

Annex FP94

Ticketing Inspection

Ver 1.0.

1. Optimal, operational and potentially automated on-board inspection of tickets and validity of the rights to use the public transport.
2. The inspection includes at least the following groups of processes:
 - 2.1. Central software for process management (back-office) of planning, managing and dispatching;
 - 2.2. Types of inspection that based on the predefined inspection areas, where any list of stops can be stated (from – to):
 - 2.2.1. route inspection (on regular route):
 - 2.2.1.1. for all vehicles within the inspection area;
 - 2.2.1.2. for any individual vehicles within the inspection area;
 - 2.2.1.3. within the range of defined stages of rout;
 - 2.2.2. raid inspection (group activity at stop point):
 - 2.2.2.1. within the specified time;
 - 2.2.2.2. in stop points chosen by drop-down list and to supplement it, if required;
 - 2.2.2.3. marker for inspection that accompanied by the city police, additionally to fix time of joining and leaving and ID of the police brigade;
 - 2.2.2.4. raid inspection lasts up to 3 minutes.
 - 2.2.3. inspection at the stop:
 - 2.2.3.1. within the specified time;
 - 2.2.3.2. at the defined stop;
 - 2.2.4. mobile inspection due to the defined inspection area;
 - 2.2.5. specially assigned inspection;
 - 2.3. Parameters, classes and their defined values can be added and changed with an option to delete by keeping historical data based on user rights.
3. Planning tool for scheduling in level from days to month:
 - 3.1. The work schedule of month – smooth planning of inspectors or group for each day based on templates;
 - 3.2. adjustment for the schedule – all changes should have fixed in log, provide special views what can to present changes vs origin;
 - 3.3. rights of correction in actual schedule have granted only for special role of user;
 - 3.4. any schedule is easy saved as template and can reproduced for another period or group;
 - 3.5. Inspectors can be combined to groups by inspection district where for each group ensured functionality to manage different settings;
 - 3.6. Any schedules of inspection district are available to viewing for managers of each district;
 - 3.7. task assignment can include combination of different types of inspection for one brigade or several joint brigades;
 - 3.8. have provide online elimination changes of the schedule in the inspector’s device.
4. Requirements related to the inspectors’ device:
 - 4.1. device unit is available and provided by several, at least two, suppliers (or producers) in market;

- 4.2. the warranty or post-warranty of the device may be maintained by any authorized company available on the market;
 - 4.3. operated on the standard operating system as Android or IOS or Microsoft windows;
 - 4.4. the architecture of software is modular and based on defined and published (open source) API;
 - 4.5. real-time contactless inspection with delay time not more 0,5sec;
 - 4.6. remote management of all devices by the central software – provide software upgrades, controlling of status of the device (including errors log) or remotely blocking;
 - 4.7. integrated printing device (printer);
 - 4.8. support Latvian language for screen, output and input;
 - 4.9. screen is capable to display variable-size fonts and with pronounced contrast;
 - 4.10. energy efficiency for not less 10 hours of continuously working without charging.
5. Actions to be taken during the inspection and data input to device:
 - 5.1. inspector identity before starting the inspection;
 - 5.2. list of job task for inspector;
 - 5.3. automated registration of the following data upon the inspection:
 - 5.3.1. type of inspection – regular, spot-check (raid), etc.;
 - 5.3.2. time stamp upon the start and finish of inspection;
 - 5.3.3. type and unique ID of vehicle;
 - 5.3.4. route and direction;
 - 5.3.5. the stop or other geolocation data upon the start and finish of inspection;
 - 5.3.6. data on inspection accompanied by the police – time stamp upon the start and finish of inspection, ID number of police team, several teams can be registered simultaneously;
 - 5.3.7. other statuses – lunchbreak, private, movement, damage, attack, etc.
 - 5.4. representation of automated decisions on fare penalty and instructions about required steps;
 - 5.5. upon type of penalties software provide appropriate fact registration and printouts such as receipt, invoice, Detention act, by including the following data:
 - 5.5.1. personal ID of suspended person;
 - 5.5.2. type of identification document and their number – ID card or passport;
 - 5.5.3. type of the penalties;
 - 5.5.4. tariff of the penalties;
 - 5.5.5. data related to the penalties detection;
 - 5.5.6. in case of onsite payment should input type of payment and the number of issued document;
 - 5.5.7. if the identity was fixed by the police, team ID must be registered;
 - 5.6. dedicated functionalities that provide error correction and penalty cancellation procedure must be include.
 6. Reports of schedules and inspection is available customized by:
 - 6.1. Represented period – month, quarter, year;
 - 6.2. number of inspected vehicles by types of inspections;
 - 6.3. number of registered penalties by types of inspection and penalties;

- 6.4. special report about fixed errors, corrections and penalty cancellation;
- 6.5. individual reports by inspector and inspection district – issued invoices, receipts, incorrect receipts, inaccurate receipts, incorrect invoices, inaccurate invoices, number of inspected vehicles, working time;
7. Reports have customization and exporting:
 - 7.1. quick and easy selection of any report;
 - 7.2. quick and easy customization for each data set presented in report due to parameters by “and/or/not” principles;
 - 7.3. all data table are exportable in structured file as xml, pdf and csv;
 - 7.4. adjustable layout of table by moving columns, showing / hiding of columns, arranging the table due to any parameter.
8. Dispatching workplace provide real time visual representation of inspection activities on map:
 - 8.1. map integration is based on open source map services (like as “Openstreetmap”);
 - 8.2. special user interface for customization as zoom in, zoom out, select are;
 - 8.3. representation about status of inspection is based on icon style and to show:
 - 8.3.1. type of inspection (events) and inspector ID, police team ID, station, area, district, activities (cancelled, invoices, receipts, errors);
 - 8.3.2. frequency of inspections;
 - 8.3.3. possibilities to play recorded route of selected inspector, including the activities performed.
9. At least 3 (three) levels of user role: administrator, operator and viewer:
 - 9.1. the administrator accesses all functional rights, including the user administration with password change, adding new users, granting and suspending user access rights;
 - 9.2. the operator accesses all functional capabilities, except for administration. Applicable groups for planning can be granted to the operators with limited access for the other operators – in the inspector stations;
 - 9.3. the viewer is not allowed for management and adjustment activities. Viewers can be divided into groups with different roles, where the list of roles and associated functionality is editable.
10. The planning includes the functionality that allows to define significance of various parameters and to change them flexibly, as well as to set the permitted derogation limits by simulating the outcome of each scenario and afterwards comparing them in different aspects.