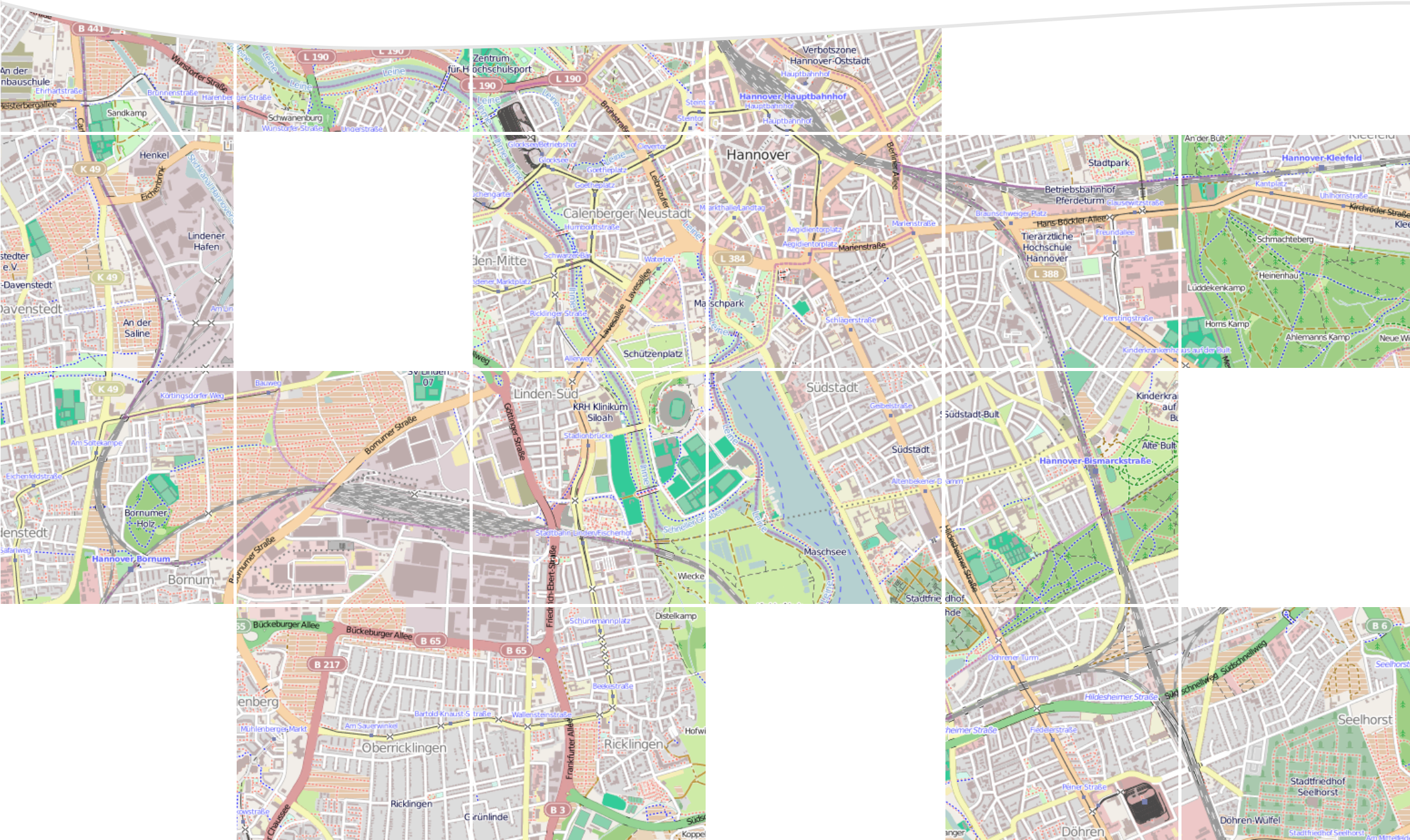


Map tiles are so 2005



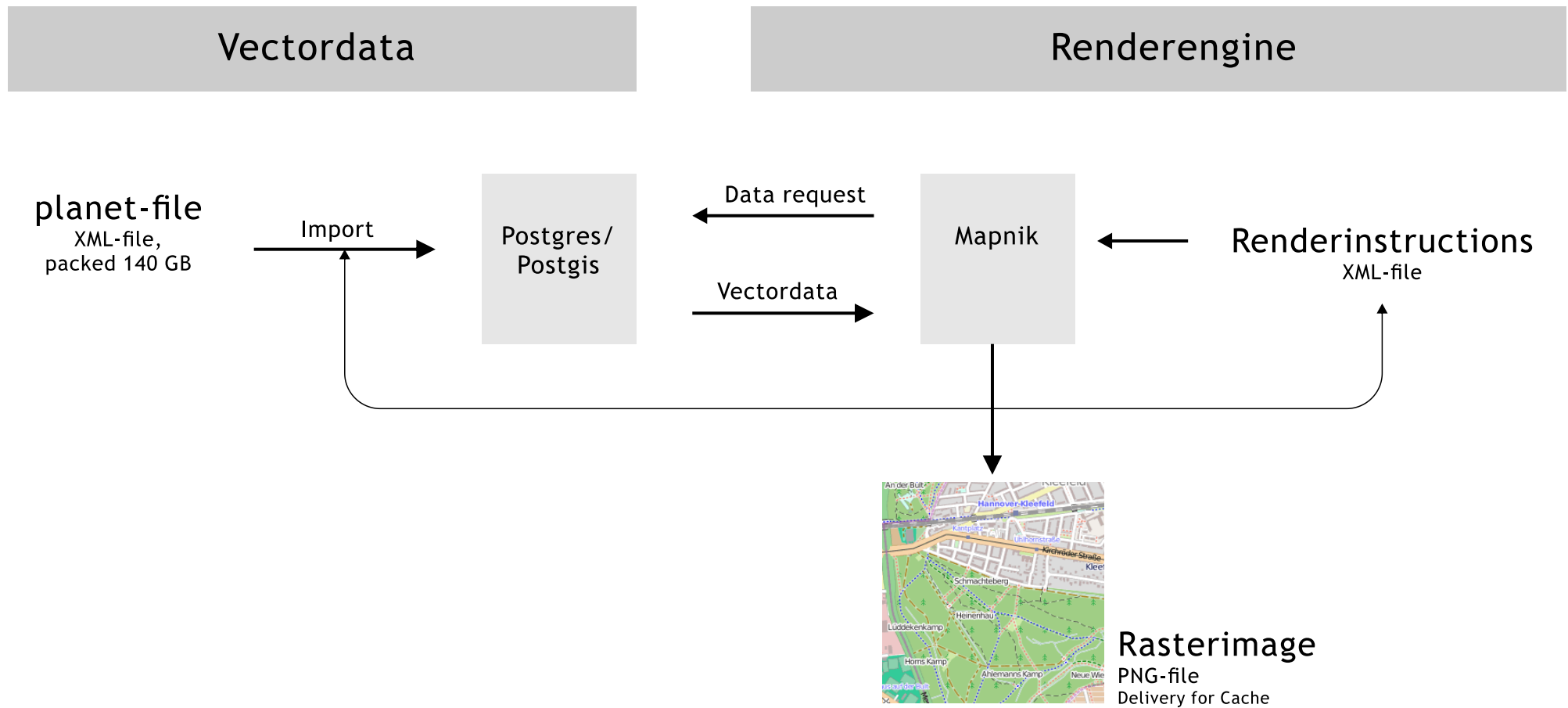
Tileserver

Image tiles in browser
Tileserver technology

Tileserver - Hardware requirements and function

Zoomlevel	Tiles	Tiles cumulated	Memory	Memory cumulatedt
0	1	1	5 KB	5 KB
1	4	5	20 KB	25 KB
2	16	21	80 KB	105 KB
3	64	85	320 KB	425 KB
4	256	341	1 MB	2 MB
5	1.024	1.365	5 MB	7 MB
6	4.096	5.641	20 MB	27 MB
7	16.384	21.845	82 MB	109 MB
8	65.536	87.381	328 MB	437 MB
9	262.144	349.525	1 GB	2 GB
10	1 Mio	1 Mio	5 GB	7 GB
11	4 Mio	6 Mio	21 GB	28 GB
12	17 Mio	22 Mio	84 GB	112 GB
13	67 Mio	89 Mio	336 GB	447 GB
14	268 Mio	358 Mio	1 TB	2 TB
15	1 Mrd.	1 Mrd	5 TB	7 TB
16	4 Mrd.	6 Mrd	21 TB	29 TB
17	17 Mrd	23 Mrd	86 TB	115 TB
18	69 Mrd	92 Mrd	344 TB	458 TB

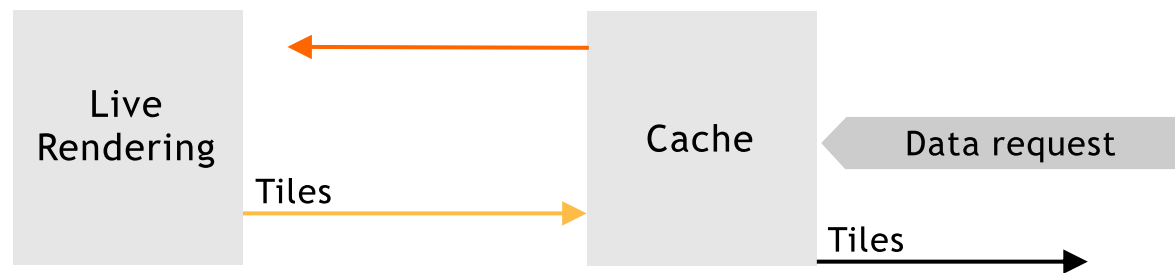
Rendering - Creating tiles using OSM as an example



Processing time global data 1 - 2 weeks

Delivery - Function of the tile server

A simple graphic for a complex set of rules

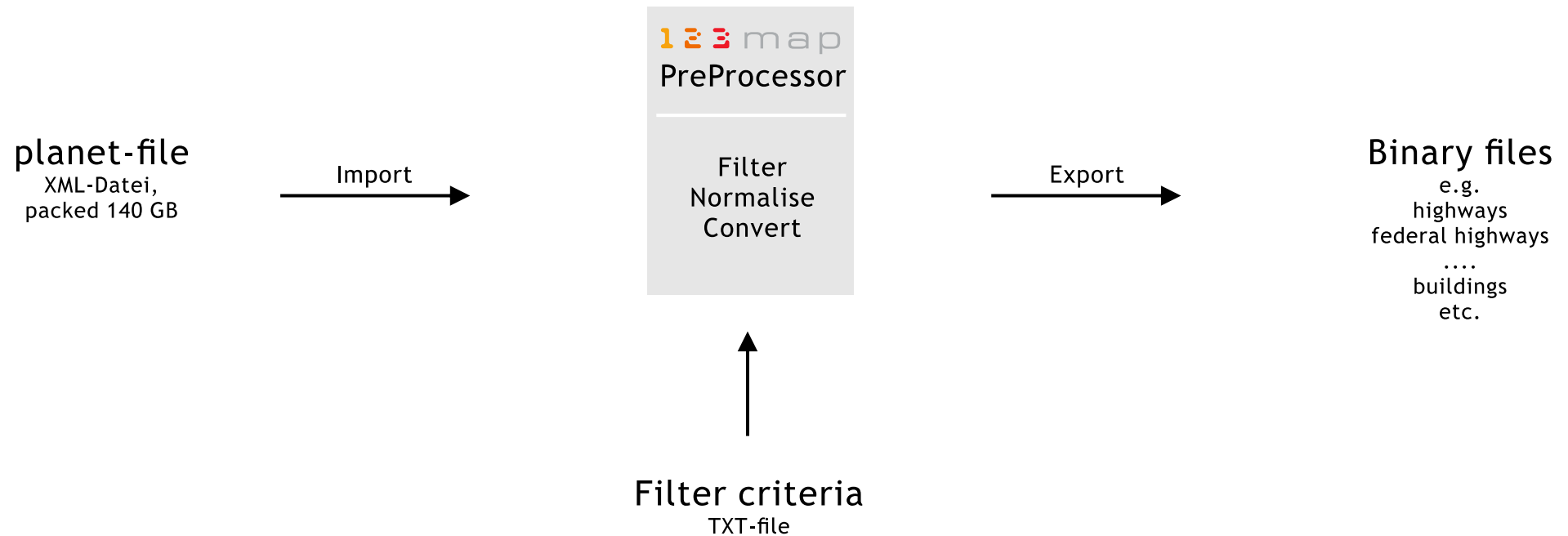


Vectormaps - 123map Technology

Vectormaps in Browser
123map Technology

Vectormaps - 123map Technology

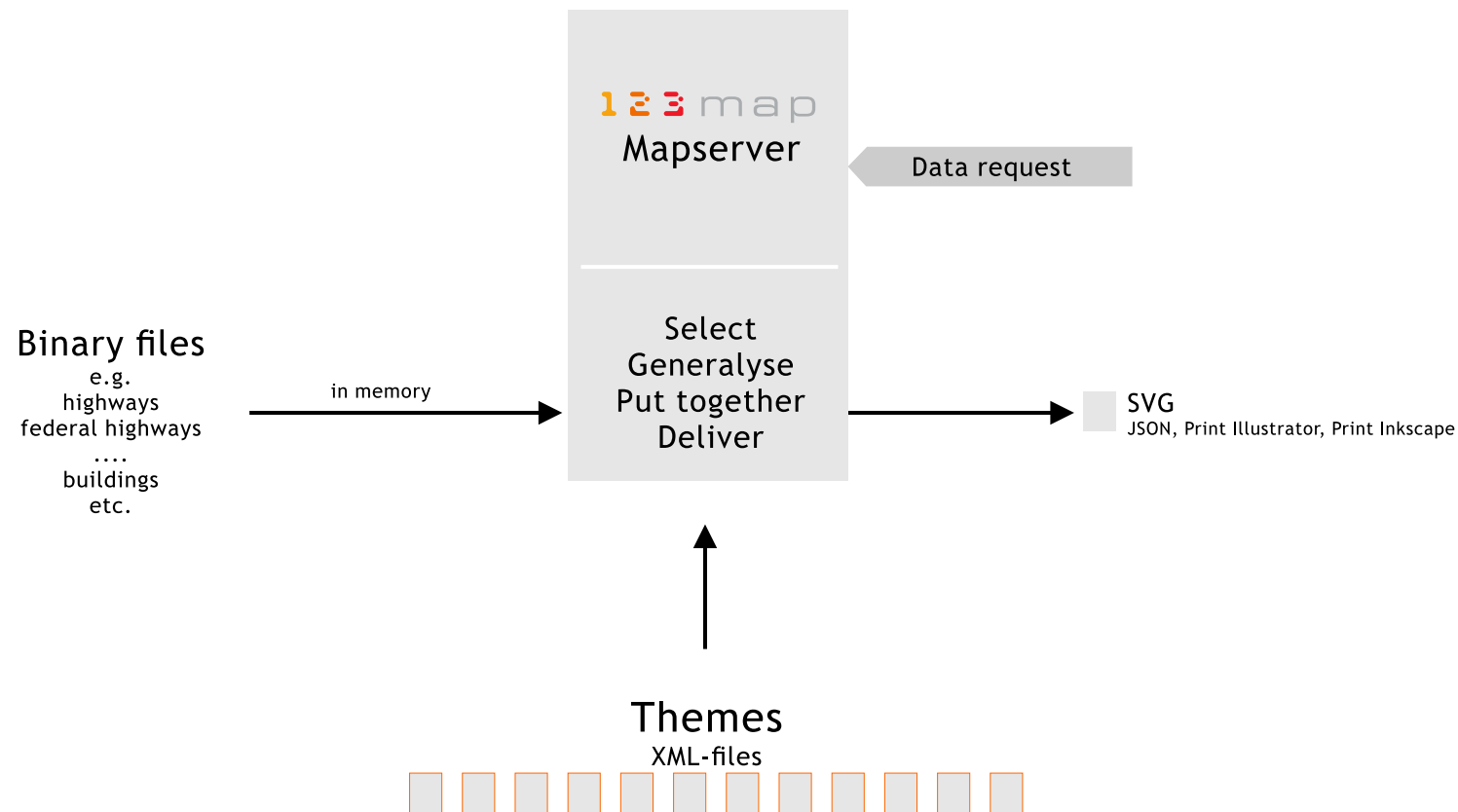
Vectordata - Pre processing



Processing time worldwide data approx. 7h (Epyc, 24 Cores, 250 GB)

Vectormaps - 123map Technology

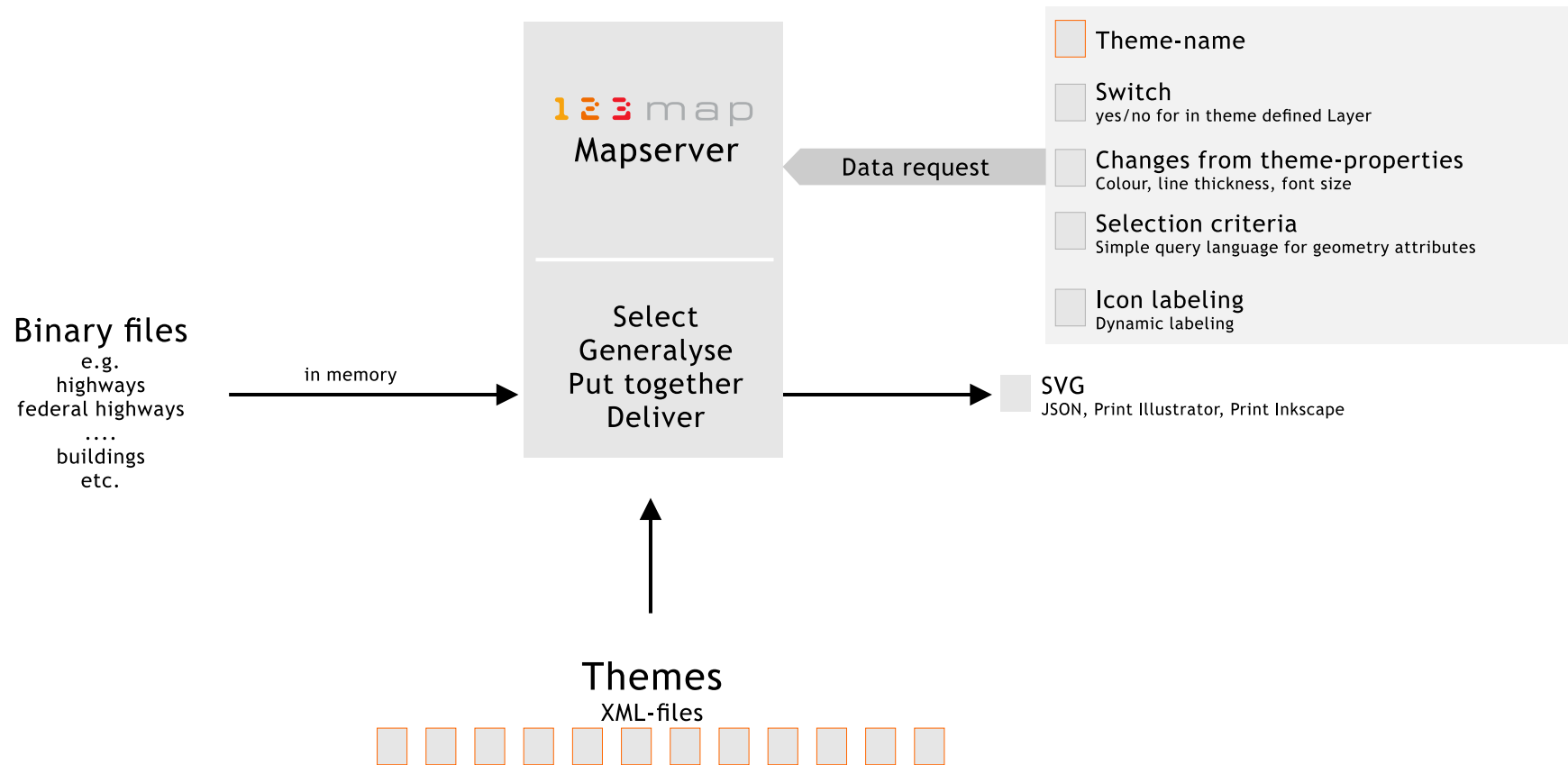
Vectordata - Delivery



Amount of maps delivered 600 x 800 px ~ 1.200/sec (Epyc, (24 Cores, 250 GB RAM for worldwide data)

Vectormaps - 123map Technology

Vectordata - Delivery



Amount of maps delivered 600 x 800 px ~ 1.200/sec (Epyc, (24 Cores, 250 GB RAM for worldwide data)