-1"/>
      <LevellingScopeByNetworkClass searchSpace="-1"/>
      <LevellingScopeByNetworkClass searchSpace="200"/>
      <LevellingScopeByNetworkClass searchSpace="20"/>
      <LevellingScopeByNetworkClass searchSpace="10"/>
      <LevellingScopeByNetworkClass searchSpace="10"/>
      <LevellingScopeByNetworkClass searchSpace="10"/>
    </Algorithm>
  ...

```

DataCompatibilityVersion 2

```
<Vehicle>
  <Speed>
    <SpeedRangeByNetworkClass minimumSpeed="70" maximumSpeed="135"/>
    <SpeedRangeByNetworkClass minimumSpeed="38" maximumSpeed="122"/>
    <SpeedRangeByNetworkClass minimumSpeed="30" maximumSpeed="105"/>
    <SpeedRangeByNetworkClass minimumSpeed="25" maximumSpeed="100"/>
    <SpeedRangeByNetworkClass minimumSpeed="20" maximumSpeed="95"/>
    <SpeedRangeByNetworkClass minimumSpeed="10" maximumSpeed="50"/>
    <SpeedRangeByNetworkClass minimumSpeed="5" maximumSpeed="20"/>
    <SpeedRangeByNetworkClass minimumSpeed="4" maximumSpeed="9"/>
  </Speed>
  ...
</Vehicle>
<Course>
  <BasicDataRules>
    <Network rampMalus="10">
      <MalusByNetworkClass malus="0"/>
      <MalusByNetworkClass malus="0"/>
      <MalusByNetworkClass malus="10"/>
      <MalusByNetworkClass malus="20"/>
      <MalusByNetworkClass malus="30"/>
      <MalusByNetworkClass malus="50"/>
      <MalusByNetworkClass malus="100"/>
      <MalusByNetworkClass malus="100"/>
    </Network>
  ...
  <Course>
    <Algorithm aStarAggressiveness="1.3">
      <LevellingScopeByNetworkClass searchSpace="-1"/>
      <LevellingScopeByNetworkClass searchSpace="-1"/>
      <LevellingScopeByNetworkClass searchSpace="-1"/>
      <LevellingScopeByNetworkClass searchSpace="200"/>
      <LevellingScopeByNetworkClass searchSpace="50"/>
      <LevellingScopeByNetworkClass searchSpace="20"/>
      <LevellingScopeByNetworkClass searchSpace="10"/>
      <LevellingScopeByNetworkClass searchSpace="10"/>
    </Algorithm>
  ...

```

Table 4 - Affected parameters & values of carslow

DataCompatibilityVersion 1

```
<Vehicle>
  <Speed>
    <SpeedRangeByNetworkClass minimumSpeed="65" maximumSpeed="105"/>
    <SpeedRangeByNetworkClass minimumSpeed="33" maximumSpeed="100"/>
    <SpeedRangeByNetworkClass minimumSpeed="25" maximumSpeed="75"/>
    <SpeedRangeByNetworkClass minimumSpeed="25" maximumSpeed="55"/>
    <SpeedRangeByNetworkClass minimumSpeed="20" maximumSpeed="48"/>
    <SpeedRangeByNetworkClass minimumSpeed="18" maximumSpeed="40"/>
    <SpeedRangeByNetworkClass minimumSpeed="9" maximumSpeed="16"/>
    <SpeedRangeByNetworkClass minimumSpeed="4" maximumSpeed="6"/>
  </Speed>
  ...

```

DataCompatibilityVersion 2

```
<Vehicle>
  <Speed maximumSpeed="80">
    <SpeedRangeByNetworkClass minimumSpeed="65" maximumSpeed="105"/>
    <SpeedRangeByNetworkClass minimumSpeed="36" maximumSpeed="98"/>
    <SpeedRangeByNetworkClass minimumSpeed="30" maximumSpeed="93"/>
    <SpeedRangeByNetworkClass minimumSpeed="25" maximumSpeed="92"/>
    <SpeedRangeByNetworkClass minimumSpeed="20" maximumSpeed="81"/>
    <SpeedRangeByNetworkClass minimumSpeed="10" maximumSpeed="50"/>
    <SpeedRangeByNetworkClass minimumSpeed="5" maximumSpeed="20"/>
    <SpeedRangeByNetworkClass minimumSpeed="4" maximumSpeed="9"/>
  </Speed>
  ...

```

The table only shows the values for the parameter `<SpeedRangeByNetworkClass>` because the other parameters are derived from `carfast.xml`.

All other profiles within the profiles-directory inherit the values from one of the profiles mentioned in the tables above.

PTV xServer API Version 2

Table 5 - Affected parameters & values of truck40t (default), truck7_5t, truck11_99t and trailertruck

```

<vehicleProfile>
  <speeds>
    <speedRangesByNetworkClass>
      <maximumSpeed>80.0</maximumSpeed>
      <maximumSpeed>65.0</maximumSpeed>
      <maximumSpeed>55.0</maximumSpeed>
      <maximumSpeed>45.0</maximumSpeed>
      <maximumSpeed>40.0</maximumSpeed>
      <maximumSpeed>30.0</maximumSpeed>
      <maximumSpeed>30.0</maximumSpeed>
      <maximumSpeed>30.0</maximumSpeed>
      <minimumSpeed>55.0</minimumSpeed>
      <minimumSpeed>30.0</minimumSpeed>
      <minimumSpeed>23.0</minimumSpeed>
      <minimumSpeed>20.0</minimumSpeed>
      <minimumSpeed>18.0</minimumSpeed>
      <minimumSpeed>15.0</minimumSpeed>
      <minimumSpeed>15.0</minimumSpeed>
      <minimumSpeed>15.0</minimumSpeed>
    </speedRangesByNetworkClass>
  </speeds>
</vehicleProfile>
<routingProfile>
  <searchSpace>
    <excludeByNetworkClass>
      <minimumDistancesFromWaypoint>UNBOUNDED</minimumDistancesFromWaypoint>
      <minimumDistancesFromWaypoint>UNBOUNDED</minimumDistancesFromWaypoint>
      <minimumDistancesFromWaypoint>UNBOUNDED</minimumDistancesFromWaypoint>
      <minimumDistancesFromWaypoint>200</minimumDistancesFromWaypoint>
      <minimumDistancesFromWaypoint>20</minimumDistancesFromWaypoint>
      <minimumDistancesFromWaypoint>10</minimumDistancesFromWaypoint>
      <minimumDistancesFromWaypoint>10</minimumDistancesFromWaypoint>
      <minimumDistancesFromWaypoint>10</minimumDistancesFromWaypoint>
    </excludeByNetworkClass>
  </searchSpace>
  <course>
    <network>
      <penaltiesByNetworkClass>
        <penalties>0</penalties>
        <penalties>0</penalties>
        <penalties>0</penalties>
        <penalties>0</penalties>
        <penalties>15</penalties>
        <penalties>50</penalties>
        <penalties>100</penalties>
        <penalties>100</penalties>
      </penaltiesByNetworkClass>
    </network>
  </course>
</routingProfile>

```

Table 6 - Affected parameters & values of car and van

```

DataCompatibilityVersion 1
<vehicleProfile>

  <speeds>
    <speedRangesByNetworkClass>
      <maximumSpeeds>135.0</maximumSpeeds>
      <maximumSpeeds>125.0</maximumSpeeds>
      <maximumSpeeds>115.0</maximumSpeeds>
      <maximumSpeeds>105.0</maximumSpeeds>
      <maximumSpeeds>95.0</maximumSpeeds>
      <maximumSpeeds>85.0</maximumSpeeds>
      <maximumSpeeds>70.0</maximumSpeeds>
      <maximumSpeeds>60.0</maximumSpeeds>
      <maximumSpeeds>50.0</maximumSpeeds>
      <maximumSpeeds>40.0</maximumSpeeds>
      <maximumSpeeds>35.0</maximumSpeeds>
      <maximumSpeeds>30.0</maximumSpeeds>
      <maximumSpeeds>25.0</maximumSpeeds>
      <maximumSpeeds>20.0</maximumSpeeds>
      <maximumSpeeds>18.0</maximumSpeeds>
      <maximumSpeeds>9.0</maximumSpeeds>
      <maximumSpeeds>4.0</maximumSpeeds>
    </speedRangesByNetworkClass>
  </speeds>
  <routingProfile>
    <course>
      <network>
        <penaltiesByNetworkClass>
          <penalties>0</penalties>
          <penalties>50</penalties>
          <penalties>0</penalties>
          <penalties>10</penalties>
          <penalties>20</penalties>
          <penalties>50</penalties>
          <penalties>100</penalties>
          <penalties>100</penalties>
        </penaltiesByNetworkClass>
      </network>
    </course>
  </routingProfile>
</vehicleProfile>

DataCompatibilityVersion 2
<vehicleProfile>

  <speeds>
    <speedRangesByNetworkClass>
      <maximumSpeeds>135.0</maximumSpeeds>
      <maximumSpeeds>125.0</maximumSpeeds>
      <maximumSpeeds>115.0</maximumSpeeds>
      <maximumSpeeds>105.0</maximumSpeeds>
      <maximumSpeeds>95.0</maximumSpeeds>
      <maximumSpeeds>85.0</maximumSpeeds>
      <maximumSpeeds>70.0</maximumSpeeds>
      <maximumSpeeds>60.0</maximumSpeeds>
      <maximumSpeeds>50.0</maximumSpeeds>
      <maximumSpeeds>40.0</maximumSpeeds>
      <maximumSpeeds>35.0</maximumSpeeds>
      <maximumSpeeds>30.0</maximumSpeeds>
      <maximumSpeeds>25.0</maximumSpeeds>
      <maximumSpeeds>20.0</maximumSpeeds>
      <maximumSpeeds>18.0</maximumSpeeds>
      <maximumSpeeds>10.0</maximumSpeeds>
      <maximumSpeeds>5.0</maximumSpeeds>
      <maximumSpeeds>4.0</maximumSpeeds>
    </speedRangesByNetworkClass>
  </speeds>
  <routingProfile>
    <course>
      <searchSpace>
        <excludeByNetworkClass>
          <minimumDistancesFromWaypoint>UNBOUNDED</minimumDistancesFromWaypoint>
          <minimumDistancesFromWaypoint>UNBOUNDED</minimumDistancesFromWaypoint>
          <minimumDistancesFromWaypoint>UNBOUNDED</minimumDistancesFromWaypoint>
          <minimumDistancesFromWaypoint>20</minimumDistancesFromWaypoint>
          <minimumDistancesFromWaypoint>50</minimumDistancesFromWaypoint>
          <minimumDistancesFromWaypoint>20</minimumDistancesFromWaypoint>
          <minimumDistancesFromWaypoint>10</minimumDistancesFromWaypoint>
          <minimumDistancesFromWaypoint>10</minimumDistancesFromWaypoint>
        </excludeByNetworkClass>
      </searchSpace>
    </course>
  </routingProfile>
</vehicleProfile>

```