



GIR Titan-Hyperion  
*User manual*

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# Introduction



# Overview

GIR Titan-Hyperion is a fleet management software. It covers fuel delivery, assignment of vehicles to drivers, vehicles maintenances, access to the station or to buildings, vehicles keys delivery.



Part I

Instructions for use



# Chapter 1

## Data entry

### 1.1 Vehicles

▷ Vehicles

#### 1.1.1 General information

**Num.:** number automatically assigned to each vehicle by GIR Titan-Hyperion. This number is unique to each vehicle. When a ticket is printed after a fueling, this number may be used to identify the vehicle (See 2.8, page 59).

**Registration:** registration of the vehicle. It is used to refer to a vehicle in the software, and must be unique to each vehicle.

**Ref.:** Value used to refer to a vehicle in specific exports.

#### 1.1.2 Identification

Fields: Badge num., Badge type, Badge code, Code, Identification

A vehicle may be identified on the CPU by three different ways:

- Identification by code:

Identification	<i>Code</i>
Badge num.	Optional
Badge type	<i>(N/A)</i>
Badge code	Empty
Code	Filled in

- Identification by a GIR proximity badge:

Identification	<i>Badge</i>
Badge num.	Number written on the proximity badge
Badge type	<i>(N/A)</i>
Badge code	Chip code of the proximity badge
Code	Advised

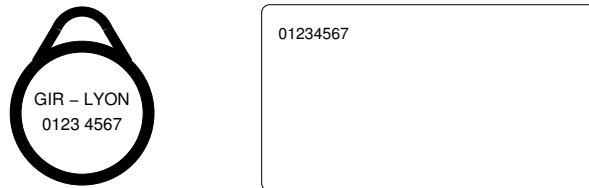
- Identification by a specific badge:

Identification	<i>Badge</i>
Badge num.	Optional
Badge type	Specific badge type
Badge code	Chip code of the specific badge
Code	Advised

When identifying by badge, entering a code is not necessary, nonetheless, it is advised. If no code is defined, the vehicle will only be identified by its badge. If a code comes along with a badge, it may be used to identify the vehicle through the help of the pump attendant (See 2.3, page 51). This can be useful if someone has lost or forgotten his badge. The code is also used to identify a vehicle in the printed transactions from the live printer.

Each vehicle should be identified with a unique code, hence it is forbidden to define several vehicles with the same code. A code can be numerical or alphanumeric.

### 1.1.3 Entry of a GIR proximity badge



The above picture shows two examples of GIR proximity badges which number is 01234567. Several methods are available to facilitate the entry of such badges:

#### Via a proximity file

The initialization of GIR proximity badges may automatically occur from proximity files, supplied during the installation. Two methods exist:

- Enter the number written on the badge in the **Badge num.** field while creating or modifying a vehicle. After the validation, GIR Titan-Hyperion automatically looks for an associated chip code. If such code is encountered, a message allowing to automatically update the **Badge code** field appears. A click on **Yes** validates the update.

This procedure can be made totally transparent by enabling the *Strict proxi file* and *Hide id+badge code* options in the **Manager config.**

- Click on **Read proxi. file** in the **General** tab. Then, enter the number which is written and validate.

For GIR proximity badges delivered since 2005, the number to enter in the **Badge num.** field is composed of the 8 numbers written on the badge and begins with 2 or 3 (ex: 23450000).

Proximity files must be placed in the `data\dti` directory. These are text files containing on each line a badge number and the associated chip code.

GIR Titan-Hyperion provides several tools to check that proximity files are correctly used:

- In ▷ Misc., Proxi files consistency:
  - Vehicles - Fuel and Drivers show the list of vehicles or drivers for which Badge num. and Badge code fields don't match proximity files.
  - Badges shows a list of all badge numbers defined in proximity files, and vehicles or drivers to which they are assigned. A badge assigned to several vehicles or drivers is shown in red. The manager can automatically create vehicles or drivers for unassigned badges.
- In ▷ Config., Verifications, Check proxi. file, It is possible to consult the available proximity files as well as their content.

### On the CPU

The initialization of GIR proximity badges may be directly realized on the CPU, via the attendant menu.

The vehicle must have the following parameters:

Badge num.	Optional
Badge type	<i>(N/A)</i>
Badge code	Empty
Code	Filled in
Identification	<i>Badge init.</i>

The initialization is done by typing the vehicle code before using the badge. The detailed procedure is available in the attendant menu description (See 2.5.4, page 55).

The vehicle **Badge code** field in GIR Titan-Hyperion will automatically be assigned during the first transactions retrieval which will follow the initialization. This can involve difficulties when several CPUs are being used at the same time (See 3.1.1, page 61).

### 1.1.4 Meters

Each vehicle possesses a milometer and an hour meter. It is not possible to directly modify the value of a meter, a fuel transaction must be carried out.

There is a range of tolerance for each meter, which allows to check the value entered by someone while fueling (For more details, see 4.1, page 69).

The meters and ranges defined for a vehicle are displayed under the **General** tab.

### 1.1.5 Options

**Spec. code:** Defines a default specific code, that will be automatically assigned to this vehicle's transactions when no specific code has been explicitly

entered. This field is only visible when the *Default spec. code* feature has been enabled in the Manager config. (See 1.9, page 34).

**Options:**

- *Forbidden*: The vehicle cannot refuel.
- *Secret code*: The entry of a secret code is required after the identification. This code is defined in the Code field. This option is not available if *Code + Secret code vehicles* is enabled in Installer config.. See below for more details about this option.

**Options fuel:**

- *Id. driver*: A driver identification is required after having identified the vehicle.
- *Attendant*: The vehicle is an attendant (See 2.3, page 51).
- *Attendant menu*: The vehicle can access the attendant menu (See 2.4, page 52).
- *Activity code*: An activity code is asked after the identification (See 1.4, page 24).
- *Specific code*: A specific code is asked after the identification (See 1.5, page 25).
- *Ticket*: Enables ticket printing at the end of this vehicle's transactions (only with a ticket printer).
- *Disable cons. comput.*: Disables covered miles and consumption computing for this vehicle.
- *Mutualized*: When vehicles authorization by driver is enabled (See 1.9, page 34), this option sets the vehicle as "Mutualized". This makes the vehicle available to all drivers with the *Auth. on mutu.* option, in addition to standard authorizations.
- *Inhib. ext. vehic.*: When the *Vehicle ext.* feature is enabled in the Manager config., this option cancels it for this vehicle.
- *Forceable meter*: When this option is enabled, meter range control can be bypassed when entering a meter on the CPU (TIP2-Vatersay only). This requires to enter the same meter twice, then to confirm that the value must be forced.
- *Show cons.*: Enables the display of instantaneous consumption on the CPU, at the end of a transaction (TIP2-Vatersay only).
- *Rental*: Enables short-term rental management on this vehicle (See 1.1.11, page 20), when the feature is enabled in the Manager config..

**Option *Code + Secret code***

By default, vehicles only have one Code field, which is used to identify the vehicle (directly or via the attendant), and to serve as a secret code if the *Secret code* option described above is activated.

Should we wish that the vehicles could be identified by code, then confirm their identification with an additional secret code, the *Code + Secret code vehicles* option in the `Installer config` table should be activated. This option can only be activated by GIR Titan-Hyperion installer.

When this option is enabled, a new `Secret code` field appears in the vehicle modification form, and the existing `Code` field length is reduced by 2. The `Secret code` is numerical and composed of 4 figures. The zero value means “no secret code”.

The following table sums up the different available identification modes, as well as the field which will be used as a secret code. The identification method of a vehicle may be consulted in the vehicle sheet `General` tab.

Identification	Without the C+Sc option	With the C+Sc option
Badge	Yes	Yes
Code	Yes (8 characters)	Yes (6 characters)
Badge + Secret code	Yes ( <code>Code</code> field)	Yes ( <code>Secret code</code> field)
Code + Secret code	No	Yes ( <code>Secret code</code> field)

### 1.1.6 Messages

Only one message can appear on the terminal for each vehicle. If a vehicle has several messages, the one with top priority will appear, following this priority:

1. Maintenance message
2. Message attached to the vehicle (`Message` field)
3. Message attached to the vehicle’s department (only if the vehicle is authorized on the CPU)

The attachment of a message to a vehicle is done by clicking on `Modif.` in the vehicle sheet `General` tab.

### 1.1.7 Authorization

In addition to the *Forbidden* option, two criteria determine a vehicle access rights.

**Zone** defines the zones in which the vehicle is authorized (See 1.6, page 25).

**Expiry** allows to define a time limited authorization: if a vehicle’s expiry is set to *31/12/2004*, it won’t be able to use the CPU from January 1 2005 at midnight.

The vehicle sheet `General` tab allows to quickly visualize the access rights:

**Green square:** The vehicle is authorized, a summary of the authorized zones and sets is displayed.

**Red square:** The vehicle is forbidden, and the reason is displayed. A vehicle may be forbidden for the following reasons:

- *Forbidden:* the *Forbidden* option is enabled.

- *Expired*: the deadline has expired.
- *Blocked: maintenance not done*: one of the vehicle's maintenance has reached the blocking limit (See 9, page 95).
- *No zone*: the vehicle is not authorized on any zone.
- *Insufficient credit*: the vehicle no longer has any credit.

### 1.1.8 Tanks

#### Generalities

Tanks specify which products a vehicle is entitled for. They may be consulted via the vehicle sheet's **Tanks** tab. The **Capacity** field specifies the maximum fuel quantity that can be taken during a fueling. If the **Capacity** value is *(N/A)*, this quantity is not limited.

A tank **Options** specify which meters are asked at the CPU when a vehicle is fueling: *Meter (miles)* to enter a milometer, *Meter (hours)* to enter an hour meter.

The *Fuel* option is only useful for vehicles with several fuel products (Super, GPL, ...). In this case, we would tick the fuel option for fuel products, and would keep it disabled for other products (oil, windscreen, ...). The *Fuel* option is useful when computing the consumption and the covered miles during the processing of a fuel transaction).

#### Capacity credit

The *Capacity credit* option allows to restrict the fuel quantity that a vehicle can take on short periods (TIP2-Vatersay only). When at least one product has the *Capacity credit* option, a field named **N hours** shows up in the **Tanks** tab. It defines the minimum duration during which the capacity can be delivered.

Ex: A vehicle is defined with a 100L gasoil tank. The *Capacity credit* option is enabled, and the **N hours** field is set to 4. Then the vehicle can take at most 100L of gasoil every 4 hours.

The other fields in the **Credits** section will be explained in the credits chapter (Chapter 10, page 101). If credits are not managed, leave these fields to *(N/A)*.

#### Consumption management

Consumption criteria can be defined:

- Specifically for each vehicle, under the **Tanks** tab in the vehicle sheet.
- For each vehicle model, in  $\triangleright$  **Misc, Vehicles models**, when this feature has been enabled in the **Manager config**.

The **Cons. (miles)** and **Cons. (hours)** fields represent the reference consumptions for a given product. They are used to determine if a vehicle over or underconsumes. If those values are *(N/A)*, there won't be any over or under-consumption indicator. The tolerance limit for the reference consumptions is defined in the **Manager config**. (See 1.9, page 34).

It is also possible to define customized values for these limits, via the Min. cons. (miles) and Max. cons. (miles) fields (repectively Min. cons. (hours) and Max. cons. (hours) for hour meters). If those two fields are *(N/A)*, the limit defined in the Manager config. is used. If at least one of those two is defined, customized values are used. Leaving one of those two limits to *(N/A)* allows to disable the over or underconsumptions for a given vehicle.

Tolerance ranges are displayed in the tanks list.

The table below emphasizes the different possibilities. “Reference”, “Min.” and “Max.” respectively refer to the reference consumption and the customized limit values, defined in the vehicle’s tank. “Undercons. tol.” and “Overcons. tol.” refer to the limits defined in the Manager config.:

Reference	Min.	Max.	Undercons. tol.	Overcons. tol.	Range
<i>(N/A)</i>	ignored	ignored	ignored	ignored	<i>(N/A)</i>
10.00	<i>(N/A)</i>	<i>(N/A)</i>	30.00 %	20.00 %	7.00 - 12.00
10.00	<i>(N/A)</i>	<i>(N/A)</i>	<i>(N/A)</i>	25.00 %	<i>(N/A)</i> - 12.50
10.00	5.00	14.00	ignored	ignored	5.00 - 14.00
10.00	<i>(N/A)</i>	14.00	ignored	ignored	<i>(N/A)</i> - 14.00

### 1.1.9 Other information

The **Maintenances** and **Last maintenances** tabs concern maintenances and will be detailed in the corresponding chapter (Chapter 9, page 95).

The **Last transactions** tab allows to access the last 10 transactions of the vehicle.

If vehicles authorization by driver is enabled (See 1.9, page 34), the **Auth. drivers** tab shows the drivers who are entitled to use this vehicle.

### 1.1.10 Scrapping a vehicle

This paragraph describes how to scrap a vehicle in GIR Titan-Hyperion.

1. Edit the vehicle by clicking on **Modif.**
2. In the **Badge num.** field, add a ‘-’ just before the number.
3. In the **Badge code** and **Code** fields, delete the current value and leave the fields empty.
4. Tick the *Forbidden* option.
5. Save the changes by clicking on **Validate**
6. Go to the **Maintenances** tab and tick the *Disabled* option for each maintenance of the vehicle.

The scrapped vehicle is no longer recognized on the CPU and its badge may be assigned to another vehicle.

This method allows to not erase the scrapped vehicle, in order to keep a trace of its transactions. If we sum up a period with both the transactions of

the scrapped vehicle and the transactions of the new vehicle, both vehicles will appear on separate lines.

### 1.1.11 Short-term rental

Short-term rental management allows to use a single vehicle in the database to handle several real vehicles that are rented successively during short periods.

This feature is enabled by the *Short-term rental* option in the Manager config.. When it is so, the *Rental* option becomes visible in the vehicles options. Generally, the *Default spec. code* feature will also be used to distinguish between multiple rental vehicles.

A vehicle with the *Rental* option has the following attributes:

- A button is available in the **General** tab to start or to stop a rental period:
  - The bouton **Start short-term rental** button shows a form where information on the new vehicle (specific code, meters. . .) can be entered. When this form is validated, the new data is stored into the vehicle, a transaction is created to initialise meters, and the vehicle becomes authorized.
  - The button **End short-term rental** terminates the rental period: the vehicle becomes forbidden until the next start.

When an expiry date is defined, the rental is automatically terminated when the expiry date is reached.

- The specific code is displayed between brackets in the vehicle name:
  - In selection lists (default spec. code of the vehicle)
  - In the transactions history (transaction spec. code)

When a rental period is started, a transaction is created with the *Renewed meter* option, which guarantees that consumptions will be correctly computed for the different rental periods (See 7.1, page 87).

**Example:** A vehicle is defined with *Rent1* in its Registration field. A rental is started with the specific code *1111ZZ69*. After several transactions, the rental is terminated, and another one is started with the specific code *2222ZZ69*.

The transactions history will contain the following data:

Vehicle	Meter (mi)	Covered (mi)	Options
<i>Rent1 [1111ZZ69]</i>	53 000	(N/A)	<i>Renewed meter</i>
<i>Rent1 [1111ZZ69]</i>	53 700	700	
<i>Rent1 [1111ZZ69]</i>	54 500	800	
<i>Rent1 [2222ZZ69]</i>	27 300	(N/A)	<i>Renewed meter</i>
<i>Rent1 [2222ZZ69]</i>	27 900	600	

## 1.2 Drivers

▷ Drivers

### 1.2.1 General information

**Num.:** number automatically assigned to each driver by GIR Titan-Hyperion. This number is unique to each driver. When a ticket is printed after a fueling, this number may be used to identify the driver (See 2.8, page 59).

**Name, Firstname:** Name and firstname of a driver. It is used to refer to a driver in the software.

**Ref:** Value used to refer to a driver in specific exports.

### 1.2.2 Identification

Fields: Badge num., Badge type, Badge code, Code, Identification

The definition of identification settings for a driver is the same as the one described for vehicles (See 1.1.2, page 13).

### 1.2.3 Options

**Options.:**

- *Forbidden:* The driver cannot refuel.
- *Secret code:* The entry of a secret code is required after the identification. This code is defined in the Code field. This option is not available if *Code + Secret code drivers* is enabled in Installer config.. See 1.1.5, page 15 for more details about this option.

**Options fuel:**

- *Id. vehicle:* A vehicle identification is required after the driver identification.
- *Attendant:* The driver is an attendant (See 2.3, page 51).
- *Attendant menu:* The driver can access the attendant menu (See 2.4, page 52).
- *Activity code:* An activity code is asked after the identification (See 1.4, page 24).
- *Specific code:* A specific code is asked after the identification (See 1.5, page 25).
- *Auth. on mutu.:* When vehicles authorization by driver is enabled (See 1.9, page 34), this option allows the driver to use “mutualized” vehicles.
- *Inhib. ext. vehic.:* When the *Vehicle ext.* feature is enabled in the Manager config., this option cancels it for this driver.

**CPU lang.:** Defines the language to use on the CPU after the driver has been identified (TIP2-Vatersay only). This field is only available if the corresponding feature has been enabled in the Manager config..

**Download freq.:** Defines the frequency (in days) between two tachograph card downloads (TIP2-Vatersay only). (*N/A*) means that card download is disabled for this driver. This field is only available when CPUs are configured to download tachograph cards.

#### 1.2.4 Messages

Only one message can appear on the CPU for each driver. If a driver has several messages, the one with top priority will appear, following this priority:

1. Maintenance message
2. Message attached to the driver (*Message* field)
3. Message attached to the driver's department (only if the driver is authorized on the CPU).

To attach a message to a driver, click on *Mod.* in the user sheet's *General* tab.

#### 1.2.5 Authorization

In addition to the *Forbidden* option, two criteria determine a user access rights.

**Zone** defines zones in which the user is authorized (See 1.6, page 25).

**Expiry** allows to define a time limited authorization: if a driver's expiry is set to *31/12/2004*, it won't be able to use the CPU from January 1 2005 at midnight.

The driver sheet *General* tab allows to quickly visualize the access rights:

**Green square:** The driver is authorized, a summary of the authorized zones and sets is displayed.

**Red square:** The driver is forbidden, and the reason is displayed. A driver may be forbidden for the following reasons:

- *Forbidden:* the *Forbidden* option is enabled.
- *Expired:* the deadline has expired.
- *No zone:* the driver is not authorized on any zone.

#### 1.2.6 Other information

*Maintenances* and *Last maintenances* tabs refer to maintenances management and will be detailed in the corresponding chapter (Chapter 9, page 95).

If vehicles authorization by driver is enabled (See 1.9, page 34), the *Auth. vehicles* tab allows to define which vehicles the driver is authorized to use.

By default, a driver is entitled to use all vehicles. Authorizations can be defined:

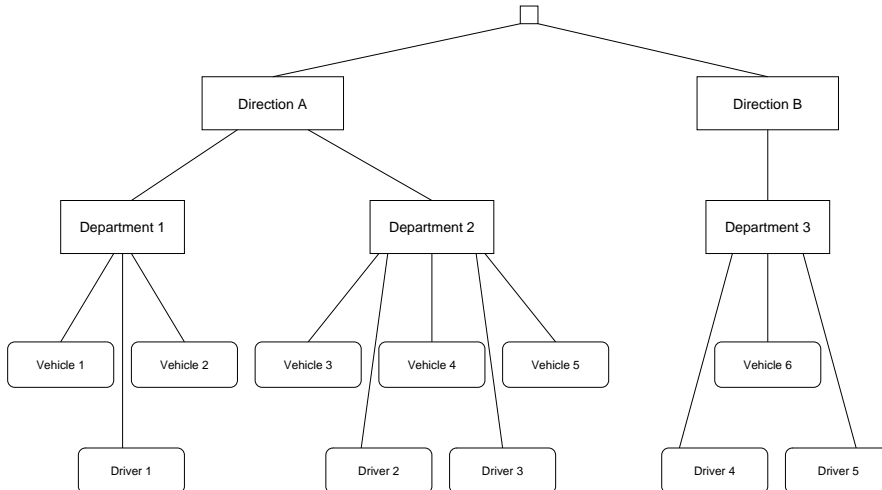
- By department, direction or department group, depending on the configuration.
- On particular vehicles.

The Last transactions tab allows to access the last 10 transactions of the driver.

## 1.3 Assignment of vehicles and drivers

### 1.3.1 Directions and departments

▷ Misc, Directions



The field **Department** in vehicles and drivers refers to the department to which they are assigned. Each department is itself connected to a direction.

Direction and department assignment is used in the following operations:

- Transactions sums computing (See 5.1.2, page 74)
- Assignment of a given message to all vehicles or drivers of a department, using the **Message to drivers** or **Message to vehicles** field of the desired department. This message may not appear on the CPU if there is a message with a superior priority (See 1.1.6, page 17 and 1.2.4, page 22).
- Definition of credits by department (See 10, page 101).
- Definition of users rights (See 1.8, page 29).
- Definition of transactions closure (see below).

#### Transactions closure

Transaction closure can be enabled by defining a **Closure day** in ▷ Misc, Manager config., then ticking the **Closure** option in the desired directions or departments.

Once this configuration has been done, the ▷ Management, Closures menu allows to close completed months for all selected departments. When a period is closed on a given department, it becomes impossible to modify or to create new transactions in this department during this period.

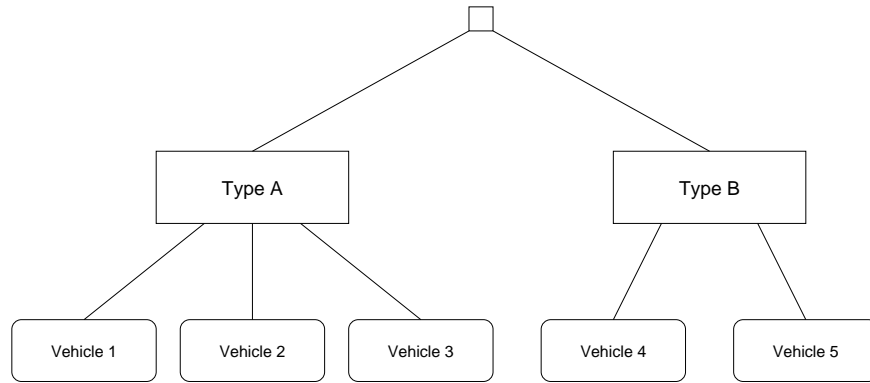
Transaction closure is available to standard users who have the closure right enabled (see 1.8, page 29, advanced mode). The main manager can also reopen a period that has been closed.

When a period is not closed and that the closure day has been reached, an alert is generated. Example: the closure day is set to 10. From the first to the tenth day of the month, a “closure to do” message is displayed on the dashboard, as long as the closure is not done. If it is still not done on the 10th, an alert is generated and the dashboard message is updated to “closure not done”.

Note: a period can only be closed when all transactions have been retrieved. Thus, closing April will only be possible if a transaction retrieval has been done after May 1st at midnight.

### 1.3.2 Types and models

- ▷ Misc, Vehicles types
  - ▷ Misc, Vehicles models
  - ▷ Misc, Drivers types



Vehicles and drivers types are used in transactions sums (See 5.1.2, page 74).

Vehicles models are used in the following operations:

- Transactions sums computing (See 5.1.2, page 74)
- Definition of reference consumptions (See 1.1.8, page 18).

## 1.4 Activities

- ▷ Misc, Activities

**Code:** Activity code entered on the CPU.

**Short name, Full name:** Name of the activity, used to refer to an activity in the software.

**Ref.:** Value used to refer to an activity in specific exports.

**Options:**

- *Forbidden:* Disables the entry of this activity on the CPU.

- *Add-on*: Sets the *Add-on* option on the transactions for which this activity is declared.

The activities allow to make connections between fuel transactions and may be used for the credit management (See 10, page 101).

## 1.5 Specific codes

▷ Misc, Specific codes

**Code:** Specific code entered on the CPU.

**Name:** Name of the specific code, used to refer to a specific code in the software.

The specific codes table is automatically filled in by GIR Titan-Hyperion when the *Group spec. codes* option is enabled in the *Manager config*. (See 1.9, page 34). Grouping specific codes allows to make connections between transactions, particularly in sums (See 5.1.2, page 74).

## 1.6 Zones and time slots

▷ Misc, Zones

### 1.6.1 Overview

GIR Titan-Hyperion allows to define up to 26 zones, where each one is coded by a letter (from A to Z).

**Zone:** Zone code

**Name:** Zone name, used with the code to refer to a zone in the software

**Options:**

- *Watch*: This option allows to be notified when a driver is making a transaction in the zone. The notification must have been configured in e-mails settings.

Each zone is associated to a set of time slots which defines when the zone is active. The time slots fields are:

**Begin hour:** Hour when the validity begins

**End hour:** Hour when the validity ends (*24:00* means “Valid until the end of the day”)

**Days:** Days of validity

**Validity calendar:** Allows to limit the time slot validity to the specified days.

**Exception calendar:** Allows to exclude the specified days from the time slot.

**Options:**

- *Vigilance*: When this option is enabled in a time slot, all the transactions made in this slot have the *Vigilance* option. The transactions containing this option will be included in the noteworthy transactions list (See 5.1.1, page 73), which allows to easily obtain the list of the transactions made in a given period, by night for instance.

Calendars are defined in the ▷ Misc, Calendars menu. They are made of a days list (if only the Date field is filled), or of a periods list (if both the Date and Final date fields are filled).

On TIP CPUs, the calendar is limited to the current week: it is then necessary to make a synchronization between the PC and the CPU at least every week if calendars are defined.

The Calendar tab in a zone sheet displays a summary of the authorizations. When only one month appears, a click on the day allows to have the detail of the time slots concerning this day. A click on the year shows a summary of all the months of this year.

Examples:

- To define a zone which is valid at any time, we would create the following time slot:

Begin hour	End hour	Days
00:00	24:00	Mon, Tue, Wed, Thu, Fri, Sat, Sun

→ **Conventions:**

– Name of a zone which is valid at any time: A11 24/24.

- To define a zone which is valid from 6a.m. to 8p.m. during the working days, and from 6a.m. to 12a.m. on Saturday, we would create two time slots:

Begin hour	End hour	Days
06:00	20:00	Mon, Tue, Wed, Thu, Fri
06:00	12:00	Sat

- To exclude public holidays from this zone, we would define a calendar called **Public holidays**, containing the days to exclude, and select it as an **Exception calendar** for both time slots of this zone.
- To create a zone in which access is limited to the month of January 2005 (for instance for a temporary visitor), we would define a calendar with a 01/01/2005 - 31/01/2005 period, and select it as a **Validity calendar** in the time slots that are to be limited.

A vehicle or driver is authorized on a set (Fuel or Access) at the  $T$  time when the following condition is true:

There is at least one active zone at  $T$ , which is present both in the vehicle (resp. driver) and in the fuel set (resp. access set).

Access and fuel sets zones are editable in the ▷ **Config., CPU, tanks thresholds, ref. and zones management** menu (See 1.11, page 41).

A global summary of the different zones may be consulted in the ▷ **Misc, Zones report** menu. Moreover, zones for which a user is authorized are displayed in his sheet.

Configuration example:

We consider a petrol station defined with a fuel set. We want some of the vehicles to be able to refuel only during working days, and the other part to refuel at any time.

1. In ▷ **Misc, Zones**, we define the two following zones:

Zone code	Zone name	Time slots
A	All 24/24	00:00 à 24:00, every day
B	Week	06:00 à 20:00, from Monday to Friday

2. In the ▷ **Config.**, then **CPU, tanks thresholds, ref. and zones management**, then **Fuel sets**, we tick *A* and *B* zones in the **Zone** field of the appropriate fuel set.
3. In ▷ **Vehicles**, we tick the *A* zone for all vehicles that should be able to refuel at any time, and the *B* zone for all vehicles that should only refuel during working days.

Note: In this case, ticking both *A* and *B* for a vehicle is strictly equivalent to tick only *A*, since the *A* zone contains the *B* zone.

We consider a two access sets, the *Barrier* set which controls the main entry, and the *Washing* set which controls access to the washing station area. We want to limit the access to the station to some vehicles.

1. In ▷ **Misc, Zones**, we define both following zones:

Zone code	Zone name	Time slots
A	Barrier	00:00 à 24:00, every day
B	Washing	00:00 à 24:00, every day

2. In the menu ▷ **Config.**, then **CPU, tanks thresholds, ref. and zones management**, then **Access set**, we tick the *A* zone in the **Zone** field of the access set *Barrier*, and the *B* zone in the **Zone** field of the access set *Washing*.
3. In ▷ **Vehicles**, we tick the *A* zone for all the vehicles, and the *B* zone for those we wish to authorize on the washing area.

## 1.6.2 Advanced management

For a large scale zones management in a multi-sites context, GIR Titan-Hyperion allows to define zones that are local to a site. Local zones are enabled by GIR Titan-Hyperion installer in the **Installer config.**. The authorization condition for

a vehicle or a driver to a fuel or access set is the same as the one described above: an authorization is valid when an active zone is present both in the user and in the set.

The assignment of zones to drivers can be limited to the managers of the site (See 1.8, page 29).

## 1.7 Automatic programmings

▷ Misc, Auto. prog.

Automatic programmings allow to plan operations so that they could be automatically runned by GIR Titan-Hyperion at a given day and hour.

**Name:** Programming name, use to refer to a programming in the software.

**Operation:** Operation to run

- *Retrieve.-Send, Retrieve.-Send-Gauge,...*: Performs a synchronization dialogue with the different programmed CPUs (See 3, page 61).
- *Oil import*: Performs an automatic import of oil data for the defined formats (See 12.1, page 111).
- *Backup*: Performs a backup of the database in a TWB file.
- *Real-time suspension*: Disables all the real time communications with CPUs during the time range specified by the beginning and ending hours.

**Begin hour:** Hour when the operation will be launched.

**End hour:** For the *Retr./Send* operation, it keeps the connection on until the indicated hour. For the *Real-time suspension* operation, it indicates when communications will start again.

**Days:** Days when the operation should be launched.

**Options:**

- *Disabled*: Allows to temporarily disable an automatic operation execution.

As for *Retr.-Send* automatic operations type, it is necessary to define the CPUs with which the dialogue must be carried out. This is done in the Programmed CPUs subtable:

**CPU:** CPU with which the dialogue must be launched.

**Retry on error:** If an error occurs on this CPU during the dialogue, it allows to define the time in seconds at the end of which a new dialogue will be attempted. This parameter is only valid if an ending hour is specified. The (*N/A*) value indicates to not realize a new dialogue in case of error.

**Options:**

- *Disabled*: Allows to temporarily disable a CPU in the automatic dialogues. Caution: the CPU will no longer be updated.

- *Modules test*: Performs a modules test during the operation. This may generate an alert depending on the settings defined in the CPU. (TIP CPUs only, see 1.11, page 41).

## 1.8 Users

### ▷ Misc, Users

GIR Titan-Hyperion can be used simultaneously by multiple users, where each user has specific access rights.

A user is defined by a name (User field) and a Password to enter on the connection screen.

According to the application configuration (e.g. for an intranet integration), users may also connect without having to enter their password. In this case, an Options field is also available, and allows to specify if a user's identification is to be done automatically or not.

Each user can be limited to specific operations, according to the value defined in the Level field and the criteria in the Authorizations tab.

Two definition modes are available for authorizations: classic and advanced. The mode can be chosen in the Manager Config. (See 1.9, page 34).

### 1.8.1 Classic mode

Remarque: This mode is kept for compatibility. To set up a new installation, it is better to use the advanced mode.

Each user is given an access Level. The different access levels are described below, from the most restrictive to the most permissive. Each access level gives a set of operations, as well as operations authorized at inferior levels (e.g. a *Manager* can make all the operations authorized to *Standard* and *Consultation* levels).

The following sums up which operations are authorized on access levels:

- *Consultation*
  - Data tables reading
- *Standard*
  - Manual transactions and supplies entry.
  - Maintenance declaration (for maintenances already defined)
  - Fuel transactions correction (vehicle, driver, meters, activity and specific code)
  - Messages attachment to vehicles and drivers
  - Dialogues: Link test, Retrieve-Send, Gauges and totalizers, Supervision
- *Workshop*
  - Maintenances editing

- *Local manager*
  - Configuration tables reading
  - Vehicles and drivers tables editing
  - Dialogues: all operations
- *Manager*
  - Users definition
  - Price and volume correction on fuel transactions
  - Data tables editing (menu ▷ Misc)
  - Management operations (menu ▷ Config.)
  - Data imports/exports
- *Installer*
  - Configuration tables editing
  - Transactions reprocessing

*Manager* and *Installer* levels can access the whole database. For other levels, it is possible to restrict access to some sites, directions or departments. This can be done using the **Authorizations** tab in each user's sheet.

For each user, a list of sites, directions and departments can be defined, conforming to the following rules:

- If no site is defined, the user has access to all sites.
- If at least one site is defined, the user has access to data related to the defined sites (e.g. dialogue with a site's CPUs, site tanks state, transactions realized on a site...).
- If no direction nor any department is defined, the user has access to all directions.
- If at least one direction or department is defined, the user has access to data related to the defined directions and/or departments. (e.g. vehicles and drivers from a department, transactions realized by drivers of a direction...).

The value (*N/A*) for the **Access** field means that the element is only defined to configure e-mails sending (See 6, page 83), and has no effect on authorizations. Therefore, to define a user that has no access limits, and who receives alerts for a given site, we would declare this site with a (*N/A*) access.

For departments and directions, access may be defined as reading or writing. With a reading access, the user is limited to data consulting. With a writing access, he may realize different operations on data. The table below indicates the different operations categories, and their authorization status for each access level.

(1): Vehicles and drivers entry.

- (2): Maintenances definition.
- (3): Manual transactions, transactions modification, maintenance declaration, message attachment

Level	Access	(1)	(2)	(3)
Consultation	Reading	-	-	-
	Writing	-	-	-
Standard	Reading	-	-	-
	Writing	-	-	Yes
Workshop	Reading	-	-	-
	Writing	-	Yes	Yes
Local manager	Reading	-	-	-
	Writing	Yes	Yes	Yes

A summary of the access rights for each user is available in the user sheet Summary tab.

### 1.8.2 Advanced mode

Each user is assigned one of the following access levels:

- *Installer*: Full access to the application. Only one installer account can be defined. The installer mode application connection is protected by a dongle.
- *Manager*: Full access to the application, except for hardware configuration which is only available for reading.
- *Standard*: Restricted access to the application, according to the authorizations specified in the Authorizations tab.
- *Inherited*: Identical to the *Standard* level, with the additional possibility to specify an authorization profile at login time when using intranet integration.

A standard account can allow from a limited consultation to authorizations close to those of a manager.

Authorizations are defined by specifying explicitly which operations are allowed to a user, on sites and departments. Departments can be merged into directions, and sites can be merged into regions (See 1.9, page 34).

#### Authorizations on sites and regions

The operations allowed are:

- *Consultation*: Access to the consultation states (history, sums...) for transactions and supplies realized on the site.
- *Dialogues 1*: Basic dialogue operations on the site's CPUs (Link test liaison, Retr.-Send, Supervision).

- *Dialogues 2*: Advanced dialogue operations on the site's CPUs.
- *Manual trans.*: Entry of manual transactions on the site's CPUs.
- *Access trans. mod.*: Modification of the transactions done on the site.
- *Zones*: (Only with local zones management) Local zones assignment to vehicles and drivers.
- *Tank supply*: Entry of supplies on the site's tanks.
- *Totalizer*: Entry of manual totalizers on the site's pumps.
- *Gauging*: Entry of manual gaugings on the site's tanks.

### **Authorizations on departments and directions**

Operations on directions and departments:

- *Add-Mod. departments*: (Directions only) Creation and modification of departments inside the direction.
- *Access int. tr. mod.*: Modification of internal transactions assigned to the department.
- *Access ext. tr. mod.*: Modification of external transactions assigned to the department.
- *Closure*: Allows transactions closure (See 1.3.1, page 23).

Operations on vehicles:

- *Consultation*: Access to the consultation states (history, sums...) for transactions involving a department vehicle.
- *Add/Mod.*: Modification of all the department vehicles, and addition of vehicles to that department.
- *Mod. id.*: Modification of identification data (badge, code), on the department vehicles.
- *Maint. mod.*: Modification of maintenances defined on the department vehicles.
- *Maint. entry*: Declaration of maintenances done for the department vehicles.
- *Manual trans.*: Manual transaction entry for the department vehicles.
- *Access int. tr. mod.*: Allows to modify internal transactions done by the department vehicles.
- *Assign tr. mod.*: Allows to reassign the department vehicles when modifying a transaction.
- *Remote trans.*: Remote transactions control for the department vehicles.

- *Short-term rental*: Allows to start or end rental periods for the department vehicles.
- *Authorizations v./d.*: Assignment of the direction (or department), and of the department vehicles in vehicles authorized to a driver.

Opérations sur les usagers:

- *Consultation*: Access to the consultation states (history, sums...) for transactions involving a department driver.
- *Add/Mod.*: Modification of all the department drivers, and addition of drivers to that department.
- *Mod. id.*: Modification of identification data (badge, code), on the department drivers.
- *Maint. mod.*: Modification of maintenances defined on the department drivers.
- *Maint. entry*: Declaration of maintenances done for the department drivers.
- *Manual trans.*: Manual transaction entry for the department drivers.
- *Access int. tr. mod.*: Allows to modify internal transactions done by the department drivers.
- *Assign tr. mod.*: Allows to reassign the department drivers when modifying a transaction.
- *Remote trans.*: Remote transactions control for the department drivers.
- *Authorizations v./d.*: Modification of vehicles authorized to the department drivers.

## Notes

There are default authorizations and specific authorizations for sites, as well as for directions and departments. The default authorization applies for all the sites (resp. directions/departments) which are not explicitly mentioned in the specific authorizations.

Example: There are 3 sites A, B and C. We would like to define a user that could launch dialogues on the B site and that could only consult data of the A and C sites. To do so, we would tick **Consultation** in the default authorizations and then add the B site in the specific authorizations, ticking **Consultation** and **Dialogues 1**.

A user is authorized to consult a state when he has at least one element for which consultation is enabled. For instance, a transaction will be visible in a user's history if consultation is enabled for the vehicle, the user or the site.

The other operations that realize data modifications are only possible when all the elements are authorized. For example, a user will be allowed to enter a manual transaction related to a user, a vehicle, and a site only if he is authorized to do the *Manual trans.* operation for those three elements.

As for the classic mode, the **Summary** tab allows to view the authorizations applied by the system for a given user.

## 1.9 Manager config.

▷ Misc, Manager config.

This table defines the general settings of the application.

### 1.9.1 Identification

**Default type:** Default identification method when creating a new vehicle or driver .

**Default identifier:** Default badge type when creating a new vehicle or driver .

**Default range:** Default milometer or hour meter range when creating a new vehicle.

#### Options:

- *Strict proxi file*: Automatically assigns badges using the proximity files, without prompting for confirmation.
- *Hide id+badge code*: Hides the fields Identifier and Badge code in the vehicle sheet (resp. driver). This option can be used with *Strict proxi file* to handle badges assignement totally automatically.
- *Set vehicle id.* (resp. driver): Sets the *Vehicle id.* (resp. *Driver id.*) option when creating a new driver (resp. vehicle).
- *Hide vehicle id.* (resp. driver): Hides the *Vehicle id.* (resp. *Driver id.*) option in the driver creation form (resp. vehicle).
- *Hide badge num.:* Hides the *Badge num.* field in the drivers and vehicles list.
- *Hide code*: Hides the *Code* field in the drivers and vehicles list. The code will still be visible in the detailed sheet (*General* tab) and in the modification form.
- *Hide secret code*: Hides the *Secret code* field in the *General* tab of a vehicle or driver sheet.
- *Conceal Code, Conceal Secret code*: Activates the concealed-mode entry for codes (resp. secret codes). In this modes, codes are never displayed clearly on the screen.
- *Mandatory expiry*: Makes the *Expiry* field entry mandatory in the vehicle (resp. driver) sheet.
- *Set Forceable meter, Set Show cons.:* Sets the corresponding option when creating a new vehicle.
- *Show spec. code*: Shows the default specific code in the vehicles list (Only when the feature is enabled).

**Display, Display opt.:** Defines the fields to use to display a vehicle or driver.

**Code prefix, Nb. char. code autogen.:** Defines the value of the Code field when creating a new vehicle or driver. The code is made of a common prefix, followed by  $N$  automatically generated digits to create a unique code.

**Download freq.:** Defines the default download frequency for tachograph cards when creating a new driver.

### 1.9.2 Fuel

**Overcons. tolerance:** Defines the consumption beyond which a transaction is considered as overconsuming.

For instance, if the reference consumption is 10.00 gal/100miles, and that the tolerance is 20%, a transaction will be considered as overconsuming if its instantaneous consumption exceeds 12.00 gal/100miles.

**Undercons. tolerance:** Defines the consumption below which a transaction is considered as underconsuming.

**Min covered distance for cons.:** Defines the minimum covered mileage that should have a transaction to compute the instantaneous consumption. This allows to avoid generating overconsuming transactions when the covered distance is too low to compute a relevant consumption.

**Min covered time for cons.:** Same thing for the number of covered hours.

**Merge consecutive meters:** When two identical fuel transactions are made within the defined time, meters and consumptions are assigned to the most recent one.

**Fuel trans. dept.:** When processing a fuel transaction, this setting defines to which department the transaction will be assigned. It may be either the vehicle department, or the driver department. The department assigned to a transaction is used in the sums (See 5.1.2, page 74).

**Imported trans. meter:** Defines how to handle milometers and hour meters when importing transactions (See 12.1, page 111).

- *Always:* The transaction meter is used to update the vehicle.
- *Except add-on:* The transaction meter is used to update the vehicle, except for add-on transactions.
- *Never:* The transaction meter is never used to update the vehicle.

#### Fuel options:

- *Set 'Undercons.' on negative covered:* When this option is set, fuel transactions having a covered mileage equal to or under zero are indicated as underconsuming. This allows to include those transactions among the noteworthy transactions(See 5.1.1, page 73).

### 1.9.3 Miscellaneous settings

**CSV section:** Defines the format of downloadable CSV files.

Spreadsheet	Date format	Decimal delimiter	Field delimiter
Excel	mm-jj-aaaa	Dot	Semicolon

**HTTP proxy section:** Defines the proxy server settings for the internet access used by software support.

**E-Mails section:** Defines how and when to send e-mails (See 6, page 83).

**Expiries pre-alerts:** By default, authorization expiries on vehicles and drivers only generate an alert when the expiry occurs. When this field is not zero, an alert will also be generated  $N$  days before a vehicle or driver expires.

#### 1.9.4 Users authorizations

**Auth. settings :** Defines the mode used to set users authorizations (See 1.8, page 29).

- *Classic*: Historical setting, grouped with e-mails definition.
- *Advanced*: This setting brings a greater flexibility when defining which operations are permitted to each user. It is separated for e-mails management, and more adapted to a large-scale application.
- *Advanced (detailed)*: This setting is similar to the advanced mode, but offers the additional possibility to define independent authorizations on drivers and on vehicles.

**Options :**

- *Prevent force ... manual tr.:* Prevents entry of manual transaction in the following cases:
  - Vehicle forbidden, for any reason (expired, out of zone, ...)
  - Driver forbidden, for any reason (expired, out of zone, ...)
  - Vehicle not authorized to the driver
 Forcing meters remains possible.
- *Prevent force ... modif.:* Prevents assignment of forbidden vehicles or drivers in transaction modification.
- *Prevent force ... remote tr.:* Prevents launching remote transactions for forbidden vehicles or drivers.

#### 1.9.5 General parameters

**Features:** Those options enable or hide specific features in the application.

- *Show vehicle/driver num.:* Shows the Num. field for vehicles and drivers. This number is automatically assigned by GIR Titan-Hyperion, and is unique for each vehicle (resp. driver). This number may also be used to identify a vehicle or driver on the ticket printed after a transaction (See 2.8, page 59).

- *Manual trans. regul. for all*: Allows all users to enter regularization transactions (See 7.1, page 87) .
- *Hide vehicles maintenances, Hide drivers maintenances*: Hide all data related to maintenances management in the user interface.
- *Auto vehicles maintenances*: Shows automatic maintenances configuration fields in vehicles maintenances.
- *Hide Ids*: Hides the Id. field in the multiple histories.
- *Vehicles models*: Enables the Model field in vehicles, as well as the Vehicles models table in the ▷ Misc menu. Vehicles models are similar to vehicles types: they allow to group vehicle on an additionnal criterion, that can then be used in sums.  
Vehicles models can also be used to define general consumption settings (See 1.1.8, page 18).
- *Default spec. code*: Shows the Spec. code field in vehicles.
- *Hist. menu*: Displays a link to the fuel transactions history in the main menu.
- *Regions*: Enables assignment of sites to regions.
- *Explicit zones*: Simplifies zones management by only displaying the defined zones in the modification forms.
- *Charts on 100 elts*: Increases the number of elements displayed in graphical sums (See 5.1.3, page 76).

#### Features fuel:

- *Gauges manual entry*: Enables the entry of manual gaugings in ▷ Tanks state (See 5.2.1, page 77).
- *Totalizers manual entry*: Enables the entry of manual totalizers in ▷ Tanks state (See 5.2.1, page 77).
- *Temperature corr.*: Enables temperature correction. When products have been configured (See 1.11, page 44), this allows to automatically correct the volume according to the measured temperature during a tank supply (See 7.2, page 89).
- *Set 'U.P. at Tref'*: When temperature correction is enabled, this option allows to interpret by default the unit price entered as price at the reference temperature, instead of price at the supply temperature (See 7.2, page 89). *Hide 'U.P. at Tref'* hides the checkbox in the tank supply form.
- *Prod. providers*: Enables entry of a provider and a comment in tank supplies(See 7.2, page 89).
- *Temperature mandatory*: Makes the temperature entry mandatory in tank supplies.
- *Provider mandatory*: Makes the provider entry mandatory in tank supplies.
- *Fuel activity code, Fuel spec. code*: Shows activity and specific codes in the fuel transactions history.

- *Hide credits*: Hide all data related to credits management in the user interface.
- *Ext. vehicle*: Sets the corresponding option on the fuel transactions for which the vehicle department differs from the driver department, except when the vehicle or driver has the *Inhib ext. vehic.* option.
- *Vehicles auth. by driver*: Enables per-driver vehicles authorizations. This involves an additional tab in the vehicle sheet (showing whom drivers are authorized for this vehicle), and in the driver sheet (allowing to define which vehicles are authorized to this driver).
- *Ask spec. code on ext. tr.*: Enables specific code entry for external transactions.
- *Hide prices*: Hides all price-related data in fuel transactions.
- *Fuel products*: Shows the *Fuel* options in vehicles tanks, to enable consumption computing on multiple fuel products (ex: Super + GPL).
- *Short-term rental*: Enables short-term rental management for vehicles (See 1.1.11, page 20).
- *Hide hour meters*: Hides all data related to hour meters in fuel transactions.
- *Clear message on transac*: Clears the message assigned to a vehicle or driver when a transaction is retrieved. This allows to display a message only once on the terminal.
- *Show totalizer*: Shows the internal totalizer value in fuel transactions sheet (TIP2-Vatersay only). The value is taken at the start of the transaction.
- *Disable W.A.U.P.*: Disables fuel transactions valuation using the weighted average unit price of the tank stock.

**Date fields**: Defines how dates should be entered: text input or dropdown lists.

**Monetary credits**: Enables monetary credits management (See 10, page 101).

**Short-term rental expiry**: Defines the maximum number of days before expiry when starting a rental period. When this field is set to  $N$ , a vehicle with a rental period started on day  $D$  will be assigned an expiry date of  $D + N$ . When this field is ( $N/A$ ), the vehicle won't have an expiry date.

**Closure day**: Enables fuel transactions closure. When this field is zero, the feature is disabled. Otherwise, it defines the day in the month after which transactions made the month before must be closed (See 1.3.1, page 23).

**Options**:

- *Group spec. codes*: If this option is set, when a specific code has been entered in a transaction, GIR Titan-Hyperion searches this code in the Specific codes table. If the code is found, the transaction is attached to this code. Otherwise, the code is created. When this option is not set, specific codes are only stored as strings in the transactions, and the Specific codes table is not used. Grouping specific codes allows to compute sums on the transactions sharing an identical code.

- *Conceal users pwd*: Enables the entry of users passwords in concealed mode.

*Short lists*: Shows only the first elements in large dropdown lists, to reduce web pages size. When the element to selected isn't in the list, clicking on '>>>' downloads the full list.

*Launch dial. event if another is running*: Allows to start a dialogue when another one is in progress. The new dialogue will start when the current one completes.

*Auto retry on dblock*: Automatically reloads a page on "Tables in use" error.

*Quick hist. consultation*: Only shows the first ten pages in large histories.

**Protected zones** : Defines the zones that only the main manager is entitled to attach to vehicles and drivers. By default, the vehicles and drivers zones can be modified by local managers.

### 1.9.6 Traclient export

This section defines automatic traclient exports configuration (See 12.2, page 114).

#### Live traclient export

##### Fuel options:

- *Manual tr., Imported tr., Tank supplies*: Defines which transactions should be used in live export. By default, only transactions retrieved from CPUs are exported. By setting those options, it is also possible to export manual and imported transactions, as well as tank supplies.
- *Disable mod. tr. export*: When this option is set, only the original transaction is exported live. If modifications are made after that, they won't be exported.

**Fuel, Access, Fuel sums**: Defines the format of the live traclient files. Leave to (N/A) to generate no traclient file.

#### Daily traclient export

**Generation hour**: Defines the hour in the day when exports should be generated. This value should be set so that all the transactions done the day before are retrieved when generating the export.

**Lag**: Defines a duration (in days) between the export period and the traclient file creation. When this field is N, transactions made on day D will be exported on day D+1+N. This allows to leave a time range to regularize transactions.

**Fuel options**: Same meaning as for live export.

**Fuel, Access, Fuel sums**: Defines the format of daily traclient files. Leave to (N/A) to generate no traclient file.

**Monthly traclient export**

**Generation day** : Defines the day in the month when exports should be generated (e.g. if this field is set to 10, the sum concerning March 2005 will be generated on April 10th). This allows to leave a small time range to regularize transactions.

**Fuel options:** Same meaning as for live export.

**Fuel, Access, Fuel sums:** Defines the format of monthly traclient files. Leave to *(N/A)* to generate no traclient file.

**Traclient options**

These options affect all traclient exports.

**Vehicle name:** Defines the field to use as registration number for vehicles in all traclient formats.

**Traclient delimiter:** Compatibility setting for F1-ref and F2-ref formats.

**Options:**

- *Trans. num. unchanged on modif.:* Don't increment the transaction number on modification.
- *Trans. num. per CPU:* Generates a per-CPU transaction number instead of a global one.
- *Live export per CPU:* Generates a live traclient file for each CPU, in addition to the main file.

**1.9.7 Invoices**

This section defines general invoicing configuration (See 11, page 107).

**Geometric coordinates:** Those numerical values allow to configure the header of generated invoices, by defining the header total height, and the coordinates of the rectangles containing customer and provider addresses.

**Traclient format:** Defines the format to use when generating downloadable invoicing files.

**Options:**

- *Multiple profiles:* Enables multiple invoicing profiles (A,B,C,...). Each profile has its own configuration.

**1.10 Profiles**

## ▷ Misc, Profiles

The users profiles allow to adapt some settings according to the connected user.

**Priority, User, IP address mask:** Those fields define the attachment of a profile to one or more users. A profile is associated to a user when both **User** and **IP address mask** criteria are compatible to the connected user. The **User** field is compatible if it is *(N/A)* or if it is equal to the user. The **IP address mask** field is compatible if it is empty or if the address from where the user is connected matches this mask. It is possible to specify a DNS name or an IP address, with the **?** and **\*** joker characters (e.g. \*.example.com, 192.168.1.\*, ...). The **Priority** field defines the order in which the profiles will be tested. 0 is the highest priority, and 254 is the lowest.

**Dates format, Decimal delimiter, Field delimiter:** Defines the format of downloadable CSV files. If a parameter is set to *(N/A)*, the value defined in **Manager config.** is used.

**Reader address, Reader type:** Address of a badge reader in a host:port format. If this field is filled in, a **Read badge** button will be available in the vehicles and users sheets for users having this profile. This button allows to directly read a badge on the defined reader, and to assign it to the selected vehicle or driver.

Example: We would like to use CSV parameters different from those defined in the **Manager config.** for all the users who connect from the example.com domain, except for the A user. To do so, we would then define the following profiles:

Priority	User	IP address mask	CSV parameters
0	A	Empty	All <i>(N/A)</i> (to use <b>Manager config. settings</b> )
1	<i>(N/A)</i>	*.example.com	Specific settings

## 1.11 Configuration

The following tables define CPUs configuration. They are set by GIR Titan-Hyperion's installer and available to the manager for reading only, under the **Config.** menu.

- Installer config.
- Products
- Sites
- Tanks
- CPUs
- Badges formats
- Badges types
- Access types

Some of these tables values are editable by the manager, using the `▷ Config.`, `CPU`, `tanks thresholds`, `ref.` and `zones management` menu. They are classified into several categories:

**Installer config.** : Caution: modifying some of these settings can cause all CPUs to be set to the “Modified config.” state.

**CPU options:** General CPUs options

- *Force driver id. by code, Force vehicle id. by code:* Ignores the identification mode defined in vehicles and drivers, and forces to use code identification.
- *Per-driver language:* Shows the CPU language field in drivers, to change the CPU language when a driver is identified (TIP2-Vatersay only).

**Real-time tempo:** Defines real-time dialogues frequency. The higher the frequency is, the faster the transactions are retrieved. However, when transactions are very frequent, the application can become less available for users.

**TIP CPU messages:** Customizes some messages on TIP CPUs.

**Regional parameters:** Defines regional parameters to use: dates format, decimal delimiter, units. Dates format and decimal delimiter are used on both display and data entry controls.

**Options:**

- *Alt. meter:* Shows an additionnal option in the Options fuel fields of vehicles, allowing to enter milometer on those vehicles with a different unit (km or mi). The converted meter is also displayed in the **General** tab of the vehicle sheet and in transactions sheets.

This option only affects data entry and display: meters stored in the database still use the unit defined in regional parameters.

**CPUs (settings) :**

**State:** CPU state (*Enabled* or *Disabled*). Enabling or disabling a CPU is done by clicking on the corresponding button. When a cpu is disabled, it is no longer usable in automatic or manual dialogues. Entering manual transactions on this CPU remains possible. Disabling a CPU can be useful in two cases:

- Managing a fictive CPU
- Temporarily disabling dialogues during a CPU failure

**Link type:** Type of the link between the CPU and the PC: network (tcp), serial, or modem.

**Link param.:** Link parameters. Their parsing by GIR Titan-Hyperion depends on the link type:

- *TCP:* `<host>:<port>`. The host name may be an IP address or a DNS name (e.g. `192.168.0.123:6001`).
- *Serial:* `<comX>` where X is a serial port number (e.g. `com1`).

- **Modem:** <comX>:<tel>[:<atdt>[:<at&f>]] where X is the serial port on which the modem is connected, and tel is the phone number to dial (e.g. com2:0478741234). The successive commands sent to the modem are:
  1. atz
  2. Command specified in the fourth parameter (at&f by default)
  3. Command specified in the third parameter followed by the phone number (atdt by default)

**Mode:** Synchronisation mode between GIR Titan-Hyperion and the CPU (TIP CPUs only).

- **Autonomous:** Connection with the CPU is temporarily established during dialogues, which can be manually or automatically launched (See 3, page 61).
- **Real time:** Connection with the CPU is permanent. Transactions are retrieved in real time by the software, and data is regularly synchronized.
- **Autonomous without auto. conn.:** Identical to autonomous mode, except for the supervision screen where the user must explicitly ask for the connection to the CPU.

**Dialogue alert:** For autonomous CPU, it defines how many consecutive dialogue errors are allowed before an alert is issued. Only errors occurring during an automatic dialogue are counted.

Generally, this limit will be defined according to the number of automatic retrievals scheduled. Thus, if two retrievals are scheduled each day, and that we would like to be warned after two days without any retrieval, a limit of 4 should be define.

When this limit is zero, alerts on dialogue errors are never issued.

**Modules alert:** (TIP CPUs only)

TIP CPUs are made of multiple modules (terminal, badge reader, pump ...), connected to a management unit (MU). The dialogue alert, described above, allows to detect connection issues between the MU and the PC. Based on the same principle, modules alert allows to detect connections issues between the MU and modules.

This field defines how many MU/modules link errors are allowed before an alert is issued. Only the errors occurring during an automatic dialogue for which the *Modules test* option has been selected are counted.

When this limit is zero, alerts on modules link errors are never issued.

**Real time alert:** For real-time CPUs, it defines the maximum interruption length (in minutes) after which an alert is issued. When this limit is zero, alerts on real-time connections are never issued.

**Products (settings) :**

- **Sale unit:** volume value and name of the sale unit for this product. When these fields are set, an additionnal column is displayed in the tanks state (See 5.2.1, page 77).

- Options:
  - Type:** Product type (*Fuel*, *Washing*, *Other*), used to filter transactions in the history.
  - Options:**
    - *Disable traclient*: Ignores transactions with this product during traclient exports.
- Temperature: (Only when the temperature correction feature has been enabled, see 1.9, page 34).  
 These two fields are optional: when one of them is not set, the temperature correction is disabled for the associated product. This allows to limit temperature correction to specific products.
  - Reference temp.:** Reference temperature ( $T_{ref}$ ) in Celsius degrees. The coefficient at this temperature is 1.
  - Coef.:** Coefficient to apply when the temperature is  $T_{ref} + 10^{\circ}\text{C}$ .  
 Temperature correction is computed using a linear interpolation with the two specified values: if the reference temperature is  $15^{\circ}\text{C}$ , and that the coefficient at  $25^{\circ}\text{C}$  is 0.9, the coefficient applied at  $20^{\circ}\text{C}$  will be 0.95.

#### Tanks (thresholds) :

- Blocking threshold:** Stock below which the pumps using this tank are automatically blocked. Leave this field empty to never block any pump whatever the tank stock is.
- Alert threshold:** Stock below which an alert is issued.
- Capacity:** Tank capacity. When using multiple gauged compartments, it is also possible to modify the capacity of each compartment.
- Tanker:** When the selected vehicle takes fuel in another tank, a supply with the same volume as the transaction is automatically created on the current tank.
- Variation +:** Generates an alert when the “real stock - theoretical stock” difference exceeds this limit. For a compartmented tank, the real stock is the sum of the fuel volumes in each compartment.
- Variation -:** Generates an alert when the “theoretical stock - real stock” difference exceeds this limit.
- Max. water:** Water volume beyond which an alert is issued. For a compartmented tank, the water volume used is the sum of water volumes in each compartment.
- Alert on error:** Number of consecutive gauging errors beyond which an alert is issued.
- Auto regul. +, Auto regul. -:** When those values are not zero, a tank supply is automatically created when the difference between theoretical and real stocks is beyond the defined limit.
- Manual entry:** Defines how manual gaugings are entered: by volume or by height. For the latter, abacuses must be defined on the tank.

**Options:**

- *Gauge disabled*: Allows to temporarily disable gauging management for this tank.
- *Ignore probe err.*: Stores gaugings even when a probe error is signaled.
- *Temperature corr.*: Enables temperature correction on automatic gaugings for this tank.
- *Alert on manual gauging*: Enables alerts generation when entering manual gaugings for this tank.

The fields Variation +, Variation -, Max. water, and Alert on error are only relevant for tanks with gauging management. Each of them may remain at zero to never generate any alert.

An alert generation creates an event (See 5.3, page 80), displays a message on the home page, and optionally sends an e-mail (See 6, page 83).

**Pumps (tresholds) :****Tot. options:**

- *Totalizer reading*: Enables automatic report of the internal totalizer for this pump module.

**Tot. tolerance:** Tolerance limit beyond which alerts are generated on totalizer reports (See 5.2.5, page 80). If this field is zero, no alert is issued.

**Ref. :** The Ref. fields are used to refer to an element in the specific exports. This menu allows to define the Ref. field as well a the name for some configuration elements (sites, CPUs, tanks, products, ...).

**Zones :** Zones define the vehicles and users authorizations on the CPUs (See 1.6, page 25). This menu allows to configure zones on the fuel and access management sets. It is possible to define up to 8 zones per CPU.

**Fuel sets :****Options:**

- *Show last meter*: Displays the last known meter when prompting for a new meter.
- *Log auth. failures*: Creates transactions on access denied errors (unknown badge, forbidden vehicle, ...).
- *Ignore blocking maintenances*: When enabled, the vehicles that are forbidden because of a maintenance undone, won't be blocked on this CPU. The other forbidding causes (manual fobidding, expiry) remain applicable. For TIP1-Pabbay CPUs, this option must have the same value (either set or unset) for all the fuel sets of a given CPU.
- *Print codes*: Prints codes on live and ticket printers, even when they are used for identification.
- *Display vehicles codes* (resp. driver): Shows clear-test codes on the terminal during an entry (TIP2-Vatersay only).

- *Force vehicle id. by code* (resp. driver): Allows code identification for vehicles that are configured with a badge identification (TIP2-Vatersay only).
- *Force pump selection*: Shows the pump selection screen even when the fuel set has only one pump (TIP2-Vatersay only). This mode is required to use tachograph card download on fuel sets with only one pump.
- *USB storage*: Records fuel transactions to a csv file on a USB key plugged to the CPU (TIP2-Vatersay only). Two files are generated: one for normal transactions, and one for other events (unknown badge, ...). The format of these files are detailed in appendix to this document.
- *Tacho download*: Enables data download on tachograph cards (TIP2-Vatersay only, see 2.7, page 58).
- *Force tacho download (tests)*: Download tachograph cards whatever the card date is. This option is only useful for testing purpose (TIP2-Vatersay seulement).

**Access sets :**

**Options:**

- *Log auth. failure*: Creates transactions on access denied errors (unknown badge, forbidden vehicle, ...).
- *Access forbidden on full memory*: Forbids the access when no more transaction can be stored.
- *Force code id.:* Allows code identification even for vehicles or drivers configured with a badge identification (TIP2-Vatersay only).
- *USB storage*: Records access transactions to a csv file on a USB key plugged to the CPU (TIP2-Vatersay only). Two files are generated: one for normal transactions, and one for other events (unknown badge, ...). The format of these files are detailed in appendix to this document.

# Chapter 2

## CPU usage

### 2.1 States

When a CPU is not used for data entry, it may display various messages according to its state:

```
Mo 11/10/04 10:30:00  
> SEL.PUMP 1 2 3
```

Several pumps are available to re-fuel. Pumps for which numbers are not displayed are either in use or unavailable.

```
Mo 11/10/04 10:30:00  
PUMP 2 AVAILABLE
```

Only one pump is available. The others are either in use or unavailable.

```
Mo 11/10/04 10:30:00  
DELIVERY IN PROGRESS
```

All available pumps are currently in use.

```
Mo 11/10/04 10:30:00  
OUT OF ZONE
```

No pump is available according to the defined time slots.

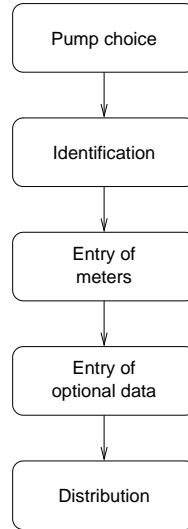
```
Mo 11/10/04 10:30:00  
OUT OF ORDER
```

No pump is available.

A detailed pump state can be viewed in GIR Titan-Hyperion using the supervision mode (See 3.3, page 63), or on the CPU using the attendant menu (See 2.4, page 52).

## 2.2 Fueling

Fueling steps on the CPU:



The transaction may be cancelled by the EFF key at any time during data entry. The **TRANSACTION CANCELLED** message appears and the CPU returns to the idle state.

The detailed scenario of a fueling is available in appendix to this document (See E, page 147).

### 2.2.1 Pump selection

```
Mo 11/10/04 10:30:00
> SEL.PUMP 1 2
```

or

```
Mo 11/10/04 10:30:00
PUMP 1 AVAILABLE
```

Select the pump number you wish.

```
Pump 1 GOI
Validate your choice
```

The pump and the product name appear, validate with VAL.

#### Single pump

When only a single pump is defined on the CPU, pump selection is skipped and identification is directly asked.

```
Mo 11/10/04 10:30:00
ID VEHICLE
```

or

```
Mo 11/10/04 10:30:00
ID DRIVER
```

### 2.2.2 Identification

- When identifying the vehicle first:

Pump 1 GOI ID VEHICLE
--------------------------

- When identifying the driver first:

Pump 1 GOI ID DRIVER
-------------------------

Identification is processed by presenting the badge to the reader, or by entering the code and validating with VAL.

For a double identification, (vehicle with *Driver id.* option, or driver with *Vehicle id.* option), both identifications will be successively requested.

Possible error messages:

- BADGE NOT RECOGN., UNKNOWN BADGE: The badge is not defined.
- UNKOWN CODE: The code is not defined.
- BADGE EXPECTED: The code entered resolves to a vehicle or driver which must be identified by badge.
- BADGE OUT OF CONTEXT, CODE OUT OF CONTEXT: The badge or code identifies a vehicle when a driver is expected, or a driver when a vehicle is expected.
- VEHICLE FORBIDDEN, DRIVER FORBIDDEN: The identified vehicle or driver is forbidden.
- PRODUCT NOT AUTHOR.: The pump product is not authorized to this vehicle.
- VEHI. NOT AUTHORIZED: The vehicle is not authorized to this driver.
- INSUFFICIENT CREDIT: The fuel credit is depleted.

It is possible to ask for a secret code in addition to the badge identification (Secret code option for vehicles and drivers). The entry of such a code is asked by the following message:

Pump 1 GOI PIN CODE
------------------------

Enter the code and validate with VAL.

### 2.2.3 Meters entry

Meters are asked by the following messages:

Pump 1 GOI Meter mi
------------------------

Enter the milometer and validate with VAL.

Pump 1 GOI Mtr 1/100 H
---------------------------

Enter the hour meter, and validate with VAL (Example: for 120.75 hours, enter 12075).

Error message:

- **INCORRECT VALUE:** The meter entered is out of the validity range. See 4.2, page 70 for problems related to meters entry.

A meter can be forced even when it is out of the validity range, in the following cases:

- Transaction via attendant (See 2.3, page 51). The confirmation message appears after the first meter entry.
- Vehicle with the *Forceable meter* option (TIP2-Vatersay only). The confirmation message appears when the same value is entered twice in a row.

### 2.2.4 Additional entries

Some additional entries may be asked, depending on the vehicle and driver configurations:

Pump 1 GOI Activity
------------------------

Enter the activity code and validate with VAL.

Pump 1 GOI Spec code
-------------------------

Enter the specific code and validate with VAL.

Error message:

- **UNKNOWN CODE:** Undefined activity code.

### 2.2.5 Delivery

Once everything has been entered, the delivery starts and the CPU displays **READY FOR DELIVERY**.

The fueling then depends on the pump configuration, based on the following variables:

$T_{start}$ : Beginning of the delivery time

$T_{end}$ : End of the delivery time

$T_{after}$ : Post-delivery period

$T_{start}$  and  $T_{end}$  are defined in the pump configuration, and can be viewed in **Tanks state** by clicking on **Detail** for the selected pump.  $T_{after}$  is fixed to 2 seconds.

A fueling conforms to the following rules:

- If nothing is delivered for  $T_{start}$  seconds, the delivery stops.
- Once a first output has occurred, if no other output is made for  $T_{end}$  seconds, the delivery stops.
- If a hangup is managed, the delivery stops when the pump nozzle is hanged up (the two above time periods remain valid).
- Once the delivery has been stopped, the volume output is still counted for  $T_{after}$  seconds. This allows to take into account compressing phenomena in the delivery pipe.

#### **Null volumes**

Two other values are defined in the pump configuration and may be consulted in the tanks state screen:

$T_0$ : minimum transaction length to count it as a null volume

$N_0$ : number of consecutive null volumes before blocking the pump

A fueling is considered as null when it doesn't carry out any debit and that its length is longer than  $T_0$ . When  $N_0$  unsuccessful fuelings successively occur on the same pump, it is automatically blocked.

## **2.3 Attendant**

The attendant is a particular vehicle or driver, who is allowed to enter transactions for other vehicles or drivers. It allows to:

#### **Vehicle attendant:**

- identify a vehicle without its badge
- force the fueling for a forbidden vehicle
- force a meter value

#### **Driver attendant:**

- identify a driver without its badge
- force the fueling for a forbidden driver

The identification process for an attendant is the same as for a normal vehicle or driver (See 2.2.2, page 49). Once the attendant is identified, the code of the vehicle or driver to which the transaction must be assigned is asked:

Pump 1 GOI CODE VEHIC.	or	Pump 1 GOI CODE DRIVER
---------------------------	----	---------------------------

Enter the code and validate with VAL.

The transaction continues as if the vehicle or driver was normally identified, with two additional possibilities:

- If the vehicle or driver is forbidden, it is still possible to make the transaction:

VEHICULE FORBIDDEN OVERRIDE	or	DRIVER FORBIDDEN OVERRIDE
--------------------------------	----	------------------------------

Validate with VAL to bypass the ban.

- If a range control encounters an incorrect meter value, it is possible to force the value:

Pump 1 GOI force Mi to :	or	Pump 1 GOI force H to :
-----------------------------	----	----------------------------

Validate with VAL to force the meter.

## 2.4 Attendant menu access

To access the attendant menu, press the 0 key when the CPU is idle.

If only one pump is defined:

Mo 11/10/04 10:30:00 ID VEHICLE	Press 0 then VAL.
------------------------------------	-------------------

If several pumps are defined:

Mo 11/10/04 10:30:00 > SEL.PUMP 1 2	Press 0.
--	----------

The identification of the vehicle or driver (depending on the configuration) accessing the attendant menu is then asked:

Mo 11/10/04 10:30:00 ID VEHICLE	or	Mo 11/10/04 10:30:00 ID DRIVER
------------------------------------	----	-----------------------------------

A vehicle or driver is authorized to access the attendant menu when the option *Attendant menu* is enabled (See 1.1.5, page 15 and 1.2.3, page 21). Otherwise, the MENU ACCESS DENIED message appears.

The attendant menu content depends on the CPU type.

## 2.5 Attendant menu - TIP1-Pabbay CPUs

The attendant menu on TIP1-Pabbay CPUs appears as follows:

Tanks Pumps Clock
Gauges Instal badGes

A submenu is accessed by pressing the corresponding number:

**Tanks (key 1):** Consultation of tank's theoretical stocks, entry of supplies.

**Pumps (key 2):** Consultation of totalizers, pump blocking or unblocking.

**Clock (key 3):** Modification of the CPU date and time.

**Gauges (key 4):** Consultation of gauging information.

**Instal (key 5):** (N/A)

**Badges (key 6):** Proximity badges initialization.

### 2.5.1 Tanks submenu

C1 GOI	1500 g
Supply Upd	(+/-)

**First line:**

- Tank number (from 1 to 16). Use the + (or 9) and - (or 7) keys to go from one tank to another.
- Product name
- Tank theoretical stock.

**Second line:**

- Supply (key 1): Tank supply entry
- Upd (key 2): Tank stock update (regulation)

**Supply entry**

1 Suppl:	gal
Price :	Euros

Enter the volume of the supply and validate with **VAL**, then enter total price in euros (it is possible to enter a decimal number, for instance 150.85), and validate with **VAL**.

### Stock update

C1 GOI	1500 g
Corr:	gal

Enter the volume to add to the stock, and validate with **VAL**. It is possible to decrease the tank stock by entering a negative volume (e.g. -10 to remove 10 gallons).

### 2.5.2 Pumps submenu

1 GOI	T:002902
On	(+/-)

#### First line:

- Pump number (from 1 to 16). Use the + (or 9) and - (or 7) keys to go from one tank to another.
- Product name
- Value of the pump module internal totalizer

**Second line:** Pump state. The following states are possible:

On: Pump available.

Blocked/CPU: Pump blocked by the attendant via the attendant menu.

Blocked/PC: Pump blocked by the manager via the supervision screen (See 3.3, page 63).

Counting Error: Pump automatically blocked after a counting error.

Volume error: Pump automatically blocked after several consecutive unsuccessful fuelings (See 2.2.5, page 51).

Module error: Pump automatically blocked because of a module failure.

Config error: Pump automatically blocked because of a configuration error.

Blocking or unblocking a pump is done by pressing the keys B, M, D or 0.

### 2.5.3 Gauges submenu

A gauging is automatically done when accessing this menu.

1 GOI	1500 g
T 14 H2O:	1300 D -

**First line:**

- Tank number (from 1 to 16). Use the + (or 9) and - (or 7) keys to go from one tank to another.
- Product name
- Tank stock measured by gauging.

**Second line:**

- T: temperature in Celsius degrees.
- H2O: water volume.
- D: gauging status (0 indicates a correct gauging, - or any other value indicates a gauging error).

**2.5.4 Badges submenu**

The following procedure assigns a proximity badge to a vehicle or driver:

1. **Vehicle:** Enter the vehicle code. U (or 2) allows to initialize a driver badge. V (or 1) returns to a vehicle badge.
2. **Badge initialization:** Present your badge. The possible messages are:
  - **BADGE PROGRAMMED:** The badge of this vehicle has already been initialized.
  - **INEXISTENT CODE:** The code entered does not correspond to any vehicle.
  - **BADGE ALR. ASSIGNED:** The badge has already been assigned to another vehicle.
  - **BADGE ACCEPTED:** The badge has been correctly initialized.

It is then possible to enter a new vehicle code, to initialize another badge.

**2.6 Attendant menu - TIP2-Vatersay CPUs**

The attendant menu on TIP2-Vatersay CPUs appears as follows:

1:PUMPS	2:TANKS	4:T.BADGE	5:I.BADGE
3:MODE	8:..	6:TICKET	8:..

A submenu is accessed by pressing the corresponding number. Depending on the configuration, some elements might not be available.

**Pumps (key 1):** Consultation of totalizers, pump blocking or unblocking.

**Tanks (key 2):** Consultation of tanks theoretical stocks, entry of supplies, gauging.

**Mode (key 3):** Restricted mode configuration.

**T.Badge (key 4):** Badge test.

**I.Badge (key 5):** Badge initialization.

**Ticket (key 6):** Print a test ticket.

**Key 8:** Go to the next screen.

In all this section, any scrolling using the - and + keys is also available with the 7 and 9 keys on numerical keyboards.

### 2.6.1 Pumps submenu

This menu shows the pumps status:

Pump 1 GOI	./+
ENABLED	[58]

The screen contains the following elements:

- On the top left, the pump and product names.
- On the top right, the navigation symbol. It indicates whether there are pumps before or after the current one. When applicable, the + and - keys allow to scroll between the different pumps.
- On the bottom left, the pump state: **ENABLED** when the pump is available, or **DISABLED** followed by the blocking cause when it is blocked.
- On the bottom right, the list of available operations, between brackets:
  - Key 5: blocks or unblocks the pump. When pressing this key, a confirmation message shows up (**ENABLE?** or **DISABLE?**). The **VAL** key confirms the operation, **EFF** cancels it.
  - Key 8: shows the totalizer value. Press 8 again to go back to the first screen.

### 2.6.2 Tanks submenu

This menu shows the tanks status:

Tank 1 GOI	./+
T:18006L	[568]

The screen contains the following elements:

- On the top left, the tank and product names.
- On the top right, the navigation symbol (same usage as for the pumps submenu).
- On the bottom left, the theoretical stock value.
- On the bottom right, the list of available operations, between brackets.

- Keys 5 and 6: Stock regulation by entering a positive (key 5) or negative (key 6) supply. Confirm the operation with VAL, then enter the supply volume and validate.
- Key 8: When a gauge is defined on this tank, it is automatically gauged while this screen is displayed. The 8 key scrolls between the gauging values, which are identified by the letters on the bottom left of the screen:

**Jvc:** Fuel volume

**Jhc:** Fuel height

**Jve:** Water volume

**Jhe:** Water height

**Jt:** Temperature

The (\*) symbol means that an error occurred during the last gauging.

### 2.6.3 Mode submenu

This menu shows the fuel set operating mode:

RESTRICTED MODE	./.
DISABLED	[5]

Press 5 to enable or disable the restricted mode. When this mode is enabled, a R is displayed next to the hour. Depending on the configuration, the restricted mode allows to forbid some pumps, or to limit transactions maximum duration.

### 2.6.4 Badge test submenu

This menu allows to test one or several badges for which assignment is unknown. It has two modes:

- The first mode tests whether a badge is assigned or not:

T.BADGE	
A:VEHIC 1234	[8]

Badge assigned to the vehicle 1234

T.BADGE	
A:UNKNOWN	[8]

Badge not assigned

Press 8 to go to the second mode.

- The second mode shows the chip code of a badge, and can store a transaction for further processing in GIR Titan-Hyperion:

T.BADGE	
B:12345678	[58]

Press 5 to store a transaction with this chip code. The transaction will be available in the events table (See 5.3, page 80). A short description can be entered, to identify multiple badges in case several transactions are stored.

Press 8 to go back to the first mode.

### 2.6.5 Init. badge submenu

This menu allows to assign a badge to a vehicle or driver. It has the following steps:

- Select the assignment type. Press 1 for a vehicle badge, or 2 for a driver badge.

```
I .BADGE
1:VEHICLE 2:DRIVER
```

- Enter the vehicle or driver code. If a badge is already assigned to the selected element, a confirmation is asked.

```
I .BADGE/VEHICLE
CODE?
```

- Use the badge. The assignment in GIR Titan-Hyperion will only be complete after transactions are retrieved.

```
I .BADGE/VEHICLE
BADGE?
```

## 2.7 Tacho. download

TIP2-Vatersay CPUs with a smartcard reader can be used to download tachograph cards data.

The file is first downloaded to the CPU, then to the PC during transactions retrieval.

On the CPU, card download automatically starts when a card is inserted on the idle state. In that case, the hour normally displayed on the first line is replaced by one of the following messages:

- **TACHO: DOWNL. xx%:** Indicates a download in progress, with the progress percentage.
- **TACHO: NO DOWNLOAD:** Indicates that a card has been detected but that no download is occurring. An event indicating the detailed cause is recorded (ex: unknown card, download already done recently, ...).
- **TACHO: DOWNL. OK:** Indicates that the download completed successfully. A download generally lasts 3 to 5 minutes.

- **TACHO: DOWNL. ERROR:** Indicates that an error occurred during the download.

The downloaded files are stored in `data\dto\tacho`. In `▷ Config.`, CPUs, Fuelsets, it is possible to define a directory to which downloaded files will be copied.

The default file name is `tacho-CCCCCCCCCCCCCCC-YYYYMMDD.dat`, where `CCC...` is the card number, and `YYYYMMDD` the download date. If a card is downloaded several times on the same day, a `-N` suffix is appended before the `.dat` extension.

In the same menu, the `Renaming` field allows to select another naming convention, which will be used when copying the file to the external directory.

## 2.8 Printing

### 2.8.1 Live printing

Live printing allows to keep on paper an history of all the transactions registered on a CPU.

Fuel transactions are printed using the following format:

Date	Time	P	Prd	Volume	Vehicle	Meter	Cov.	Cons.	Driver	Act/Sp/Att
21/03	17:55	2	DIE	143.50	VVVVV	K 175689	950	15.1	DDDDD	A 7788

Fields description:

- **Date, Time:** Date and hour of the transaction
- **P:** Pump number
- **Prd:** Product name
- **Volume:** Fuel volume
- **Vehicle:** Code or record number of the vehicle
- **Meter:** 'K' plus milometer, or 'H' plus hour meter.
- **Cov.:** Covered distance or time
- **Cons.:** Consumption
- **Driver:** Code or record number of the driver
- **Act/Sp/Pmp:** One of the following optional information, by decreasing priority:
  - 'A' + Activity code
  - 'S' + Specific code
  - 'V' + Vehicle attendant (Code or record number)
  - 'U' + Driver attendant (Code or record number)

Other events are printed with an explicit message (ex: pump blocked, unknown badge...).

A blank line followed by the full date is printed on each new day, and on the CPU boot.

## 2.8.2 Ticket printing

Ticket printing allows to deliver a receipt at the end of each fueling.

A ticket has the following format:

```
GIR Titan-Hyperion  
www.gir.fr  
21/03/2005 17:55:34
```

```
Station CPU 1  
Pump 1 DIE
```

```
Vol: 143.50 L  
V: VVVVV  
U: DDDDD  
K: 175689 km  
A: 7788
```

Description:

- Two lines customizable in the Installer config..
- Transaction date. When the CPU is not in the same time zone as GIR Titan-Hyperion, local and UTC hours are also indicated.
- Site and cpu names
- Pump and product names
- Fuel volume
- Vehicle (letter V)
- Driver (letter U)
- Milometer (letter K)
- Hour meter (letter H)
- Activity code (letter A)
- Specific code (letter S)
- When using credit management:
  - Remaining credit
  - For monetary credits, unit price and total price of the transaction.

# Chapter 3

## CPU communication

### 3.1 Principle

Each CPU operates in an autonomous way: it possesses a copy of the vehicles and users data in memory, and registers the transactions. It is then necessary to regularly synchronize data between GIR Titan-Hyperion and the CPUs. This synchronization operates in two distinct steps:

1. Retrieval and processing in GIR Titan-Hyperion of the transactions stored on the CPUs. TIP CPUs can store up to 2500 transactions.
2. Update of the CPUs data from GIR Titan-Hyperion database (meters, blocking, etc.)

Any change realized in GIR Titan-Hyperion (message assignment, ban, ...) will really be active on the CPU only after having made a dialogue with it.

#### 3.1.1 Multiple CPUs

Synchronization between GIR Titan-Hyperion and the different CPUs is especially important when multiple CPUs are being used. Indeed, each CPU possesses its own copy of the database. When entering a new meter, this copy is updated with the new meter and the other CPUs remain with the previous value.

Example with a two-CPU system: The vehicle  $V$  has a milometer which value is 50000 mi. Its tolerance range (See 4.1, page 69) is 1000 mi. This information stored by GIR Titan-Hyperion and sent to CPUs  $B_1$  and  $B_2$ .

GIR Titan-Hyperion	CPU $B_1$	CPU $B_2$
Vehicle $V$ , 50000 mi	Vehicle $V$ , 50000 mi	Vehicle $V$ , 50000 mi

A fueling is made on the CPU  $B_1$  for the vehicle  $V$ , and the meter entered is 50800 mi. The situation is now the following:

GIR Titan-Hyperion	CPU $B_1$	CPU $B_2$
Vehicle $V$ , 50000 mi	Vehicle $V$ , 50800 mi	Vehicle $V$ , 50000 mi

If the vehicle  $V$  later comes to the  $B_2$  CPU, with a meter of 51500 mi, and that no dialogue was made to synchronise data, the new meter will be refused. Indeed, on the  $B_2$  CPU, the last known meter for this vehicle is still 50000 mi. Given the defined range, the maximum meter value is 51000 mi.

If a dialogue occurs between the two fuelings of the vehicle  $V$ , the situation would be the following:

GIR Titan-Hyperion	CPU $B_1$	CPU $B_2$
Vehicle $V$ , 50800 mi	Vehicle $V$ , 50800 mi	Vehicle $V$ , 50800 mi

The new 51500 milometer would then be accepted on both CPUs.

To avoid such issues, it is recommended to regularly synchronize data, so that there is always at least one synchronization between two fuelings of the same vehicle. The best solution is to define an automatic dialogue (See 1.7, page 28). Generally, scheduling a dialogue once every 24 hours is sufficient (this should be adapted if the same vehicle is likely to make several fuelings per day).

## 3.2 Manual dialogue

The  $\triangleright$  CPU comm. menu allows to launch a communication between GIR Titan-Hyperion and one or several CPUs.

To start a dialogue, click on **Launch** after selecting the CPUs, the operation and the desired options. The dialogue report screen is then displayed. It allows to control the operation progress on the selected CPUs.

### Operation:

- *Retr.-Send*: This is the most common operation. It allows to synchronize data between GIR Titan-Hyperion and the CPUs.
- *Retr.-Send-Gauge*: Makes a synchronization, then performs a gauging to retrieve the tanks stocks (only with a gauge module). Gauging data is stored in a history.
- *Retr.-Send-Totalizers*: Makes a synchronization, then retrieves the internal totalizers of the pump modules for which a report is enabled.
- *Retr.-Send-Totalizers-Gauge*: Makes a synchronization, retrieves totalizers, and performs a gauging.
- *Retr.-Config.-Send*: Retrieves transactions, sends configuration, and performs a full data sending (\*).
- *Retr.-Init.-Config.-Send*: Initializes a CPU with a new sequence, after retrieving the transactions (\*).
- *Init.-Config.-Send*: Initializes a CPU with a new sequence. Caution: this operation erases the transactions stored on the CPU (\*).
- *Retr.-Wait-Init.-Config.-Send*: Initializes a CPU with a new sequence, after making sure that the CPU is unused. If fuelings or entries are in progress, GIR Titan-Hyperion waits for them to be finished before initializing the CPU.
- *Memory dump*: Copies the CPU memory into a file.

- *Reboot*: Reboots the CPU (\*).
- *Link test*: Checks the link between the CPU and GIR Titan-Hyperion, and shows a report on the modules status.
- *Modules update - Link test*: Resets all modules then makes a link test as above.

(\*): These operations cause a temporary interruption on the CPU and must not be launched if a transaction is pending.

**Options:**

- *Detailed log*: Generates a detailed file about the exchanges between the CPU and GIR Titan-Hyperion. These files can be very large.
- *Force retr.*: Allows to force transactions retrieval when it fails indicating a 'Modified module' error.

**Sending:** Sending mode selection. *Delta* only sends the necessary data to the terminal, *Complete* sends all the data. Thus, should we possess a synchronized base, and should we attach a message to a vehicle, the *Delta* sending will only send one vehicle to the CPU whereas the complete sending will send 3000 vehicles.

**Address:** Leave to *Normal*.

The default settings (disabled *Detailed log* and *Force retr.*, *Delta* sending and *Normal* address) fit for a normal use of the software and should not be modified unless there is a problem.

**Disconnect:** By default, the connection to a CPU is established at the beginning of an operation, and closed at the end of the operation (*After operation*). However, it may be interesting to keep the connection during a certain period, should we wish to carry out several successive operations on the same CPU. This is particularly true when the opening phase takes a long time, for instance for a modem connection.

Two disconnection modes are available for this purpose:

- *Interactive*: The connection is closed after 6 minutes of inactivity.
- *Stay connected until*: The connection is closed at the specified hour.

It is possible to launch a dialogue in one of those two modes only when a single CPU is selected.

## 3.3 Supervision

### ▷ Supervision

In addition to the dialogue operations seen above, GIR Titan-Hyperion allows to interact directly with a CPU, thanks to the supervision mode. The supervision screen shows the tanks relating to the selected CPU, and the pumps associated to each tank. It allows to:

- view tanks stocks

- perform tanks gauging
- view pumps states and totalizers
- view pending transactions
- start a remote transaction

Click on **Update data** to launch a connection on CPU and update the displayed data.

**CPU state** displays the CPU status, allowing to detect a potential system failure. The **Last update** date indicates when the displayed information has been retrieved.

The connection to the CPU is realized using the interactive mode (See **Disconnect**, page 63).

#### **Tanks data:**

- **Theo. stock:** Tank theoretical stock, updated according to supplies and transactions.
- **Real stock:** Tank stock read by gauging (only with a gauge module). Detailed gauging information may be consulted by clicking on **Real stock**. A gauging is automatically launched for each fueling. A gauging can be launched on all tanks by clicking on the **Force gauging** button. The gauging information retrieved using this method is intended for temporary consultation only. To carry out a gauging which result is kept in an history, use a *Retr.-Send-Gauge* dialogue.

#### **Pumps data:**

- **Pump state.**
  - *Manual mode:* Pump in manual mode
  - *Blocked:* Pump blocked, the cause of the blocking is displayed just after:
    - \* *manager:* Pump blocked by the manager via the supervision screen.
    - \* *attendant:* Pump blocked by the manager via the attendant menu.
    - \* *counting error:* Pump automatically blocked after a counting error
    - \* *N null volumes:* Pump automatically blocked after several consecutive unsuccessful fuelings (See 2.2.5, page 51)
    - \* *module error:* Pump automatically blocked after a module failure
    - \* *config. error:* Pump automatically blocked because of a configuration error.
  - *Comm. error:* Pump module communication error.
  - *Delivery:* Fuel delivery in progress.
  - *Entry in progress:* A driver is entering a transaction on this pump.

- *Tank blocked*: Pump blocked because the tank stock is below the blocking stock.
- *Out of zone*: Pump out of zone.
- *Available*: Pump available.

Detailed information on a possible pending transaction, as well as the totalizer value are available by clicking on **Detail** below the selected pump. The totalizer displayed is the internal totalizer of the pump module (and not the totalizer of another counting device).

### 3.3.1 Pump blocking

Depending on the pump state, one of the following operations is available:

- Block
- Unblock
- Cancel blocking
- Cancel unblocking

Blocking or unblocking a pump requires to launch a *Retr.-Send* operation on the CPU. Hence, after clicking on **Block** or **Unblock**, a confirmation screen appears and allows either to launch the operation immediately or to postpone it. When the operation is postponed, the request can be cancelled by **Cancel blocking** or **Cancel unblocking**.

As the *Retr.-Send* operation may be quite long, postponing it may be interesting when several pumps must be changed at the same time. In this case, we would chose **Later** for all the pumps and **Immediate** for the last one.

### 3.3.2 Remote transaction

When a pump is available, it is possible to remotely start a transaction by clicking on **Transaction**. GIR Titan-Hyperion then tries to reserve the pump.

On success, the message “Pump <pump name> reserved” appears. When a pump is reserved, it is no longer available for a fueling on the CPU. The reservation can be cancelled at any time by clicking on **Cancel reservation**.

**Enter a transaction** allows to define the various transaction parameters (vehicle, driver, meters. . .) in a form similar to the one used for manual transaction (See 7.1, page 87).

After entering all the required information, the transaction is started on the CPU and the fueling may begin.

When a pump is remotely reserved but that no transaction is entered, it is automatically released after a couple of minutes.

As for an attendant transaction (See 2.3, page 51), it is possible to bypass certain limitations on a remote transaction. In this case, a warning will appear with the nature of the forced limitation. The following controls can be bypassed:

- Explicit ban
- Expiry date

- Zone-based authorization
- Blocking because of a maintenance not done
- Blocking because of an insufficient credit

### 3.4 Resolving errors

In addition to simple communication errors, there are also various dialogue errors which require an human intervention to be solved.

#### 3.4.1 Modified module

**Cause:** Each time configuration is sent, GIR Titan-Hyperion generates a cookie (random number) which is stored on both the CPU and the PC. During each dialogue, the cookie is read from the CPU and compared to the one on the PC. If they are different, the dialogue fails with a *Modified module* error.

**Solution 1:** If the CPU contains transactions that should be retrieved but that the cookie differs (for instance because an old backup was restored), perform a *Retr.-Config.-Send* dialogue ticking the *Force retr. (modified module)* option.

**Solution 2:** If the CPU comes from a standard exchange and that the data it may contain can be discarded, perform a *Init.-Config.-Send* dialogue.

#### 3.4.2 Modified config.

**Cause:** After a change in a CPU configuration, GIR Titan-Hyperion refuses to dialogue with it until the new configuration has not been sent (*Retr.-Config.-Send* or *Retr.-Init.-Config.-Send*).

Caution: a CPU can be set to *Modified config.* in two other cases:

1. After an application update, when there is a change in the way data is sent.
2. After restoring a TWB backup, since the CPU data may be completely incompatible.

**Solution:** Perform a *Retr.-Config.-Send* or *Retr.-Init.-Config.-Send* dialogue.

#### 3.4.3 Invalid state

**Cause:** When the CPU contains inconsistent information about the size of transactions stored, the retrieval fails with an *Invalid state* error. For security purpose, GIR Titan-Hyperion doesn't automatically retrieve data when a CPU is in such a state.

**Solution:** Perform a *Retr.-Send* dialogue, ticking the *Force retr. (invalid state)* option.

#### 3.4.4 Config. in progress

**Cause:** Dialogue with TIP2-Vatersay CPUs is not possible while the configuration application is being used.

**Solution:** Exit the configuration application on CPU to perform a dialogue.



# Chapter 4

## Meters

A vehicle possesses two meters, one for the miles and another for the hours. The prompt for a meter during a fueling can be configured for each product, through the Tanks tab in the vehicle sheet (See 1.1.8, page 18).

### 4.1 Tolerance ranges

Tolerance ranges allow to check the consistency of meters entered during a fueling. When a meter is entered, if the associated range is higher than zero, the entered value must be between the last known value and the last known value added to the range.

When a meter is equal to zero, no control is made on the entered value.

Examples:

Meter	Range	Authorized values
76000 mi	2000 mi	From 76000 to 78000 mi
182000 mi	15000 mi	From 182000 to 197000 mi
49000 mi	(N/A)	No control
(N/A)	5000 mi	No control the first time

When a vehicle is created, its meter is set to zero. The first meter entry defines its current meter. It is possible to initialize a meter:

- On CPU, by typing the meter value as for normal fueling.
- In GIR Titan-Hyperion, by creating a manual transaction with zero as volume (See 7.1, page 87).

It is not advised to define a null range when the associated meter is manually entered. Indeed, no control is then made and a small error when entering the number (e.g. 5500 instead of 55000) will not be detected. The values of covered distances and consumptions will then be wrong and require a manual correction (See 7.3, page 91). It is better to always define a range, even very big (e.g. 10000 mi). An exception can be made for emergency intervention vehicles, for which a null range may be defined so that they won't be blocked when fueling.

When several CPUs are used simultaneously, the meters value must be updated on the various CPUs so that the range control operates correctly (See

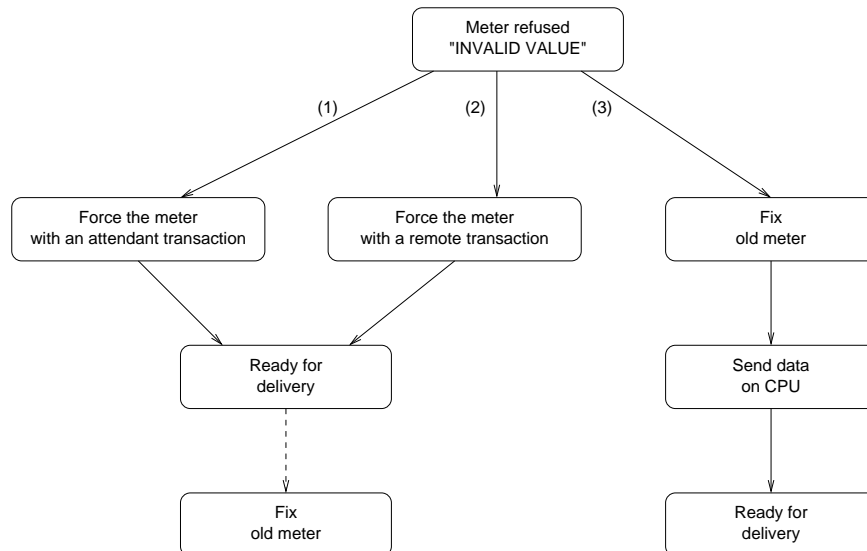
3.1.1, page 61).

## 4.2 Problem when entering a meter

This part describes what to do when a meter is refused with an `INCORRECT VALUE` message, whereas the entered value really corresponds to the vehicle meter.

1. Make sure that all CPUs have been synchronized since the vehicle's last fueling. This is particularly important when using several CPUs (See 3.1.1, page 61).
2. Check the value of the meter and the associated range in GIR Titan-Hyperion. Various cases are possible:
  - The defined range is too low: the range value must be higher than the maximum distance that a vehicle may cover with a fueling. In this case, fix the range value and perform a synchronization dialogue with the CPUs.
  - The vehicle has made fuelings that have not been entered: enter these fuelings with a manual transaction (See 7.1, page 87) then launch a dialogue, or force the meter using method (1) or (2) below.
  - The meter entered during the last transaction is wrong: use one of the three methods below.

Three methods are available to perform a fueling when the value of a meter is invalid:



1. Force the new meter with an attendant transaction (See 2.3, page 51).
2. Force the new meter with a remote transaction (See 3.3.2, page 65).

3. Fix the invalid meter in the last transaction (See 7.3, page 91), send fixed data to the CPU, then continue the transaction normally.

Methods (1) and (2) allow to perform the transaction immediately, without having to send data back to the CPU. But when the problem comes from an invalid meter in a previous transaction, they must be completed by the correction of this meter. Indeed, without this correction, covered distances and consumptions will be erroneous.

Example:

Vehicle  $V$  possesses a milometer with a 2000 mi. tolerance range. The meter entered during its last transaction was 11500 mi.

It makes a first fueling on 12/05/2004, and enters by error a meter of 13000 mi instead of 12000. As this value is in the tolerance range, it is accepted and the following transaction is created:

	Date	Vehicle	Meter	Covered
$T_1$	12/05/2004	$V$	13000 mi	1500 mi

The day after, the vehicle comes back to the CPU and enters its new meter: 12500 mi. The message `INCORRECT VALUE` appears since the last known meter is 13000 mi. Once the error is notified, the meter is forced to 12500 mi using the method (1) or (2). A new transaction is created:

	Date	Vehicle	Meter	Covered
$T_2$	13/05/2004	$V$	12500 mi	-500 mi
$T_1$	12/05/2004	$V$	13000 mi	1500 mi

The value of covered distance, and the associated consumption is wrong for transactions  $T_1$  and  $T_2$ . It is necessary to fix the meter in transaction  $T_1$ , so that GIR Titan-Hyperion recomputes covered distance and consumptions:

	Date	Vehicle	Meter	Covered
$T_2$	13/05/2004	$V$	12500 mi	500 mi
$T_1'$	12/05/2004	$V$	12000 mi	500 mi

The transactions stored in history are then correct. Method (3) allows to obtain exactly the same result without having to force a meter, but it requires to fix the erroneous meter and to launch a dialogue before the beginning of the fueling.

If the meter real value is not known, it is possible to erase it. In this case, the transaction  $T_1'$  would have meter and covered fields to  $(N/A)$ , and its volume will be reported on transaction  $T_2$  consumption.



# Chapter 5

## States consultation

### 5.1 Fuel transactions

#### 5.1.1 History

▷ Management, Fuel transactions hist.

This screen allows to visualize all fuel transactions stored in GIR Titan-Hyperion. By default, transactions are ordered by decreasing date (antichronological). Two links in the ▷ Management menu allow to access directly to transactions of the current and the previous month.

The Options field notably allows to find the origin of a transaction:

- *Manual*: Transaction manually entered in GIR Titan-Hyperion (See 7.1, page 87).
- *Remote*: Transaction remotely launched on CPU from a PC (See 3.3.2, page 65).
- *Imported*: Transaction imported from oil disks data (See 12.1, page 111).
- *Install*: Test transaction done during a CPU installation.

If there is no pump on a manual transaction, it means that an off-site fueling has been realized. The *Attendant* option indicates that the transaction was done via an attendant. The attendant identity can be viewed in the transaction sheet.

When a filter is enabled, a sum appears at the bottom of the page. It is computed on all the transactions matching the current filter.

#### Noteworthy transactions

The (Not.) link in the ▷ Management menu allows to directly view an history filtered on noteworthy transactions. The following transactions are considered as noteworthy:

- Overconsuming or underconsuming transactions
- Remote and attendant transactions
- Manual transactions

- Transactions realized in a vigilance zone (See 1.6, page 25)

A periodical report of noteworthy transactions can be sent by e-mail (See 6, page 83).

### 5.1.2 Sums

▷ Management/Fuel transactions sums.

This screen allows to compute sums of fuel transactions according to various criteria.

The first criteria group defines the result presentation:

**Sum type:** Sums types have a section/element form. For instance, a *Department/Vehicle* sum will show, for each department, a table which elements are the vehicles of this department.

The most common sum types are predefined. A click on '>>>' allows to select custom sum types.

#### Options:

- *Page break between tables:* Allows to show each section of the sum on a separate page when printing.
- *Show last known meter:* When the sum is computed on vehicles, this option displays an additional column containing the last meter of each vehicle on the selected period.
- *Hide milometers, Hide hour meters:* Hide columns related to the corresponding meters.
- *Hide prices:* Hide price-related data (Total and unit price)
- *Show elements with no transactions:* This option allows to display all the elements on which the sum is realized (e.g. all the vehicles) even those that made no fueling during the selected period.
- *Show transac. count:* Displays a column with the transaction count for each element of the sum.
- *Split by month:* Shows a separated sum for each month in the selected period.
- *Show reference cons.:* When the sum is computed on vehicles, displays a column with the normal consumption range for each vehicle, under the form "Min cons. - Max cons.". Over-consumption is indicated by a red max consumption. Under-consumption is indicated by a red min consumption.
- *Filtr cons. anomalies:* Only show vehicles that are over or under-consuming.

#### Product detail:

- *No:* Displays only one line per element, summing the values for each product.
- *Ext/Int together:* Displays one line by product for each element, summing on-site and off-site fuelings for the same product.

- *Ext/Int distinct*: Displays one or two lines by product for each element, separating the on-site and off-site fuelings. Off-site fuelings are labelled with (*Ext.*) after the product name.

The filter criteria allow to limit the sum to a time range, a product (with on-site and/or off-site fuelings), a site, etc. The selection of a period is mandatory.

Once all the parameters are selected, click on **Compute** to display the sum result. Selected parameters are shown in the upper part of the screen. The **Modify** button allows to change selected parameters to make a new sum.

**Sums**

Sum by department/vehicle from 06-01-2004 00:00:00 to 06-30-2004 23:59:59.  
 Product detail: Ext/Int distinct.  
 Department: D01 Internal fleet VSC Commercial vehicles  
 Transactions used: 13  
 Modify

**D01 Internal fleet VSC Commercial vehicles**

Vehicle	Product	Volume (gal)	Price (EUR)	U.P. (EUR)	Odometer		Hour meter	
					Covered (mi.)	Cons. (gal/100mi.)	Covered (h)	Cons. (gal/h)
177HR53	DIE	172.20	120.06	0.6972	3 468	4.97	0.00	0.00
	<b>Total</b>		<b>120.06</b>	<b>0.6972</b>	<b>3 468</b>		<b>0.00</b>	<b>0.00</b>
2210GC68	DIE	132.10	91.81	0.6950	2 206	5.99	0.00	0.00
	<b>Total</b>		<b>91.81</b>	<b>0.6950</b>	<b>2 206</b>		<b>0.00</b>	<b>0.00</b>
2249XR68	SUP	0.00	0.00	0.0000	0	0.00	0.00	0.00
	<b>Total</b>		<b>0.00</b>	<b>0.0000</b>	<b>0</b>		<b>0.00</b>	<b>0.00</b>
2301BB49	SUP	47.90	38.80	0.8100	4 981	0.96	0.00	0.00
	<b>Total</b>		<b>38.80</b>	<b>0.8100</b>	<b>4 981</b>		<b>0.00</b>	<b>0.00</b>
5263JB52	SUP	47.00	38.07	0.8100	800	5.88	0.00	0.00
	<b>Total</b>		<b>38.07</b>	<b>0.8100</b>	<b>800</b>		<b>0.00</b>	<b>0.00</b>
9738PT05	DIE	0.00	0.00	0.0000	811	0.00	0.00	0.00
	<b>Total</b>		<b>0.00</b>	<b>0.0000</b>	<b>811</b>		<b>0.00</b>	<b>0.00</b>
<b>Total</b>	<b>SUP</b>	<b>94.90</b>	<b>76.87</b>	<b>0.8100</b>	<b>5 781</b>	<b>1.64</b>	<b>0.00</b>	<b>0.00</b>
	<b>DIE</b>	<b>304.30</b>	<b>211.87</b>	<b>0.6962</b>	<b>6 485</b>	<b>4.69</b>	<b>0.00</b>	<b>0.00</b>
	<b>Total</b>	<b>288.74</b>	<b>0.7233</b>	<b>12 266</b>		<b>0.00</b>	<b>0.00</b>	<b>0.00</b>

### Average consumption computing

There may be a difference between the displayed average consumption and the one obtained from the volume and the covered distance. This is normal and the result of a precision concern, as shown in the example below:

We consider a vehicle which realized 3 transactions, with an unknown meter for the most recent transaction:

Date	Volume	Meter	Covered
15/04/2004	57,00 gal	(N/A)	(N/A)
08/04/2004	55,00 gal	73300 mi	500 mi
02/04/2004	59,00 gal	72800 mi	600 mi

Should we calculate a sum of these three transactions, we would obtain a 171 gal volume and a 1100 mi covered distance. Computing consumption from these two values by saying that 171 gal were used to cover 1100 mi is wrong: the last transaction doesn't have a meter, and its 57 gal volume must be ignored to compute the average consumption. The correct value is then 114 gal for 1100 mi, i.e. 10.36 gal/100mi.

### 5.1.3 Charts

▷ Management/Fuel transaction charts.

This screen allows to display fuel transaction sums as histograms.

**Orientation:** Vertical or horizontal histogram.

**Type:**

- *History*: Transactions history on the selected period.
- *Average per day, Average per week*: Average usage of the station during the selected period, reduced to a day or a week.
- *Dispersion*: Dispersion of the station usage according to the selected criteria. For instance, *Dispersion per vehicle* with the *Volume* value will display the 10 vehicles which took the most fuel during the selected period.

**Date Hour:** Period selection. When the chart is displayed, navigation buttons allow to move to the previous and next periods, or to change the scale. The available scales are day, week, month and year.

**Filtering elements:** Type of the elements available in the Value fields.

**Value 1 to 3:** Type of value to display (transactions count, volume, ...). It is also possible to filter on a specific element. For instance, to compare the evolution of two departments consumptions on a year, select *Departments* as the filtering element, then the two desired departments as Value 1 and Value 2.

## 5.2 Tanks stocks management

### 5.2.1 Tanks state

#### ▷ Tanks state

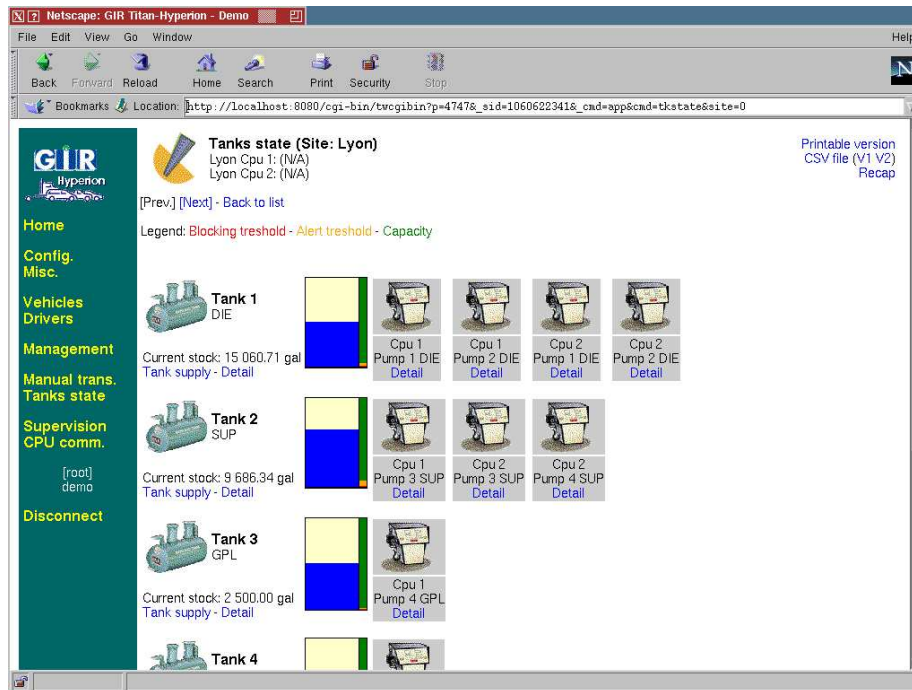
This screen allows to graphically visualize the tanks state of a given site, as well as pumps related to each tank.

Information on tanks:

- **Current stock** indicates the tank theoretical stock, according to the transactions and supplies processed by GIR Titan-Hyperion. It appears in red if it is below the blocking limit defined for this tank, and in orange if it is below the alert limit.
- **Detail** allows to view detailed information on a tank: stock price, limits, capacity, last supplies ...
- **Tank supply** allows to enter a new supply for this tank.
- **Manual gauging** allows to enter a gauging, which will be stored in an history (▷ Management, Gaugings history). This feature is only available when the corresponding option has been enabled in the Manager config..

Information on pumps:

- **Detail** allows to view detailed information on a pump: time delays, hangup type, last transactions...
- **Totalizer** allows to enter a new totalizer report, which will be stored in an history (▷ Management, Totalizers hist.). This feature is only available when the corresponding option has been enabled in the Manager config..



### 5.2.2 Previous tanks state

#### ▷ Management, Previous tanks state

This screen is an entry point for several states on tanks stocks history.

The value of a stock at a given date is computed using the current tank stock, fuel transactions history, and supplies history.

- Previous stocks: Computes the theoretical stock of a tank at a given date.
- Gaugings and tank supplies hist.: Compared history of gaugings and supplies, with the evolution of the difference between real and theoretical stocks.
- Gaugings and transactions hist.: History of gaugings done after each transaction.
- Stocks charts: Graphical view of a tank stock evolution.

Each state can be consulted by selecting a tank and a time period, then by clicking on View.

### 5.2.3 Stock prediction

#### ▷ Management, Tanks stocks prediction

This screen allows to estimate when a tank will need to be supplied. The estimation is based on all the transactions made on each tank during the selected reference period.

This estimation is done by computing the average volume removed from a tank during the reference period, for each day of the week. This notably

allows to take into account the consumption difference between working days and week-ends.

Example: The average consumption on a tank is 500 gallons per day during working days, and nothing on Saturday and Sunday. A stock prediction is launched on Friday evening with 800 gallons left before reaching the alert treshold. Then the estimated date to reach the alert will be the next Tuesday.

The correct choice of the reference period is very important to obtain an accurate estimation. It is advised to select a period long enough during which the station activity has been significant. Moreover, all transactions realized during the period must have been retrieved.

**Reference period:** Reference period used to compute the estimation.

**Type:** Défines the limits to display.

- *Zero stock* indicates when the stock will go below zero.
- *Blocking* and *Alert* indicate when the stock will go below the corresponding limits, specific to each tank.

**Mode:** Display mode.

- In the *List* mode, tanks are displayed in a table, with, for each tank, the number of days before reaching the limits.
- In the *Calendar* mode, a 5-weeks calendar shows when the limits will be reached. Clicking on % shows the predicted stocks values for the selected week.

**Autonomy:** In the *List* mode, using the *Capacity* gives an estimation of the autonomy of a fuel station.

**Options:**

- *Group by site:* In the *Calendar* mode, displays only once a site name when several tanks of the same site are displayed on the same day.

**Product, Product type, Site, Region:** Filter on the selected element.

### 5.2.4 Gauging

When gauges are installed, GIR Titan-Hyperion allows to perform a gauging and to consult the obtained information. A gauging can be done through two ways:

- Via the supervision screen (See 3.3, page 63), to consult the gauging values from time to time.
- Via a *Retr.-Send-Gauge* dialogue, to store gauging values in an history (> Management, > Gaugings history). This dialogue can be launched either manually (> CPU comm.) or automatically (See 1.7, page 28). The latter allows to regularly fill the gauging history, so that it is possible to generate warnings on the measured values.

In the gauging sheet, the **Correction supply** button allows to enter a supply where the difference between the theoretical stock and the real stock is already set.

In TIP2-Vatersay, a gauging is also done after each transaction. The gauged height can be viewed in the transaction sheet.

Several gauging management states are available in ▷ Management, Previous tanks state (See 5.2.2, page 78).

### 5.2.5 Totalizers

Pump modules have an internal totalizer, which increases when a fueling is detected. GIR Titan-Hyperion allows to automatically read this totalizer, in order to check its consistency compared to the stored transactions. To enable the totalizer report on a pump, tick the *Totalizer report* option in the selected pump module (▷ Config., CPU, tanks tresholds, ref. and zones management)

When a *Retr.-Send-Totalizers* dialogue is launched, the totalizers of the selected pump modules are stored in the Totalizers history table. GIR Titan-Hyperion computes the difference with the previous report (Difference (tot.) field in the history), as well as the total volume of transactions that have been retrieved between the two reports (Difference (trans.) field in the history). The difference between these two values is displayed in the Variation field. It must be close to zero.

An alert can be triggered when the Variation value reaches a given limit. The alert stays on the dashboard until it is acknowledged. To acknowledge an alert, go to the totalizer report sheet, then click on Ack and confirm the operation.

## 5.3 Events

### ▷ Management, Events

The events table keeps an history of messages generated by GIR Titan-Hyperion. The various elements types are:

- *Warning*: Miscellaneous warnings
- *Invalid badge*: An unknown or invalid badge was read
- *Badge init.*: Transaction created when initializing a proximity badge.
- *CPU*: Transaction created when rebooting a CPU or installing pump modules (TIP1-Pabbay only).
- *Closure*: Transaction closure (See 1.3.1, page 23).
- *Login*: User connection to GIR Titan-Hyperion
- *Maintenances*: A maintenance reached the alert or blocking limit
- *Expiry*: Vehicles or drivers authorization expiry, and credit depletion. An event is generated for credit depletion only when the corresponding option is checked in the credit period (See 10.2, page 102).
- *Overcons.*: Vehicle overconsumption
- *Tacho*: Tachograph card downloads

- *Rental*: Short rental start or end (See 1.1.11, page 20).
- *Tank stock*: Tank stock warning
- *Transaction*: Warnings generated during a transaction processing. The transaction can be identified by the CPU and the Id number between brackets in the warning text.
- *Transac. not processed*: Transaction data could not be processed

### 5.3.1 CPU reboot events

The following events allow to understand the electrical supply of TIP1-Pabbay CPUs:

- *Start With Retr.*: Startup with RAM restoration
- *Start No Retr.*: Startup without RAM restoration. The meters stored on CPU are then to zero, which disables the controls during the first meter entry (See 4.1, page 69). It is advised to launch a synchronization between CPU and PC after such an event.
- *Network supplied*: Module supply
- *Reboot Sequence*: Sequence startup
- *Register Retr.*: RAM backup during a tension drop

Appearance order of these events in various real cases:

- on power cut:
  - without any battery:
    1. *Start No Retr.* when the supply comes back
    2. *Network supplied* some seconds later
  - which period is lower than the battery's autonomy:
    1. *Register Retr.* when the cut occurs
    2. *Network supplied* some seconds later
  - which period is bigger than the battery's autonomy:
    1. *Register Retr.* when the cut occurs
    2. *Start With Retr.* when the supply comes back
    3. *Network supplied* some seconds later
- on a reboot, requested from the PC:
  1. *Register Retr.* when processing the request
  2. *Start With Retr.* 30 seconds later
  3. *Network supplied* some seconds later
- on initialization, or sequence crash
  1. *Reboot Sequence* at the sequence reboot date

### 5.3.2 CPU Logs

TIP2-Vatersay CPUs have their own messages history, available in ▷ Management, CPU Logs.

Lines beginning with “--- BOOT” indicate an electrical reboot. Other information in this table is meant to be used by the support staff.

## 5.4 Transactions Id.

▷ Management, Transactions Id

The Transactions Id. table allows to control transaction retrieval on CPUs. Each time a transaction is created on a CPU, it is assigned an Id number which is then increased.

When GIR Titan-Hyperion processes a transaction, it is stored in both the dedicated history (fuel, access, event, ...) and in the Transactions Id. table. Further consultation of this table can ensure that no transaction has been lost.

A record in the Transactions Id. table where the Id number is zero and for which no transaction type is set indicates a CPU initialization.

## 5.5 Other states

These states may be consulted via the ▷ Management menu.

**Tank supplies hist.:** History of supplies made on tanks.

**Pumps blockings history:** History of pumps' state changes.

**Products moves:** Displays a daily balance of the fuel volumes in and out of a site.

# Chapter 6

## E-mails

GIR Titan-Hyperion can send e-mails, either as alerts (ex: pump blocked, maintenance to do, overconsuming vehicle. . .), or as periodical reports (daily, weekly or monthly).

Configuring e-mails in GIR Titan-Hyperion is done through 3 steps:

- Global parameters configuration
- Definition of the message to send
- Definition of addresses

### 6.1 Global parameters

Global parameters for e-mail sending are defined in  $\triangleright$  Misc, Manager config.:

**Sending hour:** Hour in the day when periodical reports are sent.

**Days:** Days in the week when the daily and weekly periodical reports are sent. For weekly reports, the sending day is the first day activated in this field, from Monday.

**Sending day:** Day from when monthly periodical reports are sent.

**SMTP server:** SMTP server address. If this field is not set, e-mail sending is disabled.

**Sender address:** Address used in the sender field for messages sent by GIR Titan-Hyperion. It notably allows to receive a failure notification when a message could not be sent.

The **Sending hour**, **Days**, and **Sending day** fields allow to adjust sending so that data is up to date. Indeed, because of the transactions retrieval mechanism (See 3, page 61), the database may not be up to date when a period finishes.

Example:

We consider a CPU on which transactions are retrieved every morning at 6 a.m. by an automatic dialogue. We want to receive an e-mail every day, with all the transactions made during the day. If this e-mail is sent between midnight

and 6 a.m., transactions retrieval won't be done yet, so the database won't be up to date and transactions history will be incomplete. To avoid this, we can define 8 a.m. as **Sending hour**, so that all transactions will be retrieved before sending the message.

On the same principle, if automatic retrievals are scheduled on an every day basis but Sunday, Saturday should be unchecked in the **Days** field to avoid sending an incomplete report on Sunday morning.

For monthly reports, the **Sending day** field allows to delay sending at the beginning of each month, for instance to regulate some transactions.

When sending a report, GIR Titan-Hyperion checks whereas all the transactions have been retrieved on the various CPUs. If not, the message will contain a warning, as well as the "Incomplete" label in the subject field. Moreover, the message will be sent again once all retrievals are done.

## 6.2 Messages to send

Messages to send to a user can be defined either in the **Authorizations** tab or in the **E-mails** tab in the user sheet, depending on the configuration (See 1.8, page 29). It allows to define which alerts and periodical reports will be sent to a user.

### 6.2.1 Alerts

Any alert sent as e-mail may also be consulted in the **Events** and **Pumps blockings** hist. tables.

Global alerts:

- *Application*: General alert messages.
- *Oil import*: Report on automatic oil data imports.

Alerts available for sites:

- *Tanks*: Alerts on tanks levels and totalizers reports.
- *Pumps*: Alerts on pumps states.
- *Watch*: Alerts when a vehicle or driver carries out a transaction in a 'watched' zone.

Alerts available for directions and departments:

- *Maintenances*: Alert when a maintenance reaches the alert or blocking limit.
- *Overcons.*: Alerts when a vehicle is overconsuming.
- *Expiries*: Alerts when a vehicle or driver authorization expires, or when a credit is depleted. The latter only appears when an associated event is generated (See 10.2, page 102).
- *Closures*: Alert on closures not done.
- *CPU*: Alerts on CPU link error (see 1.11, page 41 for detailed conditions to trigger this alert).

- *Invalid badge*: Alerts0 when an unknown badge is used on a CPU.

**Options:**

- *Groupe expiries, Group maintenances*: By default, an e-mail is sent for each new event. For maintenances and authorizations expiries, this can lead to a lot of messages in a short time. When those options are enabled, maintenances and expiries that occurred on the same day are sent in a single message.

### 6.2.2 Periodical reports

Each report may be sent daily, weekly, or monthly. When no period is chosen, report sending is disabled. For some reports, it is possible to chose the content type: fuel, access, or both information types.

For transactions histories, it is possible to receive either a complete history, or an history with only noteworthy transactions (See 5.1.1, page 73) .

**Reports available for sites :**

- *Stocks*: Tanks stocks, last gaugings, and sum by CPU/pump.
- *Transactions*: Supplies and transactions made on the site.

Fuel	Tank supplies history Fuel transactions history
Access	Access transactions history

**Reports available for directions and departments :**

- *Transactions*: Transactions made by members of the direction or department.

Fuel	Fuel transactions history
Access	Access transactions history

- *Sums*: Sums on transactions of the direction or department.

Fuel	Fuel transactions sum by department/vehicle
------	---

## 6.3 Addresses

A user's addresses are defined in the E-Mails tab of the user sheet (▷ Misc, Users). When a user must be informed, GIR Titan-Hyperion sends a message with the same content to each of these addresses.

Three formats are available:

- *HTML*: HTML format, similar to the one used in the application.
- *Printable HTML*: HTML format intended for black and white printing.
- *Text*: Simple text format, only for alerts. This format is intended for an automatic process.

E-mail sending and addresses validity can be tested by clicking on **Test** in the **E-Mails** tab. GIR Titan-Hyperion will then send a text format message to the selected address. This test tool is also available in  $\triangleright$  **Config.**, **Verifications**, **Test e-mail sending**.

To send e-mails to a user without allowing him to connect to GIR Titan-Hyperion, just define a user account with a blank password. The definition of messages to send and addresses is then the same as for a normal user.

# Chapter 7

## Operations entry

### 7.1 Manual transaction

#### 7.1.1 Manual entry and regulation

A manual transaction can be created for the following cases:

- Entering an off-site fueling
- Totally manual management, with a “fictive” CPU
- Regulation after a failure in automatic management

The two first points can be used under normal system behaviour. They are available via the ▷ **Manual trans.** menu. The *Pump* field contains a list with the various products available for off-site fuelings, as well as pumps declared on a fictive CPU.

The third case is intended to overcome a temporary problem, for instance an hardware defect which requires the delivery to operate manually for some days. It can be accessed by ▷ **Misc, Manual regul. trans. (fuel)**.

By default, only the manager is entitled to enter regulation transactions, in order to avoid inopportune manual transactions on automatically managed pumps. This can be made available to all users by ticking the corresponding option in *Manager config*. (See 1.9, page 34).

Both entry forms are strictly identical, except for available pumps. A pump is displayed in the menu ▷ **Manual trans.** if the associated CPU is disabled, otherwise it is displayed in the regulation menu. For more details on enabling and disabling CPUs, see 1.11, page 41.

#### 7.1.2 Entry form

- First screen:

**Date Hour:** Date and time of the fueling

**Vehicle or Driver:** Depending on the first configured identifier.

**Pump:** Pump on which the fueling was realized, or *Product (Ext.)* for an off-site fueling

**Volume:** Volume of the transaction (with 2 decimal digits)

- Second screen (depends on config.):

**Vehicle or Driver:** If a second identifier is required

**U.P., Price:** Unit or total price of the transaction (off-site fuelings only).

**Oil co.:** Oil company, for external fuelings.

- Third screen (depends on config.):

**Meter (mi):** Milometer

**Meter (H):** Hour meter (in hours, with 2 decimal digits)

**Activity:** Activity code

**Spec. code:** Specific code

**Options:**

- *Renewed meter:* Indicates a meter renewal transaction. This disables the computing of covered distance and consumption for this transaction. Generally, such a transaction will be entered with a null volume.
- *Add-on:* Indicates that the transaction is a fuel add-on and not a total fueling. This disables the computing of covered distance and consumption for this transaction.

At the end of the entry, all the transaction information is summed up on a confirmation page. Any validity control on meters entered on CPU is also realized when entering a manual transaction: an invalid meter appears in red with the *out of range* label on the confirmation page. This is only a warning, and does not prevent from validating the transaction. It is then possible to force meter values via a manual transaction.

It is also possible to enter a manual transaction with a forbidden vehicle or driver. A warning message will appear after having selected this particular vehicle or driver.

Finally, any message that would appear on CPU for the driver or the vehicle is also displayed during a manual transaction.

### 7.1.3 Fuel suction

When a vehicle is removed from the fleet, a fuel suction can be done to put its fuel back into a tank. The best way to declare such an operation in GIR Titan-Hyperion is to enter a manual transaction for the concerned vehicle, on a pump related to the tank where the fuel is put back.

The volume of this transaction should be negative (e.g. -40 if 40 gallons of fuel were retrieved), to remove this volume from the vehicle consumption and add it back to the tank stock.

### 7.1.4 Remote transaction

When a remote transaction is launched (See 3.3.2, page 65), parameters are entered in a form similar to the manual transaction form, with pump and date already set.

## 7.2 Tank supply entry

To enter a tank supply, click on Tank supply near the selected tank in the ▷ Tanks state menu.

- First screen:

**Date Hour:** Date and time of the supply

**Tank:** Tank on which the supply is made

- Second screen:

**Volume:** Supply volume (with two decimal digits)

**Purchasing U.P.:** Purchasing unit price

**Options:**

- *Regulation:* Indicates that the supply is a regulation. This sets the *Regulation* option in the supply, which will allow to distinguish it from real supplies in the history.

- With the “temperature correction” feature (See 1.9, page 34), a **Temperature** field is also available. When it is set, the volume entered is considered as the volume at the measured temperature, and the software automatically computes the volume at the reference temperature, using the defined settings (See 1.11, page 44). This corrected volume will be the one added to the tank stock. Its value can be checked on the supply confirmation page.

In this case, the Purchasing U.P. applies to the entered volume. To enter directly the volume at the reference temperature, tick the option *U.P. at 15°C*.

- With the “Product providers” feature (See 1.9, page 34), two additional fields can be set during the entry:

**Provider:** Provider of the supply.

**Commentary:** Free text field, to enter various notes about the supply.

All the supply information is summed up at the end of the entry, on a confirmation page. A warning appears if the tank stock after the supply is not between the minimum limit and the tank capacity.

Tank supplies must be entered in chronological order.

### 7.2.1 New unit price computing

The unit price after a supply is computed using the “weighted average price” method:

$$p = (P_a * V_a + P_c * V_c) / (V_a + V_c)$$

with:

$P_a$ : supply unit price

$V_a$ : supply volume

$P_c$ : tank stock unit price

$V_c$ : tank stock at the supply date

$V_c$  is computed by adding to the current stock, the volume of the transactions realized between the supply date and the current date. The result of this calculation may be viewed in the **Previous tanks state** page.

For this computing to be valid, all the transactions carried out before the supply must have been retrieved in GIR Titan-Hyperion

### 7.2.2 Tank supply cancellation

To cancel a supply, click on **Cancel** in the supply sheet. Only the last supply of each tank can be cancelled.

### 7.2.3 Transactions valuation

When a fuel transaction is retrieved from a CPU by GIR Titan-Hyperion, it is valued with the tank stock unit price at the time of the processing. Hence, to correctly value all transactions, it is important to keep a correct chronology when entering tank supplies.

When entering a supply, all the transactions occurring before this supply must have been retrieved. If not, the stock used to compute the new unit price is wrong, and this price is wrong too.

A correct transaction valuation requires to conform to those two rules:

- Do a *Retr.-Send* dialogue before entering a supply.
- Enter a supply just after it has been made; i.e. before retrieving any transaction realized after.

If the second rule is not respected and that transactions made after the supply are processed before its entry, those transactions will be valued with the tank stock unit price that was before the supply.

### Transactions revaluation

Transactions valuation can be changed after their creation. This can be useful for the following cases:

- To fix an erroneous supply
- To change the unit price of a tank stock

Transactions revaluation can be done via  $\triangleright$  **Config., Transactions management - Recomputing, Transactions revaluation**. Select a tank, a unit price and a time range. All the transactions done during the selected time range on the selected tank will then be revaluated with the indicated price.

This form is preset with the current unit price of the stock, and a time range going from the last supply to the current date.

Example: Fixing an erroneous meter.

On 10/10/2004, a 0.8 euro/gal, 500 gal supply was entered for tank 1, whereas the real value was 5000 gal. The error is detected three days later. All the transactions retrieved between the 10/10/2004 and the 13/10/2004 have been valued with an invalid unit price, computed from an erroneous supply. The correction requires two steps:

1. Cancel the erroneous meter, then enter a new one with the correct values. The unit price of the tank stock is now correct.
2. Click on Transactions revaluation, and select tank 1. The default values correspond to the required revaluation: all the transactions retrieved since the 10/10/2004 will be revaluated with the new unit price of tank 1 stock.

### 7.3 Fuel transaction modification

Fuel transaction modification allows to fix a possible error on a transaction. This screen can be accessed by clicking on Modify in a transaction sheet.

The following data can be modified: Il est possible de modifier les données suivantes:

- Volume, U.P. (Manager only)
- Vehicle, Driver, Milometer, Hour meter, Oil co., Activity, Spec. code (Manager and standard user)

To modify a value:

1. Select the field to modify by clicking on % near this field
2. Enter the new value
3. Click on Validate

The transaction modification being an exceptional operation, only one field may be changed at a time. Moreover, a trace of the change is always kept in the transactions history: the original transaction appears with the *Cancelled* option.

When a meter value is not known, it is possible to delete this meter by letting the entry zone empty. The meter will then be set to (*N/A*), and consumption computing will be transferred to the next transaction.

Covered distances, consumptions and meters are automatically recomputed when a modification is made.

#### Example: modifying a meter

We want to change the transaction  $T_1$  to set its meter to 72600 mi:

	Date	Vehicle	Volume	Meter	Covered	Options
$T_1$	02/04/2004	1234ZZ69	59,00 gal	72800 mi	1100 mi	

1. Search transaction  $T_1$  in the transactions history
2. Click on % to access the transaction sheet

3. Click on **Modify**
4. Click on % near the Meter (mi) field
5. Enter the new meter (in our example 72600)
6. Click on **Validate**
7. GIR Titan-Hyperion does the following processing:
  - Transaction  $T_1$  is *Cancelled*
  - Covered distances, consumptions and meters are recomputed to create a transaction  $T'_1$
  - Transaction  $T'_1$  is added to the history
8. The sheet of the fixed transaction  $T'_1$  is displayed

The transactions history now contains an additional transaction:

	Date	Vehicle	Volume	Meter	Covered	Options
$T'_1$	02/04/2004	1234ZZ69	59,00 gal	72600 mi	900 mi	
$T_1$	02/04/2004	1234ZZ69	59,00 gal	72800 mi	1100 mi	Cancelled

# Chapter 8

## Access management

### 8.1 Supervision

#### 8.1.1 Punctual and forced control

Access points may be controlled from two different ways:

- **Punctually:** the access point is opened for a few seconds after having identified a driver.
- **Under forced control:** the access point is opened for a specified period, at a fix hour. The definition of the time slots during which the access will be opened is specified by forced zones.

Forced zones and access point control mode are defined by the installer of GIR Titan-Hyperion.

#### 8.1.2 Supervision screen

The ▷ **Supervision** menu allows to visualize the state of access management CPUs. This screen displays the various access points defined on the CPU, and their state at the time of the supervision:

- **Available:** The access point is available for vehicles or drivers identification.
- **Out of zone:** The access point is currently in no valid zone and is inactive.
- **Forced:** The access point is currently in a forced zone, access is opened.
- **Forced (manager):** The access point is opened because of a remote transaction from GIR Titan-Hyperion.
- **Forced stop (manager):** The access point is in a forced zone, but opening has been stopped by a remote transaction from GIR Titan-Hyperion. Depending on the active zones, access remains available for the vehicles or drivers identification.

According to the configuration defined by the installer of GIR Titan-Hyperion, it may be possible to remotely control the access points using the software. When remote control is enabled, a **Remote** button appears near the access point picture.

Clicking on this button shows the operation selection screen. The various operations are *Punctual*, *Forced*, *Forced stop* (operations availability may differ according to the configuration).

Any remote control by GIR Titan-Hyperion generates a transaction, which can be assigned on this screen to a vehicle or driver. The **Validate** button launches the remote transaction, and **Cancel** goes back to the supervision screen.

## 8.2 States

Access management states are available by the ▷ **Management** menu:

**Access transactions hist.:** History of all access transactions (allowed or denied) retrieved after a dialogue.

The **(Not.)** link allows to access directly to an history filtered on noteworthy transactions.

The following access transactions are considered as noteworthy:

- Access denied
- Access remotely launched
- Remotely forced stop
- Access realized in a vigilance zone (See 1.6, page 25).

**Access transactions charts:** Graphical visualization of access transactions, shown as histograms. This screen is similar to the one available for fuel transactions (See 5.1.3, page 76).

# Chapter 9

## Maintenances

### 9.1 Maintenance definition

GIR Titan-Hyperion allows to manage vehicles and drivers maintenances.

Vehicles maintenances can use three parameters:

- Milometer value
- Hour meter value
- Date

Drivers maintenances can use one parameter:

- Date

For each parameter, two limits can be defined:

- **Alert limit:** a message appears on the terminal when the vehicle or driver is fueling.
- **Blocking limit:** the vehicle or driver can't refuel as long as the maintenance has not been done. Blocking only occurs on fuel delivery CPUs: the vehicle or driver is still authorized on access management CPUs. According to the configuration, it may also remain authorized on maintenance CPUs (e.g. oil delivery).

GIR Titan-Hyperion generates an event when a maintenance reaches the alert or blocking limit.

Before creating a maintenance, it is required to define its type in `> Misc, Maintenance types`. Maintenances types are separated for vehicles and drivers, but they share the same definition:

**Short name, Full name:** used to refer to a maintenance type in the software.

**Alert message:** Message displayed on the terminal when this maintenance type reaches its alert limit.

**Blocking message:** Message displayed on the terminal when this maintenance type reaches its blocking limit.

**Nb. reminders:** Number of reminders on the terminal before blocking.

**Options:**

- *Maintenance done on tacho downl.:* For drivers maintenances, allows to automatically declare the maintenance as done when a tachograph card is downloaded on the CPU.

Once a maintenance type has been defined, a maintenance can be created under the **Maintenances** tab in the vehicle or driver sheet. A maintenance is composed of four parameters for each criteria (milometer, hour meter, date):

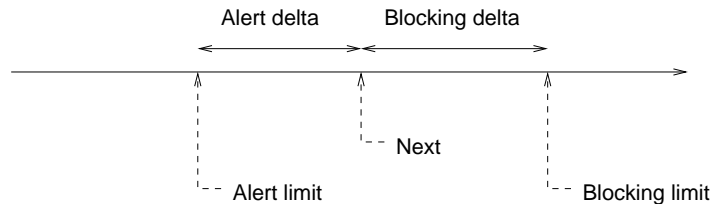
**Next:** Next maintenance term.

**Frequency:** Maintenance theoretical frequency.

**Alert delta:** Difference between the value defined in **Next** and the alert limit.

**Blocking delta:** Difference between the value defined in **Next** and the blocking limit.

Alert delta and Blocking delta may be positive or negative. When a delta is negative, the associated limit will be situated *before* the term. When a delta is positive, the associated limit will be situated *after* the term. The picture below shows a maintenance with a negative Alert delta and a positive Blocking delta.



A maintenance state may be consulted via the **Maintenances** tab of the vehicle or driver sheet. The various possible states are:

- *Alert:* The maintenance has reached its alert limit.
- *Blocking:* The maintenance has reached its blocking limit.
- *Invalid:* The maintenance is invalid, no alert or blocking limit has been defined.
- *Waiting:* The maintenance is valid, and has not reached any limit yet. This is the most common maintenance state.
- *Disabled:* The maintenance is disabled.

Alert, blocking and invalid maintenances appear in red in the **General** tab.

### 9.1.1 Examples

- On 01/09/2004, vehicle *V* meter is 54 000 mi and it has to be drained off every 10 000 mi. Its last oil change was done on 01/06/2004 at 52 000 mi. We would like to be warned 500 mi before the term, but not to block the vehicle if the maintenance has not been made in time. We would declare the following maintenance:

Next meter	62 000
Frequency (mi)	10 000
Alert delta (mi)	-500
Blocking delta (mi)	(Empty)

Should we wish, in addition to the mileage criteria, that the oil change would be done at least every year, we would add the following parameters:

Next date	01/06/2005
Frequency (month)	12
Alert delta (month)	-0,5
Blocking delta (month)	2

The Alert delta of *-0,5* means that we want to receive an alert about 2 weeks (0.5 month) before the term, and the Blocking delta of 2 means that the vehicle must be blocked if the oil change has not been made two months after the term.

- For a new vehicle bought on 15/07/2004, we would like to define a MOT test, with a reminder one month before and a blocking at the term. The MOT test must be realized the first time 4 years after the purchasing date, then every two years. We would then choose 15/07/2008 as Next date, and 24 as frequency:

Next date	15/07/2008
Frequency (month)	24
Alert delta (month)	1
Blocking delta (month)	0

- It is possible to define a maintenance to be realized only once, by ticking the *Only once* option. For instance, to define the 50 000 mi next major service, with a reminder 1000 mi before the term and a blocking 2000 mi after, we would declare the following maintenance, ticking the *Only once* option:

Next meter	50000
Frequency (mi)	(Vide)
Alert delta (mi)	-1000
Blocking delta (mi)	2000

## 9.2 Maintenance entry

In GIR Titan-Hyperion, “maintenance entry” is the act of declaring that a maintenance has been realized. To enter a maintenance, click on **Enter** in the **Maintenances** tab of the vehicle or driver sheet. According to the maintenance, up to three parameters may be required:

**Date:** Date to which the maintenance has been made.

**Meter (mi):** Value of the vehicle milometer when the maintenance is made (only if distance criteria are defined for this maintenance).

**Meter (h):** Value of the vehicle hour meter when the maintenance is made (only if hour criteria are defined for this maintenance). The value to enter is in hours, with a two-digits decimal precision.

When a new maintenance is entered, the **Next (mi)**, **Next (H)** and **Next date** values are automatically recomputed from the defined frequencies.

The **Last maintenances** tab allows to view the last 10 maintenances of a vehicle or driver. A complete history of the maintenances carried out may be consulted in  $\triangleright$  **Management, Maintenances hist.**

## 9.3 Estimation of maintenances to do

The maintenances of a given vehicle or driver may easily be consulted in the various tabs of the element sheet. GIR Titan-Hyperion also allows to visualize all maintenances to be done on the fleet, in the menus  $\triangleright$  **Management, Maintenances to do (Vehicles)** and  $\triangleright$  **Management, Maintenances to do (Drivers)**.

This screen allows to view the maintenances to do from three different ways:

**Currently:** Maintenances to do currently.

**Prediction (estimation):** Maintenances to do before a given date, using an estimation of the vehicle activity during a reference period.

GIR Titan-Hyperion estimates what will be the future meter of a vehicle by the following formula:

$$K_{future} = \Delta_{ref} * (T_{future} - T_{current}) / (T_2 - T_1) + K_{current}$$

with:

$T_{future}$ : date to which the maintenances are predicted

$T_{current}$ : current date

$\Delta_{ref}$ : distance covered during the reference period

$T_1, T_2$ : dates defining the reference period

$K_{current}$ : current meter value

The result of this calculation appears in the **Predicted** column, below the current meter value.

The Order by term option displays the date to which the vehicle will reach the alert or blocking limit, according to the estimation above. Maintenances are then sorted using this date.

Note: the accuracy of the prediction greatly depends on the choice of the reference period. It is advised to choose a period long enough (at least one month), during which the vehicle activity has been significant.

**Prediction (range):** Maintenance reaching their term in a given range.

The Group by fields defines if elements should be grouped by direction, department or type, or displayed in a single liste in the result screen.

Several filters are available. The State filter allows to display only alert, blocking, or other maintenances. When all boxes are checked, all the maintenances defined in the software are displayed. Other filters allow to limit the result to a maintenance type, a direction, a department, ...

The result screen shows vehicles or drivers for which a maintenance to do has been found, with the alert and blocking limits values.

Printable version  
CSV file (v1 v2)

Prediction (valuation)  
To do before: 05-20-2005  
Reference period: 06-01-2004 - 06-30-2004  
State: Alert, Blocking  
Modify

**D01 Internal fleet VSC Commercial vehicles**

Vehicle	Maintenance	Meter (mi.)			Meter (h)			Date			State
		Freq.	Current Predicted	Alert Blocking	Freq.	Current Predicted	Alert Blocking	Freq. (months)	Current Predicted	Alert Blocking	
177HR53	Drain	15 000	91 800 125 942	95 740 96 240		0.00		12.00	07-28-2004 05-20-2005	03-05-2005	Blocking
2249XR69	Drain	15 000	47 521 47 521	47 400 48 900		0.00			07-28-2004		Alert
4294NF51	Drain	15 000	81 091 81 091	79 830 81 030		0.00			07-28-2004		Blocking
5263JB92	TC		67 250			0.00		24.00	07-28-2004 05-20-2005	07-25-2004 09-24-2004	Blocking
5263JB92	Drain	15 000	67 250 75 126	79 100 81 100		0.00		12.00	07-28-2004 05-20-2005	05-11-2005 08-10-2005	Alert
9738PT05	TC		104 176			0.00		24.00	07-28-2004 05-20-2005	09-20-2004 11-20-2004	Blocking

## 9.4 Maintenance recomputing

Recomputing a maintenance means determining its new state, using the new meters of a vehicle, or the elapsed time for maintenances based on a date. Therefore, if a maintenance reaches its alert limit on 18/05/2005, it will only be in an *Alert* state after the first recomputing made after 18/05/2005 at midnight.

Maintenances are recomputed:

- For each vehicle or driver: each time a fuel transaction is processed for this element.

- For all vehicles and drivers: in the first hour after GIR Titan-Hyperion startup, then every 24 hours.

Recomputing can also be launched manually via the menu ▷ Config., Transactions management - Recomputing, Maintenances recomputing. This operation is available to the manager only.

# Chapter 10

## Credits

### 10.1 Overview

GIR Titan-Hyperion allows to manage various credits types:

- Credits by vehicle, defined in ▷ Vehicles, Tanks
- Credits by department, defined in ▷ Misc, Departments credits. For TIP2-Vatersay CPUs, they can be either standard fuel credits or monetary credits.
- Credits by activity, defined in ▷ Misc, Activities credits

For every type, a credit is defined by the following data:

**Product:** Product for which the credit is deducted.

**Initial credit:** Initial credit value

**Credit:** Current credit value

**Period:** Credit reset period, defined in ▷ Misc, Credit periods

**Credit type:** Blocking or non-blocking credit. For blocking credits, it becomes impossible to take fuel when the credit value reaches zero. On the contrary, non-blocking credits are decreased indefinitely, without preventing fueling.

Credits are deducted when processing a transaction with the corresponding product and when the following condition is true:

- Credits by vehicle: The *Vehicle* option is enabled in the Credit options field of the vehicle's tank.
- Credits by department: The *Department* option is enabled in the Credit options field of the vehicle's tank.
- Credits by activity: The activity code has been entered in the transaction.

## 10.2 Credit periods

▷ Misc, Credit periods

Credit periods allow to define how and when credits are recomputed.

**Short name, Full name:** Names used to refer to a credit period in the software

**Period:** Time unit according to which the Day/Hour and Frequency fields will be interpreted. It can be *Daily*, *Weekly*, *Monthly* or *Yearly*.

**Day/Hour:** Numerical value interpreted according to the defined period:

Period	Day/Hour meaning
<i>Daily</i>	Reinitialization hour (from 0 to 23)
<i>Weekly</i>	Reinitialization day in the week (from 1 for Monday to 7 for Sunday)
<i>Monthly</i>	Reinitialization day in the month (from 1 to 31)
<i>Yearly</i>	Reinitialization month (from 1 for January to 12 for December)

**Carry:** The carrying over method to use when a credit is reinitialized. The various methods are:

- *None:* The credit is always reinitialized to the initial credit.
- *Unlimited:* The credit is increased by the amount of the initial credit, without any upper limit.
- *Max. 2 \* init. credit:* The credit is increased by the amount of the initial credit, up to twice this value.

**Frequency:** Allows to define the time limit between two credit reinitializations. It depends on the selected period. The table below shows the time between two reinitializations for a frequency value  $F$ :

Period	Time between two reinitializations
<i>Daily</i>	$F$ days
<i>Weekly</i>	$F$ weeks
<i>Monthly</i>	$F$ months
<i>Yearly</i>	$F$ years

**Options:**

- *Event on depleted:* Generates an event (See 5.3, page 80) when the credit is depleted.

## 10.3 Monetary credits

Monetary credits can be handled in two ways, depending on the settings in the Manager config.:

- *Without history*: Same principle as volume credits, with an initial credit and reinitialization period.
- *With history*: Credits must be reloaded manually, using a dedicated form. The credit value can't be modified directly. Each reloading is kept in an history.

In both cases, monetary credits required a unit price to be defined for the required products.

### 10.3.1 Unit price

This price, defined manually, is totally independant from the tank stock unit price. For department credits, a product unit price is defined under the Products tab in the ▷ Misc, Departments credits menu.

The unit price value for a given product and a given department is as follows:

- If the (product,department) couple is explicitly defined under the Products tab, use the value defined in the U.P. field. correspondant.
- Else, use the value defined in the default U.P. field for this product.

A default unit price should always be defined for products on which a monetary credit is declared.

The Margin field in default products settings allows to stop the fuel delivery before the credit reaches zero. This allows to be sure that a credit will never become negative. Indeed, it is common that some fuel continues to flow just after the delivery has been stopped.

### 10.3.2 Credits history

When credits history is enabled, monetary credits are no longer reloaded automatically.

They must be reloaded manually, using the following steps:

- Go to ▷ Misc, Departments credits
- Go to the Monetary credits tab
- Click on Reload on the desired credit
- Enter the reloading price
- Check the new balance and confirm the operation

The ▷ Management, Credits reload. hist. menu shows an history of all credits reloadings entered.

The ▷ Management, Credits moves hist. menu shows a compared history of credits reloading and transactions, for a given department. This allows to follow the evolution of a balance.

## 10.4 Examples

Periods:

- (1) Credit reinitialized every month, on the first day of the month:  
Period: *Monthly*, Day/Hour: *1*, Frequency: *1*
- Credit reinitialized every three months, on the 15th day of the month:  
Period: *Monthly*, Day/Hour: *15*, Frequency: *3*
- Credit reinitialized every two weeks, on Monday:  
Period: *Weekly*, Day/Hour: *1*, Frequency: *2*
- (2) Credit reinitialized every year, in June:  
Period: *Yearly*, Day/Hour: *6*, Frequency: *1*
- Credit reinitialized every morning at 6 a.m.:  
Period: *Daily*, Day/Hour: *6*, Frequency: *1*

Credits definition:

- Definition of a vehicle 100 gallons per month gasoil credit: Enter the following data in the Tanks tab of the desired vehicle, for the *GOI* product:  
Initial credit: 100 gal  
Credit: Current credit value (e.g.: 100 gal if data is entered the first day of the month, 50 gal if it is in the middle of the month... ).  
Period: The period (1) defined above.  
Credit options: *Vehicle*
- Definition of a department 10 000 gallons per year gas credit: Enter the following data in ▷ Misc, Department credits:  
Initial credit: 10 000 gal  
Credit: Current credit value.  
Period The period (2) defined above.

Moreover, the *Department* option will have to be enabled in the gas tank of all the department's vehicles on which the credit should be deducted.

## 10.5 Credits recomputing

Credits recomputing checks all the credits defined in GIR Titan-Hyperion for a possible reinitialization. This process is launched during the first hour after the application startup, then every hour. It is also possible to launch it manually (manager only), using the menu ▷ Config., Transactions management - Recomputing, Credits recomputing.

Thus, if a credit is defined to be reinitialized every morning at 6 a.m., GIR Titan-Hyperion guarantees that it will be reinitialized between 6 a.m. and 7 a.m. To ensure that all CPUs will be updated with the new values, an automatic dialogue should be defined every morning at 7 a.m.

For daily and weekly periods, reinitialization is made during the first hour of the selected day (i.e. between midnight and 1 a.m.). For yearly period, reinitialization is made during the first hour of the first day of the selected month.

If GIR Titan-Hyperion is not running when a credit must be reinitialized, the reinitialization will occur during the next recomputing: during the first hour after the application startup, or during a manually launched recomputing.

Should the application not be runned during several periods in which a credit should have been reinitialized, only one reinitialization will occur for the first recalculation.

Example:

A credit is defined to be reinitialized every day at 6 a.m., with an *Unlimited* carrying over method, and an initial value of 50 gal. The vehicle doesn't make any fueling during two days. On 10/10/2004 at 8 p.m., the credit is 10 gal and GIR Titan-Hyperion is stopped.

The application is restarted on 12/10/2004 at 8 a.m. In the following hour, a credit recomputing is launched and the credit is reinitialized to 60 (10 + 50) gallons.

If the application had been runned at least once between the 11/10/2004 at 6 a.m. and the 12/10/2004 at 6 a.m., or if it had continued to run during all this time range, the credit would have been reinitialized to 60 gal on 11/10/2004, then to 110 gal on 12/10/2004.



# Chapter 11

## Invoicing

### 11.1 Configuration

▷ Misc, Invoices

An invoice profile is made of the following elements:

- General profile configuration (Parameters tab)
- Products to invoice (Parameters tab)
- Providers definition (Providers tab)
- Customers definition (Customers tab)

#### 11.1.1 General parameters

**Name:** Profile name

**Label:** Text to display on the final document (ex: “Invoice”, “Bill”, ...)

**Comp. mode:** Defines how values are rounded in the generated invoice.

- *Floating*: Full floating computing, values rounded only on display.

$$Total\ Price = \sum U.P. * Volume$$

This can cause differences between total price and intermediate values on the final document.

- *Round U.P.*: Guarantees that the total volume multiplied by the average U.P. is equal to the total price.

$$Total\ Price = \sum Round(U.P., 4) * Volume$$

- *Round total price*: Guarantees that the sum of total prices for each vehicle is equal to the total price.

$$Total\ Price = \sum Round(Round(U.P., 4) * Volume, 2)$$

**Options:**

- *Transactions detail*: Adds a transactions history to the generated document.
- *Disable auto. num.:* Disables invoice number auto-generation. This forces to manually enter a invoice number before the document generation.
- *Mandatory provider*: Makes the provider selection mandatory in the invoice generation form.
- *Disable global customer, Disable global provider*: Hides the global customer or provider in the generated documents.
- *Protected products*: By default, prices to use for products to invoice can be defined by any user allowed to generated an invoice. This option restricts prices definition to the manager only.

**11.1.2 Products**

**Product:** Product to invoice.

**U.P. charged:** Defines how the invoiced unit price will be computed:

- *Transaction*: Uses the U.P. at which transactions were valued.
- *Purchase*: Uses the U.P. of tank supplies.

**V.A.T.:** V.A.T. rate

**Coef. disp., Unit disp.:** Coefficient and unit to use to display volumes. By default, the coefficient is 1 and the unit is the same as in the application.

**Coef. eq., Unit eq.:** Coefficient and unit to use to display an equivalent volume, on the “Total” row.

**11.1.3 Customers and providers**

These tabs define customers and providers addresses to use when generating invoices. Addresses positions on the document are defined by the geometric parameters in the *Manager config.*. A provider can be a site or a region, and a customer can be a department or a direction.

The “global provider” regroups all the sites that are not explicitly defined in the invoice profile. Thus, if three sites A, B and C are declared in the software, with only the B site defined under the *Providers* tab, the global provider is the union of A and C sites.

Similarly, the “global customer” regroups all the departments that are not explicitly defined under the *Customers* tab. Those two special elements can be disabled using the dedicated options under the *Parameters* tab.

When generating invoices, GIR Titan-Hyperion uses all customer-provider couples for which transactions are found.

**11.2 Invoices generation**

▷ Management, Invoices

### 11.2.1 Form

The invoices generation form contains the following fields:

- First screen:
  - Start num.:** Invoice number. When multiple invoices are generated, this number is increased for each new invoice.
  - Period:** Time range to invoice.
  - Customer:** Filter on a specific customer.
  - Provider:** Filter on a specific provider.
- Second screen: for each product, invoiced unit price settings. Multiple choices are available depending on the configuration. For each one, an increase can be defined, either with a percentage or with a fixed value.
  - *Exact:* Uses the U.P. at which each transaction was valued, as shown in the transactions history.
  - *Average by cust.:* Computes the average valued U.P. for each customer on the selected period (this will give the same U.P. to all the transactions on a given customer).
  - *Global average:* Computes the average valued U.P. on the selected period (same U.P. for all customers).
  - *Weighted average:* Computes the average U.P. of all the supplies on the selected period, weighted by the volume of each supply.
  - *Max. value:* Uses the maximum U.P. of all the supplies on the selected period.
  - *Last purchase:* Uses the last supply U.P. for each provider.
  - *Forced to:* Specifies entirely the U.P. value to use.

### 11.2.2 Result

Once all desired parameters have been entered in the form, click on Next to display the result page.

It contains the following elements:

- **Modify button:** goes back to the form to modify the selected parameters.
- **View all button:** view all generated invoices on the same page.
- **Printable version button:** printable version of all the generated invoices (each invoice on a separate page).
- **Generate all files button:** generates one file per invoice in `data\dto\invoices`. For traclient files, the file name has the pattern `invP-NNNNNN-YYYYMMDD` where P is the invoice profile, N the invoice number, and YYYYMMDD the current date. For transcodings, the transcoding name is added before the invoice number.
- For each customer-provider couple:

- View button: consult the invoice generated for this customer-provider couple.
- Printable version button: printable version of this invoice.
- Download button: download the traclient or transcoding file, containing all the transactions used for the invoice.

## Chapter 12

# Data import and export

### 12.1 Oil disks import

Oil disks import is configured in ▷ Misc, Oil cos, which defines the various data formats to import.

Once this configuration is done, import may be:

- Launched manually, in ▷ Management, Oil disks import.
- Scheduled to run automatically, in ▷ Misc, Auto. prog..

#### 12.1.1 Configuration

The Oil cos table contains the following fields:

**Short name, Full name:** Names used to refer to an oil co. in the software.

**File Id:** String identifying the name of files to import: `data\dti\petro-<id>.txt`, or any file in the directory `data\dti\petro-<id>\`.

The other fields define the position and the length of the various values to read in the file. The **Length filter** allows to only read lines of a given length, the **Type filter** and **Client filter** allow to only read lines for which the type or client field matches the specified value.

Some options are dedicated to drivers and vehicles assignment:

**Vehicle badge type:** When this field is not (*N/A*), a resolution is attempted between the card number read in the import file and the **Badge code** field of vehicles that have this badge type. This avoids the need to redefine oil cards when they are already use for CPU identification.

**Vehicle field:** Select the field to use in vehicles resolution.

**Vehicle word:** Position of the registration number in the field selected above. Words are separated by one or more spaces, and first word is numbered as 1. When this value is zero, the whole field is used.

Ex: Registrations were entered in GIR Titan-Hyperion in the form “ABCD 1234ZZ69”, where “ABCD” is a fleet code and “1234ZZ69” the registration

number of the vehicle. To import an oil file in which vehicles are referred by this number, we would define **Registration** as **Vehicle** field and 2 as **Vehicle** word to use the second word in the **Registration** field during the import.

**Driver badge type, Driver field, Driver word:** Same principle as for vehicles.

**Preprocessing:**

- *Adjust tabs:* When a tab character is found in the input file, the position counter is increased up to the next multiple of 8. This allows to process a file where fields are separated with tabs as if it were a fixed format.

**Options:**

- *Ignore leading zeroes:* Ignores leading zeroes in the registration number. When this option is enabled, “123ZZ69” and “0123ZZ69” are processed the same way.

To be valid, a configuration must define at least a date, a vehicle, a product and a volume. Common oil disks formats are available in appendix to this document.

### 12.1.2 Products resolution

When importing oil disks, the conversion from the product code read in the file to a product defined in GIR Titan-Hyperion is done using the **Oil products** subtable, available in the tab of the same name, in the oil co sheet. **Number** defines the product code, and **Product** or **Pump** defines the product or pump to assign to the transaction when the code is read in the file. If both the product and the pump are set, the pump is used.

Finally, the **Options** field indicates which options should be set in the imported transaction.

### 12.1.3 Vehicles and drivers resolution

Vehicles and drivers can be resolved either by oil card or by using a specific field in the database.

Oil cards can be defined:

- In the ▷ Misc, Oil cards menu.
- In the General tab of vehicles or drivers sheets.

An oil card is defined by the following fields:

**Oil co.:** Format for which the card is defined.

**Number:** Card number. This field is compared to the card number read in the import field to do the resolution.

**Vehicle:** Vehicle assigned to this card.

**Driver:** Driver assigned to this card.

**Options:**

- *Hour meter*: Invert the milometer and hour meter fields for this vehicle in the import format.

When importing a format, resolution is attempted in the following order:

1. Search among oil cards defined for this format.
2. If a badge type is associated to the format, search the **Badge code** field in vehicles or drivers with a matching badge type.
3. Search the field defined in **Vehicle field** or **Driver field**. By default, vehicles are searched on the **Registration** field, and drivers are searched on the **Ref.** field.

**12.1.4 Manual import**

When the configuration of an oil format is completed, select it in the menu **▷ Management, Oil disks import**, then click on **Next**. In the file list that appears, select a file by clicking on **%**.

A first analysis of the file is then displayed. It allows to view what will be imported. At this point, no transaction has been imported in the database.

The file analysis simulates an import, and classifies input lines into various categories:

- **Processed**: Number of lines that will be imported as a fuel transaction.
- **Filtered**: Number of lines ignored because of filtering settings.
- **Doubles**: Number of lines that define an already imported fuel transaction.
- **Not processed**: Number of lines that cannot be imported. The right column indicates the causes of these errors.
- **Warnings**: Warning messages, generally corresponding to pieces of information in the input file which could not be decoded, without preventing an import. For instance, an activity code for which no assignment was found will appear here.

The total of the first four categories is the number of non-empty lines in the file.

Below this table, the dates of the first and last transactions that will be imported are displayed. To import the transactions into the database, click on **Yes**.

If an error occurs, it is possible to erase the transactions imported in a given time range, in order to launch a new import. This feature can be accessed in the lower part of the screen, in the **▷ Management, Oil disks import** menu.

### 12.1.5 Automatic import

Oil data import can be configured to run automatically at given times (See 1.7, page 28). This feature requires an Internet access for GIR Titan-Hyperion.

In that case, a synchronisation is made between files located on a remote web server, and the local directory `data\dti\petro-<id>\`, where `<id>` is the string defined in the File id oil format.

After that, new files are automatically downloaded and imported. A report is sent by e-mail to users configured to receive it (See 6, page 83).

For more information on how to set up this feature, contact the GIR company.

### 12.1.6 Note on meters

Meters entered during an oil-card fueling are not always controled, contrary to those entered on CPU (See 4.1, page 69).

Therefore, computing covered distance and consumption using such meters is not reliable and it might be interesting to disable it. To do so, just check the *Add-on* option for all the Oil products defined in this import.

Transactions imported under this configuration will be considered as add-ons, for which consumption is reported on the next fueling.

Moreover, updating the vehicle meter on oil disk import can be configured in the *Manager config*. (See 1.9, page 34).

## 12.2 Traclient export

The traclient file registers transactions processed by GIR Titan-Hyperion. It is meant to be used in other applications.

There are two ways to generate a traclient file:

**Automatically** : by selecting the desired format in  $\triangleright$  Misc, *Manager config*..

Several automatic exports are available:

- Live: transactions are added to the file as they are processed.  
File name: `data\dto\traclien.dat`
- Daily: a file containing all transactions done on the eve is generated at the hour defined in the *Manager config*..  
File name: `data\dto\traclien-AAAAMMJJ.dat`
- Monthly: a file containing all transactions done during the last month is generated at the day defined in the *Manager config*..  
File name: `data\dto\traclien-AAAAMM.dat`

In formats anterior to C2 and F4, these exports do not take into account the possible modifications on transactions after their processing.

Types of transactions to export are defined in  $\triangleright$  Misc, *Manager config*.. The export can also be limited to specific products, in  $\triangleright$  Config, CPU, tanks thresholds, ref. and zones management (See 1.11, page 41).

**On demand** : in ▷ Management, Traclient export. Data is written in `data\dto\traclient.dat`.

It is possible to filter transactions on a given time range, on their origin (on CPU, manual or imported), and on their site, direction or department.

There are several formats of traclient files:

- F1, F1-Ref: Fixed-length text format with 2-figures year.
- F2, F2-Ref: Fixed-length text format with 4-figures year.
- F3, F4, F5: Fixed-length text format
- C1, C2, C3: CSV format.

Formats F1, F1-Ref, F2, F2-Ref are present for compatibility with existing software. To develop a new application, it is better to use the most recent formats.

In fixed-length formats, each transaction is a fixed-length line terminated with CRLF. In CSV formats, each transaction is a line, containing multiple fields separated by ';' and terminated by CRLF. Text fields are delimited by double quotes (").

The various traclient formats are detailed in appendix to this document.

In addition to fuel transactions, traclient export can be used for the following data. Files are always created in the `data\dto\` directory.

Format	File	Data type
C/F	<code>supclient.dat</code>	Supplies
M/N	<code>fsmclient-AAAAMM.dat</code>	Monthly fuel sums
M/N	<code>fsmclient-AAAAMMJJ.dat</code>	Daily fuel sums
W/X	<code>accclient.dat</code>	Access transactions

## 12.3 Transcodings

Transcodings are an extension of traclient files, meant to adapt the output file format to an existing format. Each transcoding is identified by a specific name, and has the same features as traclient formats.

The detailed description of transcoding formats is available in another document.



## Chapter 13

# Exceptional operations

An automatic backup is automatically performed before any exceptional operation that can delete or modify data. The backup can always be disabled by ticking the Disable backup checkbox. This option should be used with caution, as data may be lost.

### 13.1 Purge

▷ Config., Transactions management - Recomputing, Purge

The purge deletes records according to the selected criterions.

The criterions are as follows:

- **History tables:** a record is deleted when its date is in the selected period.
- **Vehicles and Drivers tables:** a record is deleted when it is forbidden and that it has no transactions.

### 13.2 Table update

▷ Config., Table update

This operation is usefull to modify multiple records at the same time.

In the first step, select the table to modify, and the operation to perform.

Available operations:

- *Assignment:* Assign a value to a field
- *Swap:* Swap the values of two fields
- *Copy:* Copy a field to another
- *String edition:* Modify a string field
- *Add:* Add records in subtables
- *Delete:* Delete records

The second step defines on which records the operation will be performed. It is a filtering screen, similar to the one available after clicking on *Filter* in a table consultation screen. When the operation is performed on a subtable (e.g. *Departments* is a subtable of *Directions*), filter criterions are available for both the main table and the subtable. The selected filter is first applied to the main table, then to the subtables of the remaining records.

The following steps depend on the selected operation:

- *Assignment*: Select the field to modify, then the value to assign.
- *Swap*: Select the two fields to swap.
- *Copy*: Select the copy source and destination fields.
- *String edition*: Select the modifications to perform on the string, among the following operations:
  - *Remove prefix, Removed suffix*: Removes  $N$  characters at the beginning or at the end of the string.
  - *Add prefix, Add suffix*: Appends a text at the beginning or at the end of the string.
  - *Operation*: Converts the string to uppercase or lowercase.
- *Add*: Define the new records, in a form similar to the standard record creation form.
- *Delete*: No additionnal step.

### 13.2.1 Examples

- Move all drivers form a department (D1) to another (D2):
  1. Select the *Drivers* table and the *Assignment* operation.
  2. Select the department D1 in filter criterions.
  3. Select the field *Department* as the field to assign.
  4. Select the department D2 as assignment value.
- Define a meter range for all the vehicles of type “Truck”:
  1. Select the *Vehicles* table and the *Assignment* operation.
  2. Select the type “Truck” in filter criterions.
  3. Select the field *Range (km)* as the field to assign.
  4. Enter the new range value .
- Change the fuel credit of all hybrid cars (i.e. that can use either Super or GPL):
  1. Select the *Tanks* table and the *Assignment* operation.

2. Select the GPL product in vehicles filter criterions (this will select all vehicles that can use GPL). Select the Super product in tanks filter criterions. This will select the tanks using Super among all the tanks of the vehicles previously selected.
  3. Select the *Initial credit* field as the field to assign.
  4. Enter the new credit value.
- Convert all drivers names to uppercase:
    1. Select the *Drivers* table and the *String edition* operation.
    2. Click on Next without selecting any filter criterion, to modify all drivers.
    3. Select the *Uppercase* operation and validate.



# Appendix A

## Licence agreement

End User License Agreement for Hyperion software

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The Software possesses a data base which can constitute an automatized nominative information treatment, according to articles 16 and 17 of the dated 6th January 1978 Law concerning the information technology, files and liberties, and which should be the object of a declaration. In consequence, we remind you that you are liable for your data file, and that you are compelled to declare it to the National Commission for Information Technology and Civil Liberties before creating it.

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## Appendix B

# Traclient files format

**F4 version - Fuel transactions**

Position	Length	Description
000-018	19	Date (format: "dd/mm/yyyy_hh:nn:ss")
019-038	20	Vehicle ref.
039-068	30	Registration
069-088	20	Vehicle type ref.
089-108	20	Direction ref.
109-128	20	Department ref.
129-148	20	Driver ref.
149-178	30	Driver name
179-198	20	Driver direction ref.
199-218	20	Driver department ref.
219-228	10	Odometer (km)
229-238	10	Covered distance (km)
239-244	06	Instant consumption (cL/100 km)
245-250	06	Reference consumption (cL/100 km)
251-260	10	Hour meter (1/100 H)
261-270	10	Covered hours (1/100 H)
271-276	06	Instant consumption (cL/H)
277-282	06	Reference consumption (cL/H)
283-302	20	Site ref.
303-322	20	Tank 1 ref.
323-328	06	Tank 1 ratio (percentage * 100)
329-348	20	Tank 2 ref.
349-354	06	Tank 2 ratio (percentage * 100)
355-374	20	CPU ref.
375-394	20	Pump ref.
395-414	20	Product ref.
415-424	10	External volume (cL)
425-434	10	External price (cents)
435-444	10	Internal volume (cL)
445-454	10	Internal price (cents)
455-464	10	Unit price (cents)
465-470	06	Duration (seconds)
471-490	20	Activity ref.
491-500	10	Specific code
501-516	16	Options (see the options fields for format C2 - fuel)

## C2 version - Fuel transactions

Position	Description
01	Date (format: "dd/mm/yyyy_hh:nn:ss")
02	Vehicle ref.
03	Registration
04	Vehicle type ref.
05	Vehicle type name
06	Vehicle direction ref.
07	Vehicle direction name
08	Vehicle department ref.
09	Vehicle department name
10	Driver ref.
11	Driver name
12	Driver first name
13	Driver direction ref.
14	Driver direction name
15	Driver department ref.
16	Driver department name
17	Odometer (km)
18	Covered distance (km)
19	Instant consumption (cL/100 km)
20	Reference consumption (cL/100 km)
21	Hour meter (1/100 H)
22	Covered hours (1/100 H)
23	Instant consumption (cL/H)
24	Reference consumption (cL/H)
25	Site ref.
26	Site name
27	Tank 1 ref.
28	Tank 1 name
29	Tank 1 ratio
30	Tank 2 ref.
31	Tank 2 name
32	Tank 2 ratio
33	CPU ref.
34	CPU name
35	Pump ref.
36	Pump name (CPU name + pump name)
37	Product ref.
38	Product name
39	External volume (cL)
40	External price (cents)
41	Internal volume (cL)
42	Internal price (cents)
43	Unit price (cents)
44	Duration (secondes)
45	Activity ref.
46	Activity name

47	Specific code
48	Options: 16 characters string, where each character is space when the option is not set, or the character below when it is set: 1: '+' over-consumption 2: '-' under-consumption 3: 'I' imported transaction 4: 'M' manual transaction 5: 'P' attendant 6: 'G' remote 7: 'E' external 8: 'A' cancelled 9: 'N' replacement of a cancelled transaction 10: 'K' renewed meter 11: 'O' partial (version 1.4.9 and above) 12: 'F' forced meter (version 1.4.9 and above) 13: 'V' max. volume (version 1.4.9 and above) 14 to 16: unused.  Example: Over-consuming attendant transaction: "+UUU PUUUUUUUUUUUUUUUU"

For transactions with the 'A' option, the volume exported is the opposite of the volume of the original transaction. 'A' and 'N' options can be set only in live exports. In that case, the transactions are successive in the file.

## F5 version - Fuel transactions

Position	Length	Description
000-018	19	Date (format: "dd/mm/yyyy_hh:nn:ss")
019-038	20	Vehicle ref.
039-068	30	Registration
069-088	20	Vehicle type ref.
089-108	20	Direction ref.
109-128	20	Department ref.
129-148	20	Driver ref.
149-178	30	Driver name
179-198	20	Driver direction ref.
199-218	20	Driver department ref.
219-238	10	Odometer (km)
239-248	10	Covered distance (km)
249-258	06	Instant consumption (cL/100 km)
259-264	06	Reference consumption (cL/100 km)
265-270	10	Hour meter (1/100 H)
271-280	10	Covered hours (1/100 H)
281-286	06	Instant consumption (cL/H)
287-292	06	Reference consumption (cL/H)
293-312	20	Site ref.
313-332	20	Tank 1 ref.
333-338	06	Tank 1 ratio (percentage * 100)
339-348	20	Tank 2 ref.
349-354	06	Tank 2 ratio (percentage * 100)
355-374	20	CPU ref.
375-394	20	Pump ref.
395-414	20	Product ref.
415-424	10	External volume (cL)
425-434	10	External price (cents)
435-444	10	Internal volume (cL)
445-454	10	Internal price (cents)
455-464	10	Unit price (cents * 100)
465-470	06	Duration (seconds)
471-490	20	Activity ref.
491-500	10	Specific code
501-516	16	Options (see the options fields for format C3 - fuel)
517-525	09	Transaction number
526-535	10	Oil co. id. (version 1.4.13 and above)
536-555	20	Driver type ref. (version 1.4.15 and above)
556-625	70	Unused (reserved for future use)

**C3 version - Fuel transactions**

Position	Description
01	Date (format: "dd/mm/yyyy_hh:nn:ss")
02	Vehicle ref.
03	Registration
04	Vehicle type ref.
05	Vehicle type name
06	Vehicle direction ref.
07	Vehicle direction name
08	Vehicle department ref.
09	Vehicle department name
10	Driver ref.
11	Driver name
12	Driver first name
13	Driver direction ref.
14	Driver direction name
15	Driver department ref.
16	Driver department name
17	Odometer (km)
18	Covered distance (km)
19	Instant consumption (cL/100 km)
20	Reference consumption (cL/100 km)
21	Hour meter (1/100 H)
22	Covered hours (1/100 H)
23	Instant consumption (cL/H)
24	Reference consumption (cL/H)
25	Site ref.
26	Site name
27	Tank 1 ref.
28	Tank 1 name
29	Tank 1 ratio
30	Tank 2 ref.
31	Tank 2 name
32	Tank 2 ratio
33	CPU ref.
34	CPU name
35	Pump ref.
36	Pump name (CPU name + pump name)
37	Product ref.
38	Product name
39	External volume (cL)
40	External price (cents)
41	Internal volume (cL)
42	Internal price (cents)
43	Unit price (cents * 100)
44	Duration (secondes)
45	Activity ref.
46	Activity name

47	Specific code
48	Options: 16 characters string, where each character is space when the option is not set, or the character below when it is set: 1: '+' over-consumption 2: '-' under-consumption 3: 'I' imported transaction 4: 'M' manual transaction 5: 'P' attendant 6: 'G' remote 7: 'E' external 8: 'A' cancelled 9: 'N' replacement of a cancelled transaction 10: 'K' renewed meter 11: 'O' partial 12: 'F' forced meter 13: 'V' max. volume 14 to 16: unused.  Example: Over-consuming attendant transaction: "+UUU PUUUUUUUUUUUUUU"
49	Transaction number
50	Oil co. id. (version 1.4.13 and above)
51	Driver type ref. (version 1.4.15 and above)
52-59	8 unused fields (reserved for future use)

For transactions with the 'A' option, the volume exported is the opposite of the volume of the original transaction. 'A' and 'N' options can be set only in live exports. In that case, the transactions are successive in the file.

**F4 version - Supplies**

Position	Length	Description
000-018	19	Date (format: "dd/mm/yyyy_hh:nn:ss")
019-038	20	Tank ref.
039-058	20	Product ref.
059-078	20	Site ref.
079-098	20	CPU ref.
099-108	10	Supply volume (cL)
109-118	10	Total price (cents)
119-128	10	Unit price (cents)
129-146	16	Options: see the options fields of the C2-Supplies format

**C2 version - Supplies**

Position	Description
01	Date (format: "dd/mm/yyyy_hh:nn:ss")
02	Tank ref.
03	Tank name
04	Product ref.
05	Product name
06	Site ref.
07	Site name
08	CPU ref.
09	CPU name
10	Supply volume (cL)
11	Total price (cents)
12	Unit price (cents)
13	Options: 16 characters string, where each character is space when the option is not set, or the character below when it is set: 1: 'B' on cpu 2: 'A' cancelled 3: 'R' regularization (version 1.4.9 and above) 4: 'T' tanker (version 1.4.9 and above) 5 to 16: unused

A cancelled supply is identical to the original one, with an opposite volume. The 'A' option can be set only for live exports.

## F5 version - Supplies

Position	Length	Description
000-018	19	Date (format: "dd/mm/yyyy_hh:nn:ss")
019-038	20	Tank ref.
039-058	20	Product ref.
059-078	20	Site ref.
079-098	20	CPU ref.
099-108	10	Supply volume (cL)
109-118	10	Total price (cents)
119-128	10	Unit price (cents * 100)
129-146	16	Options: see the options fields of the C3-Supplies format
147-155	09	Transaction number
156-255	100	Unused (reserved for future use)

## C3 version - Supplies

Position	Description
01	Date (format: "dd/mm/yyyy_hh:nn:ss")
02	Tank ref.
03	Tank name
04	Product ref.
05	Product name
06	Site ref.
07	Site name
08	CPU ref.
09	CPU name
10	Supply volume (cL)
11	Total price (cents)
12	Unit price (cents * 100)
13	Options: 16 characters string, where each character is space when the option is not set, or the character below when it is set: 1: 'B' on cpu 2: 'A' cancelled 3: 'R' regularization 4: 'T' tanker 5 to 16: unused
14	Transaction number
15-24	10 unused fields (reserved for future use)

A cancelled supply is identical to the original one, with an opposite volume. The 'A' option can be set only for live exports.

**M1 version**

Position	Length	Description
000-000	1	Type ('V': vehicle, 'U': driver)
001-030	30	Registration (vehicles only)
031-060	30	Name (drivers only)
061-080	20	First name (drivers only)
081-100	20	Ref.
101-101	1	Identification ('B': badge, 'C': code, 'I' initialization, 'P': code via attendant)
102-111	10	Badge type
112-121	10	Badge number
122-131	10	Badge code
132-141	10	Code
142-151	10	Secret code
152-152	1	Transaction type ('I': internal, 'E': external)
153-172	20	Product ref.
173-180	8	Transactions count
181-196	16	Volume (cL)
197-212	16	Total price (cents)
213-222	10	Total covered distance (km)
223-238	16	Distance consumption volume (cL)
239-248	10	Last odometer (km)
249-258	10	Total covered hours (1/100 h)
259-274	16	Hour consumption volume (cL)
275-285	10	Last hour meter (1/100 h)
286-385	100	Unused (reserved for future use)

The file contains vehicles, then drivers, sorted alphabetically.

For each vehicle, there is at least one line per product authorized to the vehicle. Each product can potentially have two lines, when external transactions have been made. Thus, a vehicle authorized on products 'GOI' and 'FUE', that has made internal fuelings on both products, as well as an external GOI fueling, will be on 3 lines in this file.

For each driver, this file contains at least one line per product defined in the software.

**N1 version**

Position	Description
01	Type ('V': vehicle, 'U': driver)
02	Registration (vehicles only)
03	Name (drivers only)
04	First name (drivers only)
05	Ref.
06	Identification ('B': badge, 'C': code, 'I' initialization, 'P': code via attendant)
07	Badge type
08	Badge number
09	Badge code
10	Code
11	Secret code
12	Transaction type ('I': internal, 'E': external)
13	Product ref.
14	Transactions count
15	Volume (cL)
16	Total price (cents)
17	Total covered distance (km)
18	Distance consumption volume (cL)
19	Last odometer (km)
20	Total covered hours (1/100 h)
21	Hour consumption volume (cL)
22	Last hour meter (1/100 h)
23-32	10 Unused (reserved for future use)

See the M1 format for more information on the file content.

**W1 version - Access transactions**

Position	Length	Description
000-018	19	Date (format: "dd/mm/yyyy hh:nn:ss")
019-038	20	Vehicle ref.
039-068	30	Registration
069-088	20	Vehicle type ref.
089-108	20	Vehicle direction ref.
109-128	20	Vehicle department ref.
129-148	20	Driver ref.
149-178	30	Driver name
179-198	20	Driver direction ref.
199-218	20	Driver department ref.
219-219	01	Access result (see X1 format)
220-239	20	Site ref.
240-259	20	CPU ref.
260-279	20	Access set ref.
280-299	20	Access type ref.
300-315	16	Options: see the options field of the X1 format

## X1 version - Access transactions

Position	Description
01	Date (format: "dd/mm/yyyy_hh:nn:ss")
02	Vehicle ref.
03	Registration
04	Vehicle type ref.
05	Vehicle type name
06	Vehicle direction ref.
07	Vehicle direction name
08	Vehicle department ref.
09	Vehicle department name
10	Driver ref.
11	Driver name
12	Driver first name
13	Driver direction ref.
14	Driver direction name
15	Driver department ref.
16	Driver department name
17	Access result, 1 ascii character: 'A': authorized, 'R': denied, 'Z': denied/zone
18	Site ref.
19	Site name
20	CPU ref.
21	CPU name
22	Access set ref.
23	Access set name
24	Access type ref.
25	Access type name
26	Options: 16 characters string, where each character is space when the option is not set, or the character below when it is set: 1: 'G' remote transaction 2 to 16: unused

**Version W2 - Transactions accès**

Position	Length	Description
000-018	19	Date (format: "dd/mm/yyyy_hh:nn:ss")
019-038	20	Vehicle ref.
039-068	30	Registration
069-088	20	Vehicle type ref.
089-108	20	Vehicle direction ref.
109-128	20	Vehicle department ref.
129-148	20	Driver ref.
149-178	30	Driver name
179-198	20	Driver direction ref.
199-218	20	Driver department ref.
219-219	01	Access result (see X2 format)
220-239	20	Site ref.
240-259	20	CPU ref.
260-279	20	Access set ref.
280-299	20	Access type ref.
300-315	16	Options: see the options field of the X2 format
316-324	09	Transaction number
325-424	100	Unused (reserved for future use)

## Version X2 - Transactions accès

Position	Description
01	Date (format: "dd/mm/yyyy_hh:nn:ss")
02	Vehicle ref.
03	Registration
04	Vehicle type ref.
05	Vehicle type name
06	Vehicle direction ref.
07	Vehicle direction name
08	Vehicle department ref.
09	Vehicle department name
10	Driver ref.
11	Driver name
12	Driver first name
13	Driver direction ref.
14	Driver direction name
15	Driver department ref.
16	Driver department name
17	Access result, 1 ascii character: 'A': authorized, 'R': denied, 'Z': denied/zone
18	Site ref.
19	Site name
20	CPU ref.
21	CPU name
22	Access set ref.
23	Access set name
24	Access type ref.
25	Access type name
26	Options: 16 characters string, where each character is space when the option is not set, or the character below when it is set: 1: 'G' remote transaction 2 to 16: unused
27	Transaction number
28-37	10 unused fields (reserved for future use)



# Appendix C

## Text e-mails format

The first four lines are the same for all messages, the following lines depend on the message type.

Line	Description
1	Application name and version e.g. "GIR Titan-Hyperion_1.2.10"
2	Customer name
3	Empty line
4	Message type, of the form "Type: <Type>-<Subtype>"

Messages types and their associated subtypes are:

- ALRT: Alert
  - STOC: Tank stock
  - CONS: Over-consuming
  - PUMP: Pump blocking or unblocking
  - MTNC: Maintenance
  - EXPR: Authorization expiry or credit depleted
  - WTCH: Zone watch
  - LINK: CPU link error
  - IBDG: Invalid badge
- REPT: Periodical report
  - Not implemented, no subtype

The next lines depend on the message type, they are of the form "<Field>: <Value>" where **Field** is the field name on 4 characters, and **Value** a variable length text.

## C.1 Alert messages

Field	Description
Tphr	"<Type name> <Subtype name>" Type name: fixed length, 10 characters Subtype name: fixed length, 20 characters
Date	Date under the format "dd/mm/yyyy_hh:nn:ss"
Site	"<Ref>_<Short name>_<Full name>" Ref: fixed length, 20 characters Short name: fixed length, 10 characters Full name: variable length, at most 30 characters
Dire	"<Ref>_<Short name>_<Full name>" Ref: fixed length, 20 characters Short name: fixed length, 10 characters Full name: variable length, at most 30 characters
Serv	"<Ref>_<Short name>_<Full name>" Ref: fixed length, 20 characters Short name: fixed length, 10 characters Full name: variable length, at most 30 characters
Afct	Assignment, at most 21 characters For sites: Short name of the site For directions: Short name of the direction For departments: Short names of the direction and department
Mesg	Text message, at most 80 characters

## C.2 Report messages

Field	Description
Mesg	"Not_implemented"

## Appendix D

# CPU CSV file format

Those files are saved on a USB key plugged to the CPU, when the *USB storage* option is enabled for a fuel set or access set.

Each transaction is a line containing multiple fields, delimited by ';' and terminated with CRLF. Text fields are delimited by a double quote (").

## D.1 Fuel transactions

File name: girgcalf.csv

Position	Header	Description
01	Date	Date and hour of the transaction
02	Id	Id number of the transaction
03	Fs	Fuel set number
04	P	Pump number
05	V.Num	Vehicle number
06	V.Code	Vehicle code
07	V.Badge	Vehicle badge
08	D.Num	Driver number
09	D.Code	Driver code
10	D.Badge	Driver badge
11	AttVeh	Vehicle attendant
12	AttDrv	Driver attendant
13	Activity	Activity code
14	Dur.	Duration (in seconds)
15	Volume	Volume (in cL)
16	K.Meter	Milometer (in km or mi)
17	H.Meter	Hour meter (in 1/100H)
18	Sp.Code	Specific code
19	Options	8 characters string, where each character is space when the option is not set, and the character below otherwise: 1: 'G' remote transaction 2: 'F' forced meter 3: 'V' max. volume 4 à 8: unused.
20-29		10 unused fields (reserved for future use)

## D.2 Événements carburant

File name: girgcalg.csv

Position	Header	Description
01	Date	Date and time of the transaction
02	Id	Id number of the transaction
03	Fs	Fuel set number
04	P	Pump number
05	Event	Event text

## D.3 Transactions accès

File name: girgcala.csv

Position	Header	Description
01	Date	Date and time of the transaction
02	Id	Id number of the transaction
03	As	Access set number
04	V.Num	Vehicle number
05	V.Code	Vehicle code
06	V.Badge	Vehicle badge
07	D.Num	Driver number
08	D.Code	Driver code
09	D.Badge	Driver badge
10-19		10 unused fields (reserved for future use)

## D.4 Événements accès

File name: girgcalb.csv

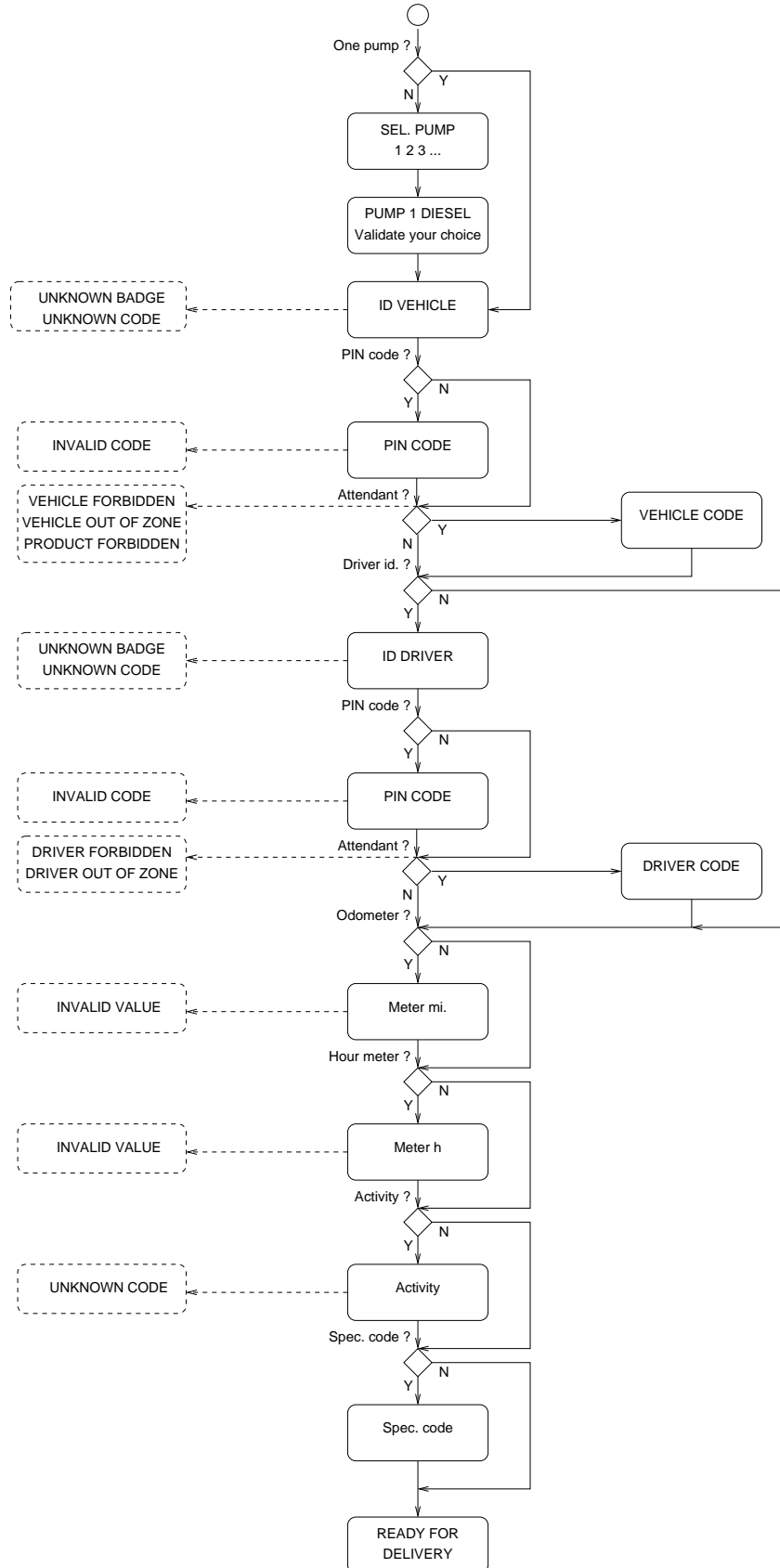
Position	Header	Description
01	Date	Date and time of the transaction
02	Id	Id number of the transaction
03	As	Access set number
04	Event	Event text



## Appendix E

# Fueling scenario

E.1 First id. vehicle



## E.2 First id. driver

