



Specification of symbols used on Audio-Tactile Maps for individuals with blindness

D2.6

Audio-tactile symbol specification
activities

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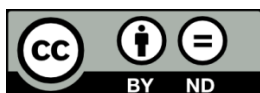
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6	Panhellenic Association for the Blind (PAB)	
7	Association of Barrier Free Access (ABFA)	

ABBREVIATIONS

Term	Explanation
IVIs	Individuals with Visual Impairments
AT-MAPS	Audio-Tactile Maps
AT-Symbols	Audio-Tactile Symbols
WP	Work Package

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1. EXECUTIVE SUMMARY

Touch and hearing are the primary senses that Individuals with Visual Impairments (IVIs) use in order to access written and graphical information and to acquire knowledge about attributes of an environment and their surroundings.

Until now tactile maps included raised graphic patterns recognizable only by touch.

Nowadays, information technology offers the means to convert spatial information into audio, tactile or audio-tactile form.

Therefore the benefits of tactile graphics can be combined with audio information with the use of special devices. Audio-touchpad devices are touch-sensitive pads that can simultaneously provide users with tactile and audio information, while they explore tactile graphics with their fingers. In the case of audio-tactile maps, information is represented by audio symbols, tactile symbols, audio-tactile symbols (combined) and Braille labels.

What needs to be carefully examined is the basic query of which information should be presented in haptic mode by tactile symbols or with braille labels and which information should be presented in audio mode by audio symbols or delivered via audio-haptic mode by audio & tactile symbols combined.

Moreover, it should be specified what audio-tactile symbols (tactile, audio, audio & tactile) will represent specific information in audio-tactile maps.

The fundamental aim of the ATMAPS project is the specification of audio, tactile and audio-tactile symbols to be used in Audio-Tactile Maps (AT-Maps).

In practice this means that it needs to be defined what information should be included in the AT-Maps in which format and by which symbol this information should be represented.

The 6th deliverable of WP2 is a report that presents the results of the Audio-tactile symbol specification activities as a result of the analysis of all conducted studies of WP2 of the project.

In particular the present report presents the optimal AT-Symbols for the representation of the information in different types of AT-Maps, after the association of each information derived from the user requirements definition process that defined what information should be included and in which format in each type of AT-Map, and also the elaborated statistical analysis of data from the evaluation of the readability/ ease of identification of tactile symbols developed within the project.

The present report is comprised of two sections. The first section refers to the method followed in order to achieve the second-level analysis for the specification of the AT-Symbols. The second section includes a list of tables for the presentation of the AT-Symbols with and the information associated with them, as well as functional information and guidelines in order to use AT-symbols in AT-Maps.

2. SPECIFICATION OF AUDIO-TACTILE SYMBOLS

The results of the AT-Symbols specification activities are presented and are available at the project's website through the web based library of the Audio-Tactile Symbols for different types of AT-Maps.

The specification of the Audio-Tactile Symbols was based on: 1) the results of the research conducted in the project on the appropriateness/ effectiveness of various tactile symbols, from which the symbols were ranked based on their ease of identification/ readability, 2) the results of the research conducted in the project on end users' preferences regarding the information they consider most important to be included in an audio-tactile aid (map) and the frequency of occurrence in their everyday surroundings (real world), and 3) the application of a cartographic rationale on the selection of tactile symbols for the representation of information, which takes into consideration the particularities and practices of tactile cartography, as well as previous experience in the construction of tactile maps.

The final specification of symbols takes into consideration the research findings, however they are applied by selecting the symbol that will represent each piece of information while ensuring at the same time that they comply with techniques used in cartography and in particular in tactile cartography. For example, information that appears very often (e.g. the coastline on a political, geophysical, historical or thematic map) should not be represented by a complex linear symbol. Another example is the association of the image of the symbol to the concept of information that it represents. This specification is suggested as the most effective for use.

For the selection of the symbols, research data on the confusions between tactile symbols were taken into consideration (i.e. how many times the users confused a tactile symbol with another). Thus, from the original list of ranked tactile symbols from best to worst, the tactile symbols that appeared to be confused more often with other tactile symbols were removed.

In cases where a tactile symbol represents more than one information, then this symbol is included on the map/aid and each different information is acquired by the blind user in audio format.

In some cases, one information is associated with more than one type of symbol (e.g. point and linear) as alternative options. This is useful to the creator of aids in cases where, based on the mapping scale and level of generalization, he needs to select a more "generalized symbol". For example, a lake, although it is more often depicted by an areal symbol, if the mapping scale is small, it should be depicted with a point symbol that simply shows its location.

3. ASSOCIATION OF AUDIO-TACTIEL SYMBOLS WITH INFORMATION BASED ON RESEARCH FINDINGS

After the evaluation of the tactile symbols created in previous tasks of the project, the final lists of the optimal point, linear and areal tactile symbols were derived with symbols ranked from best to worst. The ranking occurred based on the results of the tests on the evaluation of readability/ease of identification of tactile symbols.

The next step was the association of the tactile symbols with information as acquired from the user requirements definition.

However the number of information to be included in the different types of maps was bigger than the number of available symbols created. In order to overcome this issue the researchers grouped the information into groups based on the user requirements. The categorisation will also facilitate the search and selection of the appropriate symbol from the web based library of AT-Symbols.

The association of audio-tactile symbols with information based on research findings resulted after a process of **grouping** the information and **associating** the results of the conducted research on the user requirements to the symbols' ranked based on their readability/ease of identification.

3.1 Grouping of information

The information to be included in AT-Maps as derived from previous tasks of the project were grouped into general groups and also into subgroups. The categorisation will also facilitate the search and selection of the appropriate symbol from the web based library of AT-Symbols.

The general groups included the following:

- A. Entrance/Exit
- B. Obstacles/Dangerous points
- C. Level change

- D. Services/Daily necessities
- E. Information O & M
- F. Ground material/Texture change
- G. Point of Interest
- H. Machine/Device
- I. Areas/Services

The categorisation of the information into subgroups performed based in the following subgroups:

- A. Entrance/Exit
 - A1. Entrance/Exit of building
 - A2. Entrance/Exit outdoor
- B. Obstacles/Dangerous points
 - B1. Short obstacle or at ground level
 - B2. High obstacle
 - B3. Hanging obstacle or overhead obstacle
 - B4. Garbage bin
 - B5. Dangerous point
 - B6. Glass surface
 - B7. Plant / flowerbed / pot
 - B8. Obstacle to the full height of the body
 - B9. Furniture
- C. Level change
 - C1. Stairs
 - C2. Bridge
 - C3. Elevator
 - C4. Level change of the ground
 - C5. Slope on the ground
 - C6. Steps + number (audio)
 - C7. Floor number (audio)
- D. Useful information/Daily necessities
 - D1. Access point to public transport

- D2. Shop
- D3. Recreation and leisure
- D4. Health
- D5. Canteen/Cafeteria
- D6. Religion
- D7. Sports
- D8. Toilet
- D9. Daily necessities/Miscellaneous
- D10. Information
- D11. Services/Other
- E. Information for Orientation & Mobility
 - E1. Haptic reference point or landmark
 - E2. Audio reference point or landmark
 - E3. Olfactory reference point or landmark
 - E4. Prominent place as starting point
 - E5. Building
 - E6. Road
 - E7. Streetcar tracks
 - E8. Railroad tracks
 - E9. Sea
 - E10. River/Water stream
 - E11. Lake/surface with water
 - E12. Pedestrian road crossing
 - E13. Pedestrian street
 - E14. Square
 - E15. Pedestrian island or median strip
 - E16. Ramp
 - E17. Construction
 - E18. Street name
 - E19. Other name
 - E20. Direction or course of the driveway
 - E21. Intersection
 - E22. Tactile paving for the blind

- E23. Shape of building
- E24. Bicycle road
- E25. Parking/Parking slots
- E26. Other information O & M
- F. Ground material/Texture change
 - F1. Ground material
 - F2. Change of the surface or texture on the ground
- G. Point of Interest
 - G1. Point of interest Cultural/Tourist
- H. Machine/Device
 - H1. Cooling/Heating
 - H2. Domestic appliance
 - H3. PC/Printer/photocopier
 - H4. Other devices
- I. Areas/Services
 - I1. Offices, rooms, services, workshops, areas
 - I2. Building with services

3.2 Association of tactile symbols with information

In practice, the most readable symbols are associated to information that participants consider to meet most often in their everyday surroundings (mapped areas of the real world) that each type of aid covers (AT-maps of indoors, neighborhood/residential area, campus, city center, political, physical, historical, and thematic maps), but also considered as the most important ones in terms of: 1) safety during movement (e.g. obstacles, stairs etc), 2) Location of services (e.g. supermarkets, schools, etc), 3) way-finding (information to help determine the position of the walker), and 4) orientation (e.g. landmarks).

For this association, research data on the confusions between tactile symbols were also taken into consideration (i.e. how many times the users confused a symbol with another). Thus, from the original list of ranked symbols from best to worst, the tactile

symbols that appeared to be confused more often with other tactile symbols were removed and were not used.

In cases where a tactile symbol represents more than one information, then this symbol is included in the map/aid and each different information is acquired by the blind user in audio format.

In some cases, one information is associated with more than one type of symbol (e.g. point and linear) as alternative options. This is useful to the creator of aids in cases where, based on the mapping scale and level of generalization, he needs to select a more "generalized symbol".

For example, a lake, although it is more often depicted by an areal symbol, if the mapping scale is small, it should be depicted with a point symbol that simply shows its location.

3.3 Functional information and guidelines in order to use AT-symbols in AT-Maps

The association of tactile symbols to the represented information emerged after a procedure of information grouping and correlation of the results of the conducted research study on the user requirements, with the tactile symbols ranked based on their ease of identification/readability.

In practice, the symbols that are most ease to be identified are associated to information that participants consider to meet most often in the mapped areas (real world) that each type of aid covers (AT-maps of indoors, neighborhood/residential area, campus, city center, political, physical, historical, and thematic maps), but also considered as the most important ones in terms of: 1) safety during movement (e.g. obstacles, stairs etc), 2) Location of services (e.g. supermarkets, schools, etc), 3) way-finding (information to help determine the position of the walker), and 4) orientation (e.g. landmarks).

For the selection of the symbols, research data on the confusions between tactile symbols were taken into consideration (i.e. how many times the users confused a tactile symbol with another). Thus, from the original list of ranked tactile symbols from best to worst, the tactile symbols that appeared to be confused more often with other tactile symbols were removed.

In cases where a tactile symbol represents more than one information, then this symbol is included on the map/aid and each different information is acquired by the blind user in audio format.

In some cases, one information is associated with more than one type of symbol (e.g., point and linear) as alternative options. This is useful to the creator of aids in cases where, based on the mapping scale and level of generalization, he needs to select a more "generalized symbol". For example, a lake, although it is more often depicted by an areal symbol, if the mapping scale is small, it should be depicted with a point symbol that simply shows its location.

4. OVERALL EVALUATED AUDIO-TACTILE SYMBOLS

The following tables show the final results of the analysis of all conducted studies of WP2 of the project. The tables contain symbols for the following respective eight map types:










1. Indoors
2. Neighborhood-Residential area
3. Campus
4. City Center
5. Political
6. Physical
7. Historic
8. Thematic













All map types include Point, Linear and Areal symbols. The symbols are associated with certain information which are typical for the map type. Each information is described














within the following five columns: Group name, Subgroup name, Information, Image of the tactile symbol and the symbol's ID. The ID is used In order to identify the items.

4.1 Overall evaluated AT-Symbols for AT-Maps of Indoors

The list of overall evaluated AT-Symbols is sorted based on the subgroup categorisation.













Group	Subgroup	Map information	Symbol	ID
Artwork	Artwork	Artwork		P040
Artwork	Artwork	Frame of painting on the wall		P040
Artwork	Artwork	Statue or sculpture		P040
Level change	Attic	Loft		P080
Information for orientation and mobility	Audio reference point or landmark	Audio guide		P035
Information for orientation and mobility	Audio reference point or landmark	Signs with audio sound		P035
Information for orientation and mobility	Audio reference point or landmark	Sound reference point or landmark		P035
Information for orientation and mobility	Audio reference point or landmark	Sound source		P035
Useful information or daily necessities	Canteen or cafeteria	Cafeteria or Coffee shop		L02














Group	Subgroup	Map information	Symbol	ID
Useful information or daily necessities	Canteen or cafeteria	Canteen		L02
Useful information or daily necessities	Canteen or cafeteria	Cafeteria or Coffee shop		P100
Useful information or daily necessities	Canteen or cafeteria	Canteen		P100
Ground material or texture change	Change of the surface or texture on the ground	Change of the surface or texture on the ground		L22
Ground material or texture change	Change of the surface or texture on the ground	Change of the surface or texture on the ground		P034
Machine or device	Cooling or heating	Air condition		P006
Machine or device	Cooling or heating	Heat source, radiator, heating panels, fireplace		P006
Machine or device	Cooling or heating	Heating Burner		P006
Obstacles or dangerous points	Dangerous point	Dangerous area		A03
Obstacles or dangerous points	Dangerous point	Dangerous area		P059
Obstacles or dangerous points	Dangerous point	Dangerous point		P059
Obstacles or dangerous points	Dangerous point	Hot water or anything that could be hot to burn		P059












Group	Subgroup	Map information	Symbol	ID
Machine or device	Domestic appliance	Household appliance, refrigerator, television, washing machine		P067
Machine or device	Domestic appliance	Oven		P067
Machine or device	Domestic appliance	Refrigerator		P067
Machine or device	Domestic appliance	Telephone		P067
Machine or device	Domestic appliance	Television		P067
Level change	Elevator	Elevator		P099
Entrance or Exit	Entrance or Exit of building	Automatic bars		P081
Entrance or Exit	Entrance or Exit of building	Automatic doors		P081
Entrance or Exit	Entrance or Exit of building	Door		P081
Entrance or Exit	Entrance or Exit of building	Emergency exit		P081
Entrance or Exit	Entrance or Exit of building	Entrance or exit		P081
Entrance or Exit	Entrance or Exit of building	Glass door		P081
Entrance or Exit	Entrance or Exit of building	Revolving door		P081












Group	Subgroup	Map information	Symbol	ID
Entrance or Exit	Entrance or Exit of building	Sliding door		P081
Level change	Floor number (audio)	Floor number		AUDIO
Obstacles or dangerous points	Furniture	Armchair		P068
Obstacles or dangerous points	Furniture	Baby's changing table		P068
Obstacles or dangerous points	Furniture	Bed		P068
Obstacles or dangerous points	Furniture	Big furniture, sofa, couch, bed, wardrobe		P068
Obstacles or dangerous points	Furniture	Book case		P068
Obstacles or dangerous points	Furniture	Chair		P068
Obstacles or dangerous points	Furniture	Coat hanger stand or hanger		P068
Obstacles or dangerous points	Furniture	Cupboard		P068
Obstacles or dangerous points	Furniture	Desk		P068
Obstacles or dangerous points	Furniture	Drawers or Dresser		P068
Obstacles or dangerous points	Furniture	Furniture		P068



Group	Subgroup	Map information	Symbol	ID
Obstacles or dangerous points	Furniture	Hanging cabinet		P068
Obstacles or dangerous points	Furniture	Newspaper or magazine Stand		P068
Obstacles or dangerous points	Furniture	Sofa or couch		P068
Obstacles or dangerous points	Furniture	Table		P068
Obstacles or dangerous points	Furniture	Tea table		P068
Obstacles or dangerous points	Furniture	Teacher's desk		P068
Obstacles or dangerous points	Furniture	Wardrobe or Closet or Locker		P068
Obstacles or dangerous points	Garbage bin	Garbage bin		P037
Obstacles or dangerous points	Garbage bin	Recycle bin		P037
Obstacles or dangerous points	Glass surface	Glass partition		L14
Obstacles or dangerous points	Glass surface	Glass surface		L14
Obstacles or dangerous points	Glass surface	Glass partition		P063
Obstacles or dangerous points	Glass surface	Glass surface		P063













Group	Subgroup	Map information	Symbol	ID
Ground material or texture change	Ground material	Floor condition		AUDIO
Ground material or texture change	Ground material	Carpet		P092
Obstacles or dangerous points	Hanging obstacle or overhead obstacle	Balcony		P098
Obstacles or dangerous points	Hanging obstacle or overhead obstacle	Box on the wall		P098
Obstacles or dangerous points	Hanging obstacle or overhead obstacle	Hanging obstacle or overhead obstacle		P098
Obstacles or dangerous points	Hanging obstacle or overhead obstacle	Pipes or tubes		P098
Obstacles or dangerous points	Hanging obstacle or overhead obstacle	Shelf		P098
Obstacles or dangerous points	Hanging obstacle or overhead obstacle	Wall mirror		P098
Obstacles or dangerous points	Hanging obstacle or overhead obstacle	Window shutters or rolling blinds or blinds		P098
Obstacles or dangerous points	Hanging obstacle or overhead obstacle	Wires or cables		P098
Information for orientation and mobility	Haptic reference point or landmark	Haptic information		P060
Information for orientation and mobility	Haptic reference point or landmark	Haptic reference point or landmark		P060
Information for orientation and mobility	Haptic reference point or landmark	Scale Model of indoors area		P060












Group	Subgroup	Map information	Symbol	ID
Information for orientation and mobility	Haptic reference point or landmark	Tactile signpost		P060
Obstacles or dangerous points	High obstacle	Railings		L35
Obstacles or dangerous points	High obstacle	Recess in the wall		L35
Obstacles or dangerous points	High obstacle	Working Bench		L35
Obstacles or dangerous points	High obstacle	High obstacle		P093
Obstacles or dangerous points	High obstacle	Railings		P093
Obstacles or dangerous points	High obstacle	Recess in the wall		P093
Obstacles or dangerous points	High obstacle	Sitting bench		P093
Obstacles or dangerous points	High obstacle	Stand with posters		P093
Obstacles or dangerous points	High obstacle	Working Bench		P093
Level change	Level change of the ground	Elevated floor of teacher's desk		L20
Level change	Level change of the ground	Level change of the ground		L20
Level change	Level change of the ground	Level change of the ground		P026









Group	Subgroup	Map information	Symbol	ID
Obstacles or dangerous points	Obstacle to the full height of the body	Wall		L10
Obstacles or dangerous points	Obstacle to the full height of the body	Indoor pillar		P039
Obstacles or dangerous points	Obstacle to the full height of the body	Projecting wall		P039
Areas or services	Offices, rooms, services, laboratories, areas	Room number		AUDIO
Areas or services	Offices, rooms, services, laboratories, areas	Baggage reclaim room		L09
Areas or services	Offices, rooms, services, laboratories, areas	Clinic or infirmary or doctor		L09
Areas or services	Offices, rooms, services, laboratories, areas	Conference room		L09
Areas or services	Offices, rooms, services, laboratories, areas	Corridor		L09
Areas or services	Offices, rooms, services, laboratories, areas	Gym		L09
Areas or services	Offices, rooms, services, laboratories, areas	Kitchen		L09
Areas or services	Offices, rooms, services, laboratories, areas	Laboratory		L09
Areas or services	Offices, rooms, services, laboratories, areas	Library, the room or the service		L09

Group	Subgroup	Map information	Symbol	ID
Areas or services	Offices, rooms, services, laboratories, areas	Office		L09
Areas or services	Offices, rooms, services, laboratories, areas	Office of the commissioner for the disabled		L09
Areas or services	Offices, rooms, services, laboratories, areas	Reception		L09
Areas or services	Offices, rooms, services, laboratories, areas	Room		L09
Areas or services	Offices, rooms, services, laboratories, areas	Security service office, or desk		L09
Areas or services	Offices, rooms, services, laboratories, areas	Service		L09
Areas or services	Offices, rooms, services, laboratories, areas	Office		P091
Information for orientation and mobility	Olfactory reference point or landmark	Olfactory reference point or landmark		P074
Machine or device	Other devices	Machine or Device		P049
Information for orientation and mobility	Other information for orientation and mobility	Outdoors		A07
Information for orientation and mobility	Other information for orientation and mobility	Handrail for indoor stairs		L23

Group	Subgroup	Map information	Symbol	ID
Information for orientation and mobility	Other information for orientation and mobility	Intersection	▲▲▲▲▲	L23
Information for orientation and mobility	Other information for orientation and mobility	Handrail for indoor stairs	● ● ● ●	P090
Information for orientation and mobility	Other information for orientation and mobility	Highly populated zone in a building	● ● ● ●	P090
Information for orientation and mobility	Other information for orientation and mobility	Inscription	● ● ● ●	P090
Information for orientation and mobility	Other information for orientation and mobility	Intersection	● ● ● ●	P090
Information for orientation and mobility	Other information for orientation and mobility	Light source, Lamp or light bulb	● ● ● ●	P090
Information for orientation and mobility	Other information for orientation and mobility	Map	● ● ● ●	P090
Information for orientation and mobility	Other information for orientation and mobility	Marked points of the compass	● ● ● ●	P090
Information for orientation and mobility	Other information for orientation and mobility	Outdoors	● ● ● ●	P090
Machine or device	PC or printer or photocopier	Equipment or Machinery, computer, Printer, Photocopier		P005
Obstacles or dangerous points	Plant or flowerbed or pot	Flower pot		P062











Group	Subgroup	Map information	Symbol	ID
Obstacles or dangerous points	Plant or flowerbed or pot	Plants		P062
Information for orientation and mobility	Prominent place as starting point	Prominent place as starting point		P002
Information for orientation and mobility	Ramp	Ramp		P054
Useful information or daily necessities	Shop	Shop in general		L30
Useful information or daily necessities	Shop	Shop in general		P028
Obstacles or dangerous points	Short obstacle or at ground level	Fire extinguisher		P029
Obstacles or dangerous points	Short obstacle or at ground level	Fire hose		P029
Obstacles or dangerous points	Short obstacle or at ground level	Obstacle on the ground		P029
Obstacles or dangerous points	Short obstacle or at ground level	Short obstacle		P029
Level change	Slope on the ground	Uphill or Downhill or slope on the ground		P053
Level change	Stairs	Stairs		L03
Level change	Stairs	Stairs		P009

Group	Subgroup	Map information	Symbol	ID
Level change	Steps (audio + number)	Steps		P036
Information for orientation and mobility	Tactile paving for the blind	Tactile paving for the blind. Textured ground surface with indicators as aid to assist blind pedestrians		L01
Information for orientation and mobility	Tactile paving for the blind	Tactile paving for the blind. Textured ground surface with indicators as aid to assist blind pedestrians		P027
Useful information or daily necessities	Toilet	Toilet or bathroom for men, women, or people with disabilities		P001
Useful information or daily necessities	Useful information or daily necessities	Bank cash machine		P055
Useful information or daily necessities	Useful information or daily necessities	Cash machine		P055
Useful information or daily necessities	Useful information or daily necessities	Cashier's desk		P055
Useful information or daily necessities	Useful information or daily necessities	Intercom		P055
Useful information or daily necessities	Useful information or daily necessities	Light switch		P055
Useful information or daily necessities	Useful information or daily necessities	Mailbox		P055
Useful information or daily necessities	Useful information or daily necessities	Notice board		P055












Group	Subgroup	Map information	Symbol	ID
Useful information or daily necessities	Useful information or daily necessities	Pay phone or phone booth		P055
Useful information or daily necessities	Useful information or daily necessities	Queue management ticket machine		P055
Useful information or daily necessities	Useful information or daily necessities	Shower		P055
Useful information or daily necessities	Useful information or daily necessities	Sink or washbasin		P055
Useful information or daily necessities	Useful information or daily necessities	Smoking area		P055
Useful information or daily necessities	Useful information or daily necessities	Socket for Electricity or phone		P055
Useful information or daily necessities	Useful information or daily necessities	Vending machine		P055
Useful information or daily necessities	Useful information or daily necessities	Water dispenser		P055
Useful information or daily necessities	Useful information or daily necessities	Water tap		P055
Useful information or daily necessities	Useful information or daily necessities	Window		P055













4.2 Overall evaluated AT-Symbols for AT-Maps of neighbourhood/residential area












The list of overall evaluated AT-Symbols is sorted based on the subgroup categorisation.













Group	Subgroup	Map information	Symbol	ID
Services or daily necessities	Access point to public transport	Railway station		A12
Services or daily necessities	Access point to public transport	Bus stop		P001
Services or daily necessities	Access point to public transport	Bus stop shelter or tram stop shelter		P001
Services or daily necessities	Access point to public transport	Metro station		P001
Services or daily necessities	Access point to public transport	Point of access to public transport, bus stop, metro station		P001
Services or daily necessities	Access point to public transport	Public transport station		P001
Services or daily necessities	Access point to public transport	Railway station		P001
Services or daily necessities	Access point to public transport	Taxi station		P001
Information for orientation and mobility	Audio reference point or landmark	Audio guide		P097
Information for orientation and mobility	Audio reference point or landmark	Barking dog from specific house		P097










Group	Subgroup	Map information	Symbol	ID
Information for orientation and mobility	Audio reference point or landmark	Electricity generator of traders selling goods on the street		P097
Information for orientation and mobility	Audio reference point or landmark	People selling goods on the street		P097
Information for orientation and mobility	Audio reference point or landmark	Sign with audio sound		P097
Information for orientation and mobility	Audio reference point or landmark	Sound from ventilation		P097
Information for orientation and mobility	Audio reference point or landmark	Sound from air condition device		P097
Information for orientation and mobility	Audio reference point or landmark	Sound reference point or landmark		P097
Information for orientation and mobility	Audio reference point or landmark	Sound source		P097
Information for orientation and mobility	Audio reference point or landmark	Traffic light with audio signals for the Blind		P097
Information for orientation and mobility	Audio reference point or landmark	Water fountain		P097
Ground material or texture change	Beach	Beach		A09
Ground material or texture change	Beach	Beach		L15













Group	Subgroup	Map information	Symbol	ID
Information for orientation and mobility	Bicycle road	Bicycle road		L40
Level change	Bridge	Bridge		L38
Level change	Bridge	Bridge for pedestrians		L38
Level change	Bridge	Bridge for vehicles		L38
Level change	Bridge	Bridge over railroad tracks		L38
Information for orientation and mobility	Building	Name of building		AUDIO
Information for orientation and mobility	Building	Buildings		L01
Information for orientation and mobility	Building	Buildings		P059
Ground material or texture change	Change of the surface or texture on the ground	Change of the surface or texture on the ground		L18
Ground material or texture change	Change of the surface or texture on the ground	Concrete part edging to a street or path		L18
Ground material or texture change	Change of the surface or texture on the ground	Edge of pavement		L18
Ground material or texture change	Change of the surface or texture on the ground	Parkway or grass line or tree lawn. The boundaries between a sidewalk and the edge of other surface like grass or lawn		L18












Group	Subgroup	Map information	Symbol	ID
Ground material or texture change	Change of the surface or texture on the ground	Shoreline or guideline. A line formed at the meeting point of two different surfaces like grass and sidewalk edge		L18
Ground material or texture change	Change of the surface or texture on the ground	Change of the surface or texture on the ground		P071
Ground material or texture change	Change of the surface or texture on the ground	Metal plate on the ground		P071
Information for orientation and mobility	Construction	Wall		L21
Services or daily necessities	Daily necessities or miscellaneous	Mailbox		P089
Services or daily necessities	Daily necessities or miscellaneous	Smoking area		P089
Services or daily necessities	Daily necessities or miscellaneous	Vending machine		P089
Services or daily necessities	Daily necessities or miscellaneous	Water tap		P089
Obstacles or dangerous points	Dangerous point	Dangerous area		A11
Obstacles or dangerous points	Dangerous point	Prohibited area		A11
Obstacles or dangerous points	Dangerous point	Danger line		L14
Obstacles or dangerous points	Dangerous point	Quay		L14













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Obstacles or dangerous points	Dangerous point	Dangerous area		P049
Obstacles or dangerous points	Dangerous point	Dangerous point		P049
Obstacles or dangerous points	Dangerous point	Sprinklers watering machine injectors		P049
Obstacles or dangerous points	Dangerous point	Waterfall		P049
Information for orientation and mobility	Direction or course of the driveway	One way street		AUDIO
Information for orientation and mobility	Direction or course of the driveway	Direction or course of the driveway		P081
Services or daily necessities	Education	Daycare		P090
Services or daily necessities	Education	School		P090
Level change	Elevator	Elevator		P005
Entrance or Exit	Entrance or Exit of building	Automatic bars		P037
Entrance or Exit	Entrance or Exit of building	Automatic doors		P037
Entrance or Exit	Entrance or Exit of building	Door		P037













Group	Subgroup	Map information	Symbol	ID
Entrance or Exit	Entrance or Exit of building	Emergency exit		P037
Entrance or Exit	Entrance or Exit of building	Entrance or exit		P037
Entrance or Exit	Entrance or Exit of building	Glass door		P037
Entrance or Exit	Entrance or Exit of building	Revolving door		P037
Entrance or Exit	Entrance or Exit of building	Sliding door		P037
Entrance or Exit	Entrance or Exit of building	Underground entrance		P037
Entrance or Exit	Entrance or Exit outdoor	Entrance to an underground pedestrian passageway or subway station		P028
Entrance or Exit	Entrance or Exit outdoor	Gate		P028
Obstacles or dangerous points	Furniture	Newspaper or magazine Stand		P043
Obstacles or dangerous points	Furniture	Outdoor furniture, tables, bench, chairs		P043
Obstacles or dangerous points	Garbage bin	Garbage bin		P034
Obstacles or dangerous points	Garbage bin	Recycle bin		P034












Group	Subgroup	Map information	Symbol	ID
Obstacles or dangerous points	Glass surface	Glass partition		L28
Obstacles or dangerous points	Glass surface	Glass partition		P040
Obstacles or dangerous points	Glass surface	Shop window		P040
Ground material or texture change	Ground material	Grass		A08
Ground material or texture change	Ground material	Gravel		A08
Ground material or texture change	Ground material	Green area		A08
Ground material or texture change	Ground material	Paved area or paved road		A08
Ground material or texture change	Ground material	Sand		A08
Ground material or texture change	Ground material	Ground material		AUDIO
Obstacles or dangerous points	Hanging obstacle or overhead obstacle	Balcony projecting		P080
Obstacles or dangerous points	Hanging obstacle or overhead obstacle	Box on the wall		P080











Group	Subgroup	Map information	Symbol	ID
Obstacles or dangerous points	Hanging obstacle or overhead obstacle	Hanging obstacle or overhead obstacle		P080
Obstacles or dangerous points	Hanging obstacle or overhead obstacle	Overhead cable		P080
Obstacles or dangerous points	Hanging obstacle or overhead obstacle	Pipes or tubes		P080
Obstacles or dangerous points	Hanging obstacle or overhead obstacle	Tree branches		P080
Obstacles or dangerous points	Hanging obstacle or overhead obstacle	Window sill		P080
Obstacles or dangerous points	Hanging obstacle or overhead obstacle	Wires or cables		P080
Information for orientation and mobility	Haptic reference point or landmark	Haptic information		P063
Information for orientation and mobility	Haptic reference point or landmark	Haptic reference point or landmark		P063
Information for orientation and mobility	Haptic reference point or landmark	Tactile signpost		P063
Services or daily necessities	Health	Clinic or infirmary or doctor		P026
Services or daily necessities	Health	Dentist		P026
Services or daily necessities	Health	Medical service		P026












Group	Subgroup	Map information	Symbol	ID
Obstacles or dangerous points	High obstacle	Fence		L26
Obstacles or dangerous points	High obstacle	Fence around parts of pavement or sidewalk parts enclosed with fence		L26
Obstacles or dangerous points	High obstacle	Railings		L26
Obstacles or dangerous points	High obstacle	Recess in the wall		L26
Obstacles or dangerous points	High obstacle	Bicycle stand for parking bicycles		P062
Obstacles or dangerous points	High obstacle	Box on the side of pavement of Electricity or Gas providers		P062
Obstacles or dangerous points	High obstacle	Fence around parts of pavement or sidewalk parts enclosed with fence		P062
Obstacles or dangerous points	High obstacle	High obstacle		P062
Obstacles or dangerous points	High obstacle	Parked cars or motorcycles		P062
Obstacles or dangerous points	High obstacle	Railings		P062
Obstacles or dangerous points	High obstacle	Recess in the wall		P062













Group	Subgroup	Map information	Symbol	ID
Obstacles or dangerous points	High obstacle	Road Bar		P062
Obstacles or dangerous points	High obstacle	Shop's sign post		P062
Obstacles or dangerous points	High obstacle	Sitting bench		P062
Obstacles or dangerous points	High obstacle	Stand with posters		P062
Services or daily necessities	Information	Information booth		P055
Services or daily necessities	Information	Information desk		P055
Services or daily necessities	Information	Notice board		P055
Information for orientation and mobility	Intersection	Intersection, a place where two or more streets meet or cross		L02
Information for orientation and mobility	Intersection	Round about or Large traffic circle with a solid circle center		L02
Information for orientation and mobility	Intersection	Intersection, a place where two or more streets meet or cross		P099
Information for orientation and mobility	Intersection	Round about or Large traffic circle with a solid circle center		P099
Information for orientation and mobility	Lake or surface with water	Lake		A18














Group	Subgroup	Map information	Symbol	ID
Information for orientation and mobility	Lake or surface with water	Pont, a small pond in a park		A18
Level change	Level change of the ground	Level change of the ground		L12
Level change	Level change of the ground	Level change of the ground		P067
Machine or device	Machine or device	Air condition		P070
Machine or device	Machine or device	Machine or Device		P070
Point of Interest	Monument	Monument		P069
Point of Interest	Monument	Statue or sculpture		P069
Point of Interest	Monument	Tower		P069
Obstacles or dangerous points	Obstacle to the full height of the body	Basketball net		P072
Obstacles or dangerous points	Obstacle to the full height of the body	Phone booth or Pay phone		P072
Obstacles or dangerous points	Obstacle to the full height of the body	Pillar support. A metal cable that holds a pole, placed diagonally, at one end attached to the ground, at the other end attached at the top part of the pole		P072
Obstacles or dangerous points	Obstacle to the full height of the body	Pole or Pillar		P072













Group	Subgroup	Map information	Symbol	ID
Obstacles or dangerous points	Obstacle to the full height of the body	Projecting wall		P072
Obstacles or dangerous points	Obstacle to the full height of the body	Slide		P072
Obstacles or dangerous points	Obstacle to the full height of the body	Traffic sign		P072
Obstacles or dangerous points	Obstacle to the full height of the body	Tree		P072
Information for orientation and mobility	Olfactory reference point or landmark	Olfactory reference point or landmark		P073
Information for orientation and mobility	Other information O & M	Nature strip or outdoors open space or Lawn		A14
Information for orientation and mobility	Other information O & M	Pavement or sidewalk		L10
Information for orientation and mobility	Other information O & M	Inscription		P014
Information for orientation and mobility	Other information O & M	Light source, Lamp or light bulb		P014
Information for orientation and mobility	Other information O & M	Map		P014
Information for orientation and mobility	Other information O & M	Nature strip or outdoors open space or Lawn		P014













Group	Subgroup	Map information	Symbol	ID
Information for orientation and mobility	Other name	Area name		AUDIO
Information for orientation and mobility	Parking or parking slots	Car parking		A10
Information for orientation and mobility	Parking or parking slots	Road in parking garage		L39
Information for orientation and mobility	Parking or parking slots	Car parking		P092
Information for orientation and mobility	Parking or parking slots	Parking slots for the disabled people		P092
Information for orientation and mobility	Pedestrian island or median strip.	Pedestrian island or median strip. A safety zone in the street which separates traffic travelling in opposite directions		L30
Information for orientation and mobility	Pedestrian island or median strip.	Pedestrian island or median strip. A safety zone in the street which separates traffic travelling in opposite directions		P054
Information for orientation and mobility	Pedestrian road crossing	Pedestrian road crossing		L09
Information for orientation and mobility	Pedestrian road crossing	Railroad crossing		L09
Information for orientation and mobility	Pedestrian road crossing	Underpass		L09
Information for orientation and mobility	Pedestrian road crossing	Pedestrian road crossing		P100

Group	Subgroup	Map information	Symbol	ID
Information for orientation and mobility	Pedestrian road crossing	Railroad crossing		P100
Information for orientation and mobility	Pedestrian road crossing	Traffic lights		P100
Information for orientation and mobility	Pedestrian road crossing	Underpass		P100
Information for orientation and mobility	Pedestrian street	Arcade or Gallery with shops		A04
Information for orientation and mobility	Pedestrian street	Pedestrian street		A04
Information for orientation and mobility	Pedestrian street	Arcade or Gallery with shops		L35
Information for orientation and mobility	Pedestrian street	Path		L35
Information for orientation and mobility	Pedestrian street	Pedestrian street		L35
Information for orientation and mobility	Pedestrian street	Pedestrian trail or route		L35
Information for orientation and mobility	Pedestrian street	Arcade or Gallery with shops		P093
Obstacles or dangerous points	Plant or flowerbed or pot	Bushes		P082













Group	Subgroup	Map information	Symbol	ID
Obstacles or dangerous points	Plant or flowerbed or pot	Flower bed or parterre		P082
Obstacles or dangerous points	Plant or flowerbed or pot	Flower pot		P082
Obstacles or dangerous points	Plant or flowerbed or pot	Plants		P082
Information for orientation and mobility	Prominent place as starting point	Landmark		P039
Information for orientation and mobility	Prominent place as starting point	Prominent place as starting point		P039
Services or daily necessities	Public service or public area	Cemetery or graveyard		A01
Services or daily necessities	Public service or public area	Cemetery or graveyard		P035
Services or daily necessities	Public service or public area	Police station		P035
Services or daily necessities	Public service or public area	Post office		P035
Services or daily necessities	Public service or public area	Public service building		P035
Information for orientation and mobility	Railroad tracks	Railroad tracks passing through a tunnel		L32
Information for orientation and mobility	Railroad tracks	Railroad tracks passing through a tunnel		P083













Group	Subgroup	Map information	Symbol	ID
Information for orientation and mobility	Ramp	Ramp		P060
Services or daily necessities	Recreation and leisure	Park		A06
Services or daily necessities	Recreation and leisure	Playground		A06
Services or daily necessities	Recreation and leisure	Activity area		P053
Services or daily necessities	Recreation and leisure	Bar		P053
Services or daily necessities	Recreation and leisure	Cafeteria or Coffee shop		P053
Services or daily necessities	Recreation and leisure	Chill out area		P053
Services or daily necessities	Recreation and leisure	Cinema		P053
Services or daily necessities	Recreation and leisure	Library, the room or the service		P053
Services or daily necessities	Recreation and leisure	Park		P053
Services or daily necessities	Recreation and leisure	Playground		P053
Services or daily necessities	Recreation and leisure	Restaurant or tavern or grill		P053
Services or daily necessities	Recreation and leisure	Theater		P053












Group	Subgroup	Map information	Symbol	ID
Services or daily necessities	Religion	Religious building, Church, mosque, or else		P002
Information for orientation and mobility	River or water stream	Canal		L05
Information for orientation and mobility	River or water stream	Canal with a lock and sluice		L05
Information for orientation and mobility	River or water stream	Rapids		L05
Information for orientation and mobility	River or water stream	Water stream		L05
Information for orientation and mobility	River or water stream	Canal with a lock and sluice		P003
Information for orientation and mobility	River or water stream	Rapids		P003
Information for orientation and mobility	Road	Road		L22
Information for orientation and mobility	Road	Two way Driveway		L22
Information for orientation and mobility	Sea	Sea		A17
Services or daily necessities	Services or other	Bank		P029
Services or daily necessities	Services or other	Room		P029

Group	Subgroup	Map information	Symbol	ID
Services or daily necessities	Services or other	Service		P029
Information for orientation and mobility	Shape of building	Shape of block of houses		AUDIO
Services or daily necessities	Shop or point of sale	Market place		A07
Services or daily necessities	Shop or point of sale	Shopping mall or shopping center		A07
Services or daily necessities	Shop or point of sale	Street market		A07
Services or daily necessities	Shop or point of sale	Bakery shop		P098
Services or daily necessities	Shop or point of sale	Butcher shop		P098
Services or daily necessities	Shop or point of sale	Canteen		P098
Services or daily necessities	Shop or point of sale	Car garage		P098
Services or daily necessities	Shop or point of sale	Car washer		P098
Services or daily necessities	Shop or point of sale	Cava or Liquor shop		P098
Services or daily necessities	Shop or point of sale	Fish shop		P098
Services or daily necessities	Shop or point of sale	Flower shop		P098

Group	Subgroup	Map information	Symbol	ID
Services or daily necessities	Shop or point of sale	Gas station		P098
Services or daily necessities	Shop or point of sale	Grocery shop		P098
Services or daily necessities	Shop or point of sale	Hairdresser		P098
Services or daily necessities	Shop or point of sale	Kiosk or pavilion		P098
Services or daily necessities	Shop or point of sale	Market place		P098
Services or daily necessities	Shop or point of sale	Patisserie		P098
Services or daily necessities	Shop or point of sale	Pet shop		P098
Services or daily necessities	Shop or point of sale	Pharmacy or drugstore		P098
Services or daily necessities	Shop or point of sale	Pizzeria		P098
Services or daily necessities	Shop or point of sale	Shoe store		P098
Services or daily necessities	Shop or point of sale	Shop for coffee products or coffee grinder shop		P098
Services or daily necessities	Shop or point of sale	Shop for cosmetics		P098
Services or daily necessities	Shop or point of sale	Shop for leather products		P098

Group	Subgroup	Map information	Symbol	ID
Services or daily necessities	Shop or point of sale	Shop for photocopies		P098
Services or daily necessities	Shop or point of sale	Shop in general		P098
Services or daily necessities	Shop or point of sale	Shopping mall or shopping center		P098
Services or daily necessities	Shop or point of sale	Street market		P098
Services or daily necessities	Shop or point of sale	Supermarket		P098
Obstacles or dangerous points	Short obstacle or at ground level	Strips of cement found in parking lots that stop car wheels from going any further		L36
Obstacles or dangerous points	Short obstacle or at ground level	Broken tile on pavement		P074
Obstacles or dangerous points	Short obstacle or at ground level	Bumps from the roots of trees on the pavements		P074
Obstacles or dangerous points	Short obstacle or at ground level	Drain grill for water and sewer pipelines, placed on the roads next to pavements, or sewer grill or manholes		P074
Obstacles or dangerous points	Short obstacle or at ground level	Fire hose or fire department's water hydrant on pavement		P074
Obstacles or dangerous points	Short obstacle or at ground level	Missing tiles on pavement		P074
Obstacles or dangerous points	Short obstacle or at ground level	Obstacle on the ground		P074











Group	Subgroup	Map information	Symbol	ID
Obstacles or dangerous points	Short obstacle or at ground level	Puddle		P074
Obstacles or dangerous points	Short obstacle or at ground level	Short obstacle		P074
Obstacles or dangerous points	Short obstacle or at ground level	Short poles alongside of pavements		P074
Obstacles or dangerous points	Short obstacle or at ground level	Strips of cement found in parking lots that stop car wheels from going any further		P074
Obstacles or dangerous points	Short obstacle or at ground level	Tactile bumps on the street		P074
Level change	Slope on the ground	Road with a sharp ascent or descent		L29
Level change	Slope on the ground	Road with a sharp ascent or descent		P068
Level change	Slope on the ground	Uphill or Downhill or slope on the ground		P068
Services or daily necessities	Sports	Sports court		A19
Services or daily necessities	Sports	Sports facility		A19
Services or daily necessities	Sports	Sports field		A19
Services or daily necessities	Sports	Gym		P006












Group	Subgroup	Map information	Symbol	ID
Services or daily necessities	Sports	Sports court		P006
Services or daily necessities	Sports	Sports facility		P006
Services or daily necessities	Sports	Sports field		P006
Information for orientation and mobility	Square	Square		A03
Information for orientation and mobility	Square	Square		P036
Level change	Stairs	Stairs		L03
Level change	Stairs	Stairs		P027
Level change	Stairs	Stairs leading to the subway		P027
Level change	Stairs	Steps		P027
Information for orientation and mobility	Street name	Street name		AUDIO
Information for orientation and mobility	Streetcar tracks	Streetcar tracks		L11
Information for orientation and mobility	Tactile paving for the blind	Pavement or sidewalk with tactile paving		L23














Group	Subgroup	Map information	Symbol	ID
Information for orientation and mobility	Tactile paving for the blind	Tactile paving for the blind. Textured ground surface with indicators as aid to assist blind pedestrians	▲▲▲▲▲	L23
Information for orientation and mobility	Tactile paving for the blind	Tactile paving for the blind. Textured ground surface with indicators as aid to assist blind pedestrians	△△	P091
Services or daily necessities	Toilet	Toilet or bathroom for men, women, or people with disabilities	⊙	P009
Ground material or texture change	Water area	Water area	▬▬▬▬▬▬	A02
Ground material or texture change	Water area	Coast line	- - - - -	L20













4.3 Overall evaluated AT-Symbols for AT-Maps of campus












The list of overall evaluated AT-Symbols is sorted based on the subgroup categorisation.












Group	Subgroup	Map information	Symbol	ID
Services or daily necessities	Access point to public transport	Bus stop		P009
Services or daily necessities	Access point to public transport	Metro station		P009
Services or daily necessities	Access point to public transport	Point of access to public transport, bus stop, metro station		P009
Services or daily necessities	Access point to public transport	Taxi station		P009
Information for orientation and mobility	Audio reference point or landmark	Audio guide		P074
Information for orientation and mobility	Audio reference point or landmark	Sign with audio sound		P074
Information for orientation and mobility	Audio reference point or landmark	Sound from ventilation		P074
Information for orientation and mobility	Audio reference point or landmark	Sound reference point or landmark		P074
Information for orientation and mobility	Audio reference point or landmark	Sound source		P074
Information for orientation and mobility	Audio reference point or landmark	Water fountain		P074











Group	Subgroup	Map information	Symbol	ID
Information for orientation and mobility	Audio reference point or landmark	Traffic light with audio signals for the Blind		P092
Information for orientation and mobility	Bicycle road	Bicycle road		L38
Level change	Bridge	Bridge		L35
Level change	Bridge	Bridge for pedestrians		L35
Information for orientation and mobility	Building	Name of building		AUDIO
Information for orientation and mobility	Building	Buildings		L09
Information for orientation and mobility	Building	Buildings		P002
Areas or services	Building with services	Building of administration offices		L30
Services or daily necessities	Canteen or cafeteria	Cafeteria or Coffee shop		P081
Services or daily necessities	Canteen or cafeteria	Canteen		P081
Ground material or texture change	Change of the surface or texture on the ground	Change of the surface or texture on the ground		L29
Ground material or texture change	Change of the surface or texture on the ground	Concrete part edging to a street or path		L29












Group	Subgroup	Map information	Symbol	ID
Ground material or texture change	Change of the surface or texture on the ground	Edge of pavement		L29
Ground material or texture change	Change of the surface or texture on the ground	Parkway or grass line or tree lawn. The boundaries between a sidewalk and the edge of other surface like grass or lawn		L29
Ground material or texture change	Change of the surface or texture on the ground	Shoreline or guideline. A line formed at the meeting point of two different surfaces like grass and sidewalk edge		L29
Ground material or texture change	Change of the surface or texture on the ground	Change of the surface or texture on the ground		P097
Machine or device	Cooling or heating	Air condition		P069
Machine or device	Cooling or heating	Heat source, radiator, heating panels, fireplace		P069
Machine or device	Cooling or heating	Heating Burner		P069
Services or daily necessities	Daily necessities or miscellaneous	Bank cash machine		P049
Services or daily necessities	Daily necessities or miscellaneous	Cashier's desk		P049
Services or daily necessities	Daily necessities or miscellaneous	Mailbox		P049
Services or daily necessities	Daily necessities or miscellaneous	Sink or washbasin		P049
Services or daily necessities	Daily necessities or miscellaneous	Smoking area		P049
Services or daily necessities	Daily necessities or miscellaneous	Vending machine		P049

Group	Subgroup	Map information	Symbol	ID
Services or daily necessities	Daily necessities or miscellaneous	Water dispenser		P049
Services or daily necessities	Daily necessities or miscellaneous	Water tap		P049
Obstacles or dangerous points	Dangerous point	Dangerous area		A17
Obstacles or dangerous points	Dangerous point	Danger line		L15
Obstacles or dangerous points	Dangerous point	Dangerous area		P063
Obstacles or dangerous points	Dangerous point	Dangerous point		P063
Obstacles or dangerous points	Dangerous point	Hot water or anything that could be hot to burn		P063
Obstacles or dangerous points	Dangerous point	Sprinklers watering machine injectors		P063
Machine or device	Domestic appliance	Refrigerator		P062
Level change	Elevator	Elevator		P100
Entrance or Exit	Entrance or Exit of building	Automatic bars		P060
Entrance or Exit	Entrance or Exit of building	Automatic doors		P060












Group	Subgroup	Map information	Symbol	ID
Entrance or Exit	Entrance or Exit of building	Door		P060
Entrance or Exit	Entrance or Exit of building	Emergency exit		P060
Entrance or Exit	Entrance or Exit of building	Entrance or exit		P060
Entrance or Exit	Entrance or Exit of building	Glass door		P060
Entrance or Exit	Entrance or Exit of building	Revolving door		P060
Entrance or Exit	Entrance or Exit of building	Sliding door		P060
Entrance or Exit	Entrance or Exit of building	Underground entrance		P060
Entrance or Exit	Entrance or Exit outdoor	Gate		P026
Level change	Floor number (audio)	Floor number		AUDIO
Level change	Floor number (audio)	Ground level		AUDIO
Obstacles or dangerous points	Furniture	Big furniture, sofa, couch, bed, wardrobe		P089
Obstacles or dangerous points	Furniture	Book case		P089
Obstacles or dangerous points	Furniture	Desk		P089










Group	Subgroup	Map information	Symbol	ID
Obstacles or dangerous points	Furniture	Furniture		P089
Obstacles or dangerous points	Furniture	Outdoor furniture, tables, bench, chairs		P089
Obstacles or dangerous points	Furniture	Ping pong table		P089
Obstacles or dangerous points	Furniture	Sofa or couch		P089
Obstacles or dangerous points	Furniture	Wardrobe or Closet or Locker		P089
Obstacles or dangerous points	Garbage bin	Garbage bin		P053
Obstacles or dangerous points	Garbage bin	Recycle bin		P053
Obstacles or dangerous points	Glass surface	Glass partition		L18
Obstacles or dangerous points	Glass surface	Glass surface		L18
Obstacles or dangerous points	Glass surface	Glass partition		P082
Obstacles or dangerous points	Glass surface	Glass surface		P082

Group	Subgroup	Map information	Symbol	ID
Obstacles or dangerous points	Glass surface	Shop window		P082
Ground material or texture change	Ground material	Grass		A06
Ground material or texture change	Ground material	Gravel		A06
Ground material or texture change	Ground material	Paved area or paved road		A06
Ground material or texture change	Ground material	Sand		A06
Ground material or texture change	Ground material	Ground material		AUDIO
Ground material or texture change	Ground material	Carpet		P084
Ground material or texture change	Ground material	Door mat		P084
Obstacles or dangerous points	Hanging obstacle or overhead obstacle	Balcony		P073
Obstacles or dangerous points	Hanging obstacle or overhead obstacle	Box on the wall		P073
Obstacles or dangerous points	Hanging obstacle or overhead obstacle	Frame of painting on the wall		P073

Group	Subgroup	Map information	Symbol	ID
Obstacles or dangerous points	Hanging obstacle or overhead obstacle	Hanging obstacle or overhead obstacle		P073
Obstacles or dangerous points	Hanging obstacle or overhead obstacle	Low balcony alongside the pavement		P073
Obstacles or dangerous points	Hanging obstacle or overhead obstacle	Overhead cable		P073
Obstacles or dangerous points	Hanging obstacle or overhead obstacle	Pipes or tubes		P073
Obstacles or dangerous points	Hanging obstacle or overhead obstacle	Projecting balcony		P073
Obstacles or dangerous points	Hanging obstacle or overhead obstacle	Tree branches		P073
Obstacles or dangerous points	Hanging obstacle or overhead obstacle	Wires or cables		P073
Information for orientation and mobility	Haptic reference point or landmark	Haptic information		P029
Information for orientation and mobility	Haptic reference point or landmark	Haptic reference point or landmark		P029
Information for orientation and mobility	Haptic reference point or landmark	Tactile signpost		P029
Services or daily necessities	Health	Clinic or infirmary or doctor		P091





Group	Subgroup	Map information	Symbol	ID
Obstacles or dangerous points	High obstacle	Fence around parts of pavement or sidewalk parts enclosed with fence		L40
Obstacles or dangerous points	High obstacle	Railings		L40
Obstacles or dangerous points	High obstacle	Recess in the wall		L40
Obstacles or dangerous points	High obstacle	Working Bench		L40
Obstacles or dangerous points	High obstacle	Bicycle stand for parking bicycles		P071
Obstacles or dangerous points	High obstacle	Fence around parts of pavement or sidewalk parts enclosed with fence		P071
Obstacles or dangerous points	High obstacle	High obstacle		P071
Obstacles or dangerous points	High obstacle	Newspaper or magazine Stand		P071
Obstacles or dangerous points	High obstacle	Parked cars or motorcycles		P071
Obstacles or dangerous points	High obstacle	Railings		P071
Obstacles or dangerous points	High obstacle	Recess in the wall		P071











Group	Subgroup	Map information	Symbol	ID
Obstacles or dangerous points	High obstacle	Road Bar		P071
Obstacles or dangerous points	High obstacle	Sitting Bench		P071
Obstacles or dangerous points	High obstacle	Stand with posters		P071
Obstacles or dangerous points	High obstacle	Working Bench		P071
Services or daily necessities	Information	Flip chart for meeting presentations		P098
Services or daily necessities	Information	Information booth		P098
Services or daily necessities	Information	Information desk		P098
Services or daily necessities	Information	Notice board		P098
Information for orientation and mobility	Intersection	Intersection, a place where two or more streets meet or cross		L03
Information for orientation and mobility	Intersection	Intersection, a place where two or more streets meet or cross		P099
Information for orientation and mobility	Lake or surface with water	Lake		A09
Information for orientation and mobility	Lake or surface with water	Pont, a small pond in a park		A09












Group	Subgroup	Map information	Symbol	ID
Level change	Level change of the ground	Level change of the ground		L12
Level change	Level change of the ground	Level change of the ground		P034
Obstacles or dangerous points	Obstacle to the full height of the body	Wall		L11
Obstacles or dangerous points	Obstacle to the full height of the body	Indoor pillar		P067
Obstacles or dangerous points	Obstacle to the full height of the body	Pillar support. A metal cable that holds a pole, placed diagonally, at one end attached to the ground, at the other end attached at the top part of the pole		P067
Obstacles or dangerous points	Obstacle to the full height of the body	Pole or Pillar		P067
Obstacles or dangerous points	Obstacle to the full height of the body	Projecting wall		P067
Obstacles or dangerous points	Obstacle to the full height of the body	Traffic sign		P067
Obstacles or dangerous points	Obstacle to the full height of the body	Tree		P067
Areas or services	Offices, rooms, services, workshops, areas	Name of faculties of educational institution		AUDIO
Areas or services	Offices, rooms, services, workshops, areas	Room number		AUDIO




Group	Subgroup	Map information	Symbol	ID
Areas or services	Offices, rooms, services, workshops, areas	Academic staff offices	- - - - -	L22
Areas or services	Offices, rooms, services, workshops, areas	Administration offices	- - - - -	L22
Areas or services	Offices, rooms, services, workshops, areas	Class room	- - - - -	L22
Areas or services	Offices, rooms, services, workshops, areas	Concert hall	- - - - -	L22
Areas or services	Offices, rooms, services, workshops, areas	Conference hall	- - - - -	L22
Areas or services	Offices, rooms, services, workshops, areas	Consulting center	- - - - -	L22
Areas or services	Offices, rooms, services, workshops, areas	Corridor	- - - - -	L22
Areas or services	Offices, rooms, services, workshops, areas	Dining room or Dining area	- - - - -	L22
Areas or services	Offices, rooms, services, workshops, areas	Dorms or Student houses	- - - - -	L22
Areas or services	Offices, rooms, services, workshops, areas	Examination office	- - - - -	L22
Areas or services	Offices, rooms, services, workshops, areas	Kitchen	- - - - -	L22














Group	Subgroup	Map information	Symbol	ID
Areas or services	Offices, rooms, services, workshops, areas	Laboratory	- - - - -	L22
Areas or services	Offices, rooms, services, workshops, areas	Lecture room	- - - - -	L22
Areas or services	Offices, rooms, services, workshops, areas	Lecture theatre	- - - - -	L22
Areas or services	Offices, rooms, services, workshops, areas	Library, the room or the service	- - - - -	L22
Areas or services	Offices, rooms, services, workshops, areas	Member's Club	- - - - -	L22
Areas or services	Offices, rooms, services, workshops, areas	Music hall	- - - - -	L22
Areas or services	Offices, rooms, services, workshops, areas	Office	- - - - -	L22
Areas or services	Offices, rooms, services, workshops, areas	Office of the commissioner for the disabled	- - - - -	L22
Areas or services	Offices, rooms, services, workshops, areas	Office with accessible books	- - - - -	L22
Areas or services	Offices, rooms, services, workshops, areas	Reception	- - - - -	L22
Areas or services	Offices, rooms, services, workshops, areas	Room	- - - - -	L22










Group	Subgroup	Map information	Symbol	ID
Areas or services	Offices, rooms, services, workshops, areas	Room with stage	- - - -	L22
Areas or services	Offices, rooms, services, workshops, areas	Seating area	- - - -	L22
Areas or services	Offices, rooms, services, workshops, areas	Server room or Data center	- - - -	L22
Areas or services	Offices, rooms, services, workshops, areas	Service center for students	- - - -	L22
Areas or services	Offices, rooms, services, workshops, areas	Student council	- - - -	L22
Areas or services	Offices, rooms, services, workshops, areas	Student's office	- - - -	L22
Areas or services	Offices, rooms, services, workshops, areas	Student's registry office	- - - -	L22
Areas or services	Offices, rooms, services, workshops, areas	Office of the commissioner for the disabled		P059
Areas or services	Offices, rooms, services, workshops, areas	Office with accessible books		P059
Information for orientation and mobility	Olfactory reference point or landmark	Olfactory reference point or landmark		P003
Machine or device	Other devices	Machine or Device		P080













Group	Subgroup	Map information	Symbol	ID
Information for orientation and mobility	Other information for orientation and mobility	Outdoors		A11
Information for orientation and mobility	Other information for orientation and mobility	Pavement or sidewalk		L01
Information for orientation and mobility	Other information for orientation and mobility	Inscription		P072
Information for orientation and mobility	Other information for orientation and mobility	Light source, Lamp or light bulb		P072
Information for orientation and mobility	Other information for orientation and mobility	Map		P072
Information for orientation and mobility	Other information for orientation and mobility	Outdoors		P072
Information for orientation and mobility	Other information for orientation and mobility	Scale Model of campus		P072
Information for orientation and mobility	Other name	Area name		AUDIO
Information for orientation and mobility	Parking or parking slots	Car parking		A18
Information for orientation and mobility	Parking or parking slots	Road in parking garage		L21
Information for orientation and mobility	Parking or parking slots	Car parking		P092










Group	Subgroup	Map information	Symbol	ID
Information for orientation and mobility	Parking or parking slots	Parking slots for the disabled people		P092
Machine or device	PC or printer or photocopier	Equipment or Machinery, computer, Printer, Photocopier		P090
Machine or device	PC or printer or photocopier	Photocopying machine		P090
Information for orientation and mobility	Pedestrian island or median strip	Pedestrian island or median strip. A safety zone in the street which separates traffic travelling in opposite directions		L39
Information for orientation and mobility	Pedestrian island or median strip	Pedestrian island or median strip. A safety zone in the street which separates traffic travelling in opposite directions		P093
Information for orientation and mobility	Pedestrian road crossing	Pedestrian road crossing		L23
Information for orientation and mobility	Pedestrian road crossing	Pedestrian trail or route		L23
Information for orientation and mobility	Pedestrian road crossing	Underpass		L23
Information for orientation and mobility	Pedestrian road crossing	Pedestrian road crossing		P004
Information for orientation and mobility	Pedestrian road crossing	Pedestrian trail or route		P004
Information for orientation and mobility	Pedestrian road crossing	Traffic lights		P004

Group	Subgroup	Map information	Symbol	ID
Information for orientation and mobility	Pedestrian road crossing	Underpass		P004
Information for orientation and mobility	Pedestrian street	Pedestrian street		A03
Information for orientation and mobility	Pedestrian street	Path		L14
Information for orientation and mobility	Pedestrian street	Pedestrian street		L14
Obstacles or dangerous points	Plant or flowerbed or pot	Bushes		P083
Obstacles or dangerous points	Plant or flowerbed or pot	Flower bed or parterre		P083
Obstacles or dangerous points	Plant or flowerbed or pot	Flower pot		P083
Obstacles or dangerous points	Plant or flowerbed or pot	Plants		P083
Point of Interest	Point of interest Cultural or Tourist	Artwork		P070
Point of Interest	Point of interest Cultural or Tourist	Monument		P070
Point of Interest	Point of interest Cultural or Tourist	Statue or sculpture		P070
Information for orientation and mobility	Prominent place as starting point	Landmark		P039

Group	Subgroup	Map information	Symbol	ID
Information for orientation and mobility	Prominent place as starting point	Prominent place as starting point		P039
Information for orientation and mobility	Ramp	Ramp		P037
Services or daily necessities	Recreation and leisure	Park		A12
Services or daily necessities	Recreation and leisure	Activity area		P035
Services or daily necessities	Recreation and leisure	Chill out area		P035
Services or daily necessities	Recreation and leisure	Park		P035
Services or daily necessities	Recreation and leisure	Swimming pool		P035
Services or daily necessities	Religion	Religious building, Church, mosque, or else		P014
Information for orientation and mobility	Road	Road		L20
Services or daily necessities	Services or other	Daycare		P006
Services or daily necessities	Services or other	Post office		P006
Services or daily necessities	Services or other	Security service office or desk		P006
Services or daily necessities	Services or other	Service		P006












Group	Subgroup	Map information	Symbol	ID
Information for orientation and mobility	Shape of building	Shape of block of houses		AUDIO
Services or daily necessities	Shop or point of sale	Shop for photocopies		P055
Services or daily necessities	Shop or point of sale	Shop in general		P055
Obstacles or dangerous points	Short obstacle or at ground level	Strips of cement found in parking lots that stop car wheels from going any further	-----	L05
Obstacles or dangerous points	Short obstacle or at ground level	Broken tile on pavement		P043
Obstacles or dangerous points	Short obstacle or at ground level	Bumps from the roots of trees on the pavements		P043
Obstacles or dangerous points	Short obstacle or at ground level	Drain grill for water and sewer pipelines, placed on the roads next to pavements, or sewer grill or manholes		P043
Obstacles or dangerous points	Short obstacle or at ground level	Fire extinguisher		P043
Obstacles or dangerous points	Short obstacle or at ground level	Fire hose		P043
Obstacles or dangerous points	Short obstacle or at ground level	Fire hose or fire department's water hydrant on pavement		P043
Obstacles or dangerous points	Short obstacle or at ground level	Missing tiles on pavement		P043













Group	Subgroup	Map information	Symbol	ID
Obstacles or dangerous points	Short obstacle or at ground level	Obstacle on the ground		P043
Obstacles or dangerous points	Short obstacle or at ground level	Puddle		P043
Obstacles or dangerous points	Short obstacle or at ground level	Short obstacle		P043
Obstacles or dangerous points	Short obstacle or at ground level	Short poles alongside of pavements		P043
Obstacles or dangerous points	Short obstacle or at ground level	Strips of cement found in parking lots that stop car wheels from going any further		P043
Level change	Slope on the ground	Uphill or Downhill or slope on ground		P040
Services or daily necessities	Sports	Sports court		A04
Services or daily necessities	Sports	Sports facility		A04
Services or daily necessities	Sports	Gym		P068
Services or daily necessities	Sports	Sports court		P068
Services or daily necessities	Sports	Sports facility		P068
Information for orientation and mobility	Square	Square		A07











Group	Subgroup	Map information	Symbol	ID
Information for orientation and mobility	Square	Square		P028
Level change	Stairs	Stairs		L02
Level change	Stairs	Stairs		P036
Level change	Steps + number (audio)	Stairs leading to the subway		P027
Level change	Steps + number (audio)	Steps		P027
Information for orientation and mobility	Street name	Street name		AUDIO
Information for orientation and mobility	Tactile paving for the blind	Pavement or sidewalk with tactile paving		L10
Information for orientation and mobility	Tactile paving for the blind	Tactile paving for the blind. Textured ground surface with indicators as aid to assist blind pedestrians		L10
Information for orientation and mobility	Tactile paving for the blind	Tactile paving for the blind. Textured ground surface with indicators as aid to assist blind pedestrians		P054
Services or daily necessities	Toilet	Toilet or bathroom for men, women, or people with disabilities		P001



4.4 Overall evaluated AT-Symbols for AT-Maps of city centre












The list of overall evaluated AT-Symbols is sorted based on the subgroup categorisation.













Group	Subgroup	Map information	Symbol	ID
Services or daily necessities	Access point to public transport	Railway station		A12
Services or daily necessities	Access point to public transport	Bus stop		P036
Services or daily necessities	Access point to public transport	Bus stop shelter or tram stop shelter		P036
Services or daily necessities	Access point to public transport	Ferry boat for cars or other vehicles		P036
Services or daily necessities	Access point to public transport	Metro station		P036
Services or daily necessities	Access point to public transport	Point of access to public transport, bus stop, metro station		P036
Services or daily necessities	Access point to public transport	Public transport station		P036
Services or daily necessities	Access point to public transport	Railway station		P036
Services or daily necessities	Access point to public transport	Taxi station		P036
Services or daily necessities	Accommodation	Hotel		P005
Point of Interest	Artwork	Art work		P097











Group	Subgroup	Map information	Symbol	ID
Information for orientation and mobility	Audio reference point or landmark	Audio guide		P034
Information for orientation and mobility	Audio reference point or landmark	Sign with audio sound		P034
Information for orientation and mobility	Audio reference point or landmark	Sound reference point or landmark		P034
Information for orientation and mobility	Audio reference point or landmark	Sound source		P034
Information for orientation and mobility	Audio reference point or landmark	traffic light with audio signals for the Blind		P034
Information for orientation and mobility	Audio reference point or landmark	Water fountain		P034
Ground material or texture change	Beach	Beach		A04
Ground material or texture change	Beach	Beach		L14
Information for orientation and mobility	Bicycle road	Bicycle road		L18
Level change	Bridge	Bridge		L12
Level change	Bridge	Bridge for pedestrians		L12
Level change	Bridge	Bridge for vehicles		L12













Group	Subgroup	Map information	Symbol	ID
Level change	Bridge	Bridge over railroad tracks		L12
Information for orientation and mobility	Building	Name of building		AUDIO
Information for orientation and mobility	Building	Buildings		L30
Information for orientation and mobility	Building	Buildings		P054
Ground material or texture change	Change of the surface or texture on the ground	Change of the surface or texture on the ground		L05
Ground material or texture change	Change of the surface or texture on the ground	Concrete part edging to a street or path		L05
Ground material or texture change	Change of the surface or texture on the ground	Edge of pavement		L05
Ground material or texture change	Change of the surface or texture on the ground	Parkway or grass line or tree lawn. The boundaries between a sidewalk and the edge of other surface like grass or lawn		L05
Ground material or texture change	Change of the surface or texture on the ground	Shoreline or guideline. A line formed at the meeting point of two different surfaces like grass and sidewalk edge		L05
Ground material or texture change	Change of the surface or texture on the ground	Change of the surface or texture on the ground		P083
Ground material or texture change	Change of the surface or texture on the ground	Metal plate on the ground		P083













Group	Subgroup	Map information	Symbol	ID
Ground material or texture change	Coastline	Coast line		L15
Information for orientation and mobility	Construction	Wall		L26
Services or daily necessities	Daily necessities or miscellaneous	Outdoors		A18
Services or daily necessities	Daily necessities or miscellaneous	Bank cash machine		P043
Services or daily necessities	Daily necessities or miscellaneous	Queue management ticket machine		P043
Services or daily necessities	Daily necessities or miscellaneous	Smoking area		P043
Services or daily necessities	Daily necessities or miscellaneous	Vending machine		P043
Services or daily necessities	Daily necessities or miscellaneous	Water tap		P043
Obstacles or dangerous points	Dangerous point	Dangerous area		A11
Obstacles or dangerous points	Dangerous point	Prohibited area		A11
Obstacles or dangerous points	Dangerous point	Danger line		L35
Obstacles or dangerous points	Dangerous point	Quay		L35













Group	Subgroup	Map information	Symbol	ID
Obstacles or dangerous points	Dangerous point	Construction works		P037
Obstacles or dangerous points	Dangerous point	Dangerous area		P037
Obstacles or dangerous points	Dangerous point	Dangerous point		P037
Information for orientation and mobility	Direction or course of the driveway (Audio)	One way street		AUDIO
Information for orientation and mobility	Direction or course of the driveway (Audio)	Direction or course of the driveway		P081
Services or daily necessities	Education	Daycare		P093
Services or daily necessities	Education	School		P093
Level change	Elevator	Elevator		P091
Entrance or Exit	Entrance or Exit of building	Automatic bars		P098
Entrance or Exit	Entrance or Exit of building	Automatic doors		P098
Entrance or Exit	Entrance or Exit of building	Emergency exit		P098
Entrance or Exit	Entrance or Exit of building	Entrance or exit		P098












Group	Subgroup	Map information	Symbol	ID
Entrance or Exit	Entrance or Exit of building	Revolving door		P098
Entrance or Exit	Entrance or Exit of building	Underground entrance		P098
Entrance or Exit	Entrance or Exit outdoor	Entrance to an underground pedestrian passageway or subway station		P026
Entrance or Exit	Entrance or Exit outdoor	Gate		P026
Obstacles or dangerous points	Furniture	Furniture		P046
Obstacles or dangerous points	Furniture	Newspaper or magazine Stand		P046
Obstacles or dangerous points	Furniture	Outdoor furniture, tables, bench, chairs		P046
Obstacles or dangerous points	Garbage bin	Garbage bin		P006
Obstacles or dangerous points	Garbage bin	Recycle bin		P006
Obstacles or dangerous points	Glass surface	Glass partition		L32
Obstacles or dangerous points	Glass surface	Glass surface		L32
Obstacles or dangerous points	Glass surface	Glass partition		P085











Group	Subgroup	Map information	Symbol	ID
Obstacles or dangerous points	Glass surface	Glass surface		P085
Ground material or texture change	Ground material	Grass		A01
Ground material or texture change	Ground material	Gravel		A01
Ground material or texture change	Ground material	Green area		A01
Ground material or texture change	Ground material	Paved area or paved road		A01
Ground material or texture change	Ground material	Sand		A01
Ground material or texture change	Ground material	Ground material		AUDIO
Obstacles or dangerous points	Hanging obstacle or overhead obstacle	Balcony projecting		P071
Obstacles or dangerous points	Hanging obstacle or overhead obstacle	Box on the wall		P071
Obstacles or dangerous points	Hanging obstacle or overhead obstacle	Hanging obstacle or overhead obstacle		P071
Obstacles or dangerous points	Hanging obstacle or overhead obstacle	Overhead cable		P071












Group	Subgroup	Map information	Symbol	ID
Obstacles or dangerous points	Hanging obstacle or overhead obstacle	Pipes or tubes		P071
Obstacles or dangerous points	Hanging obstacle or overhead obstacle	Tree branches		P071
Obstacles or dangerous points	Hanging obstacle or overhead obstacle	Wires or cables		P071
Information for orientation and mobility	Haptic reference point or landmark	Haptic information		P090
Information for orientation and mobility	Haptic reference point or landmark	Haptic reference point or landmark		P090
Information for orientation and mobility	Haptic reference point or landmark	Tactile signpost		P090
Services or daily necessities	Health	Clinic		P027
Services or daily necessities	Health	Hospital		P027
Services or daily necessities	Health	Medical service		P027
Obstacles or dangerous points	High obstacle	Fence		L28
Obstacles or dangerous points	High obstacle	Fence around parts of pavement or sidewalk parts enclosed with fence		L28
Obstacles or dangerous points	High obstacle	Railings		L28












Group	Subgroup	Map information	Symbol	ID
Obstacles or dangerous points	High obstacle	Bicycle stand for parking bicycles		P073
Obstacles or dangerous points	High obstacle	Box on the side of pavement of Electricity or Gas providers		P073
Obstacles or dangerous points	High obstacle	Fence around parts of pavement or sidewalk parts enclosed with fence		P073
Obstacles or dangerous points	High obstacle	High obstacle		P073
Obstacles or dangerous points	High obstacle	Railings		P073
Obstacles or dangerous points	High obstacle	Recess in the wall		P073
Obstacles or dangerous points	High obstacle	Road Bar		P073
Obstacles or dangerous points	High obstacle	Sitting bench		P073
Obstacles or dangerous points	High obstacle	Stand with posters		P073
Services or daily necessities	Information	Information booth		P055
Services or daily necessities	Information	Information desk		P055
Services or daily necessities	Information	Tourist information		P055














Group	Subgroup	Map information	Symbol	ID
Information for orientation and mobility	Intersection (Audio)	Intersection, a place where two or more streets meet or cross		L03
Information for orientation and mobility	Intersection (Audio)	Round about or Large traffic circle with a solid circle center		L03
Information for orientation and mobility	Intersection (Audio)	Intersection, a place where two or more streets meet or cross		P001
Information for orientation and mobility	Intersection (Audio)	Round about or Large traffic circle with a solid circle center		P001
Information for orientation and mobility	Lake or surface with water	Lake		A19
Information for orientation and mobility	Lake or surface with water	Pont, a small pond in a park		A19
Level change	Level change of the ground	Level change of the ground		L21
Level change	Level change of the ground	Level change of the ground		P074
Machine or device	Machine or device	Equipment or Machinery		P089
Point of Interest	Monument	Monument		P070
Point of Interest	Monument	Statue or sculpture		P070
Point of Interest	Monument	Tower		P070













Group	Subgroup	Map information	Symbol	ID
Point of Interest	Museum	Museum		P039
Obstacles or dangerous points	Obstacle to the full height of the body	Flagpole		P062
Obstacles or dangerous points	Obstacle to the full height of the body	Phone booth or Pay phone		P062
Obstacles or dangerous points	Obstacle to the full height of the body	Pillar support. A metal cable that holds a pole, placed diagonally, at one end attached to the ground, at the other end attached at the top part of the pole		P062
Obstacles or dangerous points	Obstacle to the full height of the body	Pole or Pillar		P062
Obstacles or dangerous points	Obstacle to the full height of the body	Projecting wall		P062
Obstacles or dangerous points	Obstacle to the full height of the body	Traffic sign		P062
Obstacles or dangerous points	Obstacle to the full height of the body	Tree		P062
Information for orientation and mobility	Olfactory reference point or landmark	Olfactory reference point or landmark		P014
Information for orientation and mobility	Other information for orientation and mobility	Nature strip or outdoors open space or Lawn		A10
Information for orientation and mobility	Other information for orientation and mobility	Pavement or sidewalk		L01













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Information for orientation and mobility	Other information for orientation and mobility	Highly populated zone in a building		P080
Information for orientation and mobility	Other information for orientation and mobility	Inscription		P080
Information for orientation and mobility	Other information for orientation and mobility	Map		P080
Information for orientation and mobility	Other information for orientation and mobility	Nature strip or outdoors open space or Lawn		P080
Information for orientation and mobility	Other information for orientation and mobility	Scale Model of city		P080
Information for orientation and mobility	Other information for orientation and mobility	Service center for the blind		P080
Information for orientation and mobility	Other name (Audio)	Area names		AUDIO
Information for orientation and mobility	Parking or parking slots	Car parking		A15
Information for orientation and mobility	Parking or parking slots	Open parking		A15
Information for orientation and mobility	Parking or parking slots	Driveway in parking garage		L29
Information for orientation and mobility	Parking or parking slots	Car parking		P082













Group	Subgroup	Map information	Symbol	ID
Information for orientation and mobility	Parking or parking slots	Open parking		P082
Information for orientation and mobility	Parking or parking slots	Parking garage		P082
Information for orientation and mobility	Parking or parking slots	Parking slots for the disabled people		P082
Information for orientation and mobility	Pedestrian island or median strip	Pedestrian island or median strip. A safety zone in the street which separates traffic travelling in opposite directions		L09
Information for orientation and mobility	Pedestrian island or median strip	Pedestrian island or median strip. A safety zone in the street which separates traffic travelling in opposite directions		P028
Information for orientation and mobility	Pedestrian road crossing	Pedestrian road crossing		L23
Information for orientation and mobility	Pedestrian road crossing	Railroad crossing		L23
Information for orientation and mobility	Pedestrian road crossing	Underpass		L23
Information for orientation and mobility	Pedestrian road crossing	Pedestrian road crossing		P099
Information for orientation and mobility	Pedestrian road crossing	Railroad crossing		P099
Information for orientation and mobility	Pedestrian road crossing	Traffic lights		P099














Group	Subgroup	Map information	Symbol	ID
Information for orientation and mobility	Pedestrian road crossing	Underpass		P099
Information for orientation and mobility	Pedestrian street	Pedestrian street		A09
Information for orientation and mobility	Pedestrian street	Arcade or Gallery with shops		L11
Information for orientation and mobility	Pedestrian street	Path		L11
Information for orientation and mobility	Pedestrian street	Pedestrian street		L11
Information for orientation and mobility	Pedestrian street	Pedestrian trails		L11
Information for orientation and mobility	Pedestrian street	Arcade or Gallery with shops		P063
Information for orientation and mobility	Pedestrian street	Pedestrian trails		P063
Obstacles or dangerous points	Plant or flowerbed or pot	Bushes		P048
Obstacles or dangerous points	Plant or flowerbed or pot	Flower bed or parterre		P048
Obstacles or dangerous points	Plant or flowerbed or pot	Flower pot		P048













Group	Subgroup	Map information	Symbol	ID
Obstacles or dangerous points	Plant or flowerbed or pot	Plants		P048
Point of Interest	Point of interest Cultural or Tourist	Sights		P029
Point of Interest	Point of interest Cultural or Tourist	Tourist attraction		P029
Information for orientation and mobility	Prominent place as starting point	Landmarks		P067
Information for orientation and mobility	Prominent place as starting point	Prominent place as starting points		P067
Services or daily necessities	Public service or public area	Cemetery or graveyard		A08
Services or daily necessities	Public service or public area	Harbor		A08
Services or daily necessities	Public service or public area	Cemetery or graveyard		P060
Services or daily necessities	Public service or public area	Harbor		P060
Services or daily necessities	Public service or public area	Police station		P060
Services or daily necessities	Public service or public area	Post office		P060
Services or daily necessities	Public service or public area	Public service building		P060
Services or daily necessities	Public service or public area	Town hall		P060














Group	Subgroup	Map information	Symbol	ID
Information for orientation and mobility	Railroad tracks	Railroad tracks passing through a tunnel		L39
Information for orientation and mobility	Railroad tracks	Railways		L39
Information for orientation and mobility	Railroad tracks	Railroad tracks passing through a tunnel		P003
Information for orientation and mobility	Ramp	Ramp		P035
Services or daily necessities	Recreation and leisure	Park		A06
Services or daily necessities	Recreation and leisure	Playground		A06
Services or daily necessities	Recreation and leisure	Activity area		P049
Services or daily necessities	Recreation and leisure	Bar		P049
Services or daily necessities	Recreation and leisure	Bar or club or entertainment		P049
Services or daily necessities	Recreation and leisure	Cafeteria or Coffee shop		P049
Services or daily necessities	Recreation and leisure	Chill out area		P049
Services or daily necessities	Recreation and leisure	Cinema		P049











Group	Subgroup	Map information	Symbol	ID
Services or daily necessities	Recreation and leisure	Library, the room or the service		P049
Services or daily necessities	Recreation and leisure	Park		P049
Services or daily necessities	Recreation and leisure	Playground		P049
Services or daily necessities	Recreation and leisure	Restaurant or tavern or grill		P049
Services or daily necessities	Recreation and leisure	Theater		P049
Services or daily necessities	Religion	Religious building, Church, mosque, or else		P040
Services or daily necessities	Religion	Underground Religious building, Church or mosque or else		P040
Information for orientation and mobility	River or water stream	Water canal		L40
Information for orientation and mobility	River or water stream	Water canal with a lock and sluice		L40
Information for orientation and mobility	River or water stream	Water canal with a lock and sluice		P069
Information for orientation and mobility	Road	Road		L22
Information for orientation and mobility	Road	Road where possibly loading or unloading is taking place		L22

Group	Subgroup	Map information	Symbol	ID
Information for orientation and mobility	Road	Two way Driveway		L22
Information for orientation and mobility	Sea	Sea		A17
Services or daily necessities	Services or other	Bank		P068
Services or daily necessities	Services or other	Office		P068
Services or daily necessities	Services or other	Room		P068
Services or daily necessities	Services or other	Security service office or desk		P068
Services or daily necessities	Services or other	Service		P068
Information for orientation and mobility	Shape of building (Audio)	Shape of block of houses		AUDIO
Services or daily necessities	Shop or point of sale	Market place		A07
Services or daily necessities	Shop or point of sale	Shopping mall or shopping center		A07
Services or daily necessities	Shop or point of sale	Street market		A07
Services or daily necessities	Shop or point of sale	Bakery shop		P053
Services or daily necessities	Shop or point of sale	Canteen		P053

Group	Subgroup	Map information	Symbol	ID
Services or daily necessities	Shop or point of sale	Car washer		P053
Services or daily necessities	Shop or point of sale	Fish shop		P053
Services or daily necessities	Shop or point of sale	Flower shop		P053
Services or daily necessities	Shop or point of sale	Gas station		P053
Services or daily necessities	Shop or point of sale	Grocery shop		P053
Services or daily necessities	Shop or point of sale	Kiosk or pavilion		P053
Services or daily necessities	Shop or point of sale	Market place		P053
Services or daily necessities	Shop or point of sale	Patisserie		P053
Services or daily necessities	Shop or point of sale	People selling goods on the street		P053
Services or daily necessities	Shop or point of sale	Pet shop		P053
Services or daily necessities	Shop or point of sale	Shop for coffee products or coffee grinder shop		P053
Services or daily necessities	Shop or point of sale	Shop for cosmetics		P053
Services or daily necessities	Shop or point of sale	Shop for leather products		P053










Group	Subgroup	Map information	Symbol	ID
Services or daily necessities	Shop or point of sale	Shop in general		P053
Services or daily necessities	Shop or point of sale	Shopping mall or shopping center		P053
Services or daily necessities	Shop or point of sale	Street market		P053
Services or daily necessities	Shop or point of sale	Supermarket		P053
Services or daily necessities	Shop or point of sale	Ticket office		P053
Obstacles or dangerous points	Short obstacle or at ground level	Strips of cement found in parking lots that stop car wheels from going any further		L36
Obstacles or dangerous points	Short obstacle or at ground level	Bumps from the roots of trees on the pavements		P072
Obstacles or dangerous points	Short obstacle or at ground level	Drain grill for water and sewer pipelines, placed on the roads next to pavements, or sewer grill or manholes		P072
Obstacles or dangerous points	Short obstacle or at ground level	Fire hose or fire department's water hydrant on pavement		P072
Obstacles or dangerous points	Short obstacle or at ground level	Obstacle on the ground		P072
Obstacles or dangerous points	Short obstacle or at ground level	Short obstacle		P072
Obstacles or dangerous points	Short obstacle or at ground level	Short poles alongside of pavements		P072










Group	Subgroup	Map information	Symbol	ID
Obstacles or dangerous points	Short obstacle or at ground level	Strips of cement found in parking lots that stop car wheels from going any further		P072
Level change	Slope on the ground	Road with a sharp ascent or descent		L38
Level change	Slope on the ground	Uphill or Downhill or slope on ground		P084
Services or daily necessities	Sports	Sports court		A14
Services or daily necessities	Sports	Sports facilities		A14
Services or daily necessities	Sports	Sports facility		A14
Services or daily necessities	Sports	Gym		P092
Services or daily necessities	Sports	Sports court		P092
Services or daily necessities	Sports	Sports facilities		P092
Services or daily necessities	Sports	Sports facility		P092
Information for orientation and mobility	Square	Squares		A03
Information for orientation and mobility	Square	Squares		P009
Level change	Stairs	Stairs		L02












Group	Subgroup	Map information	Symbol	ID
Level change	Stairs	Stairs		P059
Level change	Stairs	Stairs leading to the subway		P059
Level change	Stairs	Steps		P059
Information for orientation and mobility	Street name (Audio)	Street name		AUDIO
Information for orientation and mobility	Streetcar tracks	Tram tracks		L20
Information for orientation and mobility	Tactile paving for the blind	Pavement or sidewalk with tactile paving		L10
Information for orientation and mobility	Tactile paving for the blind	Tactile paving for the blind. Textured ground surface with indicators as aid to assist blind pedestrians		L10
Information for orientation and mobility	Tactile paving for the blind	Tactile paving for the blind. Textured ground surface with indicators as aid to assist blind pedestrians		P100
Services or daily necessities	Toilet	Public toilet		P002
Services or daily necessities	Toilet	Toilet or bathroom for men, women, or people with disabilities		P002
Ground material or texture change	Water area	Water area		A02












4.5 Overall evaluated AT-Symbols for political AT-Maps

The list of overall evaluated AT-Symbols is sorted based on the subgroup categorisation.

Group	Subgroup	Map information	Symbol	ID
Network of transportation or transfers	Airport	Airport		P099
Basic information	Border or boundary	city borders or shape of city area		L30
Basic information	Capital city	Capitals city		P001
Basic information	Cardinal points (North)	Cardinal points		P036
Information of interest	Castle	Castle		P002
Basic information	City	City		P009
Basic information	Coastline	Coastline		L22
Basic information	Continent	Continent		L01
Basic information	Country	Country or State		AUDIO
Basic information	Country	Country borders		L03
Network of transportation or transfers	Distance in kilometers	Distance in kilometers		AUDIO












Group	Subgroup	Map information	Symbol	ID
Basic information	Federal state	Federal state		L15
Network of transportation or transfers	Harbor	Harbor		P005
Network of transportation or transfers	Highway	Highway		L23
Basic information	Island	Island		L02
Basic information	Lagoon	Lagoon		A12
Basic information	Lake	Artificial lake or Reservoir		A07
Basic information	Lake	Lake		A07
Basic information	Lake	Salt water lake		A07
Information of interest	Landmark	Landmark		P054
Information of interest	Other information of interest	Currency		AUDIO
Information of interest	Other information of interest	Geographical Area		AUDIO
Information of interest	Other information of interest	Longitude and latitude		AUDIO
Information of interest	Other information of interest	Official language		AUDIO











Group	Subgroup	Map information	Symbol	ID
Information of interest	Other information of interest	Population		AUDIO
Information of interest	Other information of interest	System of government or polity		AUDIO
Information of interest	Other information of interest	Longitude and latitude		P026
Information of interest	Other information of interest	Official language		P026
Basic information	Other information of interest	Directional arrow		P081
Basic information	Prefecture	Prefecture borders		L10
Basic information	Prefecture	Prefecture or county or district		L10
Basic information	Province	Province		L20
Network of transportation or transfers	Railway station	Railway station		P027
Basic information	Region or district	Region or district		L35
Basic information	River	River		L09
Network of transportation or transfers	Road network	Road network		L12
Network of transportation or transfers	Road network	Travel means		P028













Group	Subgroup	Map information	Symbol	ID
Network of transportation or transfers	Route	Route		L39
Basic information	Sea	Sea		A03
Natural characteristic	Sea gulf (Audio)	Sea gulf		AUDIO
Network of transportation or transfers	Sea transportation	Sea transportation		L14
Basic information	Settlement	Settlement		P059
Information of interest	Ski resort	Ski resort		P039
Network of transportation or transfers	Train network	Train network		L21
Network of transportation or transfers	Tunnel	Tunnel		P060
Basic information	Village	Village		P091
Information of interest	Water Dam	Water Dam		P037
Basic information	Water stream or channel	Channel		L11
Basic information	Town	Town		P100










4.6 Overall evaluated AT-Symbols for physical AT-Maps













The list of overall evaluated AT-Symbols is sorted based on the subgroup categorisation.













Group	Subgroup	Map information	Symbol	ID
Information of interest	Blue Flag beach	Beach		P035
Information of interest	Blue Flag beach	Blue Flag beach		P035
Basic information	Border or boundary	city borders or shape of city area		L15
Basic information	Capital city	Capital city		P099
Basic information	Cardinal points (North)	Cardinal points		P036
Information of interest	Cave	Cave		P063
Basic information	City	City		P009
Information of interest	Cliff coast	Cliff coast		P055
Natural characteristic	Coastal area	Coastal area		A17
Basic information	Coastline	Coastline		L09
Basic information	Continent	Continent		L10














Group	Subgroup	Map information	Symbol	ID
Basic information	Country	Country or State		AUDIO
Basic information	Country	Country borders		L02
Natural characteristic	Desert	Desert		A18
Network of transportation or transfers	Distance in kilometers	Distances in kilometers		AUDIO
Basic information	Federal state	Federal state		L38
Natural characteristic	Flora or tundra or taiga or steppe	Taiga		A19
Natural characteristic	Flora or tundra or taiga or steppe	Tundra		A19
Natural characteristic	Flora or tundra or taiga or steppe	Flora or Plant life, tundra, forest, taiga		P093
Network of transportation or transfers	Forest road	Forest road		L18
Network of transportation or transfers	Harbor	Harbor		P027
Network of transportation or transfers	Highway	Highway		L22
Basic information	Island	Island		L01



Group	Subgroup	Map information	Symbol	ID
Basic information	Lagoon	Lagoon		A06
Basic information	Lake	Artificial lake or Reservoir		A09
Basic information	Lake	Lake		A09
Basic information	Lake	Salt water lake		A09
Information of interest	Landmark	Landmark		P037
Basic information	Mountain	Mountain		P001
Basic information	Mountain peak (+Audio name and height)	Mountain height		AUDIO
Basic information	Mountain peak (+Audio name and height)	Mountain peak		P039
Basic information	Mountain range	Mountain range		L23
Basic information	Mountain range	Mountain range		P100
Natural characteristic	National Park/Forest (+Audio)	National Park		A12
Information of interest	Natural phenomenon	Ocean drift		L26
Information of interest	Natural phenomenon	Natural phenomenon		P060

Group	Subgroup	Map information	Symbol	ID
Information of interest	Natural resources	Physical resources. Products, oil, gas, coal		P067
Basic information	Ocean (Audio)	Ocean		A07
Natural characteristic	Ocean depth (+Audio)	Ocean depth		P049
Information of interest	Other information of interest	Afforestation		A10
Information of interest	Other information of interest	Plate tectonic		A10
Information of interest	Other information of interest	Geographical Area		AUDIO
Information of interest	Other information of interest	Population		AUDIO
Basic information	Other information of interest	Scale of map		AUDIO
Information of interest	Other information of interest	Plate tectonic		L28
Basic information	Other information of interest	Directional arrow		P059
Information of interest	Other information of interest	Fauna or animal life		P090
Information of interest	Other information of interest	Longitude and latitude		P090
Natural characteristic	Peninsular (Audio)	Peninsular		AUDIO

Group	Subgroup	Map information	Symbol	ID
Natural characteristic	Peninsular (Audio)	Peninsular		P005
Natural characteristic	Plain	Green field or valley		A04
Natural characteristic	Plain	Green field or valley		P054
Natural characteristic	Plateau	Plateau		P081
Basic information	Prefecture	Prefecture borders		L20
Basic information	Prefecture	Prefecture or county or district		L20
Basic information	Province	Province		L30
Basic information	Region or district	Region or district		L11
Basic information	River	River		L03
Network of transportation or transfers	Road network	Road network		L29
Network of transportation or transfers	Road network	Travel means		P029
Network of transportation or transfers	Route	Route		L21












Group	Subgroup	Map information	Symbol	ID
Network of transportation or transfers	Rural road	Rural road		L05
Basic information	Sea	Sea		A03
Natural characteristic	Sea gulf (Audio)	Sea gulf		AUDIO
Network of transportation or transfers	Sea transportation	Sea transportation		L39
Information of interest	Sight or attraction	Sight or attraction		P026
Information of interest	Ski resort	Ski resort		P074
Natural characteristic	Straits (Audio)	Straits		P006
Natural characteristic	Swampland	Swampland		A02
Information of interest	Thermal water springs or SPA	Natural mineral water spring		P053
Information of interest	Thermal water springs or SPA	Thermal water springs or SPA		P053
Network of transportation or transfers	Train network	Train network		L35
Natural characteristic	Valley	Valley		A11
Natural characteristic	Valley	Valley		L14














Group	Subgroup	Map information	Symbol	ID
Natural characteristic	Valley	Valley		P091
Natural characteristic	Vegetation zone	Broadleaf forest		A14
Natural characteristic	Vegetation zone	Coniferous forest		A14
Natural characteristic	Vegetation zone	Forest		A14
Natural characteristic	Vegetation zone	Grassland		A14
Natural characteristic	Vegetation zone	Mixed forest		A14
Natural characteristic	Vegetation zone	Rainforest		A14
Natural characteristic	Vegetation zone	Vegetation zone		A14
Natural characteristic	Vegetation zone	Vegetation zone		L40
Basic information	Village	Village		P068
Natural characteristic	Volcano	Volcano, active or inactive		P002
Information of interest	Water Dam	water Dam		P098
Basic information	Water stream or channel	Channel		L12














Group	Subgroup	Map information	Symbol	ID
Natural characteristic	Waterfall	Waterfall		P034
Basic information	Town	Town		P028












4.7 Overall evaluated AT-Symbols for historical AT-Maps











The list of overall evaluated AT-Symbols is sorted based on the subgroup categorisation.







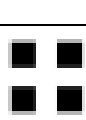






Group	Subgroup	Map information	Symbol	ID
Information of interest	Ancient city	Ancient city		P081
Historical information	Archaeological site or monument	Monument		P059
Information of interest	Archaeological site or monument	Archeological site or monument		P100
Information of interest	Architecture	Architecture		P039
Historical information	Battle	Battle		P002
Basic information	Border or boundary	City borders or shape of city area		L30
Historical information	Campaign	Campaign		L22
Historical information	Campaign	Route of army and fleet		L22
Basic information	Capital city	Capital city		P099
Basic information	Cardinal points (North)	Cardinal points		P027
Information of interest	Castle	Castle		P009













Group	Subgroup	Map information	Symbol	ID
Information of interest	Cave	Cave		P040
Basic information	City	City		P036
Natural characteristic	Coastal area	Coastal area		A12
Basic information	Coastline	Coastline		L11
Historical information	Colony	Colony		P006
Basic information	Continent	Continent		L02
Basic information	Country	Country or State		AUDIO
Basic information	Country	Country borders		L03
Natural characteristic	Desert	Desert		A04
Network of transportation or transfers	Distance in kilometers	Distances in kilometers		AUDIO
Historical information	Distinct legend	Distinct legend		P029
Historical information	Empire and monarchy	Empire and monarchy		P053
Basic information	Federal state	Confederation		L12


Group	Subgroup	Map information	Symbol	ID
Basic information	Federal state	Federal state		L12
Historical information	Former borders	Former borders		L14
Historical information	Gateway	Gateway		P035
Network of transportation or transfers	Harbor	Harbor		P037
Historical information	Historic location	Graves		P026
Historical information	Historic location	Historic location		P026
Historical information	Historic location	War theatre		P026
Historical information	Historic path	Historic path, Way of Saint James		L10
Basic information	Island	Island		L20
Basic information	Lagoon	Lagoon		A09
Basic information	Lake	Lake		A11
Basic information	Lake	Salt water lake		A11
Information of interest	Landmark	Landmark		P049

Group	Subgroup	Map information	Symbol	ID
Information of interest	Monastery	Historic church or monastery		P091
Basic information	Mountain	Mountain		P068
Basic information	Mountain range	Mountain range		L35
Basic information	Mountain range	Mountain range		P098
Natural characteristic	National Park or forest (+Audio)	National Park		A17
Historical information	Natural disaster	Natural disaster		P043
Information of interest	Natural phenomenon	Natural phenomenon		P090
Information of interest	Natural resources	Physical resources. Products, oil, gas, coal		P067
Basic information	Ocean (Audio)	Ocean		A07
Historical information	Other historical dates	Important date		AUDIO
Historical information	Other historical dates	Timeline		AUDIO
Historical information	Other historical dates	Conquest		P063
Historical information	Other historical dates	Pact		P063

Group	Subgroup	Map information	Symbol	ID
Information of interest	Other information of interest	Geographical Area		AUDIO
Information of interest	Other information of interest	Longitude and latitude		AUDIO
Information of interest	Other information of interest	Population		AUDIO
Basic information	Other information of interest	Directional arrow		P034
Information of interest	Other information of interest	Discovery		P093
Information of interest	Other information of interest	Nationality		P093
Information of interest	Other information of interest	Religious affiliation		P093
Information of interest	Other information of interest	Trade		P093
Historical information	Palace	Palace		P054
Natural characteristic	Peninsular (Audio)	Peninsular		P092
Natural characteristic	Plain	Green field or valley		A18
Natural characteristic	Plain	Green field or valley		P073
Natural characteristic	Plateau	Plateau		P072

Group	Subgroup	Map information	Symbol	ID
Basic information	Prefecture	Prefecture borders		L15
Basic information	Prefecture	Prefecture or county or district		L15
Basic information	Province	Province		L09
Basic information	Region or district	Region or district		L21
Basic information	River	River		L01
Network of transportation or transfers	Road network	Road network		L40
Network of transportation or transfers	Road network	Travel means		P089
Network of transportation or transfers	Route	Route		L38
Basic information	Sea	Sea		A03
Historical information	Sea battle or naval battle	Sea battle or naval battle		P060
Natural characteristic	Sea gulf (Audio)	Sea gulf		P062
Network of transportation or transfers	Sea transportation	Sea transportation		L39
Historical information	Shipwreck	Shipwreck		P080













Group	Subgroup	Map information	Symbol	ID
Information of interest	Sight or attraction	Sight or attraction		P005
Natural characteristic	Straits (Audio)	Straits		AUDIO
Natural characteristic	Straits (Audio)	Straits		P028
Natural characteristic	Swampland	Swampland		A02
Natural characteristic	Swampland	Swampland		P097
Information of interest	Thermal water springs or SPA	Thermal water springs or SPA		P082
Historical information	Trade route	Trade route		L23
Historical information	Unesco World Heritage	Unesco World Heritage		P001
Natural characteristic	Valley	Valley		A06
Natural characteristic	Valley	Valley		L29
Natural characteristic	Valley	Valley		P014
Basic information	Village	Village		P074
Natural characteristic	Volcano	Volcano, active or inactive		P071













Group	Subgroup	Map information	Symbol	ID
Basic information	Town	Town		P055














4.8 Overall evaluated AT-Symbols for thematic AT-Maps














The list of overall evaluated AT-Symbols is sorted based on the subgroup categorisation.







Group	Subgroup	Map information	Symbol	ID
Network of transportation or transfers	Airport	Airport		P009
Information of interest	Ancient city	Ancient city		P005
Historical information	Archaeological site or Monument	Monument		P034
Information of interest	Archaeological site or monument	Archeological site or monument		P060
Information of interest	Architecture	Architecture		P074
Information of interest	Blue Flag beach	Beach		P098
Information of interest	Blue Flag beach	Beach resort		P098
Information of interest	Blue Flag beach	Blue Flag beach		P098
Information of interest	Blue Flag beach	Organized beaches		P098
Information of interest	Camping or refuge	Campground		P084
Information of interest	Camping or refuge	Mountain resort refuge		P084














Group	Subgroup	Map information	Symbol	ID
Basic information	Capital city	Capital city		P001
Basic information	Cardinal points (North)	Cardinal points		P027
Information of interest	Castle	Castle		P039
Information of interest	Cave	Cave		P032
Basic information	City	City		P099
Basic information	City border	city borders or shape of city areas		L23
Natural characteristic	Coastal area	Coastal area		A17
Basic information	Coastline	Coastline		L09
Historical information	Colony	Colony		P004
Basic information	Continent	Continent		L20
Basic information	Country	Country or State		AUDIO
Basic information	Country	Country borders		L03
Natural characteristic	Desert	Desert		A14














Group	Subgroup	Map information	Symbol	ID
Network of transportation or transfers	Distance in kilometers	Distances in kilometers		AUDIO
Historical information	Distinct legend	Distinct legend		P002
Historical information	Empire and monarchy	Empire and monarchy		P017
Basic information	Federal state	Confederation		L05
Basic information	Federal state	Federal state		L05
Basic information	Federal state	Confederation		P011
Basic information	Federal state	Federal state		P011
Historical information	Former borders	Former borders		L28
Historical information	Gateway	Gateways		P071
Network of transportation or transfers	Harbor	Harbor		P028
Network of transportation or transfers	Highway	Highway		L01
Historical information	Historic location	Historic location		P036
Historical information	Historic path	Historic path, Way of Saint James		L30













Group	Subgroup	Map information	Symbol	ID
Information of interest	Hotel or accommodation	Hotel		P054
Basic information	Island	Island		L10
Basic information	Lagoon	Lagoon		A06
Basic information	Lake	Lake		A11
Information of interest	Landmark	Landmark		P029
Information of interest	Mineral resources	Coal		P031
Information of interest	Mineral resources	Mineral resources		P031
Information of interest	Mineral resources	Natural gas		P031
Information of interest	Mineral resources	Natural resources		P031
Information of interest	Mineral resources	Oil or diesel or petroleum		P031
Information of interest	Mineral resources	Oilfields for diesel or petroleum		P031
Information of interest	Mineral resources	Uranium		P031
Information of interest	Monastery	Historic church or monastery		P090













Group	Subgroup	Map information	Symbol	ID
Basic information	Mountain	Mountain		P026
Basic information	Mountain peak (+Audio name and height)	Mountain peak		P070
Basic information	Mountain range	Mountain range		L35
Basic information	Mountain range	Mountain range		P049
Information of interest	Mountain trail	Mountain trail		L40
Natural characteristic	National park or forest (+Audio)	National Park		A12
Historical information	Natural disaster	Natural disaster		P003
Information of interest	Natural phenomenon	Ocean drift		L32
Information of interest	Natural phenomenon	Natural phenomenon		P063
Information of interest	Natural resources	Physical resources. Products, oil, gas, coal		P062
Information of interest	Nuclear power plant	Nuclear power plant		P043
Basic information	Ocean (Audio)	Ocean		A07
Natural characteristic	Ocean depth (+Audio)	Ocean depth		P096













Group	Subgroup	Map information	Symbol	ID
Historical information	Other historical dates	Important date		AUDIO
Historical information	Other historical dates	Timeline		AUDIO
Historical information	Other historical dates	Pact		P085
Information of interest	Other information of interest	Afforestation		A09
Basic information	Other information of interest	Climatic map		AUDIO
Information of interest	Other information of interest	Currency		AUDIO
Information of interest	Other information of interest	Population		AUDIO
Basic information	Other information of interest	Scale		AUDIO
Information of interest	Other information of interest	System of government or polity		AUDIO
Information of interest	Other information of interest	Cliff coast		P040
Basic information	Other information of interest	Directional arrow		P053
Information of interest	Other information of interest	Area		P080
Information of interest	Other information of interest	Birthrate		P080

Group	Subgroup	Map information	Symbol	ID
Information of interest	Other information of interest	Climate		P080
Information of interest	Other information of interest	Demographic group		P080
Information of interest	Other information of interest	Discovery		P080
Information of interest	Other information of interest	Drought		P080
Information of interest	Other information of interest	Economy and industry		P080
Information of interest	Other information of interest	Energy supply		P080
Information of interest	Other information of interest	Ethnicities		P080
Information of interest	Other information of interest	Geographical area		P080
Information of interest	Other information of interest	Import export goods		P080
Information of interest	Other information of interest	Language		P080
Information of interest	Other information of interest	Longitude and latitude		P080
Information of interest	Other information of interest	Meteorological phenomena		P080
Information of interest	Other information of interest	Mortality		P080

Group	Subgroup	Map information	Symbol	ID
Information of interest	Other information of interest	Nationality		P080
Information of interest	Other information of interest	Official language		P080
Information of interest	Other information of interest	Population data, gender, age		P080
Information of interest	Other information of interest	Population density		P080
Information of interest	Other information of interest	Religious affiliation		P080
Information of interest	Other information of interest	Temperature		P080
Information of interest	Other information of interest	Trade		P080
Information of interest	Other information of interest	Traditions and customs		P080
Network of transportation or transfers	Other information of Network of transportation or transfers	Subway Map		P081
Historical information	Palace	Palace		P069
Natural characteristic	Peninsular (Audio)	Peninsular		P089
Natural characteristic	Plain	Green field or valley		A18
Natural characteristic	Plain	Green field or valley		P073

Group	Subgroup	Map information	Symbol	ID
Natural characteristic	Plateau	Plateau		P083
Basic information	Prefecture	Prefecture borders		L14
Basic information	Prefecture	Prefecture or county or district		L14
Information of interest	Products theme depended	Products		P072
Information of interest	Products theme depended	Products Theme depended		P072
Basic information	Province	Province		L11
Network of transportation or transfers	Railway station	Railway station		P059
Basic information	Region or district	Region or district		L38
Basic information	River	River		L02
Network of transportation or transfers	Road network	Road network		L21
Network of transportation or transfers	Road network	Travel means		P091
Network of transportation or transfers	Road tolls	Road tolls		P046

Group	Subgroup	Map information	Symbol	ID
Network of transportation or transfers	Route	Route		L39
Network of transportation or transfers	Rural road	Rural road		L26
Basic information	Sea	Sea		A03
Natural characteristic	Sea gulf (Audio)	Sea gulf		AUDIO
Network of transportation or transfers	Sea transportation	Sea transportation		L12
Basic information	Settlement	Settlement		P037
Historical information	Shipwreck	Shipwreck		P094
Information of interest	Sight or attraction	Sight or attraction		P100
Information of interest	Ski resort	Ski resort		P097
Natural characteristic	Straits (Audio)	Straits		P093
Information of interest	Thermal water springs or SPA	Natural mineral water spring		P082
Information of interest	Thermal water springs or SPA	Thermal water springs or SPA		P082
Historical information	Trade route	Trade route		L29

Group	Subgroup	Map information	Symbol	ID
Network of transportation or transfers	Train network	Train network	- - - -	L22
Network of transportation or transfers	Tunnel	Tunnel		P006
Historical information	Unesco World Heritage	Unesco World Heritage		P035
Natural characteristic	Valley	Valley		A04
Natural characteristic	Valley	Valley		L15
Natural characteristic	Valley	Valley		P092
Natural characteristic	Vegetation zone	Vegetation zone		A02
Basic information	Village	Village		P055
Natural characteristic	Volcano	Volcano, active or inactive		P048
Information of interest	Water Dam	Water Dam		P068
Basic information	Water stream or channel	Channel		L18
Natural characteristic	Waterfall	Waterfall		P014
Basic information	Town	Town		P067

