# HORIZONT

#### XINFO Reporting

Control-M

### **AGENDA**XINFO Reporting

15.07.2021

XINFO Reporting for Control-M

Collecting data

Collecting data regulary – ITC

Adapt DEFCMD

Create Chart to Display

**Export/Import Charts** 

Create Batch Interface

Editing HTML files

#### **General Information**

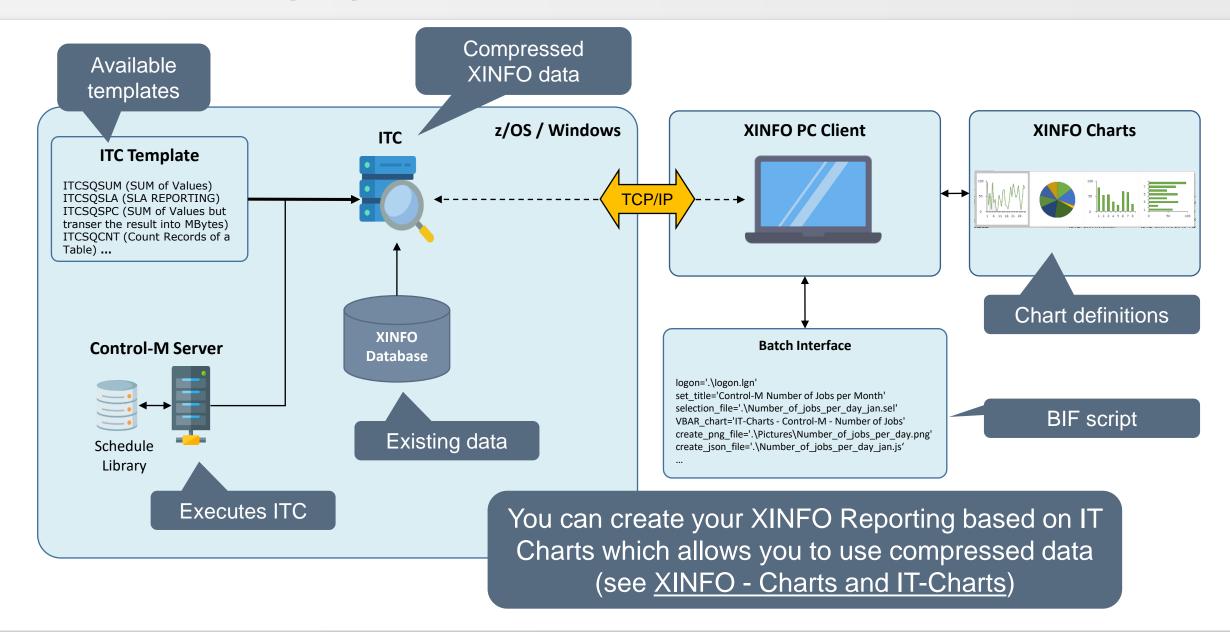
This presentation describes how to set up, create and run XINFO reporting for the Control-M workload scheduler using XINFO's Batch Interface (BIF).

**Important:** The client must edit the BIF and all associated files once according to his wishes and then have the BIF executed automatically. The reporting does not require any further adjustments afterwards and is filled with the daily updated data.

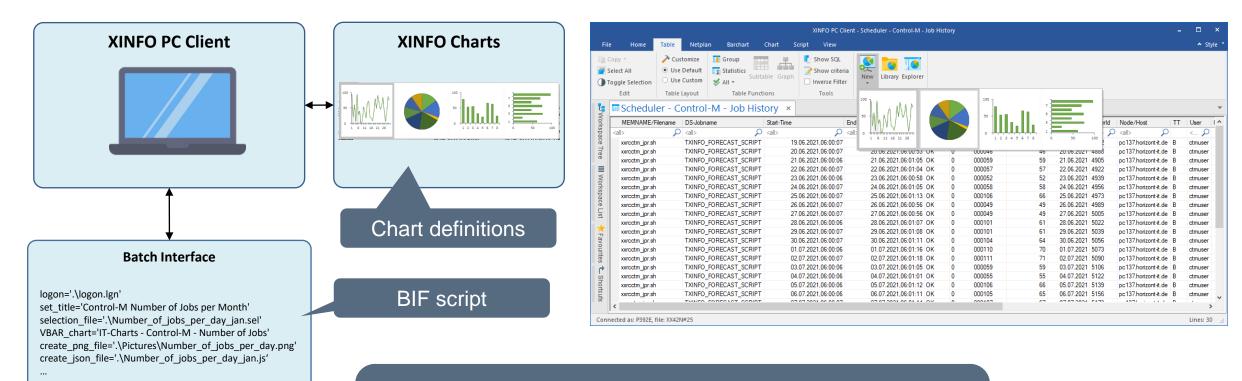
The procedure for reporting is described in the manual <u>xxrdrepe.pdf - XINFO 4.2 HTML Reporting Installation</u> <u>Guide</u>

Please read before creating your reporting, the BIF documentation <u>XINFO Batch Interface</u> and the Docu Generator documentation <u>HTML Docu Generator</u>.

#### XINFO IT Charts (ITC) and BIF



#### **XINFO Charts and BIF**



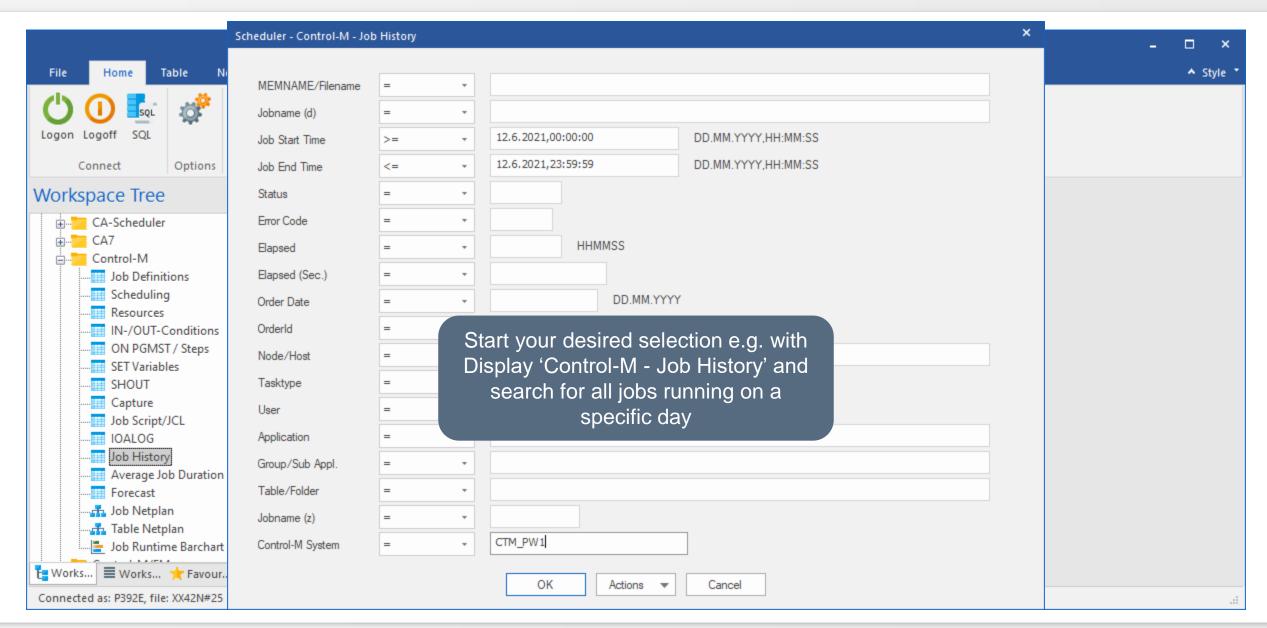
You can also create your XINFO Reporting based on a result of a selection which can be automated. The result is used to create your chart.

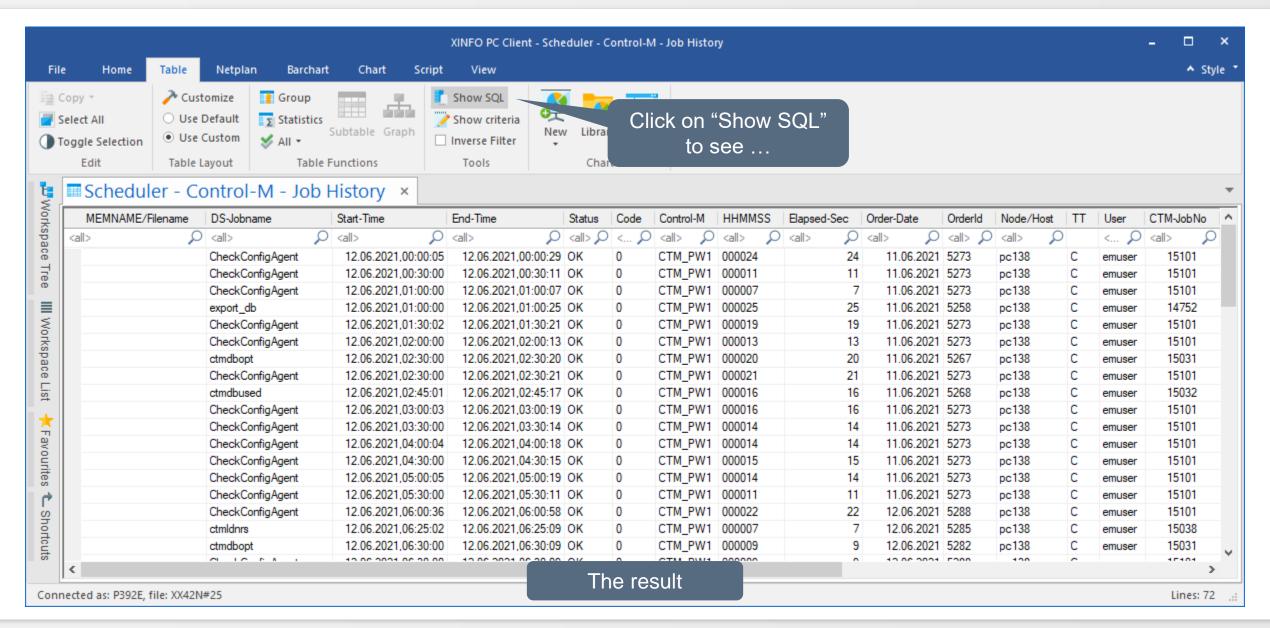
In the following slides we will demonstrate, how to collect your data based on IT Charts.

Therefore, you need to start your desired query and change the SQL query e.g. to get the amount of jobs running on a specific day.

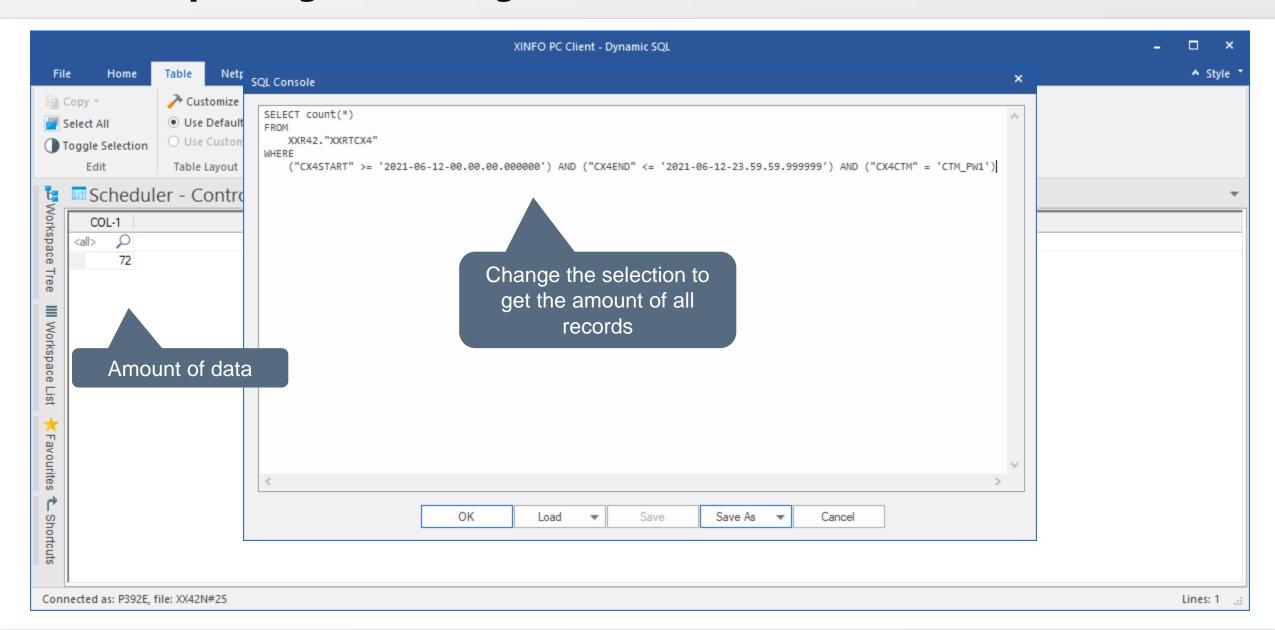
This query is used as basis for your IT Chart.

We provide some templates for IT Charts which can be edited and need to be executed daily by your Workload Scheduler in order to fill the IT Chart









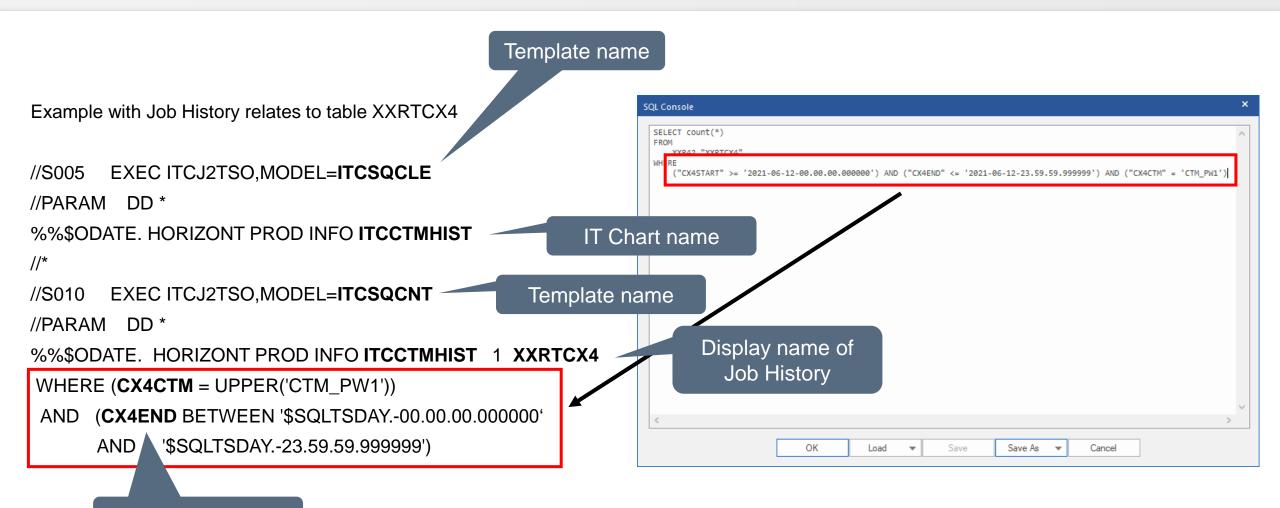
#### XINFO Reporting: Collecting data regularly – IT Charts

- SYSH.XINFO.V4R2.SAMPLIB
  - ITCSQSUM (SUM of Values)
  - ITCSQSLA (SLA REPORTING)
  - ITCSQSPC (SUM of Values but transer the result into MBytes)
  - ITCSQCNT (Count Records of a Table)
  - ITCCNTD (Count Distinct Records of a Table)

Depending on your needs, you can use and edit different templates as a basis

List of ITC templates provided

#### XINFO Reporting: Collecting data regularly - ITC



Column name

#### XINFO Reporting: Collecting data regularly - ITC

```
SYSH.CONTROLM.JCL(ITCCTM) - 01.01
                                                                               Columns 00001 00080
                   Command ===>
                                                                                 Scroll ===> CSR
                   000001 //ITCCTM JOB (ACCOUNT), 'HORIZONT', MSGCLASS=T, CLASS=A,
                  000002 // NOTIFY=&SYSUID
                  000003 //×
                  000004 //* EDIT BY NICOLAS
                  000005 //×
                  000006 //×
                  000007 //LIBS JCLLIB ORDER=(SYSH.XINFO.V4R2.PROCLIB)
                  000008 //* HORIZONT (ORIGINAL) JOB NAME: ITCJCTM
                  000009 //JOBLIB
                                  DD DSN=SYSH.XINFO.V4R2.LOAD,
                  000010 //
                                     DISP=SHR
                  000011 //
                                  DD DSN=SYSH.SHARED.LOAD,
                  000012 //
                                     DISP=SHR
                  000013 //*
                  000015 //* USING CIM VARIABLES
                  000017 //*
                         //* GENERATE ITC INSERT SOL AND CALL IT
                          /* 1.SAMPLE : COUNT CTM JOB-DEFINITIONS
Use variables to automate
                         //* 2.SAMPLE : COUNT CTM TABLE-DEFINTIONS
                         //ж 3.SAMPLE : ENDTIME OF JOB AS SLA INFORMATION
       your query
                         7/8005 EXEC ITCJ2TSO, MODEL=ITCSQCLE
                      28 //PARAM DD *
                                                                                           Please do not forget to
                   00002> %%TDAY. HORIZONT PROD INFO ITCCTMHIST
                  000030
                                                                                           schedule the job daily!
                  000031
                         778010
                                   EXEC ITCJ2TSO, MODEL=ITCSQCNT
                  000032
                         //PARAM
                         %%TDAY.
                   000033
                                HORIZONT PROD INFO ITCCTMHIST
                  000034
                          WHERE (CX4CTM = UPPER('CTM_PW1'))
                                (CX4END BETWEEN '$SQLTSDAY.-00.00.00.000000'
                  000035
                          AND
                  000036
                                               '$SQLTSDAY.-24.00.00.0000000')
                  000037
                  000038 //×
                                                              TABLE FOR COUNT
                                                             ITCCURVE
                  000039 //×
                                                 ITCGRAPHTYPE (=DISPLAY NAME)
                  000040 //×
                                            XXRDATINFO ([BLANK] = NO VALUE)
                   000041 //×
                                        XXRDATENV ([BLANK] = NO VALUE)
                                XXRDATCLIENT ([BLANK] = NO VALUE)
                  000044 //*
                            TIMESTAMP (YYYYMMDD)
                  000045 //×
                  000046 //*
                  000047 //* NEXT LINE WHERE
                   000048 //×
                  <u>000049 //* VARIABLE $SQLTSDAY. REPRESENTS A SQL-TIMESTAMP YYYY-MM-DD</u>
                  000050 //*
                              BASED ON THE PARM TIMESTAMP
                  000051 //*
```

#### XINFO Reporting: Adapt DEFCMD – XINFO z/OS Server

```
XINFO Administrator Panel
Command ===> 2
                                          Select Display
  1 - XINFO Dialog
                                                             USERID
                                                                     - P392E
    - Display Generator
                                                             Date
                                                                     - 14.06.21
                                            Generator
    - Table Manager
                                                             Time
                                                                     - 13:10
    - Backup Definitions to TXTDEF
                                                             DB2

    DBCG

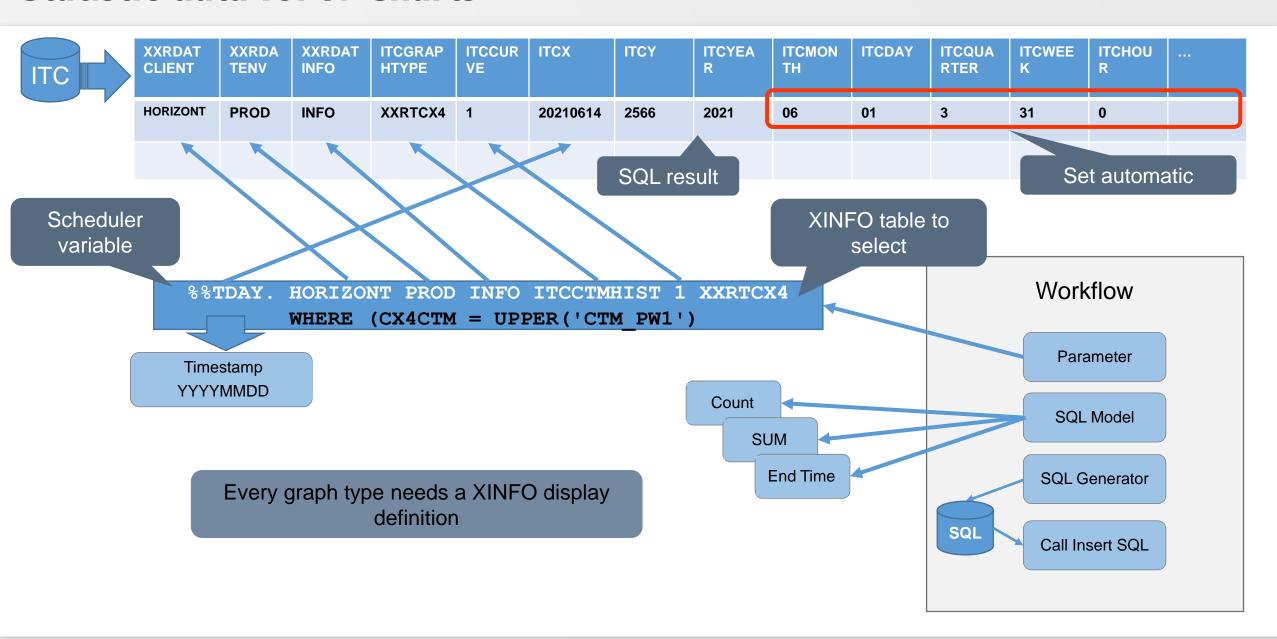
    - Restore Definitions from TXTDEF
                                                             PLAN
                                                                     - XXRDLG42
                                                             DB2AUTH - XXR42
    - EDIT 'SYSH.XINFO.V4R2.DEFCMD.P392E'
    - Check : Use of Columns in Table and Selection Panels
    - Check : Compare Labels of Table Columns and Selection Panel
    -- Check : Table Columns Which are not Used in any Display
                                                                      To add your newly created IT Charts to XINFO,
    - List : All Line Commands in Sorted Order
    - List
            : All Line Commands/Displays
                                                                         your Admin needs to adapt the DEFCMD
    - List : Structure of Used DB2 Tables
    - Export: Export displays to other XINFO Dialog
 Datasets
                                     ----- Display Generator (Start Panel) ------ ROW 442 TO 485 OF 485
            'SYSH.XINFO.V4R2.DE Command ===>
                                                                                               SCROLL ===> CSR
 TABDEF
            'SYSH.XINFO.V4R2.DE
          : 'SYSH.XINFO.V4R2.DE
  TXTDEF
                                      : Arrange Create
                                                          Reload
                                                                   SAVE
                               Bottom: C Copy D Delete
                                                          M Modify S Select T Test
                                 Display Name
                                                   Label
                                 DSPLTITCL
                                                   IT-Charts - Admin: Display all data records
                                  ITCCA7JOBS
                                                   IT-Charts - CA7 - Number of Jobs
                                 ITCCA7SLA
                                                   IT-Charts - CA7 - SLA
                                 ITCCTMTABS
                                                   IT-Charts - Control-M - Number of Tables
                                  ITCCTMJOBS
                                                   IT-Charts - Control-M - Number of Jobs
                                 ITCCTMHIST
                                                   IT-Charts - Control-M - Job History
                                 ITCCTMSLA
                                                   IT-Charts - Control-M - SLA
                                                   IT-Charts - JCL - Number of EXEC
                                 ITCJCLEXEC
                                                   IT-Charts - IWS z/OS - Number of Applications
                                 ITCTWSZAPP
                                                   IT-Charts - IWS z/OS - Number of E/C JOBS and Appl perDay
                                 ITCTWSCNTA
                                                   IT-Charts - IWS z/OS - Number of Operations
                                 ITCTWSZOPR
                                 ITCTWSZSLA
                                                   IT-Charts - IWS z/OS - SLA
                                                   IT-Charts - SMF - Jobstarts per Hour
                                  ITCSMFJHOUR
             And copy an
                                  ITCSMFJDAY
                                                   IT-Charts - SMF - Jobs
                                 ITCSMFABEND
                                                   IT-Charts - SMF - Error-Jobs
              existing one
                                                   IT-Charts - SMF - SLA
                                  ITCSMFSLACJ1
                                  ITCSPCZ0S01
                                                   IT-Charts - SPACE - z/OS
                                 ITCUC4J0BP
                                                   IT-Charts - Automic - Number of Workflows
                                  ITCUC4J0BS
                                                   IT-Charts - Automic - Number of Jobs
                                  ITCUC4SLA
                                                   IT-Charts - Automic - SLA
```

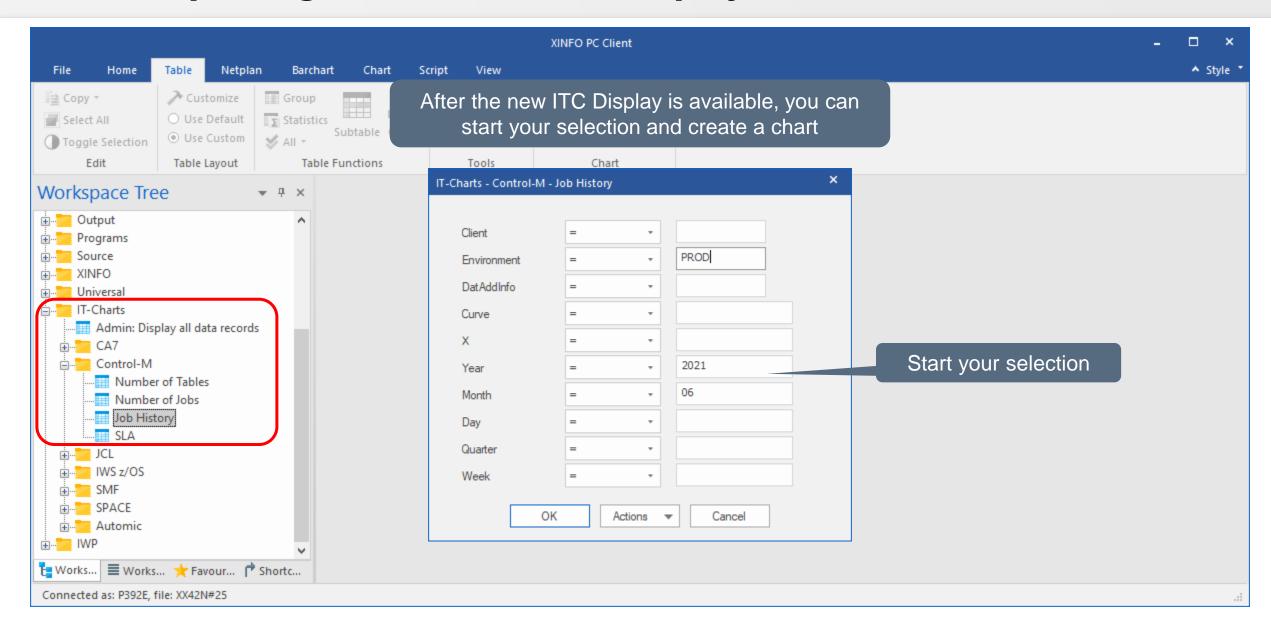
#### XINFO Reporting: Adapt DEFCMD – XINFO z/OS Server

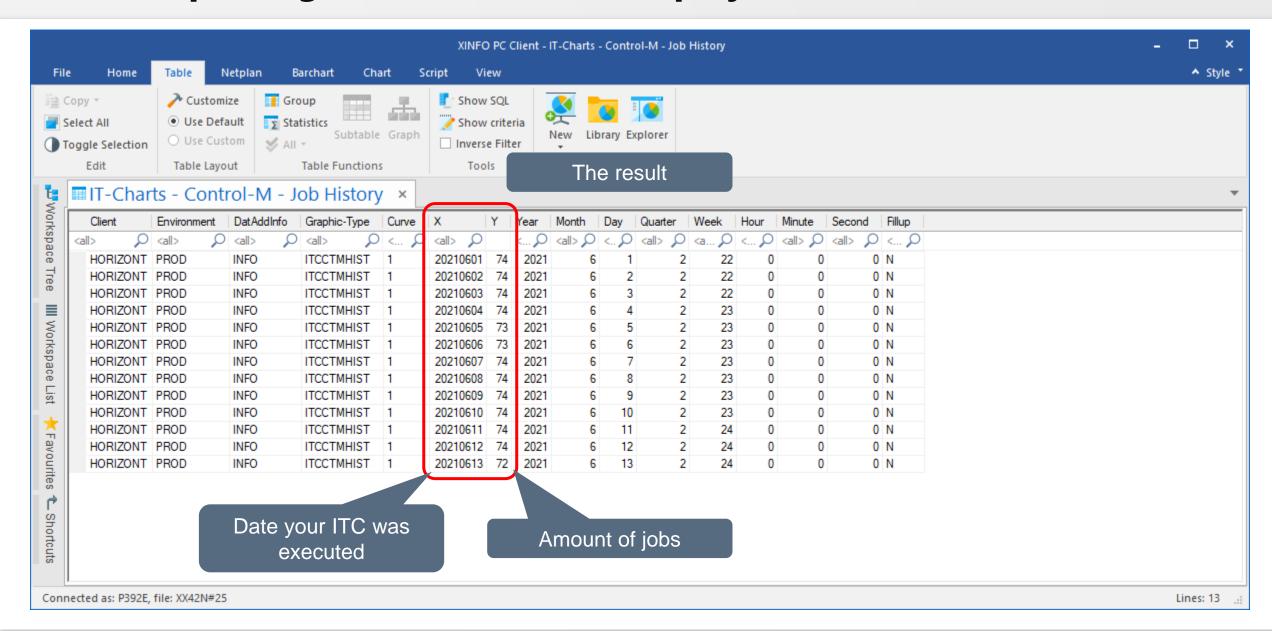
Display name must be named like your IT Chart

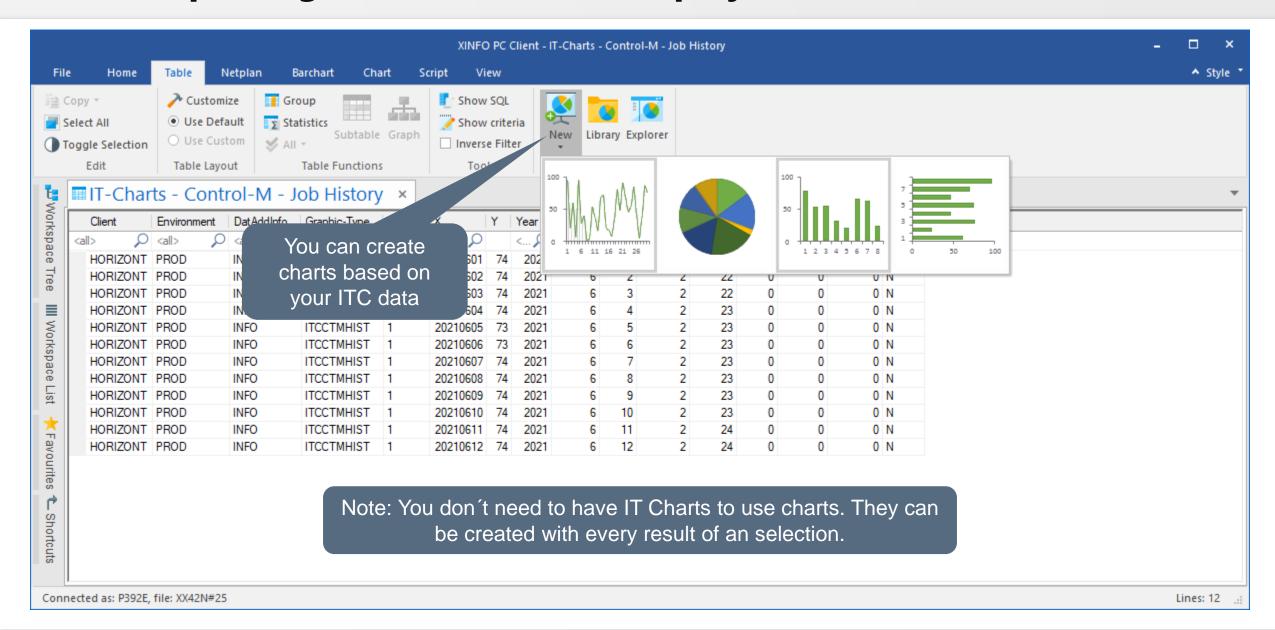
```
//S005 EXEC ITCJ2TSO, MODEL=ITCSQCLE
      //PARAM DD *
000029 %%TDAY. HORIZONT PROD INFO ITCCTMHIST
                  EXEC ITCJ2TSO, MODEL=ITCSOCNT
000031 //8010
000032 //PARAM
                  DD *
                                                    XXRTCX4
                                                                                         Copy A Display
             Command ===> _
                                  ===> ITCCTMHIST_
             Display Name
                                  ===> II-Charts - Control-M - Job History
             Description
             Show in Start Panel ===> Y
                                           (Y/N)
             Select Distinct
                                          (Y/N)
             Enter a new Display Name and -if wanted- a new Description.
             Press END (PF03) to abort copying.
```

#### **Statistic data for IT Charts**



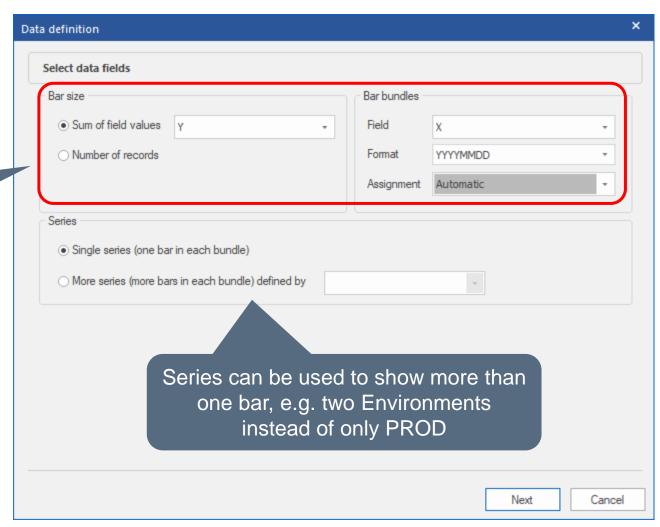


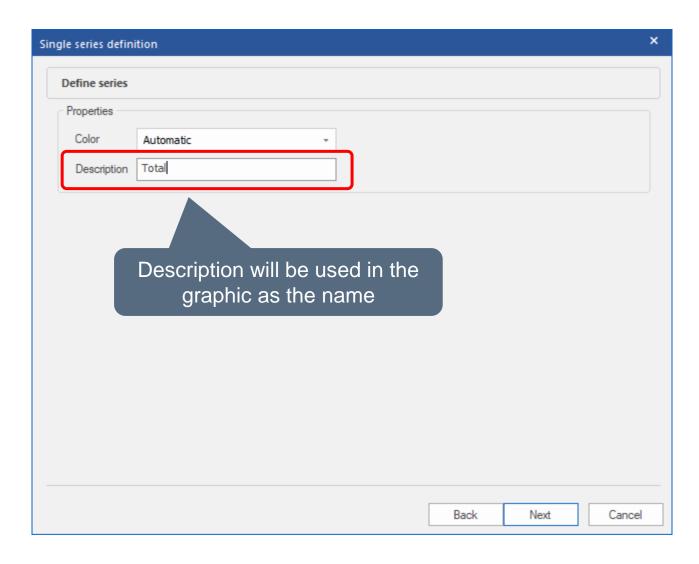


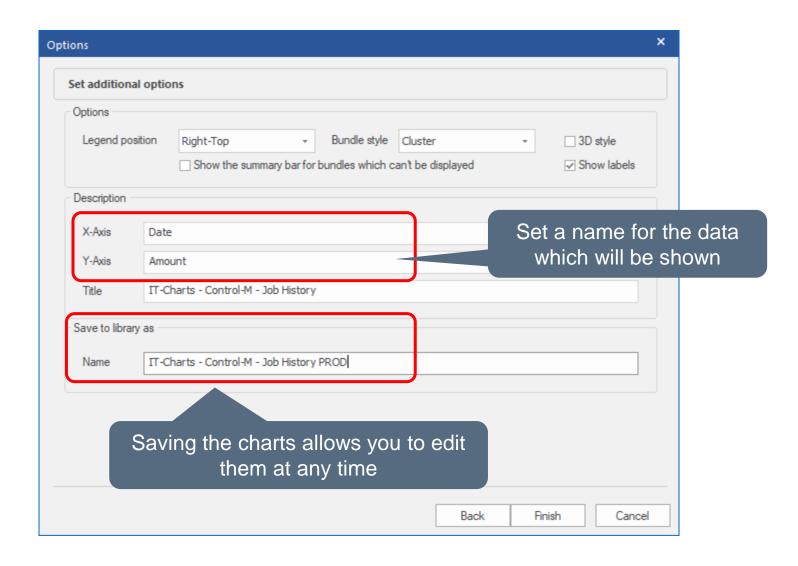


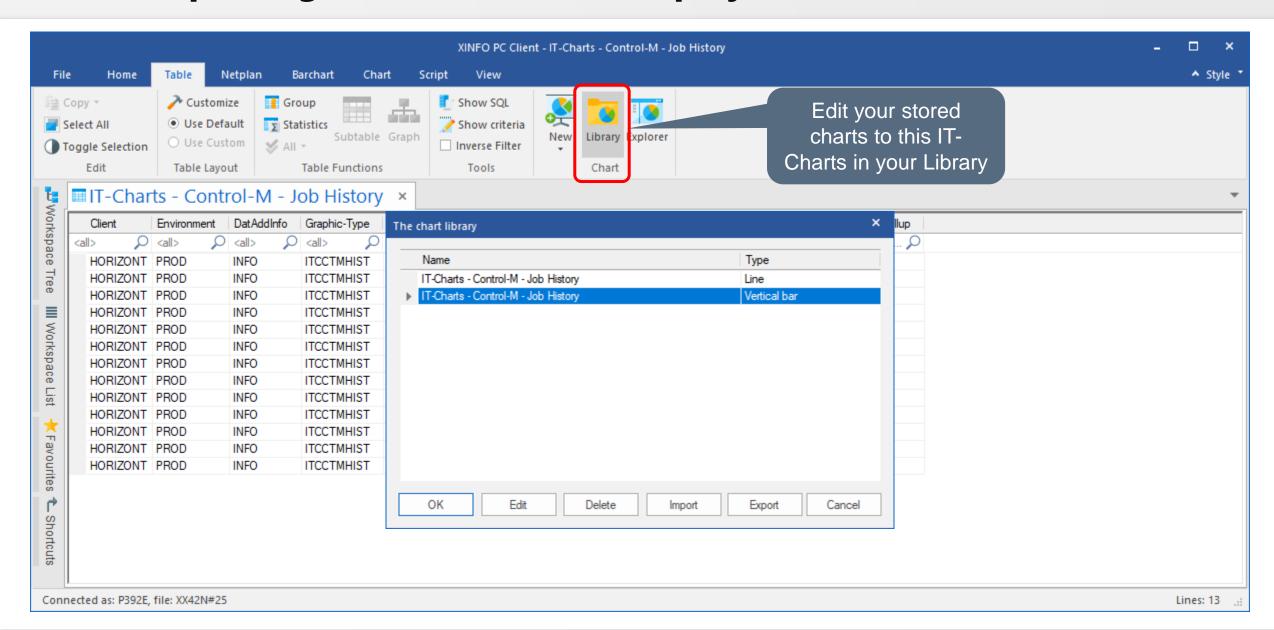
X and Y values are stored in the result of the IT Chart

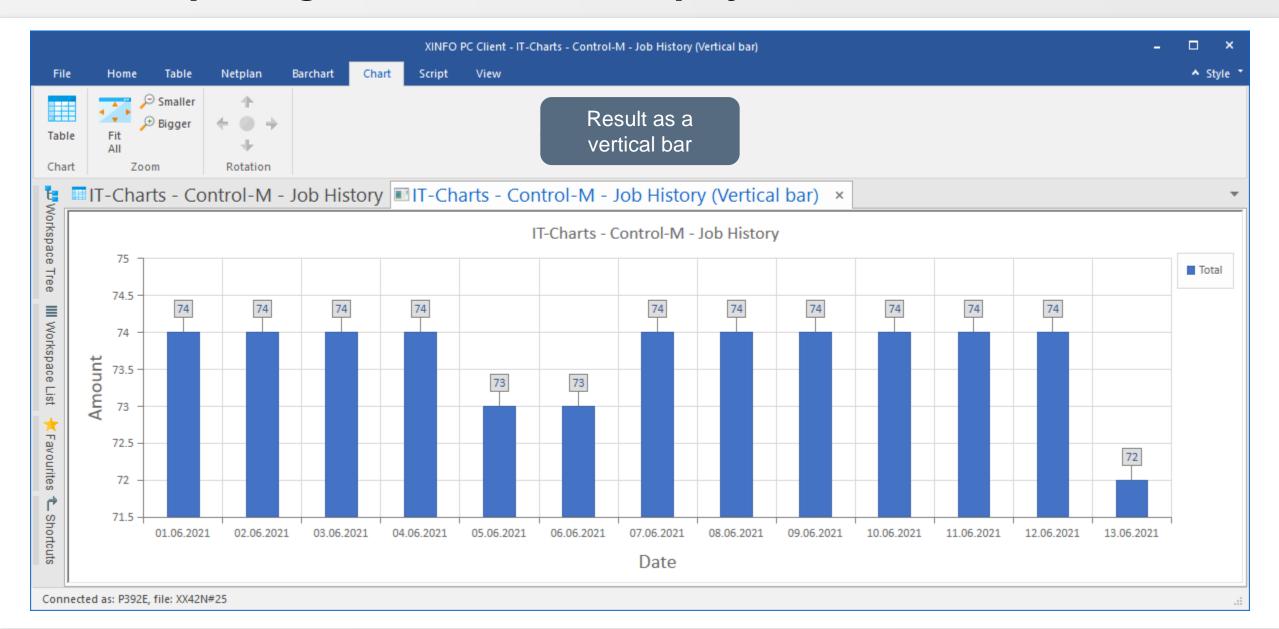


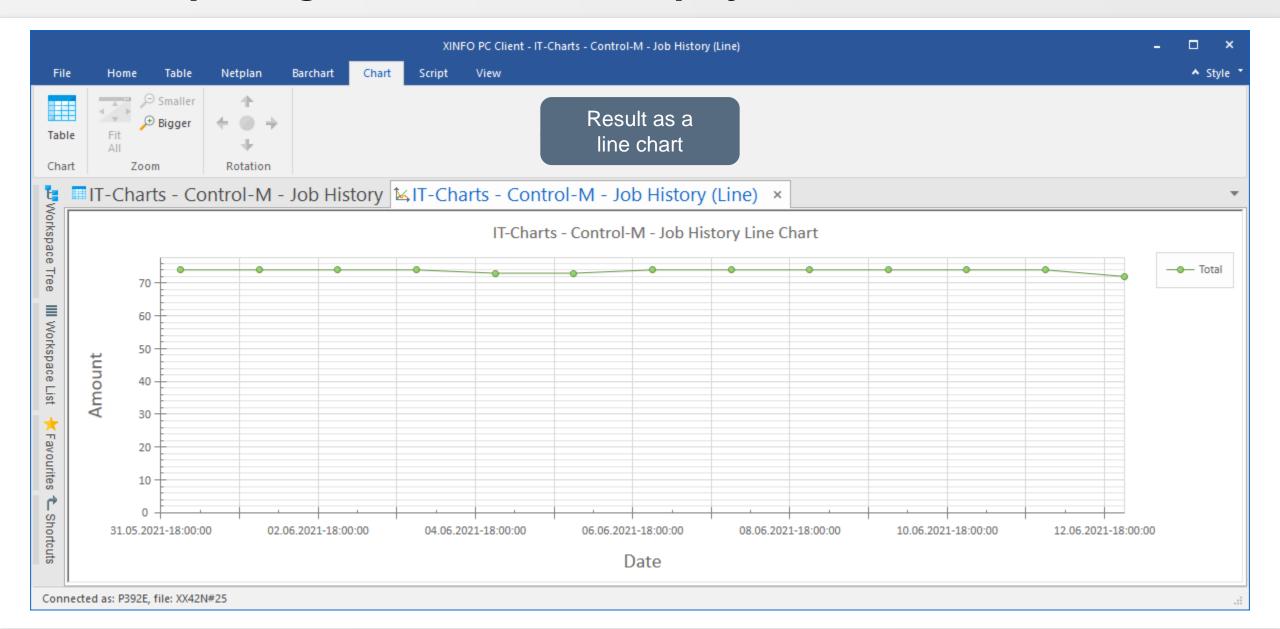




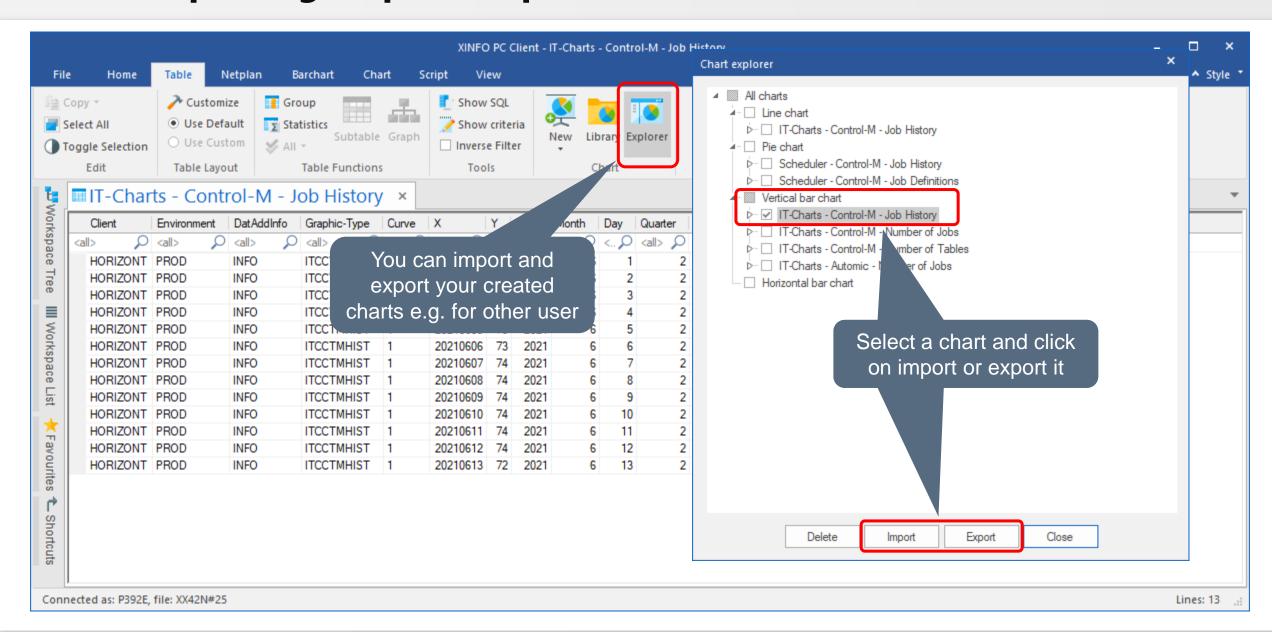








#### XINFO Reporting: Export/Import Chart Definition



#### XINFO Reporting: Create Batch Interface (BIF)

To automate the creation of the charts you can use the Batch Interface:

With XINFO's BIF every query done with XINFO PC Client can be automated and executed by your scheduling system.

All necessary instructions are coded in an own script language.

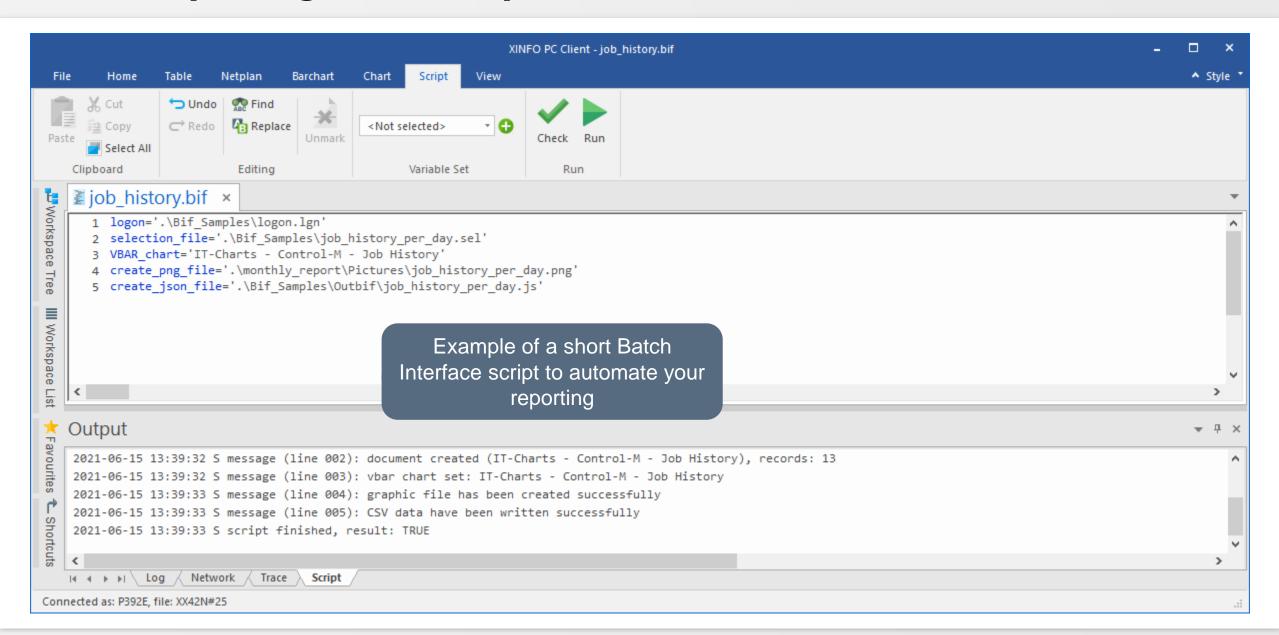
All necessary components can be created with the PC Client itself.

The creation of a BIF is described in the document XINFO Batch Interface.

Important: The User must edit the BIF and all associated files only once according to his wishes.

All variables needed could be handed over to the process from outside. This way a periodic execution is possible without any changes.

#### **XINFO Reporting: BIF Example**



#### **XINFO Reporting: HTML**

- Copy the file "\XINFO\Database\ITC\XINFO templates Vxxx.zip into a new directory e.g c:\XINFO\_REPORTING
- Unpack the zip file into the new directory
- The zip file should contain the following directories:
  - COVER -> Template for the Cover Page
  - Pictures -> Empty Dir where the png files should be saved
  - src -> Source Files needed by the HTML Files
  - Template 1 10 -> Contain the HTML Templates, Settings.js and Data.js

#### **XINFO Reporting: Notes**

- If another PC Client or different Windows User (e.g tech User) is used for executing the BIF please export and import the chart definition to this user.
- If you will forget this, the BIF execution will fail, because of missing Chart Definitions.

#### **XINFO Extensions**

- Batch Interface can be used independently from XINFO Reporting to automate specific requests
- Web Browser Interface via Control-M Automation API

```
;für CTM GUI

[web_link_ln_cmd]

DSPLTCX4.2.NAME = "Open in CTM Archive"

DSPLTCX4.2.LINK_BASE = "https://XXX.XXX.XXX.XXX.8443/automation-api/archive/search?limit=500&jobid=*&status=All&"

DSPLTU4R.2.LINK_PARM.systemname = "System"

DSPLTCX4.2.LINK_PARM.jobname = "DS-Jobname"

DSPLTCX4.2.LINK_PARM.server = "Control-M"

DSPLTCX4.2.LINK_PARM.startdate = TIME("Start-Time", "DD.MM.YYYY")

DSPLTCX4.2.LINK_PARM.starttime = TIME("Start-Time", "HH:II")
```

Thanks for your attention! Do you have any questions?

## HORIZONT

Please feel free to visit us in Munich or send an email to info@horizont-it.com