

Migration Instructions

Migrating SAS[®] IT Charge Management from SAS 8.2 to SAS 9.1.3

Introduction

If you are installing SAS IT Charge Management for the first time, you do not need to read this document.

This document explains how to migrate your SAS IT Charge Management Release 2.3 currently running under SAS 8.2 to SAS IT Charge Management Release 2.4 running under SAS 9.1.3.

Please read through the instructions before acting on them, because the choices may make a difference at your site.

SAS IT Charge Management is the new name of IT Charge Manager. You will see references to the previous name whenever appropriate in this document.

Preparation

1. **IMPORTANT!** Make backup copies of your SAS 8.2 PDBs that you want to migrate.
2. Verify that the release level of SAS IT Resource Management on the server host is compatible with SAS IT Charge Management 2.4. The release level of your SAS IT Resource Management should be 2.7 or later. The release level of the SAS software that your SAS IT Resource Management is installed on should be 9.1.3 or later.
3. Complete the migration of your SAS IT Resource Management Environment from SAS 8.2 to SAS 9.1.3 following the instructions in the document *Migrating Your SAS IT Resource Management Environment from SAS 8 to SAS 9*. You should have the 8.2 SAS IT Resource Management PDBs successfully converted to 9.1.3 SAS IT Resource Management PDBs prior to the migration of your SAS IT Charge Management environment.
4. **IMPORTANT!** Make backup copies of the 9.1.3 SAS IT Resource Management PDBs.
5. Make a backup copy of your SAS IT Charge Management 2.3 site definitions. When you invoke SAS IT Charge Management 2.3, you are greeted by the Welcome to IT Charge Manager Window. The Welcome window displays the Site Definition you have defined. You may find the data set storing the site definition at your SAS IT Charge Management 2.3 installation path,
`drive:\[SAS 8.2 Install Path]\cpe\chm\ec\ecsite\ec_sites.sas7bdat.`

To make a backup copy of this data set you need to use either the MS-DOS command or Windows Explorer to copy the `ec_sites` data set to a new location.

For example, if `c:\sas8\cpe\chm\ec\ecsite\ec_sites.sas7bdat` is the site definition data set for SAS IT Charge Management 2.3, the MS-DOS command for making a backup copy in a new location, `c:\backup`, is:

```
COPY c:\sas8\cpe\chm\ec\ecsite\ec_sites.sas7bdat c:\backup
```

You will need to replace the default site definitions data set provided by SAS IT Charge Management 2.4 with this backup data set. A later section in this document explains the process of recovering your site definitions in SAS IT Charge Management 2.4.

6. Install SAS IT Charge Management 2.4 on SAS 9.1.3 and the most recent maintenance package of SAS IT Charge Management 2.4, if any, according to the *Installation Instructions for SAS IT Charge Management Software 2.4*.

Note: For Windows server, ensure the systems variable, *PATH*, has the directory where the SAS 9.1.3 executable precedes the SAS systems of earlier releases if you intend to submit the regenerated batch job through the SAS IT Charge Management 2.4.

Your SASUSER Library

The first time you use SAS IT Charge Management 2.4, it will create a default SASUSER library; however, you may have information contained in your SAS IT Charge Management 2.3 SASUSER library that you would like to continue to use for Release 2.4. Below are the instructions to copy the contents of the Release 2.3 SASUSER library to the SAS IT Charge Management 2.4 library.

1. Determine the location of your SAS IT Charge Management 2.3 SASUSER library by invoking the SAS IT Charge Management 2.3. Click **Exit** and select **Exit IT Charge Manager only**. Select **View** from the pull-down menu. Click **Program Editor** and type the following statements in the Program Editor window:

```
OPTIONS SOURCE NOTES;  
LIBNAME SASUSER LIST;  
PROC DATASETS DD=SASUSER;  
RUN;
```

2. Select the **Run** pull-down menu and click **Submit**.
3. Select the **View** pull-down menu and click **Log**. You should see statements similar to those below. Your SASUSER library is identified by the label **Physical Name**. In this example, the location of the SASUSER library is `c:\sas8\cpe\chm\ec\sasuser`.

```
5  OPTIONS SOURCE NOTES;  
6  LIBNAME SASUSER LIST;  
NOTE: Libref=   SASUSER  
      Scope=   Kernel  
      Engine=   V8  
      Physical Name= c:\sas8\cpe\chm\ec\sasuser  
      File Name= c:\sas8\cpe\chm\ec\sasuser
```

```
NOTE: PROCEDURE DATASETS used:  
      real time          4:02.34  
      cpu time           0.03 seconds
```

```
7  PROC DATASETS DD=SASUSER;
```

-----Directory-----

```
Libref:          SASUSER  
Engine:          V8  
Physical Name:   c:\sas8\cpe\chm\ec\sasuser  
File Name:       c:\sas8\cpe\chm\ec\sasuser
```

File

#	Name	Memtype	Size	Last Modified
1	PROFILE	CATALOG	9216	27MAY2004:16:36:51
2	PROFILE2	CATALOG	17408	27MAY2004:16:36:51
3	REGSTRY	ITEMSTOR	13312	27MAY2004:16:36:50

8 RUN;

4. Record the physical name of your 8.2 SASUSER library. To exit SAS IT Charge Management 2.3, select the **File** pull-down menu and click **Exit**.
5. Invoke SAS IT Charge Management Release 2.4 for SAS 9.1.3. At the Welcome to SAS IT Charge Management window, click **Exit** and select **Exit SAS IT Charge Management only**.
6. Select **View** from the pull-down menu and click **Program Editor**. Maximize the Program Editor window and type the statements shown in Step 1.
7. Select the **Run** pull-down menu and click **Submit**.
8. Select the **View** pull-down menu and click **Log**. Maximize the Log window. You should see the location of the SAS IT Charge Management 2.4 SASUSER library indicated by Physical Name. Record the physical name of your 9.1.3 SASUSER library.
9. Select the **File** pull-down menu and click **Exit** to leave SAS IT Charge Management 2.4. Now you are ready to proceed with the conversion of the SASUSER library.
10. Invoke SAS 9.1.3 for Windows outside of SAS IT Charge Management 2.4.

Note: Do not invoke SAS 9.1.3 by launching SAS IT Charge Management 2.4. While it is possible to exit SAS IT Charge Management only and stay in SAS, the SASUSER library would be locked and could not be modified.

11. In the Program Editor, type the following code, edit the location of your SASUSER libraries, and submit the edited code.

```
LIBNAME olduser 'location-of-your-SAS IT Charge Management 2.3-SASUSER-
library' ACCESS=READONLY;
LIBNAME newuser 'location-of-your-SAS IT Charge Management 2.4-SASUSER-
library';
PROC COPY IN=olduser OUT=newuser;
RUN;
```

12. Select **Log** from the **View** pull-down menu. You should see notes indicating that the contents of the old SASUSER have been successfully copied to the new SASUSER library.
13. Select **Exit** from the **File** pull-down menu and exit out of SAS 9.1.3.

Your Site Libraries for SAS IT Charge Management

These are the instructions for copying the contents of the SAS IT Charge Management 2.3 site libraries to the 2.4 site libraries.

1. Find the location of your SAS IT Charge Management 2.3 site libraries. You can determine the location of these libraries by invoking SAS IT Charge Management 2.3 and selecting a site in the list box **Select Site to Administrator or Define**. You should see the SAS IT Charge Management Site Prefix in the Site Properties box below.

- z/OS server host

If your SAS IT Charge Management 2.3 site prefix is `OLDSITE`, you should find the site libraries as follows:

- `OLDSITE.EC.AUTO`
- `OLDSITE.EC.DATA`
- `OLDSITE.EC.LIB`
- `OLDSITE.EC.SCNTL`
- `OLDSITE.EC.SITE`

- Windows server host

If your SAS IT Charge Management 2.3 site prefix is `c:\oldsite`, you should find the site libraries as follows:

- `c:\oldsite\ec`
- `c:\oldsite\ec\auto`
- `c:\oldsite\ec\data`
- `c:\oldsite\ec\lib`
- `c:\oldsite\ec\scntl`
- `c:\oldsite\ec\site`

2. Decide what you want your SAS IT Charge Management 2.4 site prefix to be.
3. Allocate space for storing the SAS IT Charge Management 2.4 site libraries.

- z/OS server host

Run IEFBR14 or use ISPF 3.2 to allocate space for the SAS IT Charge Management 2.4 site libraries. You will need to allocate the libraries as shown below for each site. You may use the same `DCB=` as the one for the SAS IT Charge Management 2.3 library for allocation. If your SAS IT Charge Management 2.4 site prefix is `NEWSITE`, allocate space for the following:

- `NEWSITE.EC.AUTO`
- `NEWSITE.EC.DATA`
- `NEWSITE.EC.LIB`
- `NEWSITE.EC.SCNTL`
- `NEWSITE.EC.SITE`

- Windows server host

If your SAS IT Charge Management 2.4 site prefix is `c:\newsite`, create the following directories:

- `c:\newsite\ec`
- `c:\newsite\ec\auto`
- `c:\newsite\ec\data`
- `c:\newsite\ec\lib`
- `c:\newsite\ec\scntl`
- `c:\newsite\ec\site`

4. Copy the contents of the SAS IT Charge Management 2.3 site libraries to the SAS IT Charge Management 2.4 site libraries.

- z/OS server host:

- A. Start with `OLDSITE.EC.DATA` and `OLDSITE.EC.SITE`. These two libraries contain SAS objects such as catalogs, data sets, and views. The SAS COPY procedure is used to convert the SAS objects from 8.2 to 9.1.3.

Invoke SAS 9.1.3 on the server host and type the following statements in the Program Editor window. Edit the location of your SAS IT Charge Management site library and submit the edited code for the two libraries respectively.

```
LIBNAME oldlib 'location-of-your-SAS IT Charge Management 2.3-site-library' DISP=SHR;
LIBNAME newlib 'location-of-your-SAS IT Charge Management 2.4-site-library';
PROC COPY IN=oldlib OUT=newlib;
RUN;
```

For example, if `OLDSITE.EC.SITE` is your SAS IT Charge Management site library, the edited statements should be:

```
LIBNAME oldlib 'OLDSITE.EC.SITE' DISP=SHR;
LIBNAME newlib 'NEWSITE.EC.SITE';
PROC COPY IN=oldlib OUT=newlib;
RUN;
```

If you check the SAS IT Charge Management 2.4 site libraries at this point, you should see SAS 9.1.3 objects, such as catalogs, data sets, and views, converted from the corresponding SAS 8.2 objects in the old site libraries.

- B. For the rest of the old site libraries, such as `OLDSITE.EC.SCNTL` and `OLDSITE.EC.SLG`, you need to use `ISPF 3.3`, `IEBCOPY`, or `IEBGENER` in a batch job to copy the contents to the new site libraries. (Depending on the data processed into your old site libraries, you may find that some of the libraries are empty.)

- Windows server host

- A. Start with `c:\oldsite\ec\data` and `c:\oldsite\ec\site`. These two libraries contain SAS objects such as catalogs, data sets, and views. The SAS COPY procedure is used to convert the SAS objects from 8.2 to 9.1.3.

Invoke SAS 9.1.3 on the server host and type the following statements in the Program Editor window. Edit the location of your SAS IT Charge Management site library and submit the edited code for the two libraries respectively.

For example, if `c:\oldsite\ec\site` is your SAS IT Charge Management site library, the edited statements should be:

```
LIBNAME oldlib 'c:\oldsite\ec\site' ACCESS=READONLY;
LIBNAME newlib 'c:\newsite\ec\site';
PROC COPY IN=oldlib OUT=newlib;
RUN;
```

If you check the SAS IT Charge Management 2.4 site libraries at this point, you should see SAS 9.1.3 objects, such as catalogs, data sets, and views, converted from the corresponding SAS 8.2 objects in the old site libraries.

- B. For the rest of the old site libraries, such as `c:\oldsite\ec\scntl` and `c:\oldsite\ec\slg`, you need to either use the MS-DOS command or Windows Explorer to copy the contents to the new site libraries. (Depending on the data processed into your old site libraries, you may find that some of the libraries are empty.)

For example, if `c:\oldsite\ec\scntl` is the site library, the MS-DOS command for copying the contents of the old site library to the new site library is:

```
COPY c:\oldsite\ec\scntl\*. * c:\newsite\ec\scntl
```

Your PDBs

In the Preparation section above, you successfully migrated your PDBs from SAS 8.2 to SAS 9.1.3. If you check the contents of the new 9.1.3 PDB, you should see nine standard SAS IT Resource Management libraries, e.g., detail, day, and so on, in the new PDB library. If in doubt, check with your site's SAS IT Resource Management administrator or the person who migrated the SAS IT Resource Management environment from SAS 8.2 to SAS 9.1.3.

The following steps describe how to migrate the PDB contents that are SAS IT Charge Management-specific from the 8.2 PDB to the new 9.1.3 PDB.

1. Allocate space for storing the SAS IT Charge Management PDB libraries in the new 9.1.3 PDB.

- z/OS server host

Run IEFBR14 or use ISPF 3.2 to allocate space for the SAS IT Charge Management PDB libraries. You may use the same DCB= as the one for the SAS IT Charge Management 2.3 library for allocation.

If your 9.1.3 PDB is located at NEWPDB, allocate space for the following:

- NEWPDB.EC.CNTL
- NEWPDB.EC.PDB
- NEWPDB.EC.SUSP
- NEWPDB.EC.WORK

- Windows server host

If your 9.1.3 PDB is located at `c:\newpdb`, create the following directories:

- `c:\newpdb\ec`
- `c:\newpdb\ec\cntl`
- `c:\newpdb\ec\pdb`
- `c:\newpdb\ec\susp`
- `c:\newpdb\ec\work`

2. Copy the contents of the 8.2 PDB libraries to the 9.1.3 PDB.

- z/OS server host:

A. In your 8.2 PDB, for example, OLDPDB, you should have three libraries:

- OLDPDB.EC.PDB
- OLDPDB.EC.SUSP
- OLDPDB.EC.WORK.

These libraries contain SAS objects such as catalogs, data sets, and views. You will need to run the SAS COPY procedure to convert the SAS objects from 8.2 to 9.1.3. (Depending on the data processed into your old PDB libraries, you may find that some of the libraries are empty.)

Invoke SAS 9.1.3 on the server host and type the following statements in the Program Editor window. Edit the locations of your PDB libraries and submit the edited code for the three libraries respectively.

```
LIBNAME oldpdbec 'location-of-your-SAS IT Charge Management 2.3-  
PDB-library' DISP=SHR;  
LIBNAME newpdbec 'location-of-your-SAS IT Charge Management 2.4-  
PDB-library';  
PROC COPY IN=oldpdbec OUT=newpdbec;  
RUN;
```

If OLDPDB.EC.PDB is your old PDB library, the edited statements should be as follows:

```
LIBNAME oldpdbec 'OLDPDB.EC.PDB' DISP=SHR;  
LIBNAME newpdbec 'NEWPDB.EC.PDB';  
PROC COPY IN=oldpdbec OUT=newpdbec;  
RUN;
```

If you check the 9.1.3 PDB libraries at this point, you should see SAS 9.1.3 objects, such as catalogs, data sets, and views, converted from the corresponding SAS 8.2 objects in the old PDB libraries.

- B. For the rest of the libraries, such as OLDPDB.EC.CNTL, OLDPDB.EC.PLG, and OLDPDB.EC.SEQ, you need to use ISPF 3.3, IEBCOPY, or IEBGENER in a batch job to copy the contents to their corresponding libraries in the NEWPDB. For instance, use ISPF3.3 to copy OLDPDB.EC.CNTL to NEWPDB.EC.CNTL.
- Windows server host
 - A. In your 8.2 PDB, for example, c:\oldpdb, you should have three libraries:
 - o c:\oldpdb\ec\pdb
 - o c:\oldpdb\ec\susp
 - o c:\oldpdb\ec\work

These libraries contain SAS objects such as catalogs, data sets, and views. You will need to run the SAS COPY procedure to convert the SAS objects from 8.2 to 9.1.3. (Depending on the data processed into your old PDB libraries, you may find that some of the libraries are empty.)

Invoke SAS 9.1.3 on the server host and type the following statements in the Program Editor window. Edit the locations of your PDB libraries and submit the edited code for the three libraries respectively.

```
LIBNAME oldpdbec 'location-of-your-SAS IT Charge Management 2.3-  
PDB-library' ACCESS=READONLY;  
LIBNAME newpdbec 'location-of-your-SAS IT Charge Management 2.4-  
PDB-library';  
PROC COPY IN=oldpdbec OUT=newpdbec;  
RUN;
```

If c:\oldpdb\ec\pdb is your old PDB library, the edited statements should be:

```
LIBNAME oldpdbec 'c:\oldpdb\ec\pdb' ACCESS=READONLY;
LIBNAME newpdbec 'c:\newpdb\ec\pdb';
PROC COPY IN=oldpdbec OUT=newpdbec;
RUN;
```

If you check the 9.1.3 PDB libraries at this point, you should see SAS 9.1.3 objects, such as catalogs, data sets, and views, converted from the corresponding SAS 8.2 objects in the old PDB libraries.

- B. For the rest of the libraries, such as `c:\oldpdb\ec\cntl`, `c:\oldpdb\ec\plg`, and `c:\oldpdb\ec\seq.sas`, you need to use either the MS-DOS command or Windows Explorer to copy the contents to the new PDB libraries.

For example, if `c:\oldpdb\ec\cntl` is the PDB library, the MS-DOS command for copying the contents of 8.2 PDB library to the new PDB library is:

```
COPY c:\oldpdb\ec\cntl\*.* c:\newpdb\ec\cntl
```

Your Account View Extract File

You may skip this section if you do not have the Account View extract file of SAS IT Charge Management 2.3.

The following are instructions for how to migrate your Account View extract file from SAS IT Charge Management 2.3 to 2.4:

1. Find the location of the Account View extract file that you downloaded from SAS IT Charge Management 2.3.
2. Choose a location on your computer where you want to store the SAS IT Charge Management 2.4 Account View extract file that is being migrated from 2.3.
3. Convert the Account View extract file from SAS IT Charge Management 2.3 to 2.4.

Invoke SAS 9.1.3 of Windows and type the following statements in the Program Editor window. Edit the directories where your Account View extract files are located and submit the edited code.

```
LIBNAME oldav 'directory-where-your-SAS IT Charge Management 2.3 Account
View-extract-file-is-located' ACCESS=READONLY;
LIBNAME newav 'directory-where-your-SAS IT Charge Management 2.4 Account
View-extract-file-is-located';
PROC COPY IN=oldav OUT=newav;
RUN;
```

Launch SAS IT Charge Management Software, Release 2.4

1. Before you invoke SAS IT Charge Management 2.4, you need to replace the default site definition provided by SAS IT Charge Management 2.4 with your own site definitions. The default site definition may be found at
drive:\[SAS 9.1.3 Install Path]\cpe\chm\ec\ecsite\ec_sites.sas7bdat.

Obtain the directory name of the backup `ec_sites` data set that you made in the Preparation section. Invoke SAS 9.1.3 on Windows, type the statements below in the Program Editor window, edit them, and submit the edited code.

```
LIBNAME olddef 'directory-which contains-the-backup-ec_sites-table'
ACCESS=READONLY;
```



```
LIBNAME newdef 'drive:\[SAS 9.1.3 Install Path]\cpe\chm\ec\ecsite';
PROC COPY IN=olddef OUT=newdef;
    SELECT EC_SITES;
RUN;
```

2. Invoke SAS IT Charge Management Release 2.4 for SAS 9.1.3. You should see your site definitions of SAS IT Charge Management 2.3 displayed at the Welcome to SAS IT Charge Management window.
3. Select a site and modify the text fields, such as SAS IT Charge Management Site Prefix, displayed in the Site Properties box. Check with your SAS IT Resource Management administrator if you need assistance for the following modifications.
 - Change the SAS IT Charge Management Site Prefix to refer to the same site prefix that you decided earlier at step 2 in the section called Your Site Libraries for SAS IT Charge Management in this document.
 - Modify the SAS IT Resource Management SITELIB to reflect the SAS 9.1.3 SAS IT Resource Management site library.
 - Verify that the logon script file, if any, is valid for invoking SAS 9.1.3 on the server.
 - If your site resides in a local Windows environment, you need to change the CPUSROPT data set to the one for SAS 9.1.3 SAS IT Resource Management.
4. Click the **Save Properties** button to save the information in the **Site Properties** box.
5. Click **Open** to open the site.
6. Select the **Site Administration** tab and click **Manage Site Defaults and Accounting Calendar**. Click **Execution Control** on the right.
 - If the site is on a z/OS server host, modify the JCL parameters to correctly reflect the settings for your SAS 9.1.3 system.
 - If the site is on a Windows server host, verify the Host SAS name. Click **OK** to save the modifications.
7. Under the **Site Administration** tab, click **Manage Site Defaults and Accounting Calendar**. Click **Calendar Definitions** on the right. Verify the calendar definitions for this site and click **OK**. This will update the definitions and upload them to the server. This step is required to ensure the correct regeneration of the calendar definitions through SAS IT Charge Management 2.4.
8. Click the **PDB selection** button in the upper-left corner. Click the **9.1.3 PDB** that has been converted from the 8.2 PDB following the process in the Your PDB section on the selection list. Select the **Manage PDBs** tab. Select **Define Rate Models, Charges, and Assignments**.
 - If your site is on a z/OS server host, click **Execution Control** on the right. Verify the JCL statements and click **OK**.
9. Click **Data Base Definition** on the right.
10. Select the item called **Apply Selections and Edit, Manual Submit**. Click **OK**. You should see the window called Edit and Submit CPDDUTL Batch Job.
11. Verify the code of the batch job and make modifications if necessary.
12. Click the **Submit** pull-down menu and select **Save, Submit, and End** to run the Data Base Definition job (CPDDUTL), which updates the dictionary.
 - For z/OS servers, you must disconnect from the site in SAS IT Charge Management 2.4 for the Data Base Definition job to complete. SAS IT Charge Management 2.4 automatically detects this and presents a window to facilitate the disconnection as soon as you submit the job.

13. To ensure that your batch jobs refer to the appropriate data sets in your new PDB and site libraries after the migration, regenerate the batch job code through the SAS IT Charge Management 2.4 graphical user interface.
 - For Consolidation, follow these steps:
 - A. Select the **Operation** tab in the SAS IT Charge Management 2.4 main window. Select **Consolidate Data**.
 - B. Select an invoice period and click **Apply Selections and Edit, Manual Submit**. Click **OK**. The Edit and Submit CONSOL Batch Job window should open.
 - C. Verify the code of the batch job and make any necessary modifications.
 - D. Save the batch job. If appropriate, you may submit the job via the Submit pull-down menu at this time.
 - E. Repeat steps A through D for other invoice periods.
 - For To-Date Consolidation, follow these steps:
 - A. Select **Reports** tab in the SAS IT Charge Management 2.4 main window. Select **To-Date Consolidation**.
 - B. Select an invoice period and click **Apply Selections and Edit, Manual Submit**. Click **OK**. The Edit and Submit CONSOLz Batch Job window should open.
 - C. Verify the code of the batch job and make any necessary modifications.
 - D. Save the batch job. If appropriate, you may submit the job via the **Submit** pull-down menu at this time.
 - E. Repeat steps A through D for other invoice periods.
 - For Standard Invoices, follow these steps:
 - A. Select **Operation** tab in the SAS IT Charge Management 2.4 main window. Select **Run Standard Invoices**.
 - B. Select an invoice period and click **Apply Selections and Edit, Manual Submit**. Click **OK**. The Edit and Submit SCHRPT Batch Job window should open.
 - C. Verify the code of the batch job and make any necessary modifications.
 - D. Save the batch job. If appropriate, you may submit the job via the **Submit** pull-down menu at this time.
 - E. Repeat steps A through D for other invoice periods.
 - For To-Date Reporting, follow these steps:
 - A. Select **Reports** tab in the SAS IT Charge Management 2.4 main window. Select **To-Date Reporting**.
 - B. Select an invoice period and click **Apply Selections and Edit, Manual Submit**. Click **OK**. The Edit and Submit todote Batch Job window should open.
 - C. Verify the code of the batch job and make any necessary modifications.
 - D. Save the batch job. If appropriate, you may submit the job via the **Submit** pull-down menu at this time.
 - E. Repeat steps A through D for other invoice periods.
 - For Site Configuration,
 - A. Select **Reports** tab in the SAS IT Charge Management 2.4 main window. Select **Site Configuration**.
 - B. Click **Apply Selections and Edit, Manual Submit**. Click **OK**. The Edit and Submit CONRPT Batch Job window should open.
 - C. Verify the code of the batch job and make any necessary modifications.
 - D. Save the batch job. If appropriate, you may submit the job via the **Submit** pull-down menu at this time.

14. Repeat steps 5 through 13 for each PDB of the selected site.

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