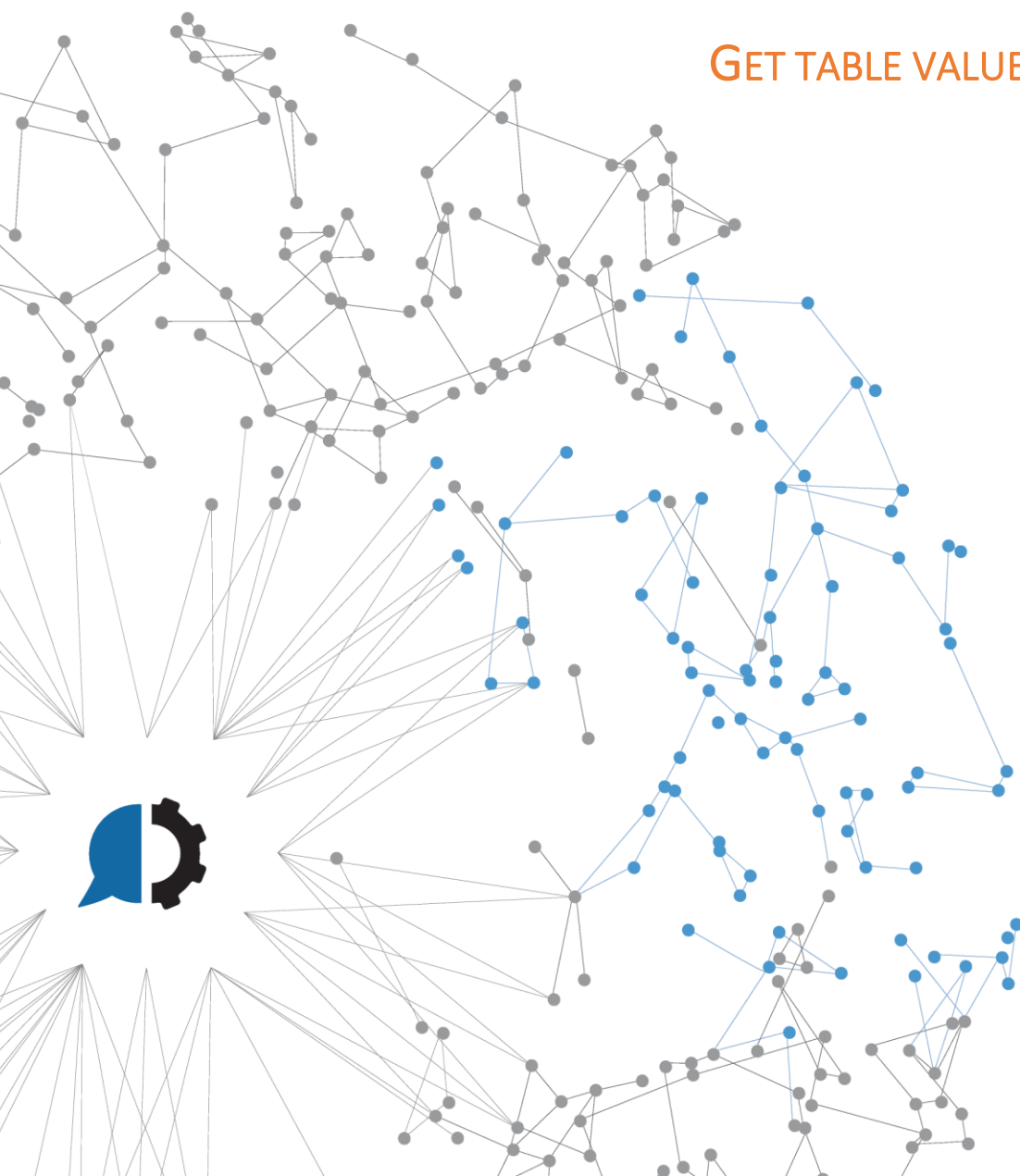




# SAP BOT

GET TABLE VALUES WITH TX SE16





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## DETAILS

### DOCUMENT INFORMATION

AUTHOR	CUSTOMER	CREATION DATE
Helpsystems	<<CLIENT>>	22/01/2020

### DESCRIPTION

This document provides information to help you understand the implementation, architecture and interfaces for the Automate Enterprise SAP BOT.

### DELIVERY LIST

<<CLIENT>>	<<CONTACT1>> <<CONTACT2>>
HELPSYSTEMS	José Garay  Dario Soria  Sebastian Alvarez

### FILE VERSIONING

VERSION	DATE	AUTHOR	DESCRIPTION
1.0	22/01/2020	José Garay	Initial document



## OVERVIEW

This how to guide introduces the *SAP Bot - Get table values with TX SE16*. Instead of spending precious time and resources on repetitive, manual tasks, let Automate go to work and streamline your IT and business processes with robotic process automation. With the help of Automate we can take over manual steps which greatly reduces the repetitive activities and improves the quality and consistency of the work. The top processes being automated are reports generation, file movement, data import and export, and scheduling batch processing.

*SAP Bot - Get table values with TX SE16* executes the SAP Transaction SE16 (Data Browser) to get the specified table values list and export the results to an excel or csv file. You will be able to set the SAP table and the output format. It also supports VARIANTS. These are pre saved table layout and values selection that you can prepare and store before in order to get customizable results.

SAP transaction Screen example for table T001:

The screenshot displays the SAP Data Browser interface. The top bar shows the SAP logo and the title "Data Browser: Initial Screen". Below the bar, there is a search field with a green checkmark and a dropdown arrow, followed by icons for list, print, and information, and buttons for "Cancel" and "More".

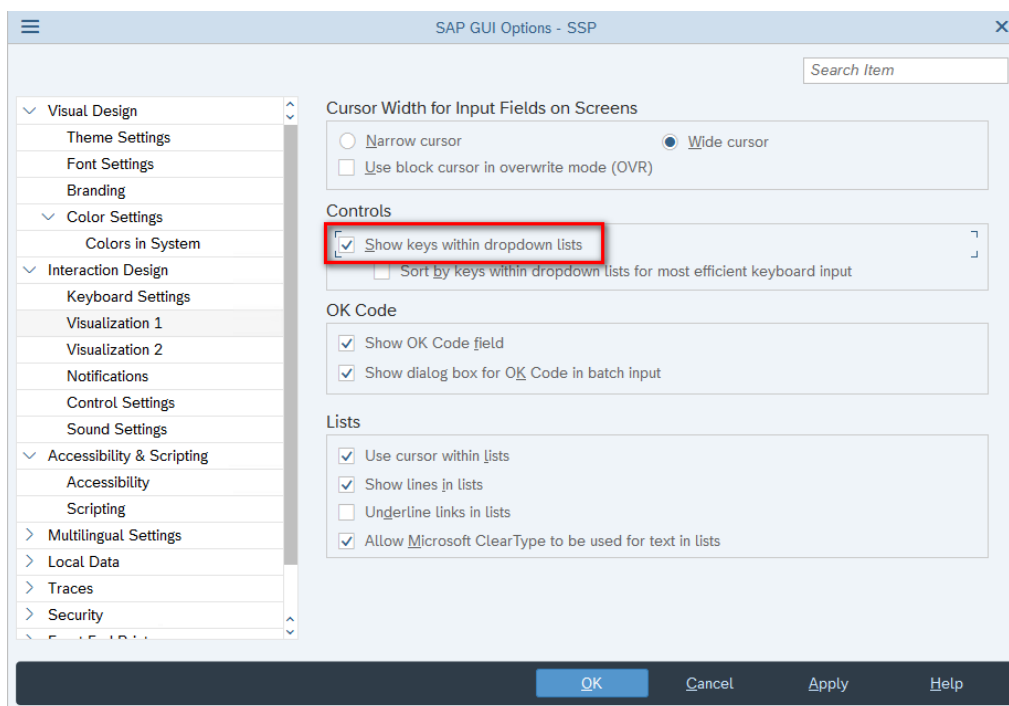
The main area shows the "Table Name" field with the value "T001". Below this, there is a section titled "Data Browser: Table T001: Selection Screen". This section contains a list of fields for selection, each with a "to" field and a "copy" icon. The fields are:

Field	to	copy
BUKRS		
BUTXT		
ORT01		
LAND1		
WAERS		
SPRAS		
KTOPL		
WAABW		
PERIV		
KOKFI		
RCOMP		
ADRNR		
STCEG		
FIKRS		
XFMCO		
XFMCB		
XFMCA		
TXJCD		
FMHRDATE		
BUVAR		
FDBUK		
XFDIS		
XVALV		
XXXXX		



## PREREQUISITES

- **Set the display to "ALV Grid Display" (SAP List Viewer) for the user profile that will be used to execute the task:** The SAP tool provides common list operations and format to allow the exporting a list to Excel. See *Appendix B – Setting ALV Grid Display* for details on how to set it.
- **Automate:** The SAP BOT depends on Automate software in order to work. The minimal supported versions are:
  - [Automate Ultimate 11.2](#)
  - [Automate Plus 11.2](#)
  - [Automate Desktop 11.2](#)
- **Automate Markup Language file (.AML):** The primary file type used in Automate which contains the steps of our SAP BOT task
- **SAP Client:** Our minimal requirements are
  - [SAP Logon 760](#)
  - [Show keys within dropdown lists enabled](#)

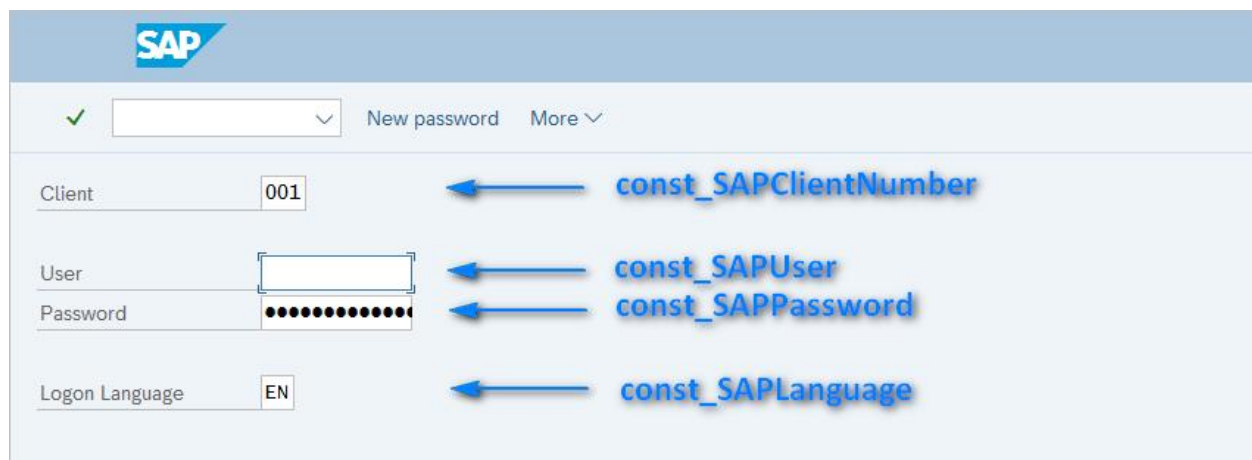
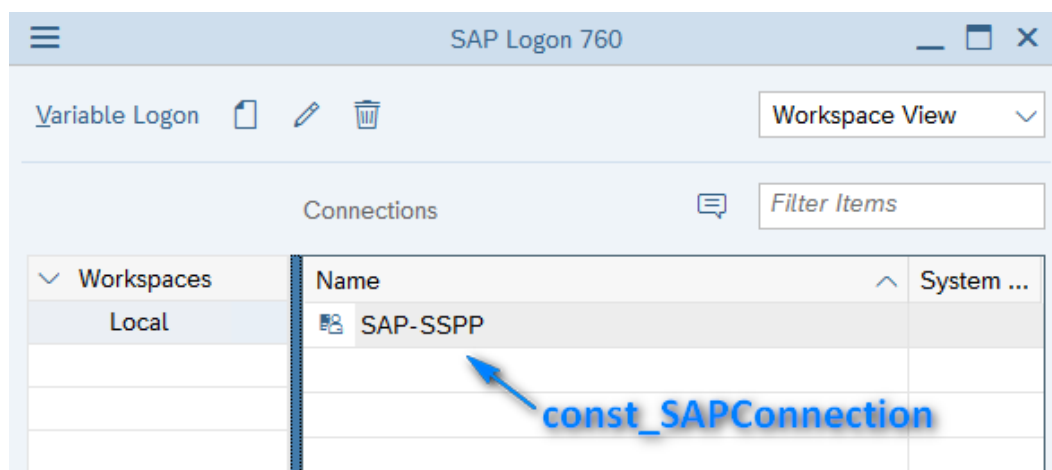




- A user with enough privileges to run the XD01 transaction

To check if you have the required level of authorization to run this and any transaction use SU53. Simply execute SE16 and then execute /NSU53 immediately afterwards. A report of all authorizations checked will then be displayed

- Automate constants for connection and SAP Login:
  - `const_SAPClientNumber`: SAP Client Number. By Default: 001
  - `const_SAPConnection`: SAP Login connection name
  - `const_SAPLanguage`: SAP Language. By Default: EN
  - `const_SapLogonPath`: SAP executable path. By Default: C:\Program Files (x86)\SAP\FrontEnd\SapGui\saplogon.exe
  - `const_SAPPassword`: SAP Login Password
  - `const_SAPUser`: SAP Login Username



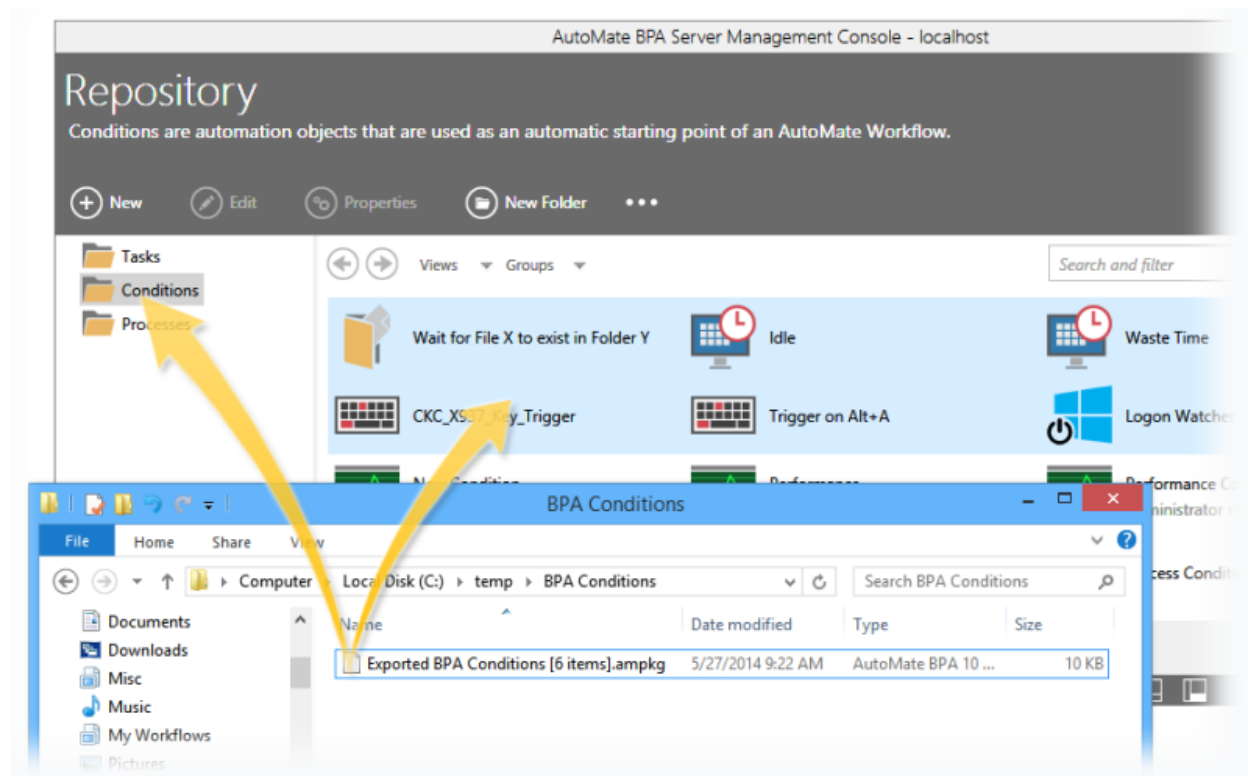


## HOW TO IMPORT AN AUTOMATE TASK

Compatible file types can be imported to the repository via drag-and-drop

From the [Server Management Console](#), navigate to the Repository section

Drag the desired file(s) from its original location and drop them into the folder in the [SMC](#). Files can be dropped into the folder icon or the main panel (as shown below). Imported object(s) are automatically placed into their corresponding repository location.



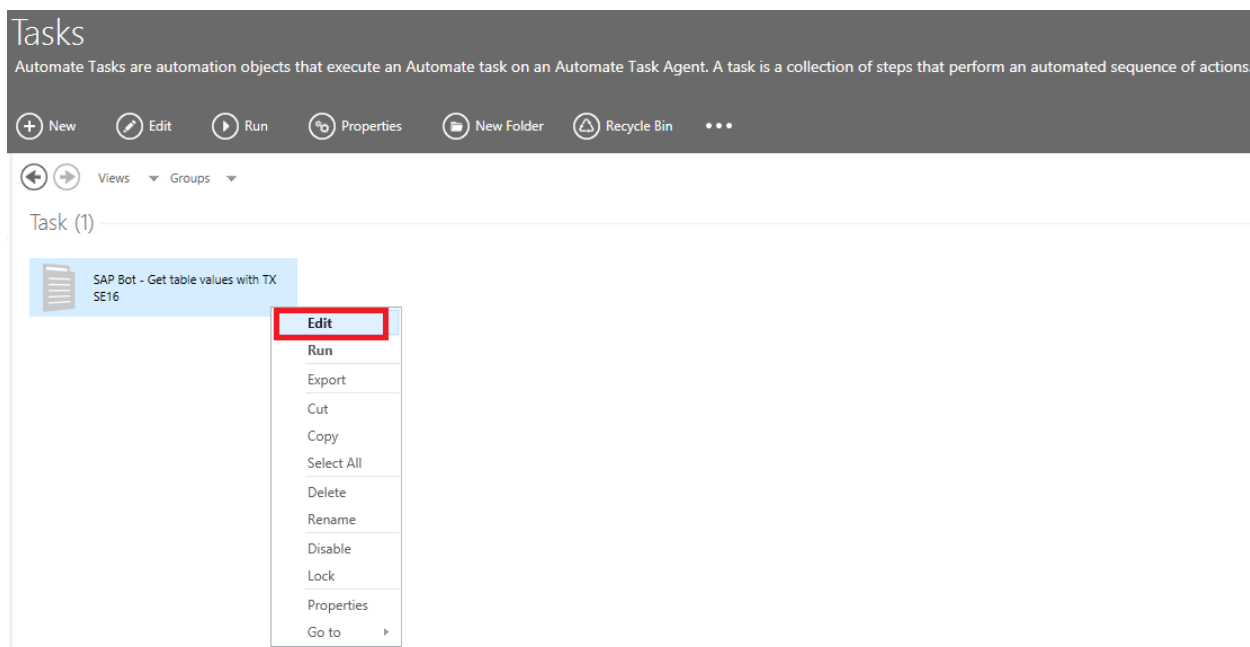


## HOW TO EXECUTE THE SAP BOT - GET TABLE VALUES WITH TX SE16

If this is the first time running this task, we will need to set some parameters

Open the [Server Management Console](#) and locate the imported task

Edit the imported task by right clicking on the task and selecting [edit](#)



From [step 2](#) edit the next variables according to you desired output:

- [var\\_SAPTableName](#): The name of the table to get the values from.
- [var\\_SAPTableNameVariant](#): The name of the table Variant to get the values from. See appendix C to get more information about Variants in SAP.
- [var\\_FilePath](#): the location in which the output file will be saved.
- [var\\_OutputFileFormat](#): the format of the output file. It can be set to “Excel” or “CSV”. We recommend to set it in Excel format for better performance.

The name of the Output file will be set automatically using the next name pattern example:

**T001\_22112019.xlsx**

**T001:** Table code or Name

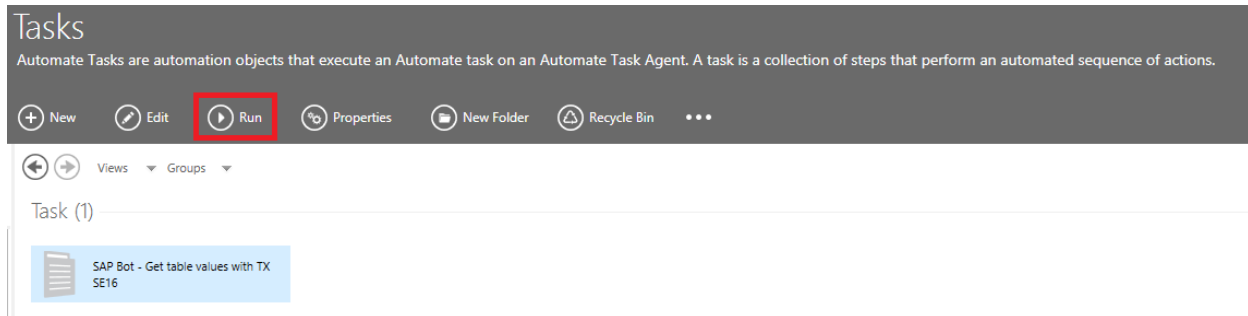
**22112019:** DateTime pattern (DDMMYYYY)

**xlsx:** Extension of the file in case the that [var\\_OutputFileFormat](#) was set in Excel (.CSV instead).

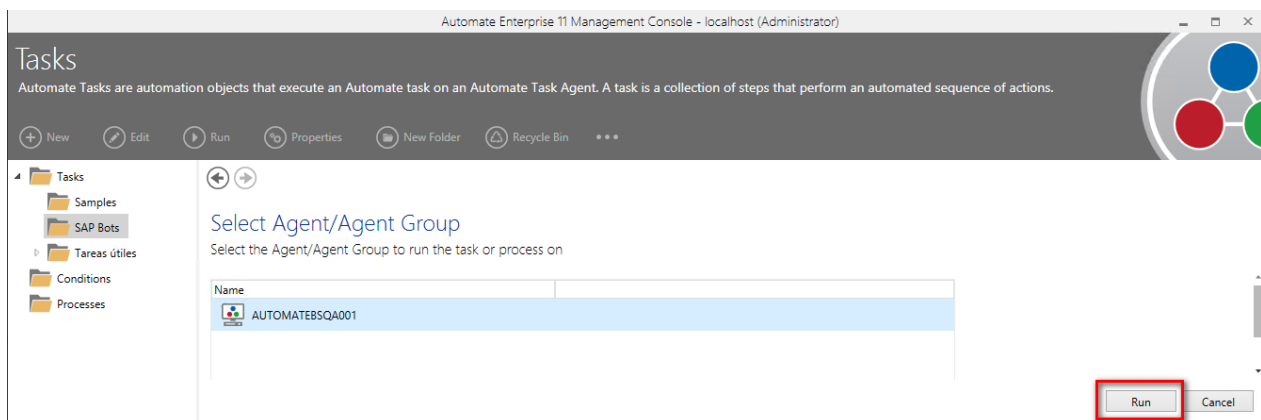


Save and close the task

Select the task and click on [Run](#)



Select your [Agent](#) and click on [Run](#) again



## APPENDIX A – SAP TRANSACTION AND EXCEL OUTPUT EXAMPLE

SAP:

SAP

Table Browser: Table T001 Select Entries69

<

Resulting Excel file:

[illegible]

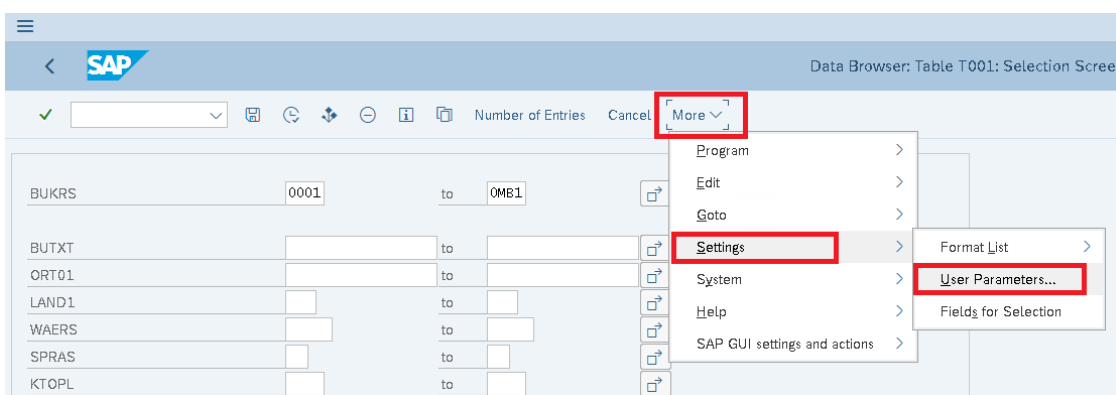


## APPENDIX B – SETTING ALV GRID DISPLAY

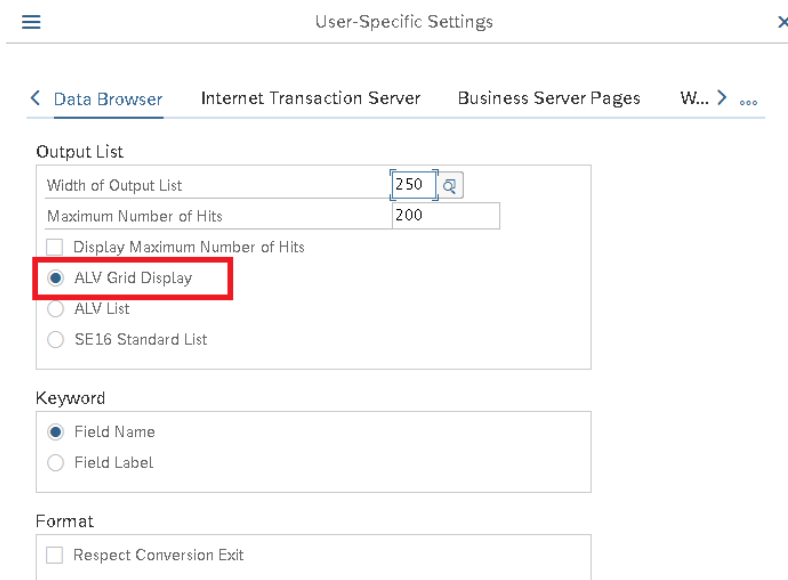
This can be set as a global setting or for a user specified. In this example we will set it for a specified user.

In order to set the ALV Grid Display, you will have to execute one the SAP transaction SE16, select a Table and then:

1. Go to More > Settings > User Parameters



2. In the User-Specific Settings go to the Data Browser tab and select ALV Grid Display





## APPENDIX C – TROUBLESHOOTING

- **Logs:** Each iteration of our BOT creates a Log file for troubleshooting. You can locate the log file under C:\AutoMate\Tasks\<<TASK NAME>>. By Default, the task name is *SAP Bot - Get table values with TX SE16*.



### About HelpSystems

Organizations around the world rely on HelpSystems to make IT lives easier and keep business running smoothly. Our software and services monitor and automate processes, encrypt and secure data, and provide easy access to the information people