



SEQUOIA MOSAIC 3000: INTERNET-ACQUIRING PLATFORM

Reports

User's manual

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1.1. Purpose of the document

This document describes the reports procedures with the SM 3000 Internet-acquiring platform. This document was prepared for users of the SM 3000 Internet-acquiring platform.

1.2. How to use this manual

The manual is designed to explicate the process of the the reports creation and downloading.

The terms, abbreviations and useful references to other documents about the SM 3000 system are provided at the final part of the document.

Terms and Abbreviations - a glossary of terms commonly used in the card processing and electronic funds transfer industry.

1.3. Classification

This document has been classified as External.

1.4. Document sheet

200109

1.5. Document contacts

In the case of questions or proposals about information presented in this document, you can contact Alfeba's Documentation Division by email doc@alfeba.com, by phone +598 2 208 31 42 or by mail, using the address: Av. Agraciada 2770, Montevideo, 11823, Uruguay.

1.6. Document history

Version	Date	Modification	Notes	Authors
1.0	12.07.2020	-	Init. Version	Natalia Bogorodskaya

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Chapter 2. About reports

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2.1. General information

In this chapter we provide the principal information about reports management with the SM3000 IAP Administration (Back-office) of the Sequoia Mosaic 3000 Internet-acquiring platform [SM3000 IAP].

2.2. Reports management

The platform has a number of options to work with reports. It has its own internal built-in explorer to create reports using SQL Playground, based on SQL queries and database tables.

In this manual we provide some ready-to-go reports, implemented during the Platform installation and setup with a possibility to change them with a new name. To do it we use the built-in SQL explorer.



For further information on the Django SQL explorer see <https://github.com/groveco/django-sql-explorer>

It allows quickly write and share SQL queries in a simple, usable SQL editor, preview the results in the browser, share links, download CSV files, and keep the information flowing. It supports multiple connections, to many different SQL database types, a schema explorer, query history (e.g. lightweight version control), a basic security model, in-browser pivot tables, and more.

The reports creation and downloading process is defined globally in the Picture 2.2.0.0.

Picture 2.2.0.0. The reporting process



Using built-in SQL explorer you can work under the reports jobs:

- view all queries;

Reports

2 Most Recently Used

Query	Last Run
Daily statistics by merchant	07/14/2020 8:35 p.m.
Monthly statistics by Merchant Category Code [MCC]	07/14/2020 2:14 p.m.

All Queries

Query	Created	Play
Daily statistics by merchant	07/11/2020 by demo-user	Play
Monthly statistics by Merchant Category Code [MCC]	07/12/2020 by demo-user	Play

- view a query selected a quick access to DB schema info;

Reports

Playground

The playground is for experimenting and writing ad-hoc queries. By default, nothing you do here will be saved.

Playground SQL

```

1 select
2   to_char(i.created, 'YYYY-MM-DD') as date,
3   p.login as merchant,
4   s.currency_code,
5   sum(COALESCE(a.channel_total, 0) * -1) as total_income,
6   sum(COALESCE(a.partner_income, 0)) as merchant_income,
7   sum(COALESCE(a.total_system_fee, 0)) as system_fee,
8   sum(COALESCE(a.total_channel_fee, 0)) as channel_fee,
9   count(1) as number,
10  sum(case when i.status = 'success' then 1 else 0 end) as number_success,
11  sum(case when t.transaction_type = 'return' then 1 else 0 end) as number_refunds
12 from fdw.inbox i
13 join fdw.service s on s.id = i.service_id
14 left join payout_partner p on p.allite_partner_id = i.partner_id
15 left join payout_transaction t on t.allite_transaction_id = i.id
16 left join v_payout_transaction_amounts a on a.transaction_id = t.id
17 where i.created >= '2020-01-01' and i.created < '2021-01-01'
18 group by 1, 2, 3
19 order by 1, 2, 3;

```

[Refresh Preview](#)
[Save As New Query](#)
[Download CSV](#)
[Hide Schema](#)
[Format](#)

Schema

Search

Interface -> A1payment

a1payment

id

AutoField

created

DateTimeField

allite_tr_id

IntegerField

status

CharField

external_id

CharField

admin2 -> AutoSenderGatesFamilies

admin2_autosendergatesfamilies

id

AutoField

task_id

ForeignKey

family

CharField

admin2 -> AutoSenderProcessed

admin2_autosenderprocessed

id

AutoField

partner_id

ForeignKey

task_id

ForeignKey

Preview

Pivot

Execution time: 15.95 ms

Showing 27 of 27 total rows.

date	merchant	currency_code	total_income	merchant_income	system_fee	channel_fee	number	number_success	number_refunds
2020-01-15	test	RUB	0	0	0	0	1	0	0
2020-01-19	test	RUB	4900	4135	765	0	36	6	1
2020-01-23	test	RUB	0	0	0	0	12	0	0
2020-01-24	test	RUB	0	0	0	0	2	0	0
2020-01-25	test	RUB	0	0	0	0	7	0	0
2020-01-29	test	RUB	0	0	0	0	2	0	0
2020-04-08	test	RUB	0	0	0	0	2	0	0
2020-05-01	test	RUB	0	0	0	0	1	0	0
2020-05-20	test	RUB	0	0	0	0	2	0	0
2020-06-11	test	RUB	0	0	0	0	1	0	0
2020-06-12	test	RUB	0	0	0	0	1	0	0

- to download as csv.

Refresh PreviewSave As New QueryDownload CSVHide SchemaFormat

idAutoField

partner_idForeignKey

track_idForeignKey

PreviewPivot

Execution time: 15.95 msShowing 27 of 27 total rows.

date	merchant	currency_code	total_income	merchant_income	system_fee	channel_fee	number_of_transactions	number_of_successful_transactions
2020-01-15	test	RUB	0	0	0	0	1	0
2020-01-19	test	RUB	4900	4135	765	0	36	6

2.3. About queries

The queries editor allows to create your own query based on the predefined reports' queries.

2.4. About pivot table

Pivot table is used to construct the data view on the User demand.

Going to the Pivot tab on query results you can use the in-browser pivot functionality (provided by Pivottable JS). Hitting the link icon on the top right you can get a URL to recreate the exact pivot setup to share with colleagues.

2.5. About database schema helper

The schema helper, using sidebar, allows to help you quickly while composing queries and to get a quick search for the tables you are looking for.

2.6. Power tips

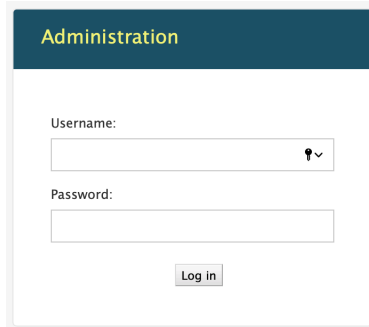
Here we provide the most useful tips to help you work your query based reports jobs:

- A. On the query listing page, focus gets set to a search box so you can just navigate to /explorer and start typing the name of your query to find it;
- B. Quick search also works after hitting "Show Schema" on a query view;
- C. Command+Enter and Ctrl+Enter will execute a query when typing in the SQL editor area;
- D. Hit the "Format" button to format and clean up your SQL (this is non-validating -- just formatting).

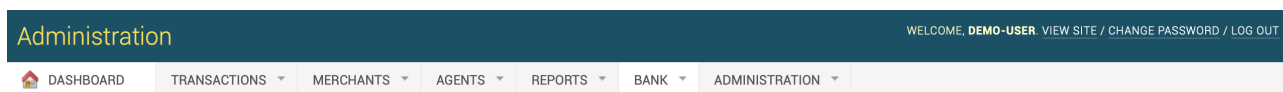
2.7. Logging into the platform

The access to the **REPORTS** is organized through the separate menu form the principle board.

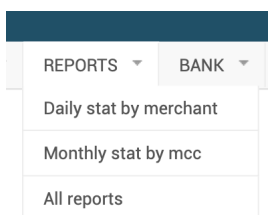
To start working with a SM3000 IAP you have to login into the system with his own Username and Password, assigned previously:

A login form titled "Administration" with a dark blue header. It contains two input fields: "Username:" and "Password:". The "Username:" field has a small eye icon on the right. Below the fields is a "Log in" button.

After the enter to the system the main page with the menu above will be shown:

A navigation bar with a dark blue header. The header contains the text "Administration" on the left and "WELCOME, DEMO-USER" followed by links "VIEW SITE / CHANGE PASSWORD / LOG OUT" on the right. Below the header is a horizontal menu with items: "DASHBOARD", "TRANSACTIONS", "MERCHANTS", "AGENTS", "REPORTS", "BANK", and "ADMINISTRATION". Each item has a small downward arrow.

From the **REPORTS** menu you should choose the item to work with:

A dropdown menu for the "REPORTS" item. It shows the "REPORTS" and "BANK" items at the top, followed by a list of options: "Daily stat by merchant", "Monthly stat by mcc", and "All reports".

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Chapter 3. About built-in SQL explorer

This chapter contains the next sections:

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3.10.	Report query delete	37
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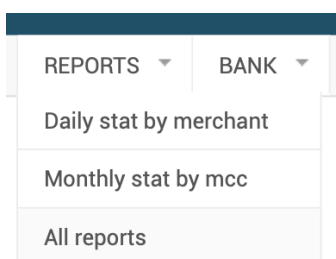
This page doesn't contain any information

3.1. General information

In this chapter we describe how to search, view, edit, create, delete SQL queries for the reports creation and how to download reports in CSV format with the Sequoia Mosaic 3000 Internet-acquiring platform [SM3000 IAP].

3.2. The reports queries main page

To go to the Reports queries main page you should activate the **All reports** item from the **REPORTS** menu of the main bar:




The Reports queries main page will be opened:

Reports

2 Most Recently Used

Query	Last Run
Daily statistics by merchant	07/14/2020 8:35 p.m.
Monthly statistics by Merchant Category Code [MCC]	07/14/2020 2:14 p.m.

All Queries

Query	Created	Play
Daily statistics by merchant	07/11/2020 by demo-user	
Monthly statistics by Merchant Category Code [MCC]	07/12/2020 by demo-user	

The page fields description is provided in the Table 3.2.0.0.

Table 3.2.0.0. The Reports queries main page fields description

Field name	Field format	Data format	Description
Most recently used: Query	Link	Text	Links to the report query item
Most recently used: Last run	Date/ Time	Date/ Time	Shows the date and time of the last usage of the report query
Most recently used: CSV	Link	Command	Saves the CSV file to the User's workstation
Search	Search field	Text	Search through the report queries by any key word
All queries: Query	Link	Text	Links to the report query item configuration page
All queries: Created	Date/ Time	Date/ Time	Shows the date and time of the report query creation
All queries: Play	Link	Command	Links to the report query item (without any configuration)

To search for the needed report query input the key word in a Search field:

All Queries

Query	Created	Play
Monthly statistics by Merchant Category Code [MCC]	07/12/2020 by demo-user	

The needed report query will be shown automatically. To open the item, press the Query field with a Link = Name of the report query. It'll be opened in the new window.



The link **PLAY** to the report query from the current page will open the Query without any configuration. It means, that you must change the parameters inside of the SQL query field. More information about SQL queries you'll find in the Section 3.4. of the Manual.

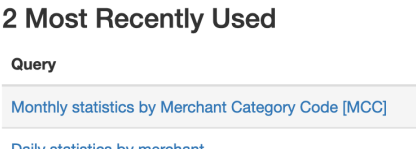


For example, for the Monthly statistics by MCC query, opened with a **PLAY** link you have to change the Line 19 of the SQL query: to enter the date parameter of the data search from the '\$date_from\$\$' and '\$\$date_to\$\$' to the exact parameters, for example:

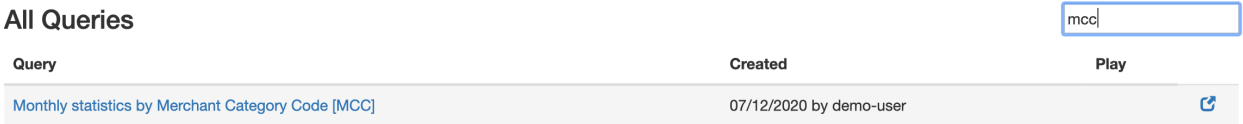
```
19 where i.created >= '2020-01-01' and i.created < '2020-07-01'
```

3.3. The report query page

The report query page can be opened from the **Most Recently Used** section of the Report queries main page by activating the Link of the report Query field:

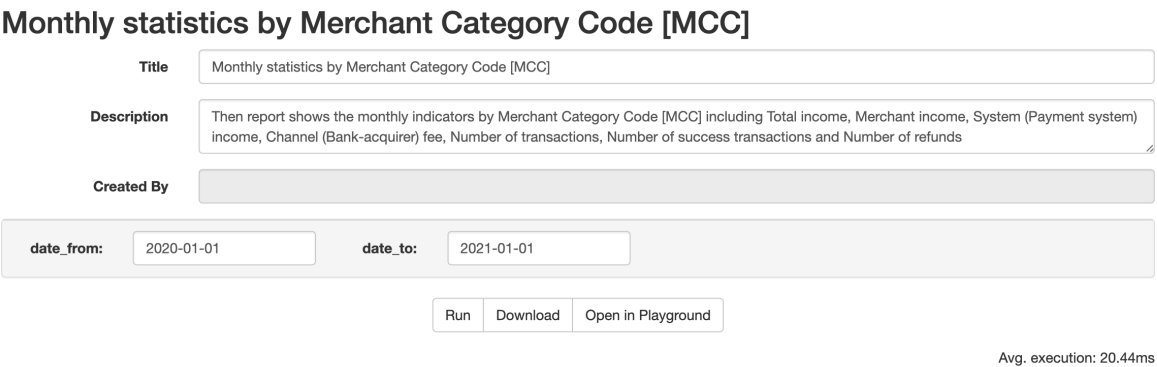


or a result of the Search of the report query by the key word parameter before:



3.3.1. The main report query page

The main page of the report Query with a configuration bar will be opened:



This page is designed to find the transactions between the dates entered and to download the CSV file report. The fields are described in the Table 3.3.1.0.

Table 3.3.1.0. The report query main page fields description

Field name	Field format	Data format	Description
Title	Text	Text	The report name - Editable field
Description	Text	Text	The report description - Editable field
Created by	Text	Text	The name of the User, who created the report query
Search bar: date_from	Date	Date	Date of the begin of the search by the format YYYY-MM-DD
Search bar: date_to	Date	Date	Date of the end of the search by the format YYYY-MM-DD
Run	Button	Command	Executes the search of the transactions and opens the result table of the Detailed report query page (See subsection 3.3.2.)
Download CSV	Button	Command	Downloads the chosen transactions in to the CSV formatted file to the User's workstation
Open en Playground	Button	Command	Opens the reports SQL-editor on the separate page

To find the needed transactions you have to input the Start and Finish search dates and press the Run button:

The detailed report query page will be opened below the search bar on the current page.

3.3.2. The detailed report query page

After the search job completed the results will be shown on the current page in the Preview bookmark:

Reports

Monthly statistics by Merchant Category Code [MCC]

Title Monthly statistics by Merchant Category Code [MCC]

Description Then report shows the monthly indicators by Merchant Category Code [MCC] including Total income, Merchant income, System (Payment system) income, Channel (Bank-acquirer) fee, Number of transactions, Number of success transactions and Number of refunds

Created By

date_from: 2020-01-01 **date_to:** 2021-01-01

Run Download Open in Playground

Preview Pivot

Execution time: 21.68 ms Showing 6 of 6 total rows.

date	mcc	currency_code	total_income	merchant_income	system_fee	channel_fee	number	number_success	number_refund
2020-01	5722	RUB	4900	4135	765	0	60	6	1
2020-04	5722	RUB	0	0	0	0	2	0	0
2020-05	5722	RUB	0	0	0	0	3	0	0
2020-06	5722	RUB	16500	14025	2475	0	48	16	0
2020-07	5722	RUB	41000	38825	1995	180	255	51	5

The current page has also the Pivot bookmark. It is developed to present the result data in the custom view, tuned by the User.



How to use the Pivot instruments we explain in the Section 3.7. of the current Chapter of the Manual.



The example of the report query results of the predefined SQL - queries will be described in the Chapter 4.

3.4. The SQL query

The report SQL query is determined to prepare the data to create the report.

You can open SQL query by 2 options:


- A. Without search bar to make changes in the body of the SQL query manually and
- B. With a search bar with a predefined search parameters in the body of the SQK query.




For further information about the SQL-queries with Django see <https://docs.djangoproject.com/en/3.0/topics/db/queries/>

3.4.1. SQL-query without search bar job

To open a SQL-query without search bar you should go to the Reports queries main page and activate the

link **Play**  at the of the current item at the part of the **All Queries** of the window:

All Queries

Query	Created	Play
Daily statistics by merchant	07/11/2020 by demo-user	
Monthly statistics by Merchant Category Code [MCC]	07/12/2020 by demo-user	

The page with a SQL-query editor will be opened at the new page:

Reports

Playground

The playground is for experimenting and writing ad-hoc queries. By default, nothing you do here will be saved.

Playground SQL

```

1 select
2   to_char(i.created, 'YYYY-MM') as date,
3   sp.value as mcc,
4   s.currency_code,
5   sum(COALESCE(a.channel_total, 0) * -1) as total_income,
6   sum(COALESCE(a.partner_income, 0)) as merchant_income,
7   sum(COALESCE(a.total_system_fee, 0)) as system_fee,
8   sum(COALESCE(a.total_channel_fee, 0)) as channel_fee,
9   count(1) as number,
10  sum(case when i.status = 'success' then 1 else 0 end) as number_success,
11  sum(case when t.transaction_type = 'return' then 1 else 0 end) as number_refunds
12 from fdw.inbox i
13 join fdw.service s on s.id = i.service_id
14 join fdw.service_param sp on sp.service_id = s.id
15 join fdw.service_param_name spn on spn.id = sp.service_param_name_id and spn.name = 'mcc'
16 left join payout_partner p on p.allite_partner_id = i.partner_id
17 left join payout_transaction t on t.allite_transaction_id = i.id
18 left join v_payout_transaction_amounts a on a.transaction_id = t.id
19 where i.created >= '$$date_from$$' and i.created < '$$date_to$$'
20 group by 1, 2, 3

```

Refresh Preview Save As New Query Download CSV Show Schema Format

The page's fields are defined at the Table 3.4.1.0.

Table 3.4.1.0. The SQL-query Playground page fields description

Field name	Field format	Data format	Description
Programming SQL	Text	Text	The SQL editor field
Refresh preview	Button	Command	Executes the search of the transactions and opens in the current window the result table of the Detailed report query page (See subsection 3.3.2.)
Save as a new query	Button	Command	Saves the current SQL query as a new one with a new name and author
Download CSV	Button	Command	Downloads the chosen transactions in to the CSV formatted file to the User's workstation
Show schema	Button	Command	Opens the bar on the current page with Database tables
Format	Button	Command	Formats the SQL query without loading

To edit the SQL-query body you should make changes inside of the Playground SQL editor field.



The predefined SQL-queries couldn't be executed by this page without the search parameters editing.



For example, for the Monthly statistics by MCC query, opened with a **PLAY** link you have to change the Line 19 of the SQL query: to enter the date parameter of the data search from the '**\$date_from\$\$**' and '**\$\$date_to\$\$**' to the exact parameters, for example:

```
19 where i.created >= '2020-01-01' and i.created < '2020-07-01'
```

3.4.2. SQL-query with a predefined search parameters

To work with a predefined report SQL-query you should enter to the existent report SQL - query from the **All reports** queries page by clicking the link - Name of the report query:

Query	Created
Daily statistics by merchant	07/11/20
Monthly statistics by Merchant Category Code (MCC)	07/12/20

The report SQL query page will be opened with an editable search bar:

Reports

Daily statistics by merchant

Title	Daily statistics by merchant
Description	Shows the daily Merchant's statistics including Total income, Merchant income, System (payment system) fee, Channel (Bank-acquirer) fee, Number of transactions, Number of success transactions and Number of Refunds.
Created By	

date_from:

2020-01-01

date_to:

2021-01-01

Run


Download CSV

Avg. execution: 13.67ms

After the RUN command the page with a search Results will be opened below on the same page:

[illegible]

Here you have to go to the Pivot bookmark and activate the Pic **SQL-query editor** :

Here you have to go to the Pivot bookmark and activate the Pic **SQL-query editor**  :

Preview

Pivot





Pivot 

Table 

Count 

date 

Totals 27

The correspondent part of the page will be opened in the current window above:

Reports

Playground

The playground is for experimenting and writing ad-hoc queries. By default, nothing you do here will be saved.

Playground SQL

```
1 select
2   to_char(i.created, 'YYYY-MM-DD') as date,
3   p.login as merchant,
4   s.currency_code,
5   sum(COALESCE(a.channel_total, 0) * -1) as total_income,
6   sum(COALESCE(a.partner_income, 0)) as merchant_income,
7   sum(COALESCE(a.total_system_fee, 0)) as system_fee,
8   sum(COALESCE(a.total_channel_fee, 0)) as channel_fee,
9   count(1) as number,
10  sum(case when i.status = 'success' then 1 else 0 end) as number_success,
11  sum(case when t.transaction_type = 'return' then 1 else 0 end) as number_refunds
12 from fdw.inbox i
13 join fdw.service s on s.id = i.service_id
14 left join payout_partner p on p.allite_partner_id = i.partner_id
15 left join payout_transaction t on t.allite_transaction_id = i.id
16 left join v_payout_transaction_amounts a on a.transaction_id = t.id
17 where i.created >= '2020-01-01' and i.created < '2021-01-01'
18 group by 1, 2, 3
19 order by 1, 2, 3;
```

Refresh Preview Save As New Query Download CSV Show Schema Format

Preview

Pivot

Pivot

The search parameters in this SQL query will be predefined.

After the changes made you have to press **Refresh Preview** button to give the new report.

To work with a SQL-query you need to know the Database structure. For this purpose there is a possibility of the Database help using the built-in SQL explorer.

3.5. The Database schema

To look through the Database schema and to use the necessary table for the report SQL - query you should open the correspondent part of the page.

To access it you can go through the **All reports - PLAY - SQL query page - Show schema** or **All reports -**

Query - Run - Pivot - Playgorund SQL editor link Pic  **- Show schema.**



The ways to access the **Show schema** are describe in the Section 3.4. of the Manual: 3.4.1. and 3.4.2. correspondently.

The Schema will be opened in the upper right corner of the current window:

Reports

Playground

The playground is for experimenting and writing ad-hoc queries. By default, nothing you do here will be saved.

Playground SQL

```
1 select
2   to_char(i.created, 'YYYY-MM-DD') as date,
3   p.login as merchant,
4   s.currency_code,
5   sum(COALESCE(a.channel_total, 0) * -1) as total_income,
6   sum(COALESCE(a.partner_income, 0)) as merchant_income,
7   sum(COALESCE(a.total_system_fee, 0)) as system_fee,
8   sum(COALESCE(a.total_channel_fee, 0)) as channel_fee,
9   count(1) as number,
10  sum(case when i.status = 'success' then 1 else 0 end) as number_success,
11  sum(case when t.transaction_type = 'return' then 1 else 0 end) as number_refunds
12 from fdw.inbox i
13 join fdw.service s on s.id = i.service_id
14 left join payout_partner p on p.allite_partner_id = i.partner_id
15 left join payout_transaction t on t.allite_transaction_id = i.id
16 left join v_payout_transaction_amounts a on a.transaction_id = t.id
17 where i.created >= '2020-01-01' and i.created < '2021-01-01'
18 group by 1, 2, 3
19 order by 1, 2, 3;
```

Refresh Preview

Save As New Query

Download CSV

Hide Schema

Format

Schema

Search

interface -> A1payment
a1payment

id	AutoField
created	DateTimeField
allite_tr_id	IntegerField
status	CharField
external_id	CharField

admin2 -> AutoSenderGatesFamilies
admin2_autosendergatesfamilies

id	AutoField
task_id	ForeignKey
family	CharField

admin2 -> AutoSenderProcessed
admin2_autosenderprocessed

id	AutoField
partner_id	ForeignKey

This part of the page contains the all of the tables that can be used to create the report SQL-query.

The SM3000 IAP tables structure is a Copyrighted private property of ALFEBA and is a Confidential information of ALFEBA. You can get access to the information about the SM3000 IAP tables structure depending on terms and conditions of the Agreement you signed with ALFEBA. Please, contact your account manager for more information.

SM 3000: IAP

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To find the needed table you have to input the key word from into the **Search** bar of the **Schema**, for example:

Schema

interface -> Service

service_category

id	AutoField
service_id	ForeignKey
gate	CharField
category_id	ForeignKey

3.6. The report preview

The report preview is available by pressing the Refresh preview button of the Playground SQL-query page with a predefined search values in the SQL query body or without it, as it is described in the Section 3.4. of the Manual:

Reports

Playground

The playground is for experimenting and writing ad-hoc queries. By default, nothing you do here will be saved.

Playground SQL

```
1 select
2     to_char(i.created, 'YYYY-MM-DD') as date,
3     p.login as merchant,
4     s.currency_code,
5     sum(COALESCE(a.channel_total, 0) * -1) as total_income,
6     sum(COALESCE(a.partner_income, 0)) as merchant_income,
7     sum(COALESCE(a.total_system_fee, 0)) as system_fee,
8     sum(COALESCE(a.total_channel_fee, 0)) as channel_fee,
9     count(1) as number,
10    sum(case when i.status = 'success' then 1 else 0 end) as number_success,
11    sum(case when t.transaction_type = 'return' then 1 else 0 end) as number_refunds
12 from fdw.inbox i
13 join fdw.service s on s.id = i.service_id
14 left join payout_partner p on p.allite_partner_id = i.partner_id
15 left join payout_transaction t on t.allite_transaction_id = i.id
16 left join v_payout_transaction_amounts a on a.transaction_id = t.id
17 where i.created >= '2020-01-01' and i.created < '2021-01-01'
18 group by 1, 2, 3
19 order by 1, 2, 3;
```

Refresh Preview

Save As New Query

Download CSV

Show Schema

Format



See the Section 3.4. to see how to access the SQL - query editor with a predefined search values in the SQL query body or without it.

The correspondent part of the page will be opened on the same window above:

Preview

Pivot

Execution time: 16.67 ms

Showing 27 of 27 total rows.

date	merchant	currency_code	total_income	merchant_income	system_fee	channel_fee	number	number_success	number_refunds
2020-01-15	test	RUB	0	0	0	0	1	0	0
2020-01-19	test	RUB	4900	4135	765	0	36	6	1
2020-01-23	test	RUB	0	0	0	0	12	0	0
2020-01-24	test	RUB	0	0	0	0	2	0	0
2020-01-25	test	RUB	0	0	0	0	7	0	0
2020-01-29	test	RUB	0	0	0	0	2	0	0
2020-04-08	test	RUB	0	0	0	0	2	0	0
2020-05-01	test	RUB	0	0	0	0	1	0	0
2020-05-20	test	RUB	0	0	0	0	2	0	0
2020-06-11	test	RUB	0	0	0	0	1	0	0
2020-06-12	test	RUB	0	0	0	0	1	0	0
2020-06-13	test	RUB	0	0	0	0	2	0	0



To see the predefined reports structure description see the Chapter 4 of the Manual.

3.7. The Pivot

Pivot table is used to construct the data view on the User demand.

Going to the Pivot tab on query results you can use the in-browser pivot functionality (provided by Pivottable JS). Hitting the link icon on the top right you can get a URL to recreate the exact pivot setup to share with colleagues.

To access the Pivot page you have to activate the bookmark on the report SQL query Result page.



To know how to open the report SQL query Result page see the Section 3.3. of the Manual.

The Pivot page will be opened:

The screenshot shows the 'Pivot' tab in a report viewer. At the top, there are two tabs: 'Preview' and 'Pivot', with 'Pivot' being the active one. Below the tabs, the word 'Pivot' is displayed on the left, and a link icon is on the right. The main area is divided into two sections. On the left, there is a list of fields with dropdown arrows: 'date', 'mcc', 'currency_code', 'total_income', 'merchant_income', 'system_fee', 'channel_fee', 'number', 'number_success', and 'number_refunds'. On the right, there is a pivot table structure. It has a header row with 'Table' and 'Count'. Below this, there is a large empty area for the pivot table. In the top right corner of the pivot table area, there is a 'Totals' row with the value '6'.

The Pivot page has three parts:

- A. Part 1. The table columns,
- B. Part 2. Operations with a data - the first value space,
- C. Part 3. The second value space

The built-in table views description is provided in the Table 3.7.0.0.

Table 3.7.0.0. The built-in table views description

Field name	Description
Table	Common table view
Table Barnhart	Table view with bars
Heatmap	Indicates values with a pattern of the red color. From Higher to lower.
Row heatmap	Indicates values with a pattern of the red color by chosen row. From Higher to lower.
Col heatmap	Indicates values with a pattern of the red color by chosen column. From Higher to lower.

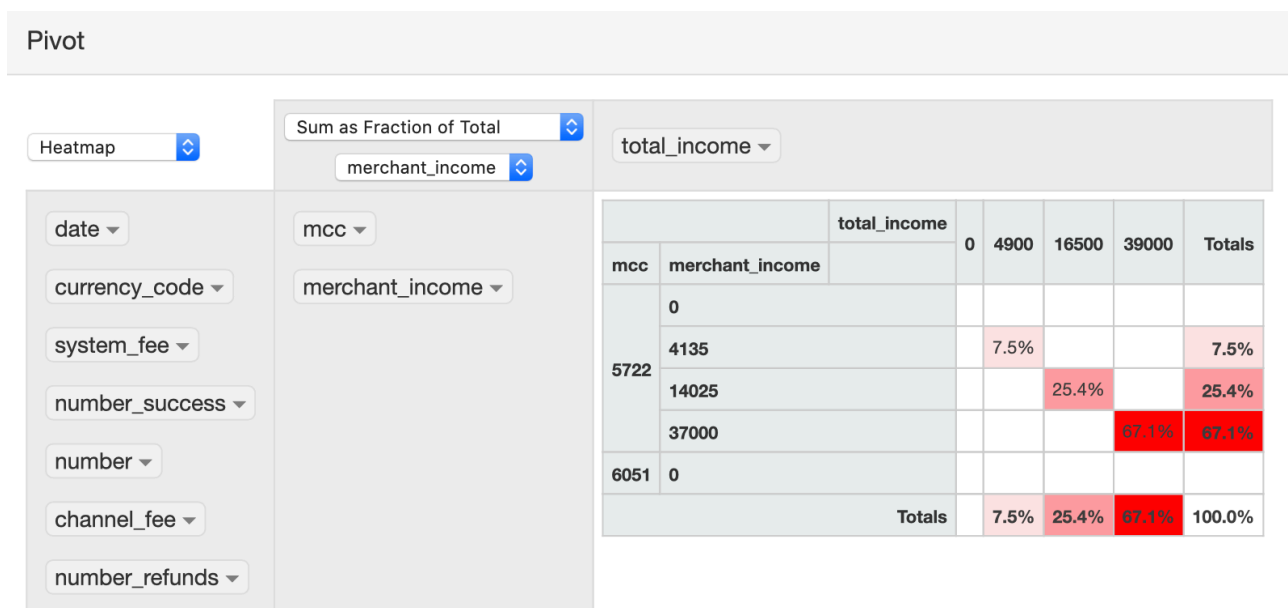
The built-in table operations are described in the Table 3.7.0.1.

Table 3.7.0.1. The built-in table operations description

Field name	Additional parameter 1	Additional parameter 2	Description
Count		-	Counts by the chosen columns
Count unique values	The Table columns to choose	-	Counts by the chosen columns and unique value
List unique values	The Table columns to choose	-	Counts by the chosen columns and list of the values
Sum	The Table columns to choose	-	Shows summarized values by the chosen columns and one of the column
Integer Sum	The Table columns to choose	-	Shows summarized values by the chosen columns and one of the column without decimal
Average	The Table columns to choose	-	Shows average amounts of the values by the chosen columns and one of the column
Minimum	The Table columns to choose	-	Shows minimum amount of the values by the chosen columns and one of the column
Maximum	The Table columns to choose	-	Shows maximum amount of the values by the chosen columns and one of the column
Sum over Sum	The Table columns to choose	The Table columns to choose	Shows rates between amounts of the values by the chosen columns
80% Upper Bound	The Table columns to choose	The Table columns to choose	Shows rates between amounts of the values by the chosen columns with a 80% Upper Bound
80% Lower Bound	The Table columns to choose	The Table columns to choose	Shows rates between amounts of the values by the chosen columns with a 80% Lower Bound

Field name	Additional parameter 1	Additional parameter 2	Description
Sum of the fraction of total	The Table columns to choose	-	Shows % rates between amounts of the values by the chosen columns as a 100 % structure
Sum of the fraction of Rows	The Table columns to choose	-	Shows % rates between amounts of the values by the chosen columns as a 100 % structure by row
Sum of the fraction of Columns	The Table columns to choose	-	Shows % rates between amounts of the values by the chosen columns as a 100 % structure by column
Count of the fraction of total	-	-	Counts by % rates of the totals by Rows and columns
Count of the fraction of Rows	-	-	Counts by % rates of Rows
Count of the fraction of Columns	-	-	Counts by % rates of Columns

For example, the diagram below shows the % rates between Merchant and Total Income, depending on the Merchant Category Code



3.8. The format

The format button in the report SQL - query Editor menu is to format and clean up your SQL (this is non-validating -- just formatting).

Playground

The playground is for experimenting and writing ad-hoc queries. By default, nothing you do here will be saved.

Playground SQL

```
7      sum(COALESCE(a.total_channel_fee, 0)) AS channel_fee,
8      count(1) AS number,
9      sum(CASE WHEN i.status = 'success' THEN 1 ELSE 0 END) AS number_success,
10     sum(CASE WHEN t.transaction_type = 'return' THEN 1 ELSE 0 END) AS number_refunds
11 FROM fdw.inbox i
12 JOIN fdw.service s ON s.id = i.service_id
13 JOIN fdw.service_param sp ON sp.service_id = s.id
14 JOIN fdw.service_param_name spn ON spn.id = sp.service_param_name_id
15 AND spn.name = 'mcc'
16 LEFT JOIN payout_partner p ON p.allite_partner_id = i.partner_id
17 LEFT JOIN payout_transaction t ON t.allite_transaction_id = i.id
18 LEFT JOIN v_payout_transaction_amounts a ON a.transaction_id = t.id
19 WHERE i.created >= '2020-01-01'
20      AND i.created < '2021-01-01'
21 GROUP BY 1,
22          2,
23          3
24 ORDER BY 1,
25          2,
26          3;
```

Refresh Preview

Save As New Query

Download CSV

Show Schema

Format



For example, the SQL for the report **Daily statistics by merchant** has the previous view as:

```
select
    to_char(i.created, 'YYYY-MM-DD') as date,
    p.login as merchant,
    s.currency_code,
    sum(COALESCE(a.channel_total, 0) * -1) as total_income,
    sum(COALESCE(a.partner_income, 0)) as merchant_income,
    sum(COALESCE(a.total_system_fee, 0)) as system_fee,
    sum(COALESCE(a.total_channel_fee, 0)) as channel_fee,
    count(1) as number,
    sum(case when i.status = 'success' then 1 else 0 end) as number_success,
    sum(case when t.transaction_type = 'return' then 1 else 0 end) as number_refunds
from fdw.inbox i
join fdw.service s on s.id = i.service_id
left join payout_partner p on p.allite_partner_id = i.partner_id
left join payout_transaction t on t.allite_transaction_id = i.id
left join v_payout_transaction_amounts a on a.transaction_id = t.id
where i.created >= '$$date_from$$' and i.created < '$$date_to$$'
group by 1, 2, 3
order by 1, 2, 3;
```

After the formatting it'll have:

```
SELECT to_char(i.created, 'YYYY-MM-DD') AS date,
       p.login AS merchant,
       s.currency_code,
       sum(COALESCE(a.channel_total, 0) * -1) AS total_income,
       sum(COALESCE(a.partner_income, 0)) AS merchant_income,
       sum(COALESCE(a.total_system_fee, 0)) AS system_fee,
       sum(COALESCE(a.total_channel_fee, 0)) AS channel_fee,
       count(1) AS number,
       sum(CASE WHEN i.status = 'success' THEN 1 ELSE 0 END) AS number_success,
       sum(CASE WHEN t.transaction_type = 'return' THEN 1 ELSE 0 END) AS number_refunds
FROM fdw.inbox i
JOIN fdw.service s ON s.id = i.service_id
LEFT JOIN payout_partner p ON p.allite_partner_id = i.partner_id
LEFT JOIN payout_transaction t ON t.allite_transaction_id = i.id
LEFT JOIN v_payout_transaction_amounts a ON a.transaction_id = t.id
WHERE i.created >= '$$date_from$$'
      AND i.created < '$$date_to$$'
GROUP BY 1,
        2,
        3
ORDER BY 1,
        2,
        3;
```

3.9. Saving a new report query

To save report as a new one you should open the SQL query and press the button **Safe as a new query**:

Reports

Playground

The playground is for experimenting and writing ad-hoc queries. By default, nothing you do here will be saved.

Playground SQL

```

1 select
2   to_char(i.created, 'YYYY-MM-DD') as date,
3   p.login as merchant,
4   s.currency_code,
5   sum(COALESCE(a.channel_total, 0) * -1) as total_income,
6   sum(COALESCE(a.partner_income, 0)) as merchant_income,
7   sum(COALESCE(a.total_system_fee, 0)) as system_fee,
8   sum(COALESCE(a.total_channel_fee, 0)) as channel_fee,
9   count(1) as number,
10  sum(case when i.status = 'success' then 1 else 0 end) as number_success,
11  sum(case when t.transaction_type = 'return' then 1 else 0 end) as number_refunds
12 from fdw.inbox i
13 join fdw.service s on s.id = i.service_id
14 left join payout_partner p on p.allite_partner_id = i.partner_id
15 left join payout_transaction t on t.allite_transaction_id = i.id
16 left join v_payout_transaction_amounts a on a.transaction_id = t.id
17 where i.created >= '$$date_from$$' and i.created < '$$date_to$$'
18 group by 1, 2, 3
19 order by 1, 2, 3;

```

Refresh Preview
Save As New Query
Download CSV
Show Schema
Format

The Platform will redirect you to a new page, where you have to input the **Title** of the new report and **Description** of it, for example:

Playground Query

Title

Merchant income MCC based report

Description

The report is to show Income of the Merchant by MCC code

Created By

date_from:

2020-01-01

date_to:

2021-01-01

Run


Download CSV










To store the Title and Description with a Platform you should **Run** it. The report with this Title will be included in the list of all reports on the All reports page:

All Queries

Query	Created	CSV	Play	Delete	Run Count
Daily statistics by merchant	07/11/2020 by demo-user	📄	🎮	🗑️	112
Monthly statistics by Merchant Category Code [MCC]	07/12/2020 by demo-user	📄	🎮	🗑️	39
Report of the Merchant income by MCC	07/14/2020 by demo-user	📄	🎮	🗑️	3

3.10. Report query delete

This fitch is available for the User with a special access rights. To delete the Report SQL query you should press the Delete button with a pic  on the All reports page:

All Queries						Search
Query	Created	CSV	Play	Delete	Run Count	
Daily statistics by merchant	07/11/2020 by demo-user				112	
Monthly statistics by Merchant Category Code [MCC]	07/12/2020 by demo-user				39	
Report of the Merchant income by MCC	07/14/2020 by demo-user				3	







For example we are elimination the Report of the Merchant income by MCC. The platform will ask you to confirm the operation:

Reports

Are you sure you want to delete "Report of the Merchant income by MCC" ?

Delete Query

To continue you should press Delete Query. This report will be eliminated from the All reports page:

All Queries						Search
Query	Created	CSV	Play	Delete	Run Count	
Daily statistics by merchant	07/11/2020 by demo-user				112	
Monthly statistics by Merchant Category Code [MCC]	07/12/2020 by demo-user				39	

3.11. The CSV report download

To download the CSV report you should input the start and finish dates of the transactions search period the page of the report **SQL query** and press the **Download** button:

Monthly statistics by Merchant Category Code [MCC]

Title	Monthly statistics by Merchant Category Code [MCC]	
Description	Then report shows the monthly indicators by Merchant Category Code [MCC] including Total income, Merchant income, System (Payment system) income, Channel (Bank-acquirer) fee, Number of transactions, Number of success transactions and Number of refunds	
Created By		
date_from:	2020-01-01	date_to: 2021-01-01
<div>Run Download CSV</div>		

The Operational system of your Workstation will ask you to Confirm the file downloading. You should confirm it to continue the downloading.

The file in the format CSV will be downloaded to your Downloads directory of your Workstation with the same name as a report: **Monthly_statistics_by_Merchant_Category_Code_MCC**.



The description of the CSV format, based on RFC 2048, you can find using the link <https://tools.ietf.org/html/rfc4180.html#page-2>.

Chapter 4. Predefined reports

This chapter contains the next sections:

Section	Description	Page
4.1.	General information	41
4.2.	Daily statistics by Merchant	41
4.3.	Monthly statistics by Merchant Category Code [MCC]	42

This page doesn't contain any information

4.1. General information

In this chapter we describe the predefined report, implemented with a User with the Sequoia Mosaic 3000 Internet-acquiring platform [SM3000 IAP].

4.2. Daily statistics by merchant

This report Shows the daily Merchant's statistics including Total income, Merchant income, System (payment system) fee, Channel (Bank-acquirer) fee, Number of transactions, Number of success transactions and Number of Refunds.

The fields of the report are described in the Table 4.2.0.0.

Table 4.2.0.0. The daily statistics by merchant report fields description

Field name	Field format	Data format	Description
date	Date	Date	The date of the transaction by the format YYYY-MM-DD
merchant	Text	Text	The name of the merchant
currency_code	Text	Text	The currency code of the transaction, by CCC text format
total_income	Number	Number	Total income of the Merchant, Payment system and Bank-acquirer by searched period
merchant_income	Number	Number	The income of the Merchant by searched period
system_fee	Number	Number	The income of the Payment system by searched period
channel_fee	Number	Number	The income of the Bank- acquirer by searched period
number	Number	Number	The total number of transactions of the Merchant by searched period
number_success	Number	Number	The total number of success transactions of the Merchant by searched period
number_refunds	Number	Number	The total number of refunds of the transactions of the Merchant by searched period



More information about transactions see at the Manual 200105 «SM3000: IAP. Administration interface. Transactions, corrections and refunds».

4.3. Monthly statistics by Merchant Category Code [MCC]

Then report shows the monthly indicators by Merchant Category Code [MCC] including Total income, Merchant income, System (Payment system) income, Channel (Bank-acquirer) fee, Number of transactions, Number of success transactions and Number of refunds

The fields of the report are described in the Table 4.3.0.0.

Table 4.2.0.0. The Monthly statistics by Merchant Category Code [MCC] report fields description

Field name	Field format	Data format	Description
date	Date	Date	The date of the transaction by the format YYYY-MM-DD
mcc	Number	Number	The MCC (Merchant category code) of the Merchant
currency_code	Text	Text	The currency code of the transaction, by CCC text format
total_income	Number	Number	Total income of the Merchant, Payment system and Bank-acquirer by searched period
merchant_income	Number	Number	The income of the Merchant by searched period
system_fee	Number	Number	The income of the Payment system by searched period
channel_fee	Number	Number	The income of the Bank- acquirer by searched period
number	Number	Number	The total number of transactions of the Merchant by searched period
number_success	Number	Number	The total number of success transactions of the Merchant by searched period
number_refunds	Number	Number	The total number of refunds of the transactions of the Merchant by searched period



More information about transactions see at the Manual 200105 «SM3000: IAP. Administration interface. Transactions, corrections and refunds».

Chapter 5. Attachments

This chapter contains the next sections:

Section	Description	Page
5.1.	Terms and abbreviations	45
5.2.	External documents references	47

This page doesn't contain any information

5.1. Terms and abbreviations

3

3D-Secure Is an XML-based protocol designed to be an additional security layer for online credit and debit card transactions.

A

API Application programming interface

Authorization Is an approval from a card issuer, usually through a credit card processor, that the customer has sufficient funds to cover the cost of the transaction.

B

BO Back-office, of the SM3000 IAP, where the Operator's employers work to maintain the Platform jobs, as Merchants, Transactions, Agents, Reports and file exchange with a main Processing system.

C

Cardholder A person who owns a card, such as a cardholder of a credit card or debit card

ChargeBack Is a return of money to a payer. Most commonly the payer is a consumer. The chargeback reverses a money transfer from the consumer's credit card. The chargeback is ordered by the bank that issued the consumer's payment card.

F

FE Front-end, of the SM3000 IAP, where the cards authorizations are processed in on-line mode

I

IAP Internet acquiring platform. The Platform created as a separate application for the Payment operators and Payment facilitators.

ID Identification number (f.e. transaction ID or Merchant ID)

Incoming-File The data file, that Platform receives from the Bank's processor

L

Light API The interface to connect the Merchant's own platform to the SM3000 IAP

M

MasterCard MasterCard International payment system

O

Merchant	A legal entity carrying out trading activities on the Internet using the software provided by the system
MPI	Merchant Plug-in

P

Operator	Payment operator or Payment facilitator, that uses SM3000 IAP
Outgoing-File	The data file, that the Platform sends to the Bank's processor

R

PAN	Primary account number, or simply a card number, is the card identifier found on payment cards, such as credit cards and debit cards, as well as stored-value cards, gift cards and other similar cards.
Payment Gateway	A hardware-software complex developed and supported by a payment system that automates the acceptance of payments on the Internet.
Payment System	Payment system between users, financial organizations and business organizations. Allows you to pay, bills and purchases, transfer money.

S

Refund	A process in which a customer returns a product to the original retailer in exchange for money previously paid
Reversal	The operation of crediting funds to the payer's account as compensation for the cancellation of the provision of the service or the poorly rendered service.

T

Service	Merchant's service entry, registered for each MCC. It has its own parameters, fees etc.
SM3000	Sequoia Mosaic 3000. The processing platform of the cards issuing and acquiring processing, ATMs, POSs, e-commerce and m-commerce processing
System	A payment system that allows you to transfer money, accept payment for goods and services through various payment gateways.

V

Transaction	Within the framework of this service, a completely completed data exchange operation with a payment system, including debiting / crediting funds to an end user account.
VISA	VISA International payment system

5.2. External documents references

The manual uses the links to the other documentation of the SM3000 IAP, listed below:

Document code	Document name	Document Purpose	Document category
200105	SM3000: IAP. Administration interface. Transactions, corrections and refunds	Describes the work with both own and agent based authorizations' transactions, corrections and refunds	User's manual

