Test cases

## **Test cases status**

|  |  |  |  |
| --- | --- | --- | --- |
| **Task** | **Test cases amount** | **Status** | **Comment** |
| 0080513: WP5: Different colours for train lines | 1 | **In progress** |  |
| 0080508: WP4: Background colour for GTT | 4 | **Published** | **Test results added** |
| 0084530: Event/conflict/alerts notifications in the sidebar | 4 | **Published** | **Deferred** |
| 0080520: WP5: Additional information for a train | 6 | **Published** | **Wait for bug fixes** |
| 0082737: Display on the WebGTT the status of the external systems/interfaces | 2 | **Published** | **Deferred** |
| 0080514: WP5: Different train style past/future/planned | 4 | **Published** | **Test results added** |
| 0080507: WP4: Follow current time function | 4 | **Published** | **Test results added** |
| [0082752: WP2: Dashboard - Select, load and save personal configurations](https://irs.hacon.de/mantis/view.php?id=82752) | 15+6 | **Published** | **Test results added** |
| [008052](https://irs.hacon.de/mantis/view.php?id=80523)3: WP6: Activate/deactivate restriction types in GTT | 4 | **Published** | **Test results added** |
| 00[8052](https://irs.hacon.de/mantis/view.php?id=80522)2: WP6: Restriction label in GTT | 8 | **Published** | **Wait for bug fixes** |
| 0080521: WP6: View restrictions in GTT | 4 | **Published** | **Test results added** |
| [0080503: WP3: View of station names](https://irs.hacon.de/mantis/view.php?id=80503) | 2 | **Published** | **Deferred (backend needed)** |
| [0080516:](https://irs.hacon.de/mantis/view.php?id=805160080516:) WP5: Dangerous good trains in GTT | 4 | **Published** | **Test results added** |
| [0080142: WP1: View several GTT windows at the same time](https://irs.hacon.de/mantis/view.php?id=80142) | 14 | **Published** | **Test results added** |
| [0080505: WP3: Scrolling in GTT](https://irs.hacon.de/mantis/view.php?id=80505) | 8 | **Published** | **Test results added** |
| [0080506: WP3: Zoom in GTT](https://irs.hacon.de/mantis/view.php?id=80506) | 4 | **Published** | **Wait for bug fixes** |
| [0080519: WP5: Activation/deactivation of objects in GTT](https://irs.hacon.de/mantis/view.php?id=80519) | 11 | **Published** | **Wait for bug fixes** |
| [0080504: WP3: Show station information](https://irs.hacon.de/mantis/view.php?id=80504) | 7 | **Published** | **Test results added** |
| [0080524: WP7: Event/conflict list in GTT](https://irs.hacon.de/mantis/view.php?id=80524) | 10 | **Published** | **Test results added** |
| [0080500 WP2: Open a predefined GTT](https://irs.hacon.de/irswiki/TpsCr/CustomerInnowise/ReqDisc80500_WP2%3A_Open_a_predefined_GTT?action=fullsearch&value=linkto%3A%22TpsCr/CustomerInnowise/ReqDisc80500+WP2%3A+Open+a+predefined+GTT%22&context=180) | 4 | **Published** | **Test results added** |
| [0080501 WP2: Open GTT by station sequence](https://irs.hacon.de/mantis/view.php?id=80501) | 22 + 7 | **Published** | **Test results added** |
| [0081653: WP2: Open a simple GTT](https://irs.hacon.de/mantis/view.php?id=81653) | 3 | **Published** | **Test results added** |
| [0080515: WP5: Train labels in GTT](https://irs.hacon.de/mantis/view.php?id=80515) | 4 | **Published** | **Test results added** |
| [0080502: WP3: Close a GTT window](https://irs.hacon.de/mantis/view.php?id=80502) | 8 | **Published** | **Test results added** |
| [0080143 WP1: Login window for web Ui is needed](https://irs.hacon.de/mantis/view.php?id=80143) | 3 | **Published** | **Test results added**  API test cases are not published yet |
| [0080512: WP1: Change language](https://irs.hacon.de/mantis/view.php?id=80512) | 4 | **Published** | **Test results added** |
| [0080510: WP1: Setup initial site framework](https://irs.hacon.de/mantis/view.php?id=80510) | 2 | **Published** | **Test results added** |

## 

## 

## **80143** [**WP1: Login window for web Ui is needed**](https://irs.hacon.de/irswiki/TpsCr/CustomerInnowise/TestDesc80143_WP1%3A_Login_window_for_web_Ui_is_needed?action=fullsearch&value=linkto%3A%22TpsCr/CustomerInnowise/TestDesc80143+WP1%3A+Login+window+for+web+Ui+is+needed%22&context=180)

### **Use cases**

#### **Use Case 1 : Correct login**

**Actor:** Admin, Superuser, User

**Action:** Login

**Result:** Start TPS Online

**Essence Steps**

1. Validate the user and pass
2. Redirect to the first page

#### **Use Case 2 : Wrong login**

**Actor:** Admin, Superuser, User

**Action:** Login with invalid username or password

**Result:** Show a message error

**Essence Steps**

1. Validate the user and pass without success
2. Maintain in login page and show the message with error "xxx" <!> (definition of the message)

#### **Use Case 3 : Password expired**

**Actor:** Admin, Superuser, User

**Action:** Login with password expired

**Result:** Show a message error

**Essence Steps**

1. Validate the user and pass without success (the password is expired)
2. Maintain in login page and show the message with error "xxx" <!> (definition of the message)

#### **Use Case 4: Characters validation**

**Actor:** Admin, Superuser, User

**Action:** Create a new password or a new user with invalid characters

**Result:** Show a message error to the user

**Essence Steps**

1. Validate the conditions (characters) to create a new user or password
   1. Conditions XXX <!> (update needed)
2. If everything ok with the characters validation
   1. Show the confirmation / success
   2. Redirect to the page XXX <!> (update needed)
3. Else
   1. Maintain in the current page
   2. Show a recommendation (according to the conditions) with allowed characters.

#### **Use Case 5: Short user or pass**

**Actor:** Admin, Superuser, User

**Action:** Create a new password or a new user with less than XXX ( <!> update needed) characters

**Result:** Show a message error to the user

**Essence Steps**

1. Maintain in the current page
2. Show a message error with the minimum number of characters.

#### **Use Case 6: Maximum attempts achieved**

**Actor:** Admin, Superuser, User

**Action:** Block the user account after exceed the maximum attempts

**Result:** Show a message error to the user

**Essence Steps**

1. Maintain in the current page
2. Show a message error with the error message (account blocked).

### **Test cases**

**Preconditions**:

Enne web client (Link) should be opened

#### **Test case 1. Activation of the “Login” button**

**Test Action**

1. Enter any data in Username and Password fields

2. Verify the "Login" button becomes active1.

**Expected Result**

1. The "Login" button should be active

**Result**

**Comment**

If the user enter any data in the one of the fields, the "Login" button should remain disabled

#### **Test case 2. Correct login**

**Test Action**

1. Enter valid Username (“ui\_test”) and Password (“ui\_test”)

2. Click "Login" button

**Expected Result**

1. User login successfully

2. The dashboard should be displayed

3. The data should be available according user's role

**Result**

**Comment**

#### **Test case 3. Wrong login**

**Test Action**

1.Enter Invalid Username (e.g. “123”) and Password (“ui\_test”) in corresponding fields

2. Click "Login" button

**Expected Result**

1. User does not login

2. The error message "The username or the password is not valid" should display under the "Username" and "Password" fields

**Result**

**Comment**

The following Username and Password combinations should work as shown in the decision table

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Username** | T | F | F | T |
| **Password** | F | T | F | T |
| **Login** | F | F | F | T |

### **API test cases**

#### **POST http://ec2-3-64-39-248.eu-central-1.compute.amazonaws.com/rest/login**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **№№** | **Test case** | **Pre-**  **conditions** | **Test steps** | **Test data** | **Expected result** | **Status** |
| **1.** | Login with valid Username and valid Password |  | 1. Enter Username | "userID": "ui\_test" | Status: 200 | **Pass** |
| 2. Enter Password | "password": “dWlfdGVzdA==" |
| **2.** | Login with invalid Username and valid Password |  | 1. Enter Username | "userID": "123" | Status: 401  Message: “Invalid username or password.” | **Pass** |
| 2. Enter Password | "password": “dWlfdGVzdA==" |
| **3.** | Login with valid Username and invalid Password |  | 1. Enter Username | "userID": "ui\_test" | Status: 401  Message: “Invalid username or password.” | **Pass** |
| 2. Enter Password | "password": “123" |
| **4.** | Login with invalid Username and invalid Password |  | 1. Enter Username | "userID": "123" | Status: 401  Message: “Invalid username or password.” | **Pass** |
| 2. Enter Password | "password": “123" |
| **5.** | Login with empty Username and valid Password |  | 1. Enter Username | "userID": "" | Status: 401  Message: “Invalid username or password.” | **Pass** |
| 2. Enter Password | "password": “dWlfdGVzdA==" |
| **6.** | Login with valid Username and empty Password |  | 1. Enter Username | "userID": "ui\_test" | Status: 401  Message: “Invalid username or password.” | **Pass** |
| 2. Enter Password | "password": “" |
| **7.** | Login with empty Username and empty Password |  | 1. Enter Username | "userID": "" | Status: 401  Message: “Invalid username or password.” | **Pass** |
| 2. Enter Password | "password": “" |
| **8.** | Login with valid Username and valid Password for different users |  | 1. Enter Username | "userID": "ui\_test2" | Status: 401  Message: “Invalid username or password.” | **Pass** |
| 2. Enter Password | "password": “dWlfdGVzdA==" |

## **80512** [**WP1: Change language**](https://irs.hacon.de/irswiki/TpsCr/CustomerInnowise/TestDesc80512_WP1%3A_Change_language?action=fullsearch&value=linkto%3A%22TpsCr/CustomerInnowise/TestDesc80512+WP1%3A+Change+language%22&context=180)

### **Use cases**

1.1. **Use case #1**:

1. Admin user language change

1.2. **Use case #2**:

Verify Language change in English

1.3. **Use case #3**:

Verify language change in Finnish

1.4. Use case #4: ... Edit

### **Test cases**

### **API test cases**

#### **GET http://ec2-3-64-39-248.eu-central-1.compute.amazonaws.com/rest/config**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **№№** | **Test case** | **Pre-**  **conditions** | **Test steps** | **Test data** | **Expected result** | **Status** |
| **1.** | Get global user-independent server configuration |  | 1. Send the request |  | Status: 200  "language": "English" | **Pass** |
| 2. Verify the "language" parameter in the response body has value "English" |  |
| **2.** | Get global user-independent server configuration |  | 1. Send the request |  | Status: 200  "tpsVersion": "5.8.4001.1", | **Pass** |
| 2. Verify the "tpsVersion"" parameter in the response body has value "5.8.4001.1", |  |
| **3.** | Get global user-independent server configuration |  | 1. Send the request |  | Status: 200  "protocolVersion": 1 | **Pass** |
| 2. Verify"protocolVersion" parameter in the response body has value 1 |  |

## **0080510: WP1: Setup initial site framework**

#### **Test case 1. Redirect to the login form**

**Test Actions**

1. Go to Web client (Link) page

**Expected Result**

1. The new tab in the browser should be opened.
2. Enne web client should be available.
3. The login form should display

**Result**

**Comment**

#### **Test case 2. Presence of elements**

**Test Action**

1. Go to the website (Link)

2. Verify the username and password field is present

**Expected Result**

1. The “Username” and “Password” field should present

**Result**

**Comment**

## **0080513: WP5: Different colours for train lines**

The system shall allow the user to view train lines in the GTT with fixed colour for different train types, (partially)-cancelled, edit box trains

### **Use Cases**

Actor: Superuser, User

Action: Display of GTT information

Preconditions: Open GTT

Result: Train information is properly displayed in the GTT

#### **Use Case 1**

In order to differentiate Trains from each other different trains are displayed by different colours

#### **Use Case 2**

Partially and completely cancelled trains are clearly distinguishable from normal trains

Related to the cancelled train, we don't have a forecast so, we didn't represent the forecast for this train. We represent only in GTT the plan line (gray). Example:

#### **Use Case 3**

## Edit-Box trains: because these trains are on "editing mode", the representation be made with glow lines (settings available in section 3 and more details in the #[80514](https://irs.hacon.de/mantis/view.php?id=80514) [ReqDisc](https://irs.hacon.de/irswiki/ReqDisc)).

#### **Use Case 4 : Customizing the train line colour**

#### Actor: Admin

## Action: Change the colour of one train line type - Setup Tool

## Preconditions:

## The train lines must be categorized according to type

## The Setup must have this feature

## Result: For a specific train line type, the colour is changed

### **Test Cases**

**Preconditions**:

1. User login the system with valid credentials (as {role})
2. The GTT window with train lines should be opened

#### **Test case 1. Displaying the train lines in different colors**

**Test Action**

1. Verify the train lines are displayed in different colours

**Expected Result**

1. The train lines should be displayed in different colours

**Result**

**Comment**

## **0080508: WP4: Background colour for GTT**

### **Use Cases**

The system shall allow the user to view background of past, forecast and future without forecast in different colours

#### **Use Case 1**

## Background colour of past is displayed slightly darker.

## The past, must occupied only 25% of the GTT. The remaining 75% must be to the forecast and future.

#### **Use Case 2**

## The horizontal grid-lines have small identations so that minutes can more easily be discerned

### **Test Cases**

**Preconditions**:

1. User login the system with valid credentials (as {role})
2. The Dashboard page (homepage) should be opened

#### **Test case 1. GTT background default state**

**Test Action**

1. Open a GTT in any way (e.g., click at any map area)
2. Verify the background for past (left to timeline) is in gray colour
3. Verify the background for future (right to timeline) is in white colour

**Expected Result**

1. GTT window should be opened
2. The background for past (left to timeline) should be in gray colour
3. The background for future (right to timeline) should be in white colour

**Result**

**Comment**

#### **Test case 2. GTT background in the past**

**Precondition:**

A GTT window should be opened

**Test Action**

1. Scroll the GTT to the left of the timeline
2. Click the datepicker field
3. Select any date in the past

**Expected Result**

1. The background for past should be in gray colour
2. The calendar should be opened
3. The calendar should be closed. The data corresponding to the selected date should be displayed in the GTT. The background for past should be in gray colour

**Result**

**Comment**

#### **Test case 3. GTT background in the future**

**Precondition:**

A GTT window should be opened

**Test Action**

1. Scroll the GTT to the right of the timeline
2. Click the datepicker field
3. Select any date in the future

**Expected Result**

1. The background for past should be in white colour
2. The calendar should be opened
3. The calendar should be closed. The data corresponding to the selected date should be displayed in the GTT. The background for the future should be in white colour

**Result**

**Comment**

#### **Test case 4. Timeline and time indicator default state**

**Test Action**

1. Open a GTT in any way (e.g., click at any map area)
2. Verify the timeline is displayed in a ratio of 25/75% horizontally in GTT by default
3. Verify the time indication matches the timeline by default

**Expected Result**

1. GTT window should be opened
2. The timeline should be displayed in a ratio of 25/75% horizontally in GTT by default
3. The time indication should match the timeline by default

**Result**

**Comment**

## **0084530: Event/conflict/alerts notifications in the sidebar**

The system shall present notifications to the user, every time a new event/alert/conflict occurs.

### **Test Cases**

### **Test Suite “Displaying conflict notification in the sidebar”**

**Preconditions**:

1. User login the system with valid credentials (as {role})
2. The Dashboard page (homepage) should be opened

#### **Test case 1. Displaying the notification on the sidebar (default view)**

**Test Action**

1. Verify the sidebar is displayed in reduced view by default
2. Verify the “clock” icon is displayed at the bottom of the sidebar
3. Additional step: Verify the red mark with a conflict number is displayed on the "clock" icon (in case there is at least one event is in the system)

**Expected Result**

1. The sidebar should be displayed in reduced view by default
2. The “clock” icon should be displayed at the bottom of the sidebar
3. Additional result: The red mark with a conflict number should be displayed on the "clock" icon (in case there is at least one event is in the system)

**Result**

**Comment**

#### **Test case 2. Open the sidebar. Conflict notification displaying**

**Test Action**

1. Click any area in the sidebar

**Expected Result**

1. The sidebar should be displayed in an expanded view. The conflict notification should be displayed at the bottom of the sidebar

#### **Test case 3. Presence of elements at the conflict notification**

**Test Action**

1. Click any area in the sidebar
2. Verify the exclamation icon is displayed at the conflict notification
3. Verify the “New Conflict” title is displayed at the conflict notification
4. Verify the short description of the conflict is displayed at the conflict notification
5. Verify the “View” button is displayed at the conflict notification
6. Verify the “cross” icon is displayed at the conflict notification

**Expected Result**

1. The sidebar should be displayed in an expanded view. The conflict notification should be displayed at the bottom of the sidebar
2. The exclamation icon should be displayed at the conflict notification
3. The “New Conflict” title should be displayed at the conflict notification
4. The short description of the conflict should be displayed at the conflict notification
5. The “View” button should be displayed at the conflict notification
6. The “cross” icon should be displayed at the conflict notification

#### **Test case 4. Close the conflict notification**

**Test Action**

1. Click “cross” icon at the conflict notification

**Expected Result**

1. The conflict notification should be closed

## **0080520: WP5: Additional information for a train**

### **Use Cases**

The system shall allow the user to open a dialog with more detailed information for a train

#### **Use Case 1**

In GTT, the user must be capable to see more details about one specific train. When the user click over one train, one tooltip/pop-up with more details about the current train, must be show to the user.

### **Test Cases**

### **Test Suite “Train tooltips at hovering”**

**Preconditions**:

1. User login the system with valid credentials (as {role})
2. The GGT window with the train lines should be opened

#### **Test case 1. Displaying the additional train information by hovering a train line**

**Test Action**

1. Hover any train line with mouse cursor

**Expected Result**

1. The train line should be highlighted. The tooltip with additional train information should be displayed in a second. The GTT should continue to update (move)

**Result**

**Comment**

The test case is applicable to both train lines in the past in solid style and in the future in dotted style

#### **Test case 2. Presents of the elements on the tooltip**

**Test Action**

1. Hover any train line with mouse cursor
2. Verify the tooltips title corresponds to the train number shown in the label
3. Verify the column headings ("Priority", "Length", "Weight", "Max speed", "Locomotive", “Operator”) are displayed in the tooltip

**Expected Result**

1. The tooltip with additional train information should be displayed in a second
2. The tooltips title should correspond to the train number shown in the label
3. The column headings ("Priority", "Length", "Weight", "Max speed", "Locomotive", “Operator”) should be displayed in the tooltip

**Result**

**Comment**

#### **Test case 3. Hide the train tooltip**

**Test Action**

1. Hover any train line with mouse cursor
2. Move the mouse cursor from the selected train line

**Expected Result**

1. The train line should be highlighted. The tooltip with additional train information should be displayed in a second
2. The train line should be displayed in the default state. The trains tooltip should disappear

**Result**

**Comment**

The tooltip is also closed by scroll and zoom action.

#### **Test case 4. Train tooltip with the context menu**

**Test Action**

1. Open the context menu with the right click on the GTT
2. Hover any train line with mouse cursor close to the context menu

**Expected Result**

1. The context menu should be opened
2. The train line should be highlighted. The context menu should partially overlap the tooltip

**Result**

**Comment**

Context menu takes precedence over tooltips

### **Test Suite “Train tooltips at clicking”**

#### **Test case 1. Displaying the additional train information by clicking a train line**

**Test Action**

1. Hover any train line with mouse cursor
2. Click the train line

**Expected Result**

1. The train line should be highlighted
2. The train tooltip should be displayed. The GTT should stop updating (moving)

**Result**

**Comment**

The test case is applicable to both train lines in the past in solid style and in the future in dotted style

#### **Test case 2. Permanence of the train tooltip**

**Test Action**

1. Hover any train line with mouse cursor
2. Click the train line
3. Hover any other object in the GTT (e.g., other train line or a restriction)
4. Click any other object in the GTT (e.g., other train line or a restriction)

**Expected Result**

1. The train line should be highlighted
2. The train tooltip should be displayed
3. The tooltip opened in step 2 should remain displaying without changes
4. The tooltip opened in step 2 should remain displaying without changes

**Result**

**Comment**

#### **Test case 3. Close the train tooltip**

**Test Action**

1. Hover any train line with mouse cursor
2. Click the train line
3. Click the “cross” icon at the tooltip

**Expected Result**

1. The train line should be highlighted
2. The train tooltip should be displayed
3. The tooltip should be closed. The GTT should jump to the current time position **Result**

**Comment**

It is possible to close the train tooltip by opening a context menu. The tooltip is also closed by scroll and zoom action

## **0082737: Display on the WebGTT the status of the external systems/interfaces**

## The system shall present to the user, a notification when one or more external systems or interfaces aren't available (and for this reason, we don't receive the more recent data and the GTT can be outdated).

### **Use Cases**

#### **Use Case 1**

## Actor: System

## Action: Display all the Interfaces with connection problems

## Preconditions: Case #[0082729](https://irs.hacon.de/mantis/view.php?id=0082729) resolved

## Result: The user can see at the top of the screen the Interfaces with problems

### **Test Cases**

**Preconditions**:

1. User login the system with valid credentials (as {role})
2. The Dashboard page (the home page) should be opened

#### **Test case 1. Displaying the JETI icon at the connection problems**

**Test Action**

1. Verify the JETI icon is not displayed in the header by default
2. Imitate the connection problems (e.g. switch to the offline mode in the browser devTools)
3. Open a GTT in any way (e.g., click at any map area)

**Expected Result**

1. The JETI icon should not be displayed in the header by default
2. The connection should be interrupted
3. The JETI icon should be displayed in the header at the connection problems

**Result**

**Comment**

#### **Test case 2. The JETI icon disappears at the connection restore**

**Preconditions**:

1. The JETI icon should be displayed in the header

**Test Action**

1. Restore the connection (e.g. switch to the “No throttling” mode in the browser devTools)
2. Open a GTT in any way (e.g., click at any map area)

**Expected Result**

1. The connection should be restored
2. The GTT window should be opened. The JETI icon should disappeared from the header

**Result**

**Comment**

## **0080514: WP5: Different train style past/future/planned**

### **Use Cases**

#### **Use Case 1**

I want to see past train movement distinctively

#### **Use Case 2**

I want to see forecasted train movement distinctively

#### **Use Case 3**

I want to see planned train movement distinctively

### **Test Cases**

**Preconditions**:

1. User login the system with valid credentials (as {role})
2. The Dashboard page (the home page) should be opened

#### **Test case 1. Train lines displaying**

**Test Action**

1. Open GTT window with train lines (e.g., via train number - 2309)
2. Verify the trains lines are displayed in the past and in the future on both sides of the timeline

**Expected Result**

1. The GTT window should be opened
2. The trains lines should be displayed in the past and in the future on both sides of the timeline

**Result**

**Comment**

Train lines colours depend on train type (blue for Freight trains, red for Passenger trains, black for Locomotives)

#### **Test case 2. Train lines displaying in the past**

**Preconditions**:

1. A GTT window with train lines should be opened

**Test Action**

1. Verify the trains lines are displayed as solid bold in the past (left from the timeline)
2. Click the datepicker field
3. Select any date in the past (with train lines)

**Expected Result**

1. The trains lines should be displayed as solid bold in the past
2. The calendar should be opened
3. The calendar should be closed. The data corresponding to the selected date should be displayed in the GTT. All the train lines should be displayed as solid bold

**Result**

**Comment**

#### **Test case 3. Train lines displaying in the future**

**Preconditions**:

1. A GTT window with train lines should be opened

**Test Action**

1. Verify the trains lines are displayed as dotted in the future (right from the timeline)
2. Click the datepicker field
3. Select any date in the future (with train lines)

**Expected Result**

1. The trains lines should be displayed as solid in the past
2. The calendar should be opened
3. The calendar should be closed. The data corresponding to the selected date should be displayed in the GTT. All the train lines should be displayed as dotted

**Result**

**Comment**

#### **Test case 4. Displaying planned train lines**

**Preconditions**:

1. A GTT window with train lines should be opened

**Test Action**

1. Verify the trains lines are displayed as solid thin both in the past and in the future (left and right from the timeline)

**Expected Result**

1. The trains lines should be displayed as solid in the past

**Result**

**Comment**

## **0080507: WP4: Follow current time function**

As a Dispatcher, I want to jump to jump to current time and that the system follows current time afterwards automatically

**Use Cases**

#### **Use Case 1 : Jump to current time**

## If the user is not on current time, then there will be a timer icon visible. Clicking on the icon will jump the GTT to current time.

## If the user is not on current time, then there will be a timer icon visible as one can see in the mockup (use this icon: <https://fonts.google.com/icons?selected=Material+Icons&icon.query=timer>)

#### **Use Case 2 : System following current time automatically when user is on current time**

### If the user jumps to current time, the system (GTT-Area) will auto-scroll in time respecting the 25% for past and 75% for forecast and future

#### **Use Case 3 : System following current time when user is not on current time**

## If the user is in the future, for example four hours, the GTT must be preserved (in time) until "current time" catches up with GTT time (i.e. after 4h). The autoscroll will only start when GTT time is equivalent to current time.

### **Test Cases**

### **Test Suite “Jump to current time function”**

**Preconditions**:

1. User login the system with valid credentials (as {role})

#### **Test case 1. Default state of timer**

**Preconditions**:

1. The Dashboard page (the home page) should be opened

**Test Action**

1. Open the GTT window (e.g. by clicking area on the map)
2. Verify the time indicator is displayed in the same position with the timeline
3. Verify a clock icon displayed in blue and white colours
4. Verify the timepicker and datepicker fields are displayed in blue

**Expected Result**

1. The GTT window should be opened
2. The time indicator should displayed in the same position with the timeline
3. The clock icon should be displayed in blue and white colours
4. The timepicker and datepicker fields should be displayed in blue

**Result**

**Comment**

#### **Test case 2. State of timer at non current time**

**Preconditions**:

1. The GTT window should be opened

**Test Action**

1. Drag GTT with mouse to the left or right
2. Verify the time indicator is displayed in the different position with the timeline
3. Verify a timer icon displayed in grey and blue colours.
4. Verify the timepicker and datepicker fields are displayed in grey

**Expected Result**

1. All the elements and the time grid on GTT should be moved according the mouse movement
2. The time indicator should displayed in the different position with the timeline
3. The timer icon should be displayed in grey and blue colours.
4. The timepicker and datepicker fields should be displayed in grey

**Result**

**Comment**

#### **Test case 3. Return to current time**

**Preconditions**:

1. The GTT window should be opened

**Test Action**

1. Drag GTT with mouse to the left or right
2. Click the timer icon

**Expected Result**

1. All the elements and the time grid on GTT should be moved according to the mouse movement. The new value should be displayed in timepicker field
2. The time indicator should be displayed in the same position with the timeline. The timer icon should be replaced with the clock icon in blue and white colours. The timepicker and datepicker fields should be displayed in blue. The current time should be displayed in the timepicker and datepicker fields

**Result**

**Comment**

The test case is applicable also for the datepicker field in case the scroll crosses over the day border.

#### **Test case 4. Return to from another date**

**Preconditions**:

1. The GTT window should be opened

**Test Action**

1. Click datepicker field
2. Select any date if the calendar (e.g. in another month)
3. Click the timer icon

**Expected Result**

1. The calendar should be opened
2. All the elements and the time grid on GTT should be moved according to the mouse movement. The new value should be displayed in timepicker field
3. The time indicator should be displayed in the same position with the timeline. The timer icon should be replaced with the clock icon in blue and white colours. The timepicker and datepicker fields should be displayed in blue. The current time should be displayed in the timepicker and datepicker fields

**Result**

**Comment**

The test case is applicable also for the datepicker field in case the scroll crosses over the day border.

## **0082752: WP2: Dashboard - Select, load and save personal configurations**

## As a User, I would like to get operational quickly after login

## As a user I would like to open a GTT quickly by clicking on one of the configuration tiles on the left hand side

## As a user I would like to add a configuration tile

## As a user I would like to edit a configuration tile

## This [ReqDisc](https://irs.hacon.de/irswiki/ReqDisc) refers to the map based GTT-selection, for the user-input based GTT-selection please consult <https://irs.hacon.de/mantis/view.php?id=80501>

### **Use Cases**

## Actor: Superuser, User

## Action: Clicking a button

## Preconditions: Being logged-in to the system

## Result: A new configuration "card" will be loaded / generated / edited

#### **Use Case 1**

## On the dashboard screen the user wants to open an additional GTT quickly by clicking on one of the configuration tiles, which in turn will load the GTTs which are written on this card.

#### **Use Case 2**

## The User wants to add a configuration tile, by clicking on the "plus" icon right of "Configuration"

#### **Use Case 3**

## The user wants to edit one of the configuration tiles by clicking on the pencil icon of one of the tiles

## 

### **Test Cases**

### **Test Suite “Add new configuration” (Use Case 2, Use Case 1)**

**Preconditions**:

1. User login the system with valid credentials (as {role})
2. The dashboard page (the home page) should be opened

#### **Test case 1. Presence of the “Configurations” block**

**Test Action**

1. Verify a “Configurations” title is present at the Dashboard page
2. Verify a “plus” button is present next to the “Configurations” title
3. Additional step: Verify the tiles of saved configurations are displayed in the “Configurations” block (if there are any saved configurations for current user)

**Expected Result**

1. The “Configurations” title should be displayed at the Dashboard page
2. The “plus” button should be displayed next to the “Configurations” title
3. Additional step: The tiles of saved configurations should be displayed in the “Configurations” block (if there are any saved configurations for current user)

**Result**

**Comment**

If the selected user does not have any saved configurations, they will be created during the execution of current test suite

#### **Test case 2. The work of “add” button**

**Test Action**

1. Click the a “plus” button next to the “Configurations” title

**Expected Result**

1. The “Edit Configuration” block should be displayed at the Dashboard page

**Result**

**Comment**

#### **Test case 3. Presence of elements in the “Edit Configuration” block**

**Test Action**

1. Click the a “plus” button next to the “Configurations” title
2. Verify a “Edit Configuration” title is present at the Dashboard page
3. Verify an input field for the configuration title with the “Control Area” placeholder is present on the tile
4. Verify the “delete” icon is displayed next to the input field
5. Verify the “Dispatch Areas” inscription is present on the tile
6. Verify the “Load Open GTTs” button is present on the tile
7. Verify the “Save Configuration” button is present under the title disable by default

**Expected Result**

1. The “Edit Configuration” block should be displayed at the Dashboard page
2. The “Edit Configuration” title should be displayed at the Dashboard page
3. The input field for the configuration title with the “Control Area” placeholder should be displayed on the tile
4. The “delete” icon should be displayed next to the input field
5. The “Dispatch Areas” inscription should be displayed on the tile
6. The “Load Open GTTs” button should be present on the tile
7. The “Save Configuration” button should be present under the title disable by default

**Result**

**Comment**

#### **Test case 4. Activating the "Save configuration" button**

**Preconditions**:

1. The “Edit Configuration” block should be displayed at the Dashboard page

**Test Action**

1. Fill the input field with the “Control Area” placeholder with any valid data

**Expected Result**

1. The entered data should be displayed in the input field. The “Control Area”placeholder should disappear. The “Save Configuration” button should become active

**Result**

**Comment**

It is possible to save a configuration without added GTT

#### **Test case 5. Work of "Save configuration" button (negative)**

**Preconditions**:

1. The “Edit Configuration” block should be displayed at the Dashboard page

**Test Action**

1. Fill the input field with the “Control Area” placeholder with any valid data
2. Remove the data from the input field

**Expected Result**

1. The entered data should be displayed in the input field. The “Control Area” placeholder should disappear. The “Save Configuration” button should become active
2. The “Save Configuration” button should become inactive. The “Control Area” placeholder should be displayed in the input field. The input field should be underlined with the red line.

**Result**

**Comment**

It is impossible to save a configuration without a title

#### **Test case 6. Delete the new configuration**

**Preconditions**:

1. The “Edit Configuration” block should be displayed at the Dashboard page

**Test Action**

1. Fill the input field with the “Control Area” placeholder with any valid data
2. Click the “delete” icon
3. Click the “plus” button next to the “Configurations” title
4. Verify the changes entered in step 1 are rejected. The input field is displayed empty with the “Control Area” placeholder

**Expected Result**

1. The entered data should be displayed in the input field. The “Control Area” placeholder should disappear. The “Save Configuration” button should become active
2. The “Edit Configuration” block should disappear from the Dashboard page. The “Configurations” block should be displayed at the Dashboard page. No additional tile should be displayed in the “Configurations” block
3. The “Edit Configuration” block should be displayed at the Dashboard page
4. The changes entered in step 1 should be rejected. The input field should be displayed empty with the “Control Area” placeholder

**Result**

**Comment**

#### **Test case 7. Addition the single opened GTTs in the configuration tile**

**Preconditions**:

1. At least one single GTT should be opened. The Dashboard page should be opened. The GTT tab should be displayed at the Dashboard page

**Test Action**

1. Click the “plus” button next to the “Configurations” title
2. Click the “Load Open GTTs” button

**Expected Result**

1. The “Edit Configuration” block should be displayed at the Dashboard page
2. The opened GTT station abbreviations should be displayed on the configuration tile as “chips”

**Result**

**Comment**

#### **Test case 8. Addition the multiple opened GTTs in the configuration tile (only multiple)**

**Preconditions**:

1. At least one multiple GTT should be opened. The Dashboard page should be opened. The GTT tab should be displayed at the Dashboard page

**Test Action**

1. Click the “plus” button next to the “Configurations” title

**Expected Result**

1. The “Edit Configuration” block should be displayed. The “Load Open GTTs” button should be disabled. It is impossible to upload multiple GTTs tab on the configuration tile

**Result**

**Comment**

#### **Test case 9. Addition the multiple opened GTTs in the configuration tile (single and multiple)**

**Preconditions**:

1. At least one single GTT should be opened
2. At least one multiple GTT should be opened
3. The Dashboard page should be opened. The GTT tabs should be displayed at the Dashboard page

**Test Action**

1. Click the “plus” button next to the “Configurations” title
2. Click the “Load Open GTTs” button

**Expected Result**

1. The “Edit Configuration” block should be displayed at the Dashboard page. The “Load Open GTTs” button should be active
2. The opened single GTT station abbreviations should be displayed on the configuration tile as “chips”. The multiple GTTs tab should not be uploaded. It is impossible to upload multiple GTTs tab on the configuration tile

**Result**

**Comment**

#### **Test case 10. Addition the area on the configuration tile**

**Test Action**

1. Click the “plus” button next to the “Configurations” title
2. Click at any map area

**Expected Result**

1. The “Edit Configuration” block should be displayed at the Dashboard page
2. The selected area should be displayed in the configuration tile as “chips”

**Result**

**Comment**

The test case is applicable for both maps - Finland and Helsinki

#### **Test case 11. Presence of elements on the “chips”**

**Preconditions**:

1. The “Edit Configuration” block should be displayed at the Dashboard page
2. At least one “chip” should be displayed on the configuration tile

**Test Action**

1. Verify the areas name is present on the “chip” for an area
2. Verify the station abbreviations are present on the “chip” for a single GTT
3. Verify the “cross” button is present on the chip

**Expected Result**

1. The areas name should be present on the “chip” for an area
2. The station abbreviations should be present on the “chip” for a single GTT
3. The “cross” button should be present on the chip

**Result**

**Comment**

#### **Test case 12. Delete the “chips”**

**Preconditions**:

1. The “Edit Configuration” block should be displayed at the Dashboard page
2. At least one “chip” should be displayed on the configuration tile

**Test Action**

1. Click the “cross” button on the chip

**Expected Result**

1. The selected “chip” should be removed configuration tile

**Result**

**Comment**

#### **Test case 13. Toggle behavior of the map areas**

**Preconditions**:

1. The “Edit Configuration” block should be displayed at the Dashboard page

**Test Action**

1. Click at any map area
2. Click the same map area again

**Expected Result**

1. The selected area should be displayed in the configuration tile as “chips”
2. The corresponded “chip” should be removed configuration tile

**Result**

**Comment**

#### **Test case 14. “Load Open GTTs” button behaviour**

**Preconditions**:

1. At least one single GTT should be opened

**Test Action**

1. Click the “plus” button next to the “Configurations” title
2. Remove all the opened single GTTs tabs

**Expected Result**

1. The “Edit Configuration” block should be displayed. The “Load Open GTTs” button should be active
2. The “Load Open GTTs” button should become disabled

**Result**

**Comment**

The test case is also applicable for multiple GTTs tabs. If only multiple GTTs tabs are in the tabs line, the “Load Open GTTs” button should be disabled

#### **Test case 15. Open new GTT while edit configuration**

**Test Action**

1. Click the “plus” button next to the “Configurations” title
2. Upload GTTs (e.g., by clicking any map area)
3. Open a new GTTs tab (e.b. by train number)
4. Click “dashboard” button

**Expected Result**

1. The “Edit Configuration” block should be displayed at the Dashboard page
2. The “chips” with the area's name or station abbreviation should be displayed on the tile
3. The new opened GTT window should be opened
4. The tile opened in step 1 should be opened in edit mode. The all the “chips” added in step 2 should be removed.

**Result**

**Comment**

If the configuration tile is not saved, the “chips” will be removed after opening the new GTT. The same at switching to opened GTT

#### **Test case 16. Create a new configuration**

**Test Action**

1. Click the “plus” button next to the “Configurations” title
2. Fill the input field with the “Control Area” placeholder with any valid data
3. Upload GTTs (e.g., by clicking any map area)
4. Click “Save Configuration” button

**Expected Result**

1. The “Edit Configuration” block should be displayed at the Dashboard page
2. The entered data should be displayed in the input field. The “Control Area” placeholder should disappear. The “Save Configuration” button should become active
3. The “chips” with the area's name or station abbreviation should be displayed on the tile.
4. The “Edit Configuration” block should disappear from the Dashboard page. The “Configurations” block should be displayed at the Dashboard page. The new tile should be displayed in the “Configurations” block. The title should display the value, entered in step 2. The areas and GTTs station abbreviations should be displayed on the tile.

**Result**

**Comment**

#### **Test case 17. Open GTTs by configuration card**

**Preconditions**:

1. At least one configuration card should be created
2. At least one GTT should be uploaded to the configuration card
3. The Dashboard page should be displayed
4. No GTT tabs should be open

**Test Action**

1. Click the configuration card from preconditions
2. Click “dashboard” button
3. Verify the number of opened GTTs tabs matches the number of “chips” on the opened card.

**Expected Result**

1. The GTTs tab(s) should be opened. The focus should be on the last GTT on the card.
2. The Dashboard page should be displayed
3. The number of opened GTTs tabs should match the number of “chips” on the opened card.

**Result**

**Comment**

### **Test Suite “Edit a configuration” (Use Case 3)**

**Preconditions**:

1. User login the system with valid credentials (as {role})
2. The dashboard page (the home page) should be opened
3. At least one configuration tile should be displayed at the “Configurations” block

#### **Test case 1. Presence of elements in the configuration tile**

**Test Action**

1. Verify the title is present on the configuration tile
2. Verify the “edit” icon is present on the tile
3. Verify the “Dispatch Areas” inscription is present on the tile
4. Additional step: verify the dispatch areas or station abbreviations are present on the tile (if there are any)

**Expected Result**

1. The title should be displayed on the tile
2. The “edit” icon should be displayed on the tile
3. The “Dispatch Areas” inscription should be displayed on the tile
4. Additional step: the dispatch areas or station abbreviations should be displayed on the tile (if there are any)

**Result**

**Comment**

#### **Test case 2. Work of "edit" icon**

**Test Action**

1. Click the “edit” icon on the configuration tile

**Expected Result**

1. The tile should be displayed in edit mode. The “Edit Configuration” title should be displayed at the Dashboard page. The “Load Open GTTs” button should be present on the tile. The dispatch areas or station abbreviations should be displayed as “chips”. The “Save Configuration” button should be present under the title

**Result**

**Comment**

#### **Test case 3. Exit from edit mode without applying the changes**

**Test Action**

1. Click the “edit” icon on the configuration tile
2. Make some changes (e.g., change the title)
3. Click “dashboard” button

**Expected Result**

1. The tile should be displayed in edit mode. The “Edit Configuration” title should be displayed at the Dashboard page
2. The changes are displayed in the tile (changed title for this case)
3. The “Edit Configuration” block should disappear from the Dashboard page. The “Configurations” block should be displayed at the Dashboard page. All the changes from stept 2 should be rejected. The tile should be displayed the same as before the test

**Result**

**Comment**

#### **Test case 4. Edit the configuration**

**Test Action**

1. Click the “edit” icon on the configuration tile
2. Make some changes (e.g., change the title)
3. Click “Save Configuration” button

**Expected Result**

1. The tile should be displayed in edit mode. The “Edit Configuration” title should be displayed at the Dashboard page
2. The changes are displayed in the tile (changed title for this case)
3. The “Edit Configuration” block should disappear from the Dashboard page. The “Configurations” block should be displayed at the Dashboard page. The tile should be displayed with the changes applied in step 2

**Result**

**Comment**

#### **Test case 5. Open new GTT while edit configuration**

**Preconditions**:

1. The configuration tile should contain at least one “chip”

**Test Action**

1. Click the “edit” icon on the configuration tile from the preconditions
2. Open a new GTTs tab (e.b. by train number)
3. Click “dashboard” button

**Expected Result**

1. The tile should be displayed in edit mode. The “Edit Configuration” title should be displayed at the Dashboard page
2. The new opened GTT window should be opened
3. The tile opened for editing in step 1 should be opened in edit mode. The all the “chips” on the configuration tile should remain without changes

**Result**

**Comment**

The same at switching to opened GTT

#### **Test case 6. Delete the configuration**

**Test Action**

1. Click the “edit” icon on the configuration tile
2. Click “delete” icon

**Expected Result**

1. The tile should be displayed in edit mode. The “Edit Configuration” title should be displayed at the Dashboard page
2. The “Edit Configuration” block should disappear from the Dashboard page. The “Configurations” block should be displayed at the Dashboard page. The tile should disappeared from the Dashboard page

**Result**

**Comment**

## **0080523: WP6: Activate/deactivate restriction types in GTT**

### **Use cases**

The system shall allow the user to activate and deactivate restriction types in GTT.

#### **Use Case 1 : Show/Hide restrictions in GTT**

**Actor**

User, System

**Action**

Enable or Disable restrictions types

**Preconditions**

Restrictions in GTT

**Result**

If one restriction type is disabled, the GTT must filter and hide all such restrictions.

### **Test cases**

**Preconditions**:

1. User login the system with valid credentials (as {role})
2. The GTT window with at least one restriction should be displayed on the GTT

#### **Test case 1. Presence of the restrictions filters section**

**Test Action**

1. Open the “View Settings” dropdown menu (e.g., by clicking “View Settings” button)
2. Verify the “Restrictions” section is present in the “View Settings” dropdown menu

**Expected Result**

1. The “View Settings” dropdown menu should be opened
2. The “Restrictions” section should be present in the “View Settings” dropdown menu

**Result**

**Comment**

#### **Test case 2. Presence of the elements at the restrictions filters section**

**Preconditions**:

1. The “View Settings” dropdown menu should be opened

**Test Action**

1. Verify the “Closed for Electric Traffic” checkbox is present in the drop-down menu
2. Verify the “Capacity Reservation” checkbox is present in the drop-down menu
3. Verify the “Closed for Traffic” checkbox is present in the drop-down menu
4. Verify the “Speed Restrictions” checkbox is present in the drop-down menu
5. Verify the “Traffic Conditions” checkbox is present in the drop-down menu
6. Verify the “Other Notifications” checkbox is present in the drop-down menu

**Expected Result**

1. The “Closed for Electric Traffic” checkbox should be displayed in the drop-down menu
2. The “Capacity Reservation” checkbox should be displayed in the drop-down menu
3. The “Closed for Traffic” checkbox should be displayed in the drop-down menu
4. The “Speed Restrictions” checkbox should be displayed in the drop-down menu
5. The “Traffic Conditions” checkbox should be displayed in the drop-down menu
6. The “Other Notifications” checkbox should be displayed in the drop-down menu

**Result**

**Comment**

#### **Test case 3. Default state of the restrictions filters**

**Preconditions**:

1. The “View Settings” dropdown menu should be opened

**Test Action**

1. Verify the “Closed for Electric Traffic” checkbox is enabled by default
2. Verify the “Capacity Reservation” checkbox is enabled by default
3. Verify the “Closed for Traffic” checkbox is enabled by default
4. Verify the “Speed Restrictions” checkbox is disabled by default
5. Verify the “Traffic Conditions” checkbox is disabled by default
6. Verify the “Other Notifications” checkbox is disabled by default

**Expected Result**

1. The “Closed for Electric Traffic” checkbox should be enabled by default
2. The “Capacity Reservation” checkbox should be enabled by default
3. The “Closed for Traffic” checkbox should be enabled by default
4. The “Speed Restrictions” checkbox should be disabled by default
5. The “Traffic Conditions” checkbox should be disabled by default
6. The “Other Notifications” checkbox should be disabled by default

**Result**

**Comment**

The data corresponding to the selected by default filters should be displayed in the GTT

#### **Test case 4. Change a check-box status**

**Preconditions**:

1. The “View Settings” dropdown menu should be opened

**Test Action**

1. Click any checkbox in the “Restriction” section (e.g. disable the “Closed for Electric Traffic" checkbox)

**Expected Result**

1. The check-box should change its status (disabled for this case). Appropriate changes should be immediately applied to GTT (“Closed for Electric Traffic" should be disappear from the GTT for this case)

**Result**

**Comment**

The test case can be applied to all check-boxes in the restrictions drop-down menu

## **0080522: WP6: Restriction label in GTT**

### **Use cases**

## The system shall allow the user to view a restriction label with information about the restriction

<!> **ATTENTION: The definition of *label* in this case is similar to a tooltip or popup window.**

The information that is available for a restriction in ENNE should also be visible in the WebGTT within a label.

#### **Use Case 1 : Show Restriction Label/Tooltip/PopUp**

**Actor**

System, User

**Action**

Collect available information about the selected restriction and display inside a label/tooltip

**Preconditions**

Mouse over the restriction / Click over the restriction

**Result**

Show to the user the label/tooltip

Currently, in TPS we have the following information related to one restriction.

### **Test cases**

**Preconditions**:

1. User login the system with valid credentials (as {role})
2. The GTT window with at least one restriction should be opened

#### **Test case 1. Presence the elements on the restriction’s rectangle**

**Test Action**

1. Verify a restriction ID is present at the rectangle
2. Verify a Dispatching area is present at the rectangle
3. Verify a Name is present at the rectangle
4. Verify an Area is present at the rectangle
5. \*Additional step: verify the alerting “fire” icon is present at the rectangle (if there are any fire work involved)

**Expected Result**

1. The restriction ID should be displayed at the rectangle (e.g., 46589)
2. The Dispatching area should be displayed at the rectangle (e.g., “Hame”)
3. The Name should be displayed at the rectangle (e.g., “E474”)
4. The Area should be displayed at the rectangle (e.g., “Liikennepaikka alkaa”)
5. \*Additional step: the alerting “fire” icon should be present at the rectangle (if there are any fire work involved)

**Result**

**Comment**

Is not fully implemented - backend needed. **Screenshot testing evidence needed**

### **Test Suite “Restriction tooltips at hovering”**

#### **Test case 1. Displaying the additional restriction information by hovering a restriction**

**Test Action**

1. Hover any restriction with mouse cursor

**Expected Result**

1. The restriction should be highlighted. The tooltip with additional information about the restriction should be displayed in a second

**Result**

**Comment**

#### **Test case 2. Presents of the elements on the restriction tooltip**

**Test Action**

1. Hover any restriction with mouse cursor
2. Verify the tooltips title corresponds to the restrictions name shown in the rectangle
3. Verify the section headings ("Start", "End", "Work Description", "Remarks") are displayed in the tooltip
4. \*Additional step: verify the alerting “fire” icon is present at the tooltips title (if there are any fire work involved)

**Expected Result**

1. The tooltip with additional train information should be displayed in a second
2. The tooltips title should correspond to the restrictions name shown in the rectangle
3. The section headings ("Start", "End", "Work Description", "Remarks") should be displayed in the tooltip
4. \*Additional step: the alerting “fire” icon should be present at the tooltips title (if there are any fire work involved)

**Result**

**Comment**

**Test case 3. Priority of the restriction tooltip**

**Preconditions**

1. The GTT should contain the train lines and restrictions. A restriction should overlap at least one train line.

**Test Action**

1. Hover the restriction from preconditions over the train line with mouse cursor

**Expected Result**

1. The restriction should be highlighted. The restrictions tooltip should be displayed in a second. The train label should not be highlighted. The train's tooltip should not be displayed.

**Result**

**Comment**

Restriction information is more prior than train information.

#### **Test case 4. Hide the restriction tooltip**

**Test Action**

1. Hover any restriction with mouse cursor
2. Move the mouse cursor from the selected restrictions rectangle

**Expected Result**

1. The restriction should be highlighted. The restrictions tooltip should be displayed in a second
2. The restrictions rectangle should be displayed in the default state. The restrictions tooltip should disappear

**Result**

**Comment**

The tooltip is also closed by scroll and zoom action. An opened tooltip is closed after automatic GTT update once in a minute

### **Test Suite “Restriction tooltips at clicking”**

#### **Test case 1. Displaying the additional train information by clicking a restriction**

**Test Action**

1. Hover any restriction with mouse cursor
2. Click on the restriction

**Expected Result**

1. The restriction should be highlighted
2. The restrictions tooltip should be displayed

**Result**

**Comment**

#### **Test case 2. Permanence of the restriction tooltip**

**Test Action**

1. Hover any restriction with mouse cursor
2. Click the restriction
3. Hover any other object in the GTT (e.g., the train lines or other restrictions)

**Expected Result**

1. The restriction should be highlighted
2. The restriction tooltip should be displayed
3. The tooltip should remain displaying without changes

**Result**

**Comment**

#### **Test case 3. Close the restriction tooltip**

**Test Action**

1. Hover any restriction with mouse cursor
2. Click the restriction
3. Click the “cross” icon at the tooltip

**Expected Result**

1. The restriction should be highlighted
2. The restrictions tooltip should be displayed
3. The tooltip should be closed

**Result**

**Comment**

It is possible to close the train tooltip by clicking at any place in GTT and with the right click on the GTT (open a context menu). The tooltip is also closed by scroll and zoom action. An opened tooltip is closed after automatic GTT update once in a minute

#### **Test case 4. Restriction tooltip with the context menu**

**Test Action**

1. Open the context menu with the right click on the GTT
2. Hover any restriction with mouse cursor close to the context menu

**Expected Result**

1. The context menu should be opened
2. The restriction should be highlighted. The context menu should partially overlap the tooltip

**Result**

**Comment**

Context menu takes precedence over tooltips

## **0080521: WP6: View restrictions in GTT**

### **Use cases**

## As a Dispatcher, I would like to view restrictions in the GTT, with different colors according to the restriction type.

## The restrictions must be represented in conformity with the area (track/section affected) and time (duration) of the GTT and restrictions.

#### **Use Case 1**

**Action:** Display all the active restrictions related with the current GTT, according to the area and time (where and when the restriction is active).

**Preconditions:** GTT open

**Result:** Present all the active restrictions in the GTT.

**Essence Steps**

1. Filter all the active restrictions according to the current GTT (space and time);
2. For each active restriction draw a rectangle
   1. With type, name, kilometre information;
   2. The position must be according to the station/section (where the restriction is applied);
   3. The size must be according to the duration of the restriction and the layout according to the start and end time;
   4. The colour of the rectangle (background color) and the text color, must be according to the type of restriction (defined in Setup Tool).

### **Test cases**

**Preconditions**:

1. User login the system with valid credentials (as {role})
2. The GTT window with at least one restriction should be opened

#### **Test case 1. Presence of a restriction in GTT window**

**Test Action**

1. Verify a rectangle of the restriction is present in the GTT window

**Expected Result**

1. The rectangle of the restriction should be displayed in the GTT window

**Result**

**Comment**

The color of a restriction's rectangle depends on the type of restriction. See the colours associated to the restriction type in ReqDesc > Solutions / UI-Mockups

#### **Test case 2. Displaying restrictions rectangle at zoom**

**Test Action**

1. Zoom in the GTT with a restriction in route axis (by default)
2. Zoom in the GTT with a restriction in time axis

**Expected Result**

1. The restriction rectangle should be extended by hight according to the GTT scale. The rectangle's size should be enlarged according to the stations belonging to the restriction. The font size of the restriction information should be remain the same
2. The restriction rectangle should be extended by width according to the GTT scale. The rectangle's size should be enlarged according to the duration of the restriction. The start and end times should not change. The font size of the restriction information should be remain the same

**Result**

**Comment**

#### **Test case 3. Displaying restrictions rectangle at scroll**

**Test Action**

1. Scroll in the map to the right or left

**Expected Result**

1. The restriction rectangle should be moved according to the user’s scroll. All the restriction elements should be displayed without changing place relative to each other

**Result**

**Comment**

#### **Test case 4. Displaying restriction’s rectangle at several GTT in one window**

**Preconditions**

1. At least two GTT should be opened in the one window (in vertical position by default)
2. At least one of the GTT should contain a restriction

**Test Action**

1. Verify a rectangle of the restriction is displayed in the GTT window in vertical position according to the GTT scale
2. Drag the “move” button in the left corner of the GTT
3. Place the GTT preview horizontally and drop
4. Verify a rectangle of the restriction is displayed in the GTT window in horizontal position according to the GTT scale

**Expected Result**

1. The rectangle of the restriction should be displayed in the GTT window in vertical position according to the GTT scale
2. A preview of GTT position should be displayed
3. The GTT should be displayed horizontally: one GTT to the left and one GTT to the right. All the settings should be saved
4. The rectangle of the restriction should be displayed in the GTT window in horizontal position according to the GTT scale

**Result**

**Comment**

## **0080503: WP3: View of station names**

### **Use cases**

The system shall allow the user to view station names in the GTT at the middle of the station (middle of station needs to be defined in the infrastructure)

As a Dispatcher, I want so see the name of stations at the middle of the station.

After some discussions with the client, the concept "middle of the station" is the kilometric difference between two stations.

IMPORTANT NOTE: km value is based on "old system" of measuring distances, which means that the "+000" value can have a range of meters which are more or less than 1000m

### **Test cases**

**Preconditions**:

1. User login the system with valid credentials (as {role})
2. The GTT window should be opened

#### **Test case 1. Presence of the station names**

**Test Action**

1. Verify the station names are present in the legend of the GTT

**Expected Result**

1. The station names should be displayed in the “Asema” column in the legend of the GTT

**Result**

**Comment**

#### **Test case 2. Presence of the distance**

**Test Action**

1. Verify the km value in “km” column is displayed in format km+m (e.g., 345+0800)
2. Verify the distance (in km) between the stations in the legend of the GTT
3. Verify the difference between two stations meets the distance value in the middle of the station

**Expected Result**

1. The value in “km” column should be displayed in format km+m
2. The the distance (in km) should be displayed between two stations in the legend of the GTT
3. The difference between two stations should meet the distance value in the middle of the station

**Result**

**Comment**

## **0080516: WP5: Dangerous good trains in GTT**

### **Use cases**

The system shall allow the user to view an indication on dangerous good trains

As a user I would like to see an indication on dangerous good and other speciality type trains

* Actor: Superuser, User
* Action: Display of train label information indicating dangerous good and other speciality type trains
* Preconditions: Open GTT
* Result: Additional Train information is displayed in the GTT

### **Test cases**

**Preconditions**:

1. User login the system with valid credentials (as {role})
2. The GTT window with a dangerous goods train should be opened

#### **Test case 1. Presence of dangerous goods train labels**

**Test Action**

1. Verify the train label indicating dangerous goods is present
2. Verify the yellow rectangle is displayed at the train label
3. Verify the exclamation icon is displayed at the train label

**Expected Result**

1. The train label indicating dangerous goods should be displayed next to the train line
2. The yellow rectangle should be displayed at the train label
3. The exclamation icon should be displayed at the train label

**Result**

**Comment**

The exclamation marks on the train label are displayed depending on the type of train and goods. See in the table

#### **Test case 2. Font of the dangerous goods trains labels**

**Test Action**

1. Verify the dangerous goods train labels next to bold train lines (actual train traffic) are in bold
2. Verify the dangerous goods train labels next to thin train lines (planned train movements) are in regular font

**Expected Result**

1. The dangerous goods train labels next to bold train lines should be in bold
2. The dangerous goods train labels next to thin train lines should be in regular font

**Result**

**Comment**

#### **Test case 3. Trains labels at zooming**

**Preconditions**

1. Select the line for dangerous goods train which change the direction

**Test Action**

1. Zoom in the GTT until dangerous goods train labels are displayed

**Expected Result**

1. Dangerous goods train labels should duplicated on the parts with a changed direction (if they fit)

**Result**

**Comment**

#### **Test case 4. Trains labels at scrolling**

**Test Action**

1. Scroll in the map to the right or left

**Expected Result**

1. The dangerous goods train labels should be displayed next to the trains lines without changing place

**Result**

**Comment**

## **0080142: WP1: View several GTT windows at the same time**

As a User, I would like to see two GTTs side-by-side

1. As a user I would like to see one GTT to the left and one GTT to the right / top-bottom / Group of GTTs
2. As a user I would like to see in which one of the GTTs I'm working on so, I can apply filters or remove one GTT
3. As a user I would like to change the layout of the GTT / move a GTT to a different position
4. As a user I would like to press a button, so that a short branching train line (e.g. serving a factory) can also be displayed in the same GTT

#### **2.1. Use Case 1**

Users wants to display the same GTT area (e.g. HKI-RI), but he wants to see this GTT with two different filter / view settings applied -> e.g. in one window he wants to see only planned trains and in the other only forecasts

#### **2.2. Use Case 2**

Users wants to see to which GTT his current actions apply to, like changing view settings, changing the time or closing the GTT

#### **2.3. Use Case 3**

Change the layout of the GTT / move a GTT to a different position

#### **2.4. Use Case 4**

### User needs to monitor a dispatch area where train lines branch out (e.g. to a factory), in a situation when a train starts or ends in this branch

### **Test cases**

#### **Test case 1. Open GTT in a new browser window**

**Test Action**

1. Go to Enne web client (Link) page
2. Login user in the system with valid credentials (as {role})
3. Open the GTT window (by clicking at any map area)
4. Open a new browser window
5. Repeat steps 1-3
6. Switch to the GTT window opened in step 3

**Expected Result**

1. Enne web client should be opened
2. User should login in the system
3. The GTT window should be opened
4. A new browser window should be opened
5. The GTT window should be opened in the browser window opened in step 4
6. The GTT window opened in step 3 should be displayed.

**Result**

**Comment**

There should be a possibility to switch between the tabs in the browser windows with opened GTTs

### **Test suite. Work with several GTTs**

**Preconditions**:

1. User login the system with valid credentials (as {role})
2. Several GTT windows should be opened

#### **Test case 1. Several tabs**

**Test Action**

1. Verify the several tabs for opened GTT are present in the header part next to the “Dashboard” button
2. Verify the opened tab is underlined with a blue line

**Expected Result**

1. The several tabs for opened GTT should present in the header part next to the “Dashboard” button
2. The opened tab should be underlined with a blue line

**Result**

**Comment**

#### **Test case 2. Switching between tabs**

**Test Action**

1. Click any tab in the header part next to the “Dashboard” button (not current)

**Expected Result**

1. The previous activated tab should be displayed without a blue line. The selected tab should be underlined with a blue line. The corresponding GTT window should be opened.

**Result**

**Comment**

**Test case 3. Presents of elements on the tab (one GTT)**

**Preconditions**:

1. The tab with the one GTT should be opened

**Test Action**

1. Verify the “move” icon is present on the tab
2. Verify two station abbreviations are present on the tab
3. Verify the mark of conflicts amount is present on the tab (if there are any conflicts in the GTT)
4. Verify the “cross” button for closing is present on the tab

**Expected Result**

1. The “move” icon should be present on the tab
2. Two station abbreviations should be present on the tab
3. The mark of conflicts amount should be present on the tab (if there are any conflicts in the GTT)
4. The “cross” button for closing is present on the tab

**Result**

**Comment**

#### **Test case 4. Corresponding of elements on the tab (one GTT)**

**Preconditions**:

1. The tab with the one GTT should be opened

**Test Action**

1. Verify the stations abbreviation on the tab correspond to station names in the legend of the GTT: one at the top, another at the bottom
2. Verify the mark of conflicts amount on the tab correspond to the quantity of conflict icons on the GTT

**Expected Result**

1. The stations abbreviation on the tab should correspond to station names in the legend of the GTT: one at the top, another at the bottom
2. The mark of conflicts amount on the tab should correspond to the quantity of conflict icons on the GTT

**Result**

**Comment**

**Test case 5. Presents of elements on the tab (several GTT)**

**Preconditions**:

1. The tab with several GTT should be opened

**Test Action**

1. Verify the “move” icon is present on the tab
2. Verify the number of GTT is present on the tab (e.g., 2)
3. Verify the mark of conflicts amount is present on the tab (if there are any conflicts in the GTTs)
4. Verify the “cross” button for closing is present on the tab

**Expected Result**

1. The “move” icon should be present on the tab
2. Two number of GTT should be present on the tab
3. The mark of conflicts amount should be present on the tab (if there are any conflicts in the GTTs)
4. The “cross” button for closing is present on the tab

**Result**

**Comment**

**Test case 6. Corresponding of elements on the tab (several GTT)**

**Preconditions**:

1. The tab with several GTT should be opened

**Test Action**

1. Verify the number of GTT counts on the tab correspond to the quantity of opened GTT
2. Verify the mark of conflicts amount on the tab correspond to the quantity of conflict icons on all GTT in the window

**Expected Result**

1. The number of GTT counts on the tab should correspond to the quantity of opened GTT
2. The mark of conflicts amount on the tab should correspond to the quantity of conflict icons on all GTT in the window

**Result**

**Comment**

**Test case 7. Reordering the tabs**

**Test Action**

1. Click and hold the “move” icon at any tab
2. Drag the GTT to any place between other tabs
3. Put the GTT to any place between other tabs

**Expected Result**

1. The mouse cursor should change the shape to crossed arrows
2. The preview of the tab should appear between the other tabs. Other tabs should change places according the position of moving tab
3. The moved tab should displayed in the new position

**Result**

**Comment**

### **Test suite “Combining the GTT” (Use Cases 1, 2)**

### **Test case 1. Combine the GTT with itself**

**Test Action**

1. Drag and drop the opened GTT tab into itself

**Expected Result**

1. The possibility of combining the GTT with itself should be blocked. The GTT tab should only move left and right.

**Result**

**Comment**

**Test case 2. Combine two GTT in one window (Use Case 1)**

**Preconditions**:

1. At least two single GTT windows should be opened

**Test Action**

1. Drag and drop another single GTT tab into the currently open GTT window

**Expected Result**

1. Two GTTs should open in one window. The GTTs should be displayed vertically side-by-side (by default). The basic GTTs pane should be displayed with the highlighted border. The number of GTTs quantity should be displayed at the tab (in this case “2”)

**Result**

**Comment**

#### **Test case 3. Activation different multiple GTTs panes in one window (Use Case 1)**

**Preconditions**:

1. At least two GTTs should be opened in one window

**Test Action**

1. Verify the focus is on basic GTTs pane
2. Click the other GTTs pane

**Expected Result**

1. The basic GTTs pane should be displayed with the highlighted border.
2. The selected GTTs should be displayed with the highlighted border

**Result**

**Comment**

The test case can be applied to three and four GTTs in the window

#### **Test case 4. Apply different settings to two GTT in one window (Use Case 2)**

**Preconditions**:

1. At least two GTTs panes should be opened in one window

**Test Action**

1. Verify the focus is on basic GTTs pane
2. Click the “View Settings” button
3. Apply some changes, e.g., only the “Planned Trains” checkbox in the "View Setting" section should be enabled
4. Click another GTTs pane
5. Click the “View Settings” button
6. Apply some changes, e.g., only the “Forecasts” checkbox in the "View Setting" section should be enabled

**Expected Result**

1. The basic GTTs pane should be displayed with the highlighted border.
2. The “View Settings” dropdown menu should be opened.
3. The selected setting should be applied to the GTT pane. The counter on the “View Settings button” with the amount of changed checkboxes should appear. The another GTT pane should stay without changes
4. The selected GTTs should be displayed with the highlighted border. The counter on the “View Settings button” should disappear
5. The “View Settings” dropdown menu should be opened.
6. The selected setting should be applied to the GTT. The counter on the “View Settings button” with the amount of changed checkboxes should appear. The first GTT pane should displayed with the changes applied in step 3

**Result**

**Comment**

It is possible to configure settings for each of the GTTs pane and use them simultaneously

#### **Test case 5. Display two GTT in horizontal position (Use Case 3)**

**Preconditions**:

1. Two GTTs should be opened in one window. GTTs should be displayed vertically side-by-side (by default)

**Test Action**

1. Drag the “move” button in the left corner of the GTT
2. Place the GTT preview horizontally and drop

**Expected Result**

1. A preview of GTT position should be displayed
2. The GTT should be displayed horizontally: one GTT on the top and one GTT at the bottom. All the settings should be saved

**Result**

**Comment**

The test case can be applied to three and four GTTs in the window

#### **Test case 6. Display two GTT in vertical position (Use Case 3)**

**Preconditions**:

1. Two GTTs should be opened in one window. GTTs should be displayed horizontally one by one

**Test Action**

1. Drag the “move” button in the left corner of GTT
2. Place the GTT preview vertically and drop

**Expected Result**

1. A preview of GTT position should be displayed
2. The GTT should be displayed vertically: one GTT to the left and one GTT to the right. All the settings should be saved

**Result**

**Comment**

The test case can be applied to three and four GTTs in the window

#### **Test case 7. Combine multiple GTT tabs**

**Preconditions**:

1. At least two GTT windows should be opened
2. One of the GTT windows should contain at least two GTTs (mark “2” should be on the tab)
3. The single GTT window should be displayed

**Test Action**

1. Drag and drop the GTT tab with multiple GTT ( with the mark “2”) into the open GTT window

**Expected Result**

1. The possibility of drag and drop the multiple GTTs tab should be blocked. The multiple GTTs tab should only move left and right.

**Result**

**Comment**

#### **Test case 8. Combine more than 4 GTT in one window**

**Preconditions**:

1. At least two GTT windows should be opened
2. One of the GTT windows should contain four GTTs (mark “4” should be on the tab). Another GTT should be single
3. The GTT window with the four GTT should be displayed

**Test Action**

1. Drag and drop the GTT tab into the open GTT window

**Expected Result**

1. The alert snackbar “You can't add more than 4 GTTs to tab” should be displayed in an attempt to combine more than 4 GTT in the one window. The alert snackbar should disappear in 5 seconds.

**Result**

**Comment**

There should be a possibility to combine maximum four GTT in the same window

### **Test suite “Saving state of GTTs”**

#### **Test case 1. Logout**

**Preconditions**:

1. User login the system with valid credentials
2. The dashboard page (the home page) should be opened

**Test Action**

1. Click “Apps & Menu” button
2. Click “Sign out” option

**Expected Result**

1. The drop-down menu should be opened
2. The loader should be displayed at logout action. The login page should be displayed when loader disappear

**Result**

**Comment**

#### **Test case 2. Saving the state of GTT settings (the one user)**

**Preconditions**:

1. User login the system with valid credentials
2. The dashboard page (the home page) should be opened

**Test Action**

1. Open the GTT window (e.g. by selecting a train number in the “Create a new GTT” form)
2. Apply any changes to the opened GTT (e.g. hide legend via context menu)
3. Click “Apps & Menu” button
4. Click “Sign out” option
5. Login the system with the same credentials
6. Switch to the opened GTT tab
7. Verify the changes applied in step 2 are saved

**Expected Result**

1. The GTT window(s) should be opened
2. The changes should be displayed in the opened GTT
3. The drop-down menu should be opened
4. The loader should be displayed at logout action. The login page should be displayed when loader disappear
5. The dashboard page (the home page) should be opened. The GTT tab opened in step 1 should be displayed next to Dashboard button
6. The GTT window should be opened
7. The changes applied in step 2 should be saved and displayed in the GTT

**Result**

**Comment**

#### **Test case 3. Saving the state (different users)**

**Test Action**

1. Login the system with valid credentials (“ui\_test”/”ui\_test”)
2. Open the GTT window (e.g. by selecting a train number in the “Create a new GTT” form)
3. Click “Apps & Menu” button
4. Click “Sign out” option
5. Login the system with the other valid credentials (“ui\_test2”/”ui\_test2”)

**Expected Result**

1. The dashboard page (the home page) should be opened
2. The GTT window(s) should be opened
3. The drop-down menu should be opened
4. The loader should be displayed at logout action. The login page should be displayed when loader disappear
5. The dashboard page (the home page) should be opened. The GTT tab opened in step 1 should not be displayed next to Dashboard button

**Result**

**Comment**

#### **Test case 4. Saving the position of multiple GTTs panes**

**Preconditions**:

1. User login the system with valid credentials
2. At least two GTTs tab should be opened
3. An opened GTT window should be displayed

**Test Action**

1. Drag and drop another single GTT tab into the currently open GTT window
2. Drag the “move” button in the left corner of the GTT
3. Place the GTT preview horizontally and drop
4. Switch to the Dashboard by clicking the “dashboard” button
5. Switch to the multiple GTTs tab created in step 1

**Expected Result**

1. Two GTTs should be opened in one window. The GTTs should be displayed vertically side-by-side (by default). The number of GTTs quantity should be displayed at the tab (in this case “2”)
2. A preview of GTT position should be displayed
3. The GTT should be displayed horizontally: one GTT on the top and one GTT at the bottom. All the settings should be saved
4. The Dashboard should be displayed. The GTTs tab with counter “2” should be displayed in the tabs line next to the “dashboard” button
5. The GTT tab combined in step 1 should be opened. The position of GTTs panes specified in step 3 should be retained.

**Result**

**Comment**

The test case is also applicable to the GTTs window with 3 and 4 GTTs panes

#### **Test case 5. Saving the size of multiple GTTs panes**

**Preconditions**:

1. User login the system with valid credentials
2. A multiple GTTs tab should be created
3. The multiple GTTs tab should contain at least 2 GTTs panes

**Test Action**

1. Drag and drop a border between GTTs panes
2. Switch to the Dashboard by clicking the “dashboard” button
3. Switch to the multiple GTTs tab changed in step 1

**Expected Result**

1. The border between GTTs panes should be displayed in the new selected position. The GTTs panes should be displayed with the new size
2. The Dashboard should be displayed
3. The GTT tab should be opened. The size of GTTs panes specified in step 1 should be retained.

**Result**

**Comment**

The test case is also applicable to the GTTs window with 3 and 4 GTTs panes

### **Test suite “Hotkeys on the GTTs”**

**Preconditions**:

1. A GTT window should be opened

#### **Test case 1. Hotkeys descriptions**

**Test Action**

1. Click right mouse button on the GTT
2. Hover any option in the context menu with the mouse cursor (e.g., “Hide Legend”)
3. Click the “Time Window” option
4. Hover any option in the second context menu with the mouse cursor (e.g., “1 hour”)

**Expected Result**

1. The context menu should be opened
2. The hotkeys hint should appear next to the option name (“Ctrl + L” for this case)
3. The second context menu should opened
4. The hotkeys hint should appear next to the option name (“Ctrl + 1” for this case)

**Result**

**Comment**

#### **Test case 2. Hide and show the legend**

**Preconditions**:

1. A GTT legend should be displayed in default expanded view

**Test Action**

1. Press "CTRL-L" on the keyboard
2. Click on the GTT with right mouse button
3. Verify the option “Show Legend” is displayed in the context menu
4. Press "CTRL-L" on the keyboard

**Expected Result**

1. The legend should be collapsed. The one “Asema” column with the station names should be displayed.
2. The context menu should opened
3. The option “Hide Legend” should be displayed in the context menu (not default “Hide Legend”)
4. The legend should be expanded. All the legend columns with the corresponding values should be displayed.

**Result**

**Comment**

The test case is applicable for single and multiple GTTs window for currently selected GTT pane

#### **Test case 3. Switch zoom axis (context menu)**

**Test Action**

1. Click right mouse button on the GTT
2. Verify the option “Zoom in Time” is present in context menu by default
3. Press "SHIFT" on the keyboard. Verify the option from step 2 is changed to “Zoom in Route”

**Expected Result**

1. The context menu should be opened
2. The option “Zoom in Time” is present in context menu by default
3. The option from step 2 should change to “Zoom in Route”

**Result**

**Comment**

The test case is applicable for single and multiple GTTs window for currently selected GTT pane

#### **Test case 4. Switch zoom axis**

**Test Action**

1. Roll the mouse wheel
2. Press "SHIFT" on the keyboard and roll the mouse wheel simultaneously

**Expected Result**

1. GTT should be displayed in an enlarged scale in the route axis (by default)
2. GTT should be displayed in an enlarged scale in the time axis

**Result**

**Comment**

The test case is applicable for single and multiple GTTs window for currently selected GTT pane

#### **Test case 5. Switch zoom axis after manual change (context menu)**

**Test Action**

1. Click right mouse button on the GTT
2. Click the option “Zoom in Time” in the context menu
3. Press "SHIFT" on the keyboard. Verify the option from step 2 is changed to “Zoom in Time”

**Expected Result**

1. The context menu should be opened
2. The option “Zoom in Time” should change to “Zoom in Route”
3. The option from step 2 should change to “Zoom in Time”

**Result**

**Comment**

The test case is applicable for single and multiple GTTs window for currently selected GTT pane

#### **Test case 6. Switch zoom axis after manual change**

**Preconditions**

1. The option “Zoom in Time” should be displayed in the context menu

**Test Action**

1. Click right mouse button on the GTT
2. Click the option “Zoom in Time” in the context menu
3. Roll the mouse wheel
4. Press "SHIFT" on the keyboard and roll the mouse wheel simultaneously

**Expected Result**

1. The context menu should be opened
2. The option “Zoom in Time” should change to “Zoom in Route”
3. GTT should be displayed in an enlarged scale in the time axis
4. GTT should be displayed in an enlarged scale in the route axis

**Result**

**Comment**

The test case is applicable for single and multiple GTTs window for currently selected GTT pane

#### **Test case 7. Change GTT scale to 1 hour**

**Test Action**

1. Press "CTRL-1" on the keyboard

**Expected Result**

1. The GTT scale should be displayed with 1 hour in timeline

**Result**

**Comment**

#### **Test case 8. Change GTT scale to 2 hours**

**Test Action**

1. Press "CTRL-2" on the keyboard

**Expected Result**

1. The GTT scale should be displayed with 2 hours in timeline

**Result**

**Comment**

#### **Test case 9. Change GTT scale to 3 hours**

**Test Action**

1. Press "CTRL-3" on the keyboard

**Expected Result**

1. The GTT scale should be displayed with 3 hours in timeline

**Result**

**Comment**

#### **Test case 10. Change GTT scale to 4 hours**

**Test Action**

1. Press "CTRL4" on the keyboard

**Expected Result**

1. The GTT scale should be displayed with 4 hours in timeline

**Result**

**Comment**

#### **Test case 11. Change GTT scale to 5 hours**

**Test Action**

1. Press "CTRL-5" on the keyboard

**Expected Result**

1. The GTT scale should be displayed with 5 hours in timeline

**Result**

**Comment**

#### **Test case 12. Change GTT scale to 6 hours**

**Test Action**

1. Press "CTRL-6" on the keyboard

**Expected Result**

1. The GTT scale should be displayed with 6 hours in timeline

**Result**

**Comment**

#### **Test case 13. Change GTT scale to 12 hours**

**Test Action**

1. Press "CTRL-7" on the keyboard

**Expected Result**

1. The GTT scale should be displayed with 12 hours in timeline

**Result**

**Comment**

#### **Test case 14. Change GTT scale to 24 hours**

**Test Action**

1. Press "CTRL-8" on the keyboard

**Expected Result**

1. The GTT scale should be displayed with 24 hours in timeline

**Result**

**Comment**

#### **Test case 15. Switch “Show Branch” option (context menu only)**

**Test Action**

1. Click right mouse button on the GTT
2. Verify the option “Show Branch” is present in context menu by default
3. Press "CTRL+Y" on the keyboard. Verify the option from step 2 is changed to “Hide Branch”

**Expected Result**

1. The context menu should be opened
2. The option “Show Branch” is present in context menu by default
3. The option from step 2 should change to “Hide Branch”

**Result**

**Comment**

#### **Test case 16. Switch “Show Branch” option after manual change (context menu only)**

**Test Action**

1. Click right mouse button on the GTT
2. Click the option “Show Branch” in context menu
3. Press "CTRL+Y" on the keyboard. Verify the option from step 2 is changed to “Show Branch”

**Expected Result**

1. The context menu should be opened
2. The option “Show Branch” should change to “Hide Branch”
3. The option from step 2 should change to “Show Branch”

**Result**

**Comment**

#### **Test case 17. Open “View Settings” menu**

**Test Action**

1. Press "CTRL-A" on the keyboard

**Expected Result**

1. The “View Settings” menu should be opened

**Result**

**Comment**

The test case is applicable for single and multiple GTTs window. The “View Settings” menu is opened for currently active GTT pane

#### **Test case 18. Close multiple GTT**

**Preconditions**:

1. An opened GTT window should contain at least two GTTs panes

**Test Action**

1. Verify the focus is on basic GTTs pane
2. Press "CTRL-Q" on the keyboard

**Expected Result**

1. The basic GTTs pane should be displayed with the highlighted border
2. The selected GTTs pane should be closed. The focus should be switched to the first GTT pane in the window

**Result**

**Comment**

#### **Test case 19. Close single GTT**

**Preconditions**:

1. A single GTT window should be opened

**Test Action**

1. Press "CTRL-Q" on the keyboard

**Expected Result**

1. The GTT tab should be closed. The Dashboard page should be displayed

**Result**

**Comment**

The focus should be switched to the first GTT tab in the tab line, if there are any

## **0080505: WP3: Scrolling in GTT**

### **Use cases**

1. The system shall allow the user to scroll in time and route axis.
2. The system shall allow the user to scroll in the time axis to the future/past without limitations on date

### **Test cases**

**Preconditions**:

1. User login the system with valid credentials (as {role})
2. The GTT window should be opened

#### **Test case 1. Current date**

**Test Action**

1. Verify the current date is present in the date picker field

**Expected Result**

1. The current date should be displayed in the date picker field

**Result**

**Comment**

#### **Test case 2. Scroll function**

**Test Action**

1. Drag GTT with mouse to the left or right

**Expected Result**

1. All the elements and the time grid on GTT should be moved according the mouse movement

**Result**

**Comment**

Scroll is available in horizontal direction by default

#### **Test case 3. Scroll function combined with zoom**

**Test Action**

1. Zoom in GTT at any scale (in route axis by default)
2. Drag GTT with mouse to the left or right
3. Drag GTT with mouse to the up and down

**Expected Result**

1. GTT should be displayed at an enlarged scale
2. All the elements and the time grid on GTT should be moved according the mouse movement in horizontal direction
3. All the elements and the time grid on GTT should be moved according the mouse movement in vertical direction

**Result**

**Comment**

Scroll in vertical direction is available only after zoom in route axis

#### **Test case 4. Absence of scroll limit to the future**

**Test Action**

1. Drag GTT with mouse to the right (future) as much as possible in the time axis

**Expected Result**

1. GTT should be scrolled to the right (future) in the time axis without limitations on date. The new date should be displayed in the date picker field ???

**Result**

**Comment**

#### **Test case 5. Absence of scroll limit to the past**

**Test Action**

1. Drag GTT with mouse to the left (past) as much as possible in the time axis

**Expected Result**

1. GTT should be scrolled to the left (past) in the time axis without limitations on date. The new date should be displayed in the date picker field ???

**Result**

**Comment**

#### **Test case 6. Absence of limit by date (select date from calendar)**

**Test Action**

1. Click the calendar icon
2. Select any date in the future or in the past (select any other day, week, month, year)

**Expected Result**

1. The calendar should open
2. The selected date should be displayed on the calendar. The calendar should automatically close after picking the date. The corresponding date should appear in the calendar field. The GTT should be updated on the selected date

**Result**

**Comment**

#### **Test case 7. Absence of limit by date (manual input of the date)**

**Test Action**

1. Click datepicker field
2. Remove default date
3. Type any valid date in the future or in the past (use any day, month, year, e.g. 05.05.2025)

**Expected Result**

1. The cursor should displayed in datepicker field
2. The default value should be removed from the field. The calendar field should be displayed empty
3. The entered date should be displayed on the calendar field. The GTT should be updated on the entered date

**Result**

**Comment**

#### **Test case 8. Invalid manual input of the date (negative)**

**Test Action**

1. Click datepicker field
2. Remove default date
3. Type any invalid date (e.g. 31.02.2022)

**Expected Result**

1. The cursor should displayed in datepicker field
2. The default value should be removed from the field. The calendar field should be displayed empty
3. The entered date should be displayed on the calendar field. The calendar field should change the color from gray to red. The GTT should be displayed on the previous valid date. The GTT should not be updated on theinvalid entered date

**Result**

**Comment**

## **0080506: WP3: Zoom in GTT**

### **Use cases**

### **Use Case 1**

The system shall allow the user to zoom in time and route axis

When the user uses the mouse scrollwhell by default the GTT will zoom on the TIME axis Holding the Alt key will zoom on the ROUTE axis

Double clicking will zoom IN on the TIME axis Shift double clicking will zoom OUT on the TIME axis

Right clicking will open the context menu

where the user can switch between zooming in time and zooming in route

### **Use Case 2**

Jump to a specific time and return to current time

Clicking on date picker or entering a time in the time field will jump to a specific time

Return to current time:

A) Keyboard shortcut "Control N" for returning to current time

B) Clicking on the "Now" button in the tab-bar:

* - 1. return to the current time: the green time-line should align with the green bar (above the "9" in the screenshot) at the top of the GTT  
  - 2. manual time input: after users valid input in HH:MM format the enterred time should be displayed at the position of the green bar (above the "9" in the screenshot).

### **Use Case 3**

Use mouse to determine a zoom area, and zoom in on selected frame

.

### **Test suite “Zoom in route axis”**

**Preconditions**:

1. User login the system with valid credentials (as {role})
2. The GTT window should be opened

#### **Test case 1. Zoom in route axis by default**

**Test Action**

1. Click right mouse button on the GTT
2. Verify the option “Zoom in Time” is present in context menu by default

**Expected Result**

1. The context menu should be opened
2. The option “Zoom in Time” is present in context menu by default

**Result**

**Comment**

The option “Zoom in Route” is selected by default

#### **Test case 2. Zoom function in route axis**

**Test Action**

1. Place the mouse cursor on the GTT
2. Zoom in the GTT with the mouse wheel
3. Zoom out the GTT with the mouse wheel

**Expected Result**

1. The mouse cursor should be displayed on the GTT
2. GTT should be displayed in an enlarged scale in the route axis (by default). The area under mouse cursor should be the center of zooming out
3. GTT should be displayed in a reduced scale in the route axis (by default). The area under mouse cursor should be the center of zooming in

**Result**

**Comment**

Zoom in action is also available by double click at GTT. For zoom out action hold Shift and double click

#### **Test case 3. Zoom function combined with scroll**

**Test Action**

1. Zoom in GTT at any scale
2. Drag GTT with mouse to the left or right
3. Drag GTT with mouse to the up or down

**Expected Result**

1. GTT should be displayed in an enlarged scale
2. All the elements and the time grid on GTT should be moved according the mouse movement in horizontal direction
3. All the elements and the station grid on GTT should be moved according the mouse movement in vertical direction

**Result**

**Comment**

### **Test suite “Zoom in time axis”**

#### **Test case 1. Switch to zoom in time axis**

**Test Action**

1. Click right mouse button on the GTT
2. Click the option “Zoom in Time” in context menu
3. Click right mouse button on the GTT
4. Verify the option “Zoom in Time” is changed to “Zoom in Route”

**Expected Result**

1. The context menu should be opened
2. The context menu should be closed
3. The context menu should be opened
4. The option “Zoom in Route” should be displayed in the context menu. The option “Zoom in Time” should changed to “Zoom in Route” in context menu

**Result**

**Comment**

#### **Test case 2. GTT scale by default**

**Test Action**

1. Verify the time axis of GTT matches the default value 4 hours
2. Verify the timeline is displayed in the middle of GTT by default

**Expected Result**

1. The time axis of GTT should match the default value 4 hours
2. The timeline should be displayed in the middle of GTT by default

**Result**

**Comment**

#### **Test case 3. Zoom function in time axis**

**Test Action**

1. Click right mouse button on the GTT
2. Click the option “Zoom in Time” in context menu
3. Zoom in the GTT with mouse wheel

**Expected Result**

1. The context menu should be opened
2. The context menu should be closed. The option “Zoom in Time” should changed to “Zoom in Route” in context menu
3. GTT should be displayed in an enlarged scale in the time axis

**Result**

**Comment**

#### **Test case 4. Select GTT scale**

**Test Action**

1. Verify the time axis of GTT matches the some particular time scale (e.g. default value - 4 hours)
2. Click right mouse button on the GTT
3. Click the option “Time Window” in context menu
4. Select any value (not current) in the second menu (e.g., “6 hours”)

**Expected Result**

1. The time axis of GTT should match the default value 4 hours
2. The context menu should be opened
3. The second menu with time values should be opened
4. The context menu should be closed. The time scale of GTT should match the new selected value (6 hours for this case)

**Result**

**Comment**

#### **Test case 5. Minimum GTT scale**

**Test Action**

1. Click right mouse button on the GTT
2. Click the option “Zoom in Time” in context menu
3. Zoom out the GTT with mouse wheel to minimum scale

**Expected Result**

1. The context menu should be opened
2. The context menu should be closed. The option “Zoom in Time” should changed to “Zoom in Route” in context menu
3. The GTT should be displayed in the minimum scale - 24 hours

**Result**

**Comment**

#### **Test case 6. Zoom function combined with scroll**

**Test Action**

1. Switch to “Zoom in Time” in context menu
2. Zoom in GTT at any scale
3. Drag GTT with mouse to the left or right
4. Drag GTT with mouse to the up or down

**Expected Result**

1. The context menu should be closed. The option “Zoom in Time” should changed to “Zoom in Route” in context menu
2. GTT should be displayed in an enlarged scale
3. All the elements and the time grid on GTT should be moved according the mouse movement
4. All the elements and the time grid on GTT should be moved according the mouse movement

**Result**

**Comment**

The step 4 is available if zoom in was performed in route axis

## **0080519: WP5: Activation/deactivation of objects in GTT**

### **Use cases**

|  |
| --- |
| The system shall allow the user to activate and deactivate several parameters/objects in the GTT, e.g.:  - Locked times (commercial stops)  - Control Rules  - planned/forecast/(partially?)-cancelled  - trains based on (line) tracks (global configuration) |

### **Test cases**

**Preconditions**:

1. User login the system with valid credentials (as {role})
2. The GTT window should be opened

#### **Test case 1. Presence of “View Settings” button**

**Test Action**

1. Verify the “View Settings” button in the right corner of the GTTs window

**Expected Result**

1. The “View Settings” button should be displayed in the right corner of the GTTs window

**Result**

**Comment**

#### **Test case 2. Open the “View Settings” drop-down menu**

**Test Action**

1. Click the “View Settings” button

**Expected Result**

1. The “View Settings” drop-down menu should be opened

**Result**

**Comment**

#### **Test case 3. Presence of elements on the drop-down menu**

**Test Action**

1. Click the “View Settings” button
2. Verify the “View Settings” section is present in the drop-down menu
3. Verify the “Traffic Locations” section is present in the drop-down menu
4. Verify the “Event Sources” section is present in the drop-down menu
5. Verify the “Train Types” section is present in the drop-down menu
6. Verify the “Line Tracks” section is present in the drop-down menu

**Expected Result**

1. The “View Settings” drop-down menu should be opened
2. The “View Settings” section should be displayed in the drop-down menu
3. The “Traffic Locations” section should be displayed in the drop-down menu
4. The “Event Sources” section should be displayed in the drop-down menu
5. The “Train Types” section should be displayed in the drop-down menu
6. The “Line Tracks” section should be displayed in the drop-down menu

**Result**

**Comment**

#### **Test case 4. Presence of check-boxes in the “View Settings” section**

**Test Action**

1. Click the “View Settings” button
2. Verify the "Show departure capabilities" check-box is present in the “View Settings” section
3. Verify the "Show configuration changes" check-box is present in the “View Settings” section
4. Verify the "Show marking details location" check-box is present in the “View Settings” section
5. Verify the "Overweight" check-box is present in the “View Settings” section
6. Verify the "Show operator" check-box is present in the “View Settings” section
7. Verify the "Show attraction type" check-box is present in the “View Settings” section
8. Verify the "Highlight transport locations" check-box is present in the “View Settings” section

**Expected Result**

1. The “View Settings” drop-down menu should be opened
2. The "Show departure capabilities" check-box should be displayed in the “View Settings” section
3. The "Show configuration changes" check-box should be displayed in the “View Settings” section
4. The "Show marking details location" check-box should be displayed in the “View Settings” section
5. The "Overweight" check-box should be displayed in the “View Settings” section
6. The "Show operator" check-box should be displayed in the “View Settings” section
7. The "Show attraction type" check-box should be displayed in the “View Settings” section
8. The "Highlight transport locations" check-box should be displayed in the “View Settings” section

**Result**

**Comment**

#### **Test case 5. Presence of check-boxes in the “Traffic Locations”**

**Test Action**

1. Click the “View Settings” button
2. Verify the "Transport place" check-box is present in the “Traffic Locations” section
3. Verify the "Stoppage" check-box is present in the “Traffic Locations” section
4. Verify the "Other" check-box is present in the “Traffic Locations” section

**Expected Result**

1. The “View Settings” drop-down menu should be opened
2. The "Transport place" check-box should be displayed in the “Traffic Locations” section
3. The "Stoppage" check-box should be displayed in the “Traffic Locations” section
4. The "Other" check-box should be displayed in the “Traffic Locations” section

**Result**

**Comment**

#### **Test case 6. Presence of check-boxes in the “Event Sources” section**

**Test Action**

1. Click the “View Settings” button
2. Verify the "Shunting" check-box is present in the “Train Types” section
3. Verify the "Exceptional services" check-box is present in the “Train Types” section
4. Verify the "Local transport" check-box is present in the “Train Types” section
5. Verify the "Locomotive" check-box is present in the “Train Types” section
6. Verify the "Freight transport" check-box is present in the “Train Types” section
7. Verify the "Work machine" check-box is present in the “Train Types” section
8. Verify the "Test drive" check-box is present in the “Train Types” section
9. Verify the "Long distance transport" check-box is present in the “Train Types” section
10. Verify the "Show commercial stops for selected train types" check-box is present in the “Train Types” section

**Expected Result**

1. The “View Settings” drop-down menu should be opened
2. The "Shunting" check-box should be displayed in the “Train Types” section
3. The "Exceptional services" check-box should be displayed in the “Train Types” section
4. The "Local transport" check-box should be displayed in the “Train Types” section
5. The "Locomotive" check-box should be displayed in the “Train Types” section
6. The "Freight transport" check-box should be displayed in the “Train Types” section
7. The "Work machine" check-box should be displayed in the “Train Types” section
8. The "Test drive" check-box should be displayed in the “Train Types” section
9. The "Long distance transport" check-box should be displayed in the “Train Types” section
10. The "Show commercial stops for selected train types" check-box should be displayed in the “Train Types” section

**Result**

**Comment**

#### **Test case 7. Presence of check-boxes in the “Train Types” section**

**Test Action**

1. Click the “View Settings” button

2. Verify the "Shunting" check-box is present in the “Train Types” section

3. Verify the "Exceptional services" check-box is present in the “Train Types” section

4. Verify the "Local transport" check-box is present in the “Train Types” section

5. Verify the "Locomotive" check-box is present in the “Train Types” section

6. Verify the "Freight transport" check-box is present in the “Train Types” section

7. Verify the "Work machine" check-box is present in the “Train Types” section

8. Verify the "Test drive" check-box is present in the “Train Types” section

9. Verify the "Long distance transport" check-box is present in the “Train Types” section

10. Verify the "Show commercial stops for selected train types" check-box is present in the “Train Types” section

**Expected Result**

1. The “View Settings” drop-down menu should be opened

2. The "Shunting" check-box should be displayed in the “Train Types” section

3. The "Exceptional services" check-box should be displayed in the “Train Types” section

4. The "Local transport" check-box should be displayed in the “Train Types” section

5. The "Locomotive" check-box should be displayed in the “Train Types” section

6. The "Freight transport" check-box should be displayed in the “Train Types” section

7. The "Work machine" check-box should be displayed in the “Train Types” section

8. The "Test drive" check-box should be displayed in the “Train Types” section

9. The "Long distance transport" check-box should be displayed in the “Train Types” section

10. The "Show commercial stops for selected train types" check-box should be displayed in the “Train Types” section

**Result**

**Comment**

#### **Test case 8. Presence of check-boxes in the “Line Tracks” section**

**Test Action**

1. Click the “View Settings” button

2. Verify the "PR" check-box is present in the “Line Tracks” section

3. Verify the "LR" check-box is present in the “Line Tracks” section

4. Verify the "IR" check-box is present in the “Line Tracks” section

5. Verify the "ER" check-box is present in the “Line Tracks” section

6. Verify the "1" check-box is present in the “Line Tracks” section

7. Verify the "PKR" check-box is present in the “Line Tracks” section

8. Verify the "LKR" check-box is present in the “Line Tracks” section

9. Verify the "IKR" check-box is present in the “Line Tracks” section

10. Verify the "EKR" check-box is present in the “Line Tracks” section

11. Verify the "ItHR" check-box is present in the “Line Tracks” section

12. Verify the "PsR" check-box is present in the “Line Tracks” section

13. Verify the "LsR" check-box is present in the “Line Tracks” section

14. Verify the "IsR" check-box is present in the “Line Tracks” section

15. Verify the "EsR" check-box is present in the “Line Tracks” section

16. Verify the "LanHR" check-box is present in the “Line Tracks” section

**Expected Result**

1. The “View Settings” drop-down menu should be opened

2. The "PR" check-box should be displayed in the “Line Tracks” section

3. The "LR" check-box should be displayed in the “Line Tracks” section

4. The "IR" check-box should be displayed in the “Line Tracks” section

5. The "ER" check-box should be displayed in the “Line Tracks” section

6. The "1" check-box should be displayed in the “Line Tracks” section

7. The "PKR" check-box should be displayed in the “Line Tracks” section

8. The "LKR" check-box should be displayed in the “Line Tracks” section

9. The "IKR" check-box should be displayed in the “Line Tracks” section

10. The "EKR" check-box should be displayed in the “Line Tracks” section

11. The "ItHR" check-box should be displayed in the “Line Tracks” section

12. The "PsR" check-box should be displayed in the “Line Tracks” section

13. The "LsR" check-box should be displayed in the “Line Tracks” section

14. The "IsR" check-box should be displayed in the “Line Tracks” section

15. The "EsR" check-box should be displayed in the “Line Tracks” section

16. The "LanHR" check-box should be displayed in the “Line Tracks” section

**Result**

**Comment**

#### **Test case 9. Enable a check-box**

**Test Action**

1. Click the “View Settings” button
2. Verify all the check-boxes are disabled by default
3. Enable any check-box (e.g. the "Show departure capabilities" check-box in the “View Settings” section)

**Expected Result**

1. The “View Settings” drop-down menu should be opened
2. All the check-boxes should be disabled by default
3. The check-box should be enabled. The "View Settings" drop-down menu should be opened. The corresponding changes should be applied to GTT

**Result**

**Comment**

The test case can be applied to all check-boxes in the “View Settings” drop-down menu

#### **Test case 10. Closing the “View Settings” drop-down menu (without changes)**

**Test Action**

1. Click the “View Settings” button
2. Click the “View Settings” button again

**Expected Result**

1. The “View Settings” drop-down menu should be opened
2. The “View Settings” drop-down menu should be closed. No changes have been applied to GTT

**Result**

**Comment**

The same result can be achieved by clicking any area in the GTT window in step 2

#### **Test case 11. Closing the “View Settings” drop-down menu (with changes)**

**Test Action**

1. Click the “View Settings” button
2. Enable any check-box (e.g. the "Show departure capabilities" check-box in the “View Settings” section)
3. Click the “View Settings” button again

**Expected Result**

1. The “View Settings” drop-down menu should be opened
2. The check-box should be enabled. The "View Settings" drop-down menu should be opened. The corresponding changes should be applied to GTT
3. The “View Settings” drop-down menu should be closed. The changes from step 2 have been applied to GTT

**Result**

**Comment**

The same result can be achieved by clicking any area in the GTT window in step 3

## **0080504: WP3: Show station information**

### **Use cases**

Actor: Superuser, User

Action: Click of button which expands / collapses the legend

Preconditions: Open GTT

Result: Additional information is displayed in the legend

#### **Use Case 1**

Display of the number of tracks next to the station name

#### **Use Case 2**

Display of the km next to the station name

#### **Use Case 3**

Display of the track section next to the station name

### **Test cases**

**Preconditions**:

1. User login the system with valid credentials (as {role})
2. The GTT window should be opened

#### **Test case 1. Presence of track number**

**Test Action**

1. Verify the number of tracks next to the station name is present

**Expected Result**

1. The number of tracks should be displayed next to the station name in “Raide” column

**Result**

**Comment**

#### **Test case 2. Presence of kilometers number**

**Test Action**

1. Verify the number of kilometers next to the station name is present

**Expected Result**

1. The number of kilometers should be displayed next to the station name in “km” column

**Result**

**Comment**

#### **Test case 3. Drop-down menu for managing GTT**

**Test Action**

1. Click the “menu” button in the left corner of the GTTs
2. Verify the “Hide Toolbar“ option it present
3. Verify the “Hide Toolbar“ icon is displayed as an up arrow
4. Verify the “Hide Legend“ option it present
5. Verify the “Hide Toolbar“ icon is displayed as a left arrow
6. Verify the “GTT Settings“ option it present
7. Verify the “Close GTT” option is present

**Expected Result**

1. The drop-down menu for managing GTT should be opened
2. The “Hide Toolbar“ option should be displayed in the drop-down menu
3. The “Hide Toolbar“ icon should be displayed as an up arrow
4. The “Hide Legend“ option should be displayed in the drop-down menu
5. The “Hide Legend“ icon should be displayed as a left arrow
6. The “GTT Settings“ option should be displayed in the drop-down menu
7. The “Close GTT“ option should be displayed in the drop-down menu

**Result**

**Comment**

#### **Test case 4. Collapse the legend**

**Preconditions**:

1. The legend should be displayed in expanded view (by default)

**Test Action**

1. Click the “menu” button in the left corner of the GTTs
2. Click the “Hide Legend“ option

**Expected Result**

1. The drop-down menu for managing GTT should be opened
2. The drop-down menu should be closed. The legend should be collapsed. The one “Asema” column with the station names should be displayed.

**Result**

**Comment**

#### **Test case 5. Change elements after collapse the legend**

**Preconditions**:

1. The legend should be displayed in reduced view

**Test Action**

1. Click the “menu” button in the left corner of the GTTs
2. Verify the “Hide Legend“ option is replaced by “Show Legend” option
3. Verify the “Hide/Show Legend“ icon is replaced by a right arrow

**Expected Result**

1. The drop-down menu for managing GTT should be opened
2. The “Show Legend“ option should be displayed in the drop-down menu. The “Hide Legend“ should be replaced with it
3. The “Hide/Show Legend“ icon should be displayed as a right arrow

**Result**

**Comment**

#### **Test case 6. Expand the legend**

**Preconditions**:

1. The legend should be displayed in reduced view

**Test Action**

1. Click the “menu” button in the left corner of the GTTs
2. Click the “Show Legend“ option

**Expected Result**

1. The drop-down menu for managing GTT should be opened
2. The drop-down menu should be closed. The legend should be expanded. All the legend columns with the corresponding values should be displayed.

**Result**

**Comment**

#### **Test case 7. Change elements after expand the legend**

**Preconditions**:

1. The legend should be displayed in expanded view

**Test Action**

1. Click the “menu” button in the left corner of the GTTs
2. Verify the “Show Legend“ option is replaced by “Hide Legend” option
3. Verify the “Hide/Show Legend“ icon is replaced by a left arrow

**Expected Result**

1. The drop-down menu for managing GTT should be opened
2. The “Hide Legend“ option should be displayed in the drop-down menu. The “Show Legend“ should be replaced with it
3. The “Hide/Show Legend“ icon should be displayed as a left arrow

**Result**

**Comment**

## **0080524: WP7: Event/conflict list in GTT**

### **Use cases**

The system shall allow the user to view an event/conflict list with information about the events in the system.

### **Test suite “Sidebar elements”**

**Preconditions**:

1. User login the system with valid credentials (as {role})
2. The dashboard page (the home page) is displayed

#### **Test case 1. The sidebar by default**

**Test Action**

1. Verify the sidebar is displayed in reduced view (a vertical grey line is displayed left)
2. Verify the “bell” icon is displayed on the top of the sidebar
3. Additional step: Verify the red mark with a number is displayed on the "bell" icon (in case there is at least one event is in the system)

**Expected Result**

1. The sidebar should be displayed in reduced view by default
2. The “bell” icon should be displayed at the top of the sidebar
3. Additional result: The red mark with a number should be displayed (in case there is at least one event is in the system)

**Result**

**Comment**

#### **Test case 2. Open the sidebar**

**Test Action**

1. Click any area in the sidebar

**Expected Result**

1. The sidebar should be displayed in expanded view

**Result**

**Comment**

#### **Test case 3. Presence of elements on the sidebar**

**Test Action**

1. Open the sidebar by clicking any area on it
2. Verify the “bell” icon is displayed on the top of the sidebar
3. Additional step: Verify the red mark with a number is displayed on the "bell" icon (in case there is at least one event is in the system)
4. Verify an “Events” title is displayed on the top of the sidebar
5. Verify an “arrow” button is displayed on the top of the sidebar
6. Verify a sorting button is displayed in the sidebar
7. Verify the column headings ("Conflict", "Extimate", "Train", "Place", "Time To Act") are displayed in the sidebar
8. Verify the lines of events are displayed in the sidebar
9. Verify a "Conflict history" tab is displayed at the bottom of the sidebar.

**Expected Result**

1. The sidebar should be displayed in expanded view
2. The “bell” icon should be displayed on the top of the sidebar
3. Additional result: The red mark with a number should be displayed on the "bell" icon (in case there is at least one event is in the system)
4. An “Events” title should be displayed on the top of the sidebar
5. The “arrow” button should be displayed on the top of the sidebar
6. The sorting button should be displayed in the sidebar
7. The column headings ("Conflict", "Estimate", "Train", "Place", "Time To Act") should be displayed in the sidebar
8. The lines of events should be displayed in the sidebar
9. A "Conflict history" tab should be displayed at the bottom of the sidebar

**Result**

**Comment**

#### **Test case 4. Presence of elements in an event line**

**Test Action**

1. Open the sidebar by clicking any area on it
2. Verify a conflict icon is displayed in the "Conflict" column
3. Verify a time value in "HH:MM" format is displayed in the "Estimate" column
4. Verify a train number is displayed in the "Train" column
5. Verify an area name abbreviation is displayed in the "Place" column
6. Verify a time value in "MM min" format is displayed in the "Time To Act" column

**Expected Result**

1. The sidebar should be displayed in expanded view
2. A conflict icon should be displayed in the "Conflict" column
3. A time value in "HH:MM" format should be displayed in the "Estimate" column
4. A train number should be displayed in the "Train" column
5. An area name abbreviation should be displayed in the "Place" column
6. A time value in "MM min" format should be displayed in the "Time To Act" column

**Result**

**Comment**

#### **Test case 5. Close the sidebar (without the changes)**

**Test Action**

1. Open the sidebar by clicking any area on it
2. Click the “arrow” button

**Expected Result**

1. The sidebar should be displayed in expanded view
2. The sidebar should be displayed in reduced view

**Result**

**Comment**

#### **Test case 6. Close the sidebar (with the changes)**

**Test Action**

1. Open the sidebar by clicking any area on it
2. Do some actions in the sidebar (e.g., click the sorting button)
3. Click the “arrow” button
4. Repeat step 1

**Expected Result**

1. The sidebar should be displayed in an expanded view
2. The result of actions should be displayed in the sidebar (e.g., the sorting button should change color, events should be displayed in ascending order)
3. The sidebar should be displayed in reduced view
4. The sidebar should be displayed in an expanded view. All the changes made in step 2 should be displayed in the sidebar without changes

**Result**

**Comment**

#### **Test case 7. Work of the sorting button (ascending sorting)**

**Test Action**

1. Open the sidebar by clicking any area on it
2. Click the sorting button

**Expected Result**

1. The sidebar should be displayed in an expanded view
2. The sorting button should change a color from grey to blue. The events should be in ascending order by the “Time To Act” column

**Result**

**Comment**

#### **Test case 8. Work of the sorting button (descending sorting)**

**Test Action**

1. Open the sidebar by clicking any area on it
2. Click the sorting button
3. Repeat step 2

**Expected Result**

1. The sidebar should be displayed in an expanded view
2. The sorting button should change a color from grey to blue. The events should be in ascending order by the “Time To Act” column
3. The sorting button should change a color from blue to grey. The events should be in descending order by the “Time To Act” column

**Result**

**Comment**

#### **Test case 9. Work of the event line with an “exclamation” icon**

**Test Action**

1. Open the sidebar by clicking any area on it
2. Click any event line with an “exclamation” icon

**Expected Result**

1. The sidebar should be displayed in an expanded view
2. The event line should expand. At least one the solution suggested by the system should be displayed

**Result**

**Comment**

#### **Test case 10. Work of the event line with an “exclamation” icon. Selection of a suggestion**

**Test Action**

1. Open the sidebar by clicking any area on it
2. Click any event line with an “exclamation” icon
3. Click any suggestion
4. Click another suggestion

**Expected Result**

1. The sidebar should be displayed in an expanded view
2. The event line should expand. At least one the solution suggested by the system should be displayed
3. The suggestion line should be highlighted. The “Execute” button should become active (in blue color)
4. The newly selected suggestion line should be highlighted. The “Execute” button should become active (in blue color)

**Result**

**Comment**

## [**80500 WP2: Open a predefined GTT**](https://irs.hacon.de/irswiki/TpsCr/CustomerInnowise/ReqDisc80500_WP2%3A_Open_a_predefined_GTT?action=fullsearch&value=linkto%3A%22TpsCr/CustomerInnowise/ReqDisc80500+WP2%3A+Open+a+predefined+GTT%22&context=180)

### **Use cases**

As a User, I would like to start work quickly

* As a user I would like to open a GTT quickly by clicking on the area I'm interested in on one of the maps
* As a user I would like to open a GTT quickly by clicking on two stations in the Helsinki mini-map or by providing the necessary information myself through input fields
* As a user I would like to get operational quickly after login

Actor: Superuser, User

Action: Clicking a button

Preconditions: Being logged-in to the system

Result: User gets informed about conflicts, restrictions and other events about his dispatch area. Predefined GTTs for his dispatch area are opened

### **Use Case 1**

### On the dashboard screen the user wants to open an additional GTT quickly by clicking on an GTT area in the Finland or the Helsinki mini-map

### After logging-in the user needs to select the dispatch areas he is interested in getting information from

### **Use Case 2**

### The user wants to open an additional GTT quickly by clicking on two stations in the Helsinki minimap

### The stations & names in the map should correspond with the stations of this Fintraffic map:

### **Use Case 3**

The user wants to get operational quickly by clicking on one of the tiles see

### **Test suite “Open GTT by area” (Use Case 1)**

**Preconditions**:

1. User login the system with valid credentials (as {role})
2. The dashboard page (the home page) should be opened

#### **Test case 1. Presence of the elements**

**Test Action**

1. Verify four tiles for the dispatch areas are displayed on the Dashboard page (Day-Shift, Evening Shift, Weekend Shift, "area controller")
2. Verify maps (Finland, Helsinki) are displayed on the Dashboard page
3. Verify the “Create a new GTT” form is present on the Dashboard page

**Expected Result**

1. The four tiles for the the dispatch areas should be present (Day-Shift, Evening Shift, Weekend Shift, "area controller")
2. The map (Finland, Helsinki) should be present on the Dashboard page
3. The “Create a new GTT” form should be present on the Dashboard page

**Result**

**Comment**

#### **Test case 2. Hover map elements**

**Test Action**

1. Hover any map area on the Dashboard page
2. Hover any map title (e.g. “Osu”)

**Expected Result**

1. The area should change the color by hovering
2. The area should change the color by hovering a title

**Result**

**Comment**

#### **Test case 3. Opening a predefined GTT**

**Test Action**

1. Click any map areas name on the Dashboard page

**Expected Result**

1. The GTT window should be opened. The "station bank" associated with the Traffic Control Dispatch Area should be displayed at GTT

**Result**

**Comment**

### **Test suite “Open GTT by station sequence via Helsinki map” (Use Case 2)**

**Preconditions**:

1. User login the system with valid credentials (as {role})
2. The dashboard page (the home page) should be opened

#### **Test case 1. Presence of the elements at “Create a new GTT” form**

**Test Action**

1. Verify the field for train number input (“Train number”) is present in the “Create a new GTT” form
2. Verify the fields for station input (“Station 1”, “Station 2”) are present in the “Create a new GTT” form
3. Verify the field for intermediate station input (“Via (optional)”) is present in the “Create a new GTT” form
4. Verify the “Cancel” button is present in the “Create a new GTT” form
5. Verify the “Continue” button is present in the “Create a new GTT” form

**Expected Result**

1. The field for train number input (“Train number”) should be present in the “Create a new GTT” form
2. The fields for station input (“Station 1”, “Station 2”) should be present in the “Create a new GTT” form
3. The field for intermediate station input (“Via (optional)”) should be present in the “Create a new GTT” form
4. The “Cancel” button should be present in the “Create a new GTT” form
5. The “Continue” button should be present in the “Create a new GTT” form

**Result**

**Comment**

#### **Test case 2. “Continue” button is disable by default**

**Test Action**

1. Verify the “Continue” button is disable in the “Create a new GTT” form
2. Click the “Continue” button

**Expected Result**

1. The “Continue” button should be disabled and unavailable for clicking by default

**Result**

**Comment**

#### **Test case 3. Presence of the elements on the map**

**Test Action**

1. Verify the areas are present on the map
2. Verify the areas names are present on the map
3. Verify the train lines are present on the map
4. Verify the station circles are present on the map

**Expected Result**

1. The areas should be present on the map
2. The areas names should be present on the map
3. The train lines should be present on the map
4. The the station circles should be present on the map

**Result**

**Comment**

#### **Test case 4. Start label at station circles**

**Test Action**

1. Click any station circle at the map

**Expected Result**

1. The start station circle should become active. The label with the station name should be displayed. The “Station 1” fields in the “Create a new GTT” form should be automatically filled

**Result**

**Comment**

#### **Test case 5. Finish label at station circles**

**Test Action**

1. Click any station circle at the map
2. Click another station circle at the map

**Expected Result**

1. The start station circle should become active. The label with the station name should be displayed. The “Station 1” fields in the “Create a new GTT” form should be automatically filled
2. The finish station circle should become active. The label with the station name should be displayed. The “Station 2” fields in the “Create a new GTT” form should be automatically filled. The “Continue” button should become active.

**Result**

**Comment**

#### **Test case 6. Presence of elements at the station labels**

**Test Action**

1. Click any station circle at the map
2. Verify the cross button is present at the label
3. Click another station circle at the map
4. Verify the arrow button is present at the label

**Expected Result**

1. The start station circle should become active. The label with the station name should be displayed
2. The cross button should be displayed at the label
3. The finish station circle should become active. The label with the station name should be displayed
4. The arrow button should be displayed at the label

**Result**

**Comment**

#### **Test case 7. Edit station sequence**

**Test Action**

1. Click any station circle at the map
2. Click another station circle at the map
3. Click any other station circle

**Expected Result**

1. The start station circle should become active. The label with the station name should be displayed
2. The finish station circle should become active. The label with the station name should be displayed
3. The stations selected in steps 1 and 2 should be displayed active with labels. No additional stations should be activated as long as the start and end stations are selected

**Result**

**Comment**

#### **Test case 8. Close label at station circles**

**Test Action**

1. Click any station circle at the map
2. Click the cross button at the label

**Expected Result**

1. The start station circle should become active. The label with the station name should be displayed. The “Station 1” fields in the “Create a new GTT” form should be automatically filled
2. The label should disappear. The selected station circle should become inactive. The value from “Station 1” fields in the “Create a new GTT” form should be automatically deleted

**Result**

**Comment**

#### **Test case 9. Open GTT by station sequence**

**Test Action**

1. Click any station circle at the map
2. Click another station circle at the map
3. Click the arrow button at the label

**Expected Result**

1. The start station circle should become active. The label with the station name should be displayed. The “Station 1” fields in the “Create a new GTT” form should be automatically filled
2. The finish station circle should become active. The label with the station name should be displayed. The “Station 2” fields in the “Create a new GTT” form should be automatically filled
3. GTT window should be opened. The station name selected in step 1 should be displayed at the bottom of the GTT legend as an abbreviation. The station name selected in step 2 should be displayed at the top of the GTT legend as an abbreviation

**Result**

**Comment**

The same result by opening the “New GTT” window via “plus” button in step 3

## **Test Suite “GGTs tabs on the Dashboard” (Use Case 2)**

**Preconditions**

1. User login the system with valid credentials (as {role})
2. GTTs tabs should not be open (they will be open during the test suite execution)
3. The dashboard page (home page) should be open.

#### **Test case 1. Presence of GTTs tabs on the Dashboard**

**Test Action**

1. Open a GTT with any way (e.g., select two station at the Helsinki map and click "Continue" button)
2. Click “dashboard” button
3. Verify the tab of opened GTT is displayed on the Dashboard page

**Expected Result**

1. GTT window should be opened. The first station name should be displayed at the bottom of the GTT legend. The second station name should be displayed at the top of the GTT legend. Two stations names abbreviations should be displayed at the GTTs tab
2. The dashboard page (home page) should be opened
3. The GTTs tab should be displayed on the Dashboard page. The stations names abbreviations corresponding to step 1 should be displayed at the GTTs tab

**Result**

**Comment**

GTTs tab is displayed on the Dashboard in the same view as in the GTT window (see **0080142**: WP1: View several GTT windows at the same time. **Test case 3. Presents of elements on the tab (one GTT)** )

#### **Test case 2. GTTs tab for multiple GTTs on the Dashboard**

**Preconditions**

1. At least one GTTs tab should be present on the Dashboard

**Test Action**

1. Open a GTT with any way (e.g., select two station at the Helsinki map and click "Continue" button)
2. Combine the GTTs by drag and drop of another GTT to active one
3. Click “dashboard” button
4. Verify the tab of opened multiple GTT is displayed on the Dashboard page with the number of GTTs (“2” for this case)

**Expected Result**

1. GTT window should be opened. The first station name should be displayed at the bottom of the GTT legend. The second station name should be displayed at the top of the GTT legend. Two stations names abbreviations should be displayed at the GTTs tab
2. Two GTTs should be displayed in one window. The number of GTT should be present on the tab (“2” for this case)
3. The Dashboard should be opened
4. The GTTs tab should be displayed on the Dashboard. The number of GTT should be present on the tab (“2” for this case)

**Result**

**Comment**

GTTs tab is displayed on the Dashboard in the same view as in the GTT window (see **0080142**: WP1: View several GTT windows at the same time. **Test case 5. Presents of elements on the tab (several GTT)** )

#### **Test case 3. Reordering the tabs**

**Preconditions**

1. At least one GTTs tab should be present on the Dashboard

**Test Action**

1. Open a GTT with any way (e.g., select two station at the Helsinki map and click "Continue" button)
2. Click “dashboard” button
3. Click and hold the “move” icon at any tab
4. Drag the GTT to any place in tabs line
5. Put the GTT to any place in tabs line

**Expected Result**

1. GTT window should be opened. The first station name should be displayed at the bottom of the GTT legend. The second station name should be displayed at the top of the GTT legend. Two stations names abbreviations should be displayed at the GTTs tab
2. The Dashboard should be opened
3. The mouse cursor should change the shape to crossed arrows
4. The preview of the tab should appear between the other tabs. Other tabs should change places according the position of moving tab
5. The moved tab should displayed in the new position

**Result**

**Comment**

#### **Test case 4. Switch to the opened GTT from the Dashboard**

**Preconditions**

1. At least two GTTs tab should be present on the Dashboard

**Test Action**

1. Click any GTTs tab

**Expected Result**

1. The GTT window should be opened. The selected GTTs tab should be displayed active (underlined with the blue line)

**Result**

**Comment**

#### **Test case 5. Navigation arrows on the Dashboard**

**Preconditions**

1. The screen resolution should be 100%

**Test Action**

1. Open six GTTs tabs
2. Click “dashboard” button
3. Open the Sidebar by clicking at sidebar line

**Expected Result**

1. The GTT should be opened. Six GTTs tabs should be displayed in the tabs line. The Navigation arrows should be displayed right in the tabs line
2. The Dashboard should be opened. Six GTTs tabs should be displayed in the tabs line without the navigation arrows.
3. The Sidebar should be opened. The navigation arrows should be displayed right in the tabs line

**Result**

**Comment**

#### **Test case 6. Close GTT tab from the Dashboard**

**Preconditions**

1. At least one GTTs tab should be present on the Dashboard

**Test Action**

1. Click the “cross” button at any GTT tab

**Expected Result**

1. The GTT tab should be closed and disappeared from the Dashboard

**Result**

**Comment**

**Test Suite “Open GTT via control area tiles” (Use Case 3).** See in Task 81653

## **80501 WP2: Open GTT by station sequence**

### **Use cases**

#### **Use Case 1**

Generation of a GTT based on user input of two stations and a list view of possible routes

The system autocompletes (this applies to all use cases) any user input and lets the user only input valid values.

Stations can be input either by writing the name (e.g. Helsinki) or its 3-letter abbreviation (HKI).

#### **Use Case 2**

Generation of a GTT based on user input of one train.

The client will show a list of suggestions while typing in a train number. The suggestion consists of the train number and a description of the train's ODT (definition of ODT see under Terminology).

The server offers a REST resource returning a set of train descriptors. A train descriptor contains the train ID, the train number and a description of the train ODT. The resource will take three parameters:

* a string as a search pattern for fitting train numbers. If empty, all trains are valid
* optional a limit value (int): number of train descriptors that should be returned
* optional an offset value (int): for combination with the limit value to offer a pagination mode.

#### **Use Case 3**

Generation of a GTT based on user input of one traffic control area

The client will show a list of suggestions while typing in a search string. The suggestion consists of the station bank name.

The server offers a REST resource returning a set of station bank descriptors. A station bank descriptor contains the station bank ID and station bank name. The resource will take three parameters:

* a string as a search pattern. It searches in the stationbank name and in the station bank description. If empty, all station banks are valid.
* optional a limit value (int): number of descriptors that should be returned
* optional an offset value (int): for combination with the limit value to offer a pagination mode.

#### **Use Case 4**

As a user I want to see in the GTT, the more relevant stations (commercial stations) with bold format.

* Actor: System
* Action: All the commercial stations with bold format and the remaining stations and track circuits with plain text format.
* Preconditions: Distinguish the commercial stations from the other stations

### **Test suite “Open new GTT” via “Create a new GTT” form (station sequence Use Case 1, train number - Use Case 2)**

**Preconditions**:

1. User login the system with valid credentials (as {role})
2. The dashboard page (the home page) should be opened

#### **Test case 1. Activation of form fields "Create new GTT"**

**Test Action**

1. Click the “Station 1” field on "Create new GTT" form
2. Repeat step 1 for “Station 2”, “Train number” and “Via (optional)” fields

**Expected Result**

1. The corresponding field name should display at the top of the field
2. The placeholder with corresponding value should display in the field. The drop-down list with the “No data” value should be opened

**Result**

**Comment**

#### **Test case 2. Autocomplete in the fields (positive)**

**Test Action**

1. Start typing any valid value in the “Station 1” field(e.g., “Asola”)

**Expected Result**

1. Characters should display in the field. The drop-down list with corresponding values should open

**Result**

**Comment**

Stations can be input either by writing the name (e.g. Helsinki) or its 3-letter abbreviation (HKI). Input is case insensitive

#### **Test case 3. Autocomplete in the fields (negative)**

**Test Action**

1. Start typing any invalid value in the “Station 1” field(e.g., “1”)

**Expected Result**

1. Characters should display in the field. The drop-down list should open. “No data” should be the one option in the list

**Result**

**Comment**

#### **Test case 4. Autocomplete in the fields. Select a value**

**Test Action**

1. Start typing any valid value in the “Station 1” field
2. Select any value from the drop-down list

**Expected Result**

1. Characters should display in the field. The drop-down list with corresponding values should open
2. The drop-down list should be closed. The selected value should display in the “Station 1” field

**Result**

**Comment**

This test case is applicable for each field on "Create new GTT" form

#### **Test case 5. Autocomplete in the fields. Work of “Continue” button (positive)**

**Test Action**

1. Start typing any valid value in the “Station 1” field
2. Select any value from the drop-down list
3. Repeat steps 1-3 for “Station 2” field

**Expected Result**

1. Characters should display in the field. The drop-down list with corresponding values should open
2. The drop-down list should be closed. The selected value should display in the “Station 1” field
3. The selected values should display in the “Station 1” and “Station 2” fields. The “Continue” button should become active

**Result**

**Comment**

#### **Test case 6. Autocomplete in the fields. Work of “Continue” button (negative)**

**Test Action**

1. Start typing any valid value in the “Station 1” field
2. Select any value from the drop-down list
3. Repeat steps 1-2 for “Station 2” field
4. Remove a value from any station field

**Expected Result**

1. Characters should display in the field. The drop-down list with corresponding values should open
2. The drop-down list should be closed. The selected value should display in the “Station 1” field
3. The selected values should display in the “Station 1” and “Station 2” fields. The “Continue” button should become active
4. The “Continue” button should become inactive. It is impossible to create a new GTT with only one station field filled in.

**Result**

**Comment**

#### **Test case 7. Autocomplete in the fields. Abbreviation**

**Test Action**

1. Start typing any valid abbreviation in the “Station 1” field (e.g. “TKU”)

**Expected Result**

1. Characters should display in the field. The drop-down list with the values should open. The corresponding station names in the full view should be displayed in the drop-down list (e.g. “Turku asema”, “Turku tavara” for this case)

**Result**

**Comment**

#### **Test case 8. Create new GTT by station sequence**

**Test Action**

1. Start typing any valid value in the “Station 1” field
2. Select any value from the drop-down list (e.g. “Helsinki asema”)
3. Repeat steps 1-2 for “Station 2” field (e.g. “Pukinmäki”)
4. Click “Continue” button

**Expected Result**

1. Characters should display in the field. The drop-down list with corresponding values should open
2. The drop-down list should be closed. The selected value should display in the “Station 1” field (e.g. “Helsinki asema”)
3. The selected values should display in the “Station 2” field (e.g. “Pukinmäki”). The “Continue” button should become active
4. GTT window should open. The station selected in step 2 should display in bold at the bottom of GTT (see in the legend). The station selected in step 3 should display in bold at the top of GTT (see in the legend)

**Result**

**Comment**

The test case is also applicable for Use Case 4

#### **Test case 9. Create new GTT by station sequence using “Via” station**

**Test Action**

1. Start typing any valid value in the “Station 1” field
2. Select any value from the drop-down list (e.g. “Helsinki asema”)
3. Repeat steps 1-2 for “Station 2” field (e.g. “Pukinmäki”)
4. Repeat steps 1-2 for “Via (optional)” field (e.g. “Pasila tavara”)
5. Click “Continue” button

**Expected Result**

1. Characters should display in the field. The drop-down list with corresponding values should open
2. The drop-down list should be closed. The selected value should display in the “Station 1” field (e.g. “Helsinki asema”)
3. The selected value should display in the “Station 2” field (e.g. “Pukinmäki”). The “Continue” button should become active
4. The selected value should display in the “Via (optional)” field (e.g. “Pasila tavara”)
5. GTT window should open. The station selected in step 2 should be displayed in bold at the bottom of GTT (see in the legend). The station selected in step 3 should be displayed in bold at the top of GTT. The station selected in step 4 should be displayed in the middle of GTT

**Result**

**Comment**

The test case is also applicable for Use Case 4

#### **Test case 10. Automatic deletion data from the fields**

**Test Action**

1. Fill in the “Station 1” field with a valid value
2. Fill in the “Station 2” field with a valid value
3. Start typing any valid value in the “Train number” field
4. Select any value from the drop-down list

**Expected Result**

1. The selected value should be displayed in the “Station 1” field
2. The selected value should be displayed in the “Station 2” field
3. Characters should display in the “Train number” field. The drop-down list with corresponding values should open.The value selected in step 2 should be automatically removed from the “Station 1” field. The value selected in step 3 should be automatically removed from the “Station 2” field
4. The value selected in step 4 should display in the “Train number” field

**Result**

**Comment**

There is no possibility to combine the ways of GTT creation

#### **Test case 11. Create new GTT by one train**

**Test Action**

1. Start typing any valid value in the “Train number” field (e.g., “1”)
2. Select any value from the drop-down list
3. Click “Continue” button

**Expected Result**

1. Characters should display in the field. The drop-down list with corresponding values should open
2. The drop-down list should be closed. The selected value should display in the “Train number” field
3. GTT window should open. The train selected in step 2 should display in the GTT

**Result**

**Comment**

## **0081653: WP2: Open a simple GTT**

### **Use cases**

The system shall allow the user to open a single GTT showing the required data (trains, restrictions).

#### **Use Case 1**

After logging-in the user needs to select the dispatch areas he is interested in getting information from by clicking on one of the three tiles ("choose a control area").

Use case 1 (Left part): 1-3 Tiles are displayed: Day-Shift, Evening Shift, Weekend Shift. Plus additionally an "area controller tile" which gets the information and GTTs for the whole Traffic Control-Area.

A click on one of those tiles, e.g. "Day-Shift / Päivävuoro" will open the GTTs of the Pirkanmaa, Vakka and Haapa Traffic Control Areas.

### **Test cases**

**Preconditions**:

1. User should be login the system (as {role})
2. The Dashboard page (home page) should be opened

#### **Test case 1. Presence of tiles**

**Test Action**

1. Verify the three tiles for the dispatch areas are displayed on the Dashboard page (Day-Shift, Evening Shift, Weekend Shift)
2. Verity the additional tile for "area controller" is displayed on the Dashboard page

**Expected Result**

1. The three tiles for the dispatch areas should be displayed on the Dashboard page (Day-Shift, Evening Shift, Weekend Shift)
2. The additional tile for "area controller" should be displayed on the Dashboard page (Day-Shift, Evening Shift, Weekend Shift)

**Result**

**Comment**

#### **Test case 2. Presence of elements on the tiles**

**Test Action**

1. Verify the title is displayed on a tile
2. Verity the “Dispatch Areas” is displayed on a tile

**Expected Result**

1. The title should be displayed on a tile
2. The “Dispatch Areas” should be displayed on a tile

**Result**

**Comment**

#### **Test case 3. Opening a dispatch area**

**Test Action**

1. Click any tile for the dispatch areas are displayed on the Dashboard page (Day-Shift, Evening Shift, Weekend Shift, "area controller")

**Expected Result**

1. The GTT window with corresponding data should be opened

**Result**

**Comment**

## **0080515: WP5: Train labels in GTT**

**Use cases**

3px lines = train labels in B2-Black (Public Sans - 14px - Extrabold)

1px lines = train labels in B2-Regular (Public Sans - 14px - Regular)

Train labels are in the same color as corresponding train line

### **Test suite**

Preconditions:

1. User login the system with valid credentials (as {role})
2. A GTT window should be opened

#### **Test case 1. Presence of the trains labels**

**Test Action**

1. Verify the train labels are present next to the train lines
2. Verify the train label is the train ID (e.g. “T 3405”)

**Expected Result**

1. The train labels should present next to the train lines
2. The train labels should be train ID (e.g. “T 3405”)

**Result**

**Comment**

#### **Test case 2. Font of the trains labels**

**Test Action**

1. Verify the train labels next to bold train lines (actual train traffic) are in bold
2. Verify the train labels next to thin train lines (planned train movements) are in regular font

**Expected Result**

1. The train labels next to bold train lines should be in bold
2. The train labels next to thin train lines should be in regular font

**Result**

**Comment**

#### **Test case 3. Trains labels at zooming**

**Preconditions**

1. Select the train line which change direction

**Test Action**

1. Zoom in the map until duplicate of train labels are displayed

**Expected Result**

1. Train labels should duplicated on parts with a changed direction (if they fit)

**Result**

**Comment**

#### **Test case 4. Trains labels at scrolling**

**Test Action**

1. Scroll in the map to the right or left

**Expected Result**

1. The train labels should be displayed next to the trains lines without changing place

**Result**

**Comment**

## **0080502: WP3: Close a GTT window**

### **Use cases**

Use case 1

Close GTT window by clicking “cross” button on the tab

### **Test cases**

**Preconditions**:

1. User should be login the system (as {role})
2. GTT window should be opened

#### **Test case 1. Presence of the “cross” button**

**Test Action**

1. Verify the “cross” button is present at the GTT tab

**Expected Result**

1. The “cross” button should present at the GTT tab

**Result**

**Comment**

#### **Test case 2. Close all the one opened GTT**

**Preconditions:**

1. The one GTT tab should be opened

**Test Action**

1. Click the “cross” button at the current GTT tab

**Expected Result**

1. The GTT tab should be closed. The empty GTT page should be displayed

**Result**

**Comment**

#### **Test case 3. Close one of the opened GTT**

**Preconditions:**

1. At least two GTT tab should be opened

**Test Action**

1. Click the “cross” button at the current GTT tab

**Expected Result**

1. The GTT tab should be closed. Another GTT opened page should be displayed

**Result**

**Comment**

**Test case 4. Close the GTT tab (not current)**

**Preconditions:**

At least two GTT windows should be opened

**Test Action**

1. Click the “cross” button at any GTT tab (not current)

**Expected Result**

1. The GTT tab should be closed. The current GTT window should be displayed

**Result**

**Comment**

#### **Test case 5. Presence of the “Close GTT” option**

**Test Action**

1. Click the “menu” button in the left corner of the GTTs
2. Verify the “Close GTT” option is present

**Expected Result**

1. The drop-down menu for managing GTT should be opened
2. The “Close GTT“ option should present in the drop-down menu

**Result**

**Comment**

**Test case 6. Close the single GTT via “Close GTT” option**

**Preconditions:**

1. The single GTT windows should be opened
2. The one GTT tab should be opened

**Test Action**

1. Click the “menu” button in the left corner of the GTTs
2. Click the “Close GTT” option

**Expected Result**

1. The drop-down menu for managing GTT should be opened
2. The GTT tab should be closed. The empty GTT page should be displayed

**Result**

**Comment**

**Test case 7. Close the one of multiple GTT via “Close GTT” option**

**Preconditions:**

1. At least two GTT should be opened in the one window

**Test Action**

1. Click the “menu” button in the left corner of any GTTs
2. Click the “Close GTT” option

**Expected Result**

1. The drop-down menu for managing GTT should be opened
2. The current GTT should be closed. One less GTT should be displayed in the window

**Result**

**Comment**

#### **Test case 8. Close the GTT tab from the Dashboard**

**Preconditions:**

1. The Dashboard should be opened
2. At least one GTT tab should be present

**Test Action**

1. Click the “cross” button at any GTT tab

**Expected Result**The GTT tab should be closed and disappeared from the Dashboard

**Result**

**Comment**