



SCHENKER

{tsc} Technology
Solution
Center

Visual Document Testing

Using Robot Framework



Intro

Output Testing is about finding differences...



...making those differences visible...



...ignoring dynamic parts from comparison...

The diagram illustrates a process of ignoring dynamic parts from comparison. It shows a magnifying glass focusing on a date field in a document, with an arrow pointing to a JSON pattern definition.

Document Content:

2019-02-20 13:36

Date: 04-Dec-2018

Schenker
380 Littelfield Ave
San Francisco, CA 94104
United States of America
Phone No.: +1 650 745 3800
Fax No.: +1 650 745 2237
E-mail: sales@schenker.com
VAT-Id: 13-5619239

Payment Receipt No: PRN000000008367

Received from: Quant Logistics
3130 Bluff Rd
Columbia, SC 29204
United States

By email from: [Redacted] UTC, To: [Redacted]

DB SCHENKER

WITH ANY APPLICABLE TARIFFS.

JSON Pattern Definition:

```
{
  "page": 1,
  "name": "Date",
  "type": "pattern",
  "pattern": ".*[0-9]{4}-[0-9]{2}-[0-9]{2}.*"
},
```

..sometimes accepting small visual differences..

SCHENKERocean

ORIGINAL

Ocean or Combined Transport Bill of Lading

(1) Shipper/Exporter THE TEST SHIPPER POSTBUS 123 1234 AH GELDROP NETHERLANDS		(4) B/L No. RTMOE123456789
(2) Consignee TEST CONSIGNEE 2ND ROW CONSIGNEE STR. 123 12345 DÜSSELDORF GERMANY		(6) SCHEENKER LOGISTICS NEDERLAND B.V. SCHEEPSBOUWEG 65 3089 JW ROTTERDAM NETHERLANDS
(3) Notify Party SAME AS CONSIGNEE		(7) For Delivery of Goods apply to: THE IMPORTING COMPANY 2ND ROW THE IMPORTER STREET P.O. BOX 6702, 12345 DÜSSELDORF GERMANY TEL: 1111111 FAX: 2222222
(8) Vessel/Voyage (see clause 16.1 of the Bill of Lading terms) MSC TESTER / IP037A		(11) Place of Receipt (Applicable only when document used as Combined Transport B/L) GELDROP (DOOR)
(9) Port of Loading ROTTERDAM	(10) Port of Discharge DÜSSELDORF	(12) Final Destination (Applicable only when document used as Combined Transport B/L) DÜSSELDORF (CFS)
BELOW PARTICULARS FURNISHED BY SHIPPER - CARRIER NOT RESPONSIBLE - FOR MERCHANT'S USE ONLY AND NOT PART OF THE BILL OF LADING CONTRACT		
(13) Kind of packages; description of goods; marks and Numbers; Container No./Seal No. TEST CONSIGNEE 2 PALLETS 2ND ROW CONSIGNEE STR. 123 12345 DÜSSELDORF GERMANY LOADED INTO CONTAINER: ABCD7800572 SEAL: SEAL123456789		
(14) Gross Weight 500.000 KGS		
(15) Measurement 0.500 CBM		
TOTALS: 2 500.000 KGS 0.500 CBM		
FREIGHT PREPAID		
Above particulars as declared by Shipper, but without responsibility of or representation by the Carrier (see clause 8).		
(16) Carrier's Receipt (see clauses 1 and 8) Total number of containers or packages received by Carrier: 2		
(17) Freight and Charges	(18) Prepaid	(19) Collect

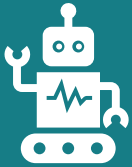
(2) Consignee

TEST CONSIGNEE
2ND ROW
CONSIGNEE STR. 123
12345 DÜSSELDORF GERMANY

- Optional pass criteria:
- Moved Textblock by max. 10 pixels?
 - Same Text Content in changed area?



...having a proper test data and test suite setup..



Robot Testsuite



Test Data File



Reference Data



.xml Data

```
1  *** Settings ***
2  Resource  ../../../../resources/Keywords.robot
3  Library   ../../../../resources/VisualTest.py    DPI=${DPI}
4  Library   OperatingSystem
5  Library   DataDriver    PROCARS.csv    optimize_pabot=Equal
6  Test Template  Compare Documents
7  Suite Setup    Extract Zip File    ${CURDIR}/${reference}/${reference.zip}    ${CURDIR}/${reference}
8
9  *** Variables ***
10 ${REFERENCE_DIR}    ${CURDIR}/${reference}
11 ${CANDIDATE_DIR}    ${CURDIR}/${candidate}
12 ${REQUEST_DIR}    ${CURDIR}/${requests}
13 ${DPI}    200
14
15 *** Test Cases ***
16 Create ${payload_file}
17
18 *** Keywords ***
19 Compare Documents
20 [Arguments]    ${reference_image}    ${payload_file}    ${om_application}    ${placeholder_file}    ${check_text_content}    ${move_tolerance}    ${contains_barcode}    ${get_pdf_content}    ${DPI}
21 [Teardown]    Run Keyword If    '${KEYWORD STATUS}'=='FAIL'    Copy Files    ${REQUEST_DIR}/${reference_image}    ${candidate_file}    ${OUTPUT DIR}/${Failed}/${TEST NAME}
22    ${candidate_file}=    Send Payload and retrieve Output from Filesystem    ${REQUEST_DIR}/${payload_file}    ${CANDIDATE_DIR}    ${om_application}
23    Compare Images    reference_image=${REFERENCE_DIR}/${reference_image}    test_image=${candidate_file}    placeholder_file=${placeholder_file}    check_text_content=${check_text_content}    move_tolerance=${move_tolerance}
```

Tests

ODM

PROCARS

reference

reference.zip

requests

PROCARS_DataDriver_POC.robot

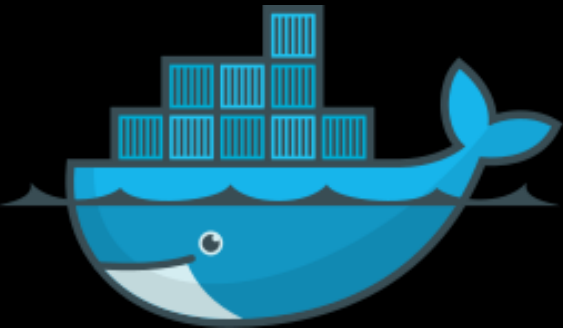
PROCARS_DataDriver.robot

PROCARS.csv

	A	B	C	D	E	F	G	H	I	J
1	*** Test Cases ***	\$(reference_image)	\$(payload_file)	\$(om_application)	\$(placeholder_file)	\$(check_text_content)	\$(move_tolerance)	\$(contains_barcode)	\$(get_pdf_content)	\$(DPI)
2	Create ABL_MANIF_AIR_SJCDXB	WWSPC_SJCDXB#####SJCDXB024114791SJCDXB#2496580AWB8110036452.pdf	WWSPC_SJCDXB#####SJCDXB024114791SJCDXB#2496580AWB8110036452.xml	WWSPC	\$(Masks_DIR)/A4_footer.json	\$(false)	\$(None)	\$(false)	\$(false)	\$(DPI)
3	Create ABL_MANIF_AIR_SJCBRU	WWSPC_SJCBRU#####SJCBRU018477131SJCBRU#1949009AWB8120088436.pdf	WWSPC_SJCBRU#####SJCBRU018477131SJCBRU#1949009AWB8120088436.xml	WWSPC	\$(Masks_DIR)/A4_footer.json	\$(false)	\$(None)	\$(false)	\$(false)	\$(DPI)
4	Create ABL_MANIF_AIR_SJCBER	WWSPC_SJCBER#####SJCBER009592151SJCBER#2194945AWB7209000205.pdf	WWSPC_SJCBER#####SJCBER009592151SJCBER#2194945AWB7209000205.xml	WWSPC	\$(Masks_DIR)/A4_footer.json	\$(false)	\$(None)	\$(false)	\$(false)	\$(DPI)
5	Create ABL_MANIF_AIR_SJCCGN	WWSPC_SJCCGN#####SJCCGN023509451SJCCGN#6136675AWB7209000442.pdf	WWSPC_SJCCGN#####SJCCGN023509451SJCCGN#6136675AWB7209000442.xml	WWSPC	\$(Masks_DIR)/A4_footer.json	\$(false)	\$(None)	\$(false)	\$(false)	\$(DPI)
6	Create ABL_MANIF_AIR_SJCFRA	WWSPC_SJCFRA#####SJCFRA051887841SJCFRA10543437AWB7209004969.pdf	WWSPC_SJCFRA#####SJCFRA051887841SJCFRA10543437AWB7209004969.xml	WWSPC	\$(Masks_DIR)/A4_footer.json	\$(false)	\$(None)	\$(false)	\$(false)	\$(DPI)
7	Create ABL_MANIF_AIR_SJGGUA	WWSPC_SJGGUA#####SJGGUA001705340SJGGUA##65433AWB8120000185.pdf	WWSPC_SJGGUA#####SJGGUA001705340SJGGUA##65433AWB8120000185.xml	WWSPC	\$(Masks_DIR)/A4_footer.json	\$(false)	\$(None)	\$(false)	\$(false)	\$(DPI)
8	Create ABL_MANIF_AIR_SJCBUD	WWSPC_SJCBUD#####SJCBUD010283881SJCBUD#1026970AWB8109000370.pdf	WWSPC_SJCBUD#####SJCBUD010283881SJCBUD#1026970AWB8109000370.xml	WWSPC	\$(Masks_DIR)/A4_footer.json	\$(false)	\$(None)	\$(false)	\$(false)	\$(DPI)
9	Create ABL_MANIF_AIR_SJCDUB	WWSPC_SJCDUB#####SJCDUB009868811SJCDUB#1048487AWB8115019718.pdf	WWSPC_SJCDUB#####SJCDUB009868811SJCDUB#1048487AWB8115019718.xml	WWSPC	\$(Masks_DIR)/A4_footer.json	\$(false)	\$(None)	\$(false)	\$(false)	\$(DPI)
10	Create ABL_MANIF_AIR_SJCLUX	WWSPC_SJCLUX#####SJCLUX003587221SJCLUX##948212AWB7809000119.pdf	WWSPC_SJCLUX#####SJCLUX003587221SJCLUX##948212AWB7809000119.xml	WWSPC	\$(Masks_DIR)/A4_footer.json	\$(false)	\$(None)	\$(false)	\$(false)	\$(DPI)
11	Create ABL_MANIF_AIR_SJCMEX	WWSPC_SJCMEX#####SJCMEX008264660SJCMEX#6064831AWB8101029934.pdf	WWSPC_SJCMEX#####SJCMEX008264660SJCMEX#6064831AWB8101029934.xml	WWSPC	\$(Masks_DIR)/A4_footer.json	\$(false)	\$(None)	\$(false)	\$(false)	\$(DPI)
12	Create ABL_MANIF_AIR_SJCAMS	WWSPC_SJCAMS#####SJCAM5062049021SJCAM5#7875735AWB8100565500.pdf	WWSPC_SJCAMS#####SJCAM5062049021SJCAM5#7875735AWB8100565500.xml	WWSPC	\$(Masks_DIR)/A4_footer.json	\$(false)	\$(None)	\$(false)	\$(false)	\$(DPI)
13	Create ABL_MANIF_AIR_SJCOSL	WWSPC_SJCOSL#####SJCOSL014980581SJCOSL#1928551AWB8120025453.pdf	WWSPC_SJCOSL#####SJCOSL014980581SJCOSL#1928551AWB8120025453.xml	WWSPC	\$(Masks_DIR)/A4_footer.json	\$(false)	\$(None)	\$(false)	\$(false)	\$(DPI)
14	Create ABL_MANIF_AIR_SJCLIM	WWSPC_SJCLIM#####SJCLIM006989381SJCLIM##851260AWB8110020167.pdf	WWSPC_SJCLIM#####SJCLIM006989381SJCLIM##851260AWB8110020167.xml	WWSPC	\$(Masks_DIR)/A4_footer.json	\$(false)	\$(None)	\$(false)	\$(false)	\$(DPI)
15	Create ABL_MANIF_AIR_SJCWAW	WWSPC_SJCWAW#####SJCWAW002265951SJCWAW##257606AWB8110017252.pdf	WWSPC_SJCWAW#####SJCWAW002265951SJCWAW##257606AWB8110017252.xml	WWSPC	\$(Masks_DIR)/A4_footer.json	\$(false)	\$(None)	\$(false)	\$(false)	\$(DPI)
16	Create ABL_MANIF_AIR_SJCOPO	WWSPC_SJCOPO#####SJCOPO008132141SJCOPO#1071095AWB8150000701.pdf	WWSPC_SJCOPO#####SJCOPO008132141SJCOPO#1071095AWB8150000701.xml	WWSPC	\$(Masks_DIR)/A4_footer.json	\$(false)	\$(None)	\$(false)	\$(false)	\$(DPI)
17	Create ABL_MANIF_AIR_SJCSVX	WWSPC_SJCSVX#####SJCSVX000407240SJCSVX##254211AWB8150000039.pdf	WWSPC_SJCSVX#####SJCSVX000407240SJCSVX##254211AWB8150000039.xml	WWSPC	\$(Masks_DIR)/A4_footer.json	\$(false)	\$(None)	\$(false)	\$(false)	\$(DPI)
18	Create ABL_MANIF_AIR_SJCLJU	WWSPC_SJCLJU#####SJCLJU001253681SJCLJU##133346AWB8109000070.pdf	WWSPC_SJCLJU#####SJCLJU001253681SJCLJU##133346AWB8109000070.xml	WWSPC	\$(Masks_DIR)/A4_footer.json	\$(false)	\$(None)	\$(false)	\$(false)	\$(DPI)

..running large amounts of tests in containers...

```
1 Running with gitlab-runner 13.8.0 (775dd39d)
2   on runner-spawner KB2N2Huy
3   ✓ Preparing the "docker+machine" executor 00:48
4   Using Docker executor with image docker.signintra.com/ta3s/odm/output-tests/robotframework-outputtest:master ...
5   Authenticating with credentials from job payload (GitLab Registry)
6   Pulling docker image docker.signintra.com/ta3s/odm/output-tests/robotframework-outputtest:master ...
7   Using docker image sha256:2ff76463371f38dc694c7674d02d92acb42c2ff247db74ebcfbab508a808f934 for docker.signintra.com/ta3s/odm/output-tests/robotframework-outputtest:master with digest docker.signintra.com/ta3s/odm/output-tests/robotframework-outputtest@sha256:1e8da0228710c7c9496f7e1292baa5848f31c8d0b98fd2bfecb40d88b1f9fc3b ...
9   ✓ Preparing environment 00:07
10  Running on runner-kb2n2huy-project-5075-concurrent-0 via runner-kb2n2huy-gitlab-runner-machine-1611583184-72fad5be...
12  ✓ Getting source from Git repository 00:20
13  Fetching changes with git depth set to 1...
14  Initialized empty Git repository in /builds/ta3s/odm/output-tests/.git/
15  Created fresh repository.
16  Checking out d0a2d906 as master...
17  Skipping Git submodules setup
19  ✓ Executing "step_script" stage of the job script
20  $ export PYTHONPATH="$PYTHONPATH:."
21  $ set -a
22  $ . $PWD/resources/configuration/${ENVIRONMENT}.env
23  $ set +a
24  $ envsubst < $PWD/resources/OMSsender/conf/PROCARS.properties.subst > $PWD/resources/OMSsender/conf/PROCARS.properties
25  $ envsubst < $PWD/resources/OMSsender/conf/TANGO.properties.subst > $PWD/resources/OMSsender/conf/TANGO.properties
26  $ envsubst < $PWD/resources/OMSsender/conf/STAR.properties.subst > $PWD/resources/OMSsender/conf/STAR.properties
```



Pipeline

Needs

Jobs8

Failed Jobs4

Tests1901

Summary

1901 tests

35 failures

0 errors

98.16% success rate

27654.37s

Jobs

Job	Duration	Failed	Errors	Skipped	Passed	Total
TANGO_tests_INT	19181.65s	20	0	0	1268	1288
PROCARS_tests_INT	7847.60s	2	0	0	564	566
Regression_Tests	387.13s	0	0	0	22	22
ODM_Template_Tests	49.56s	3	0	0	0	3
Demo_Document_Tests	188.41s	10	0	0	12	22

...using custom tools to support evaluation of results...

Output Test Result Evaluator

File

Test Results

	Test Suite	Test Case	Error Message	Accept
72	TANGO DataDriver 02	Create WWTAN_SBL_PICKPRE_SINGLESTOP_en...	The compared images are different.	☐
73	TANGO DataDriver 02	Create WWTAN_SBL_SDO_en-CA_CATORBR0001	The compared images are different.	☐
74	TANGO DataDriver 02	Create WWTAN_SMN_SUB2_en-DE_AEDXBRR0004	"No matching Document was fou...	☐
75	TANGO DataDriver 02	Create WWTAN_SVO_IN_CASH_en-NZ_NZAKLBR0001	Reference File and Candidate File ...	☐
76	TANGO DataDriver 02	Create WWTAN_SVO_IN_PROFORMA_it-IT_JCTABR0001	DelegateError: ...	☐
77	TANGO DataDriver 02	Create WWTAN_SVO_IN_en-AU_AUBNEBR0001	Reference File and Candidate File ...	☐
78	TANGO DataDriver 02	Create WWTAN_SVO_IN_en-CA_ATLNZBR0001	The compared images are different.	☐
79	TANGO DataDriver 02	Create WWTAN_SVO_IN_en-NZ_NZAKLBR0001	Reference File and Candidate File ...	☐
80	TANGO DataDriver 02	Create WWTAN_SVO_IN_en-RS_RSBEGBR0002	The compared images are different.	☐
81	TANGO DataDriver 02	Create WWTAN_SVO_IN_fr-CA_CATORBR0001	The compared images are different.	☐
82	TANGO DataDriver 02	Create WWTAN_SVO_IN_sr-RS_RSBEGBR0002	The compared images are different.	☐
83	TANGO DataDriver 02	Create WWTAN_SVO_PAY_en-CL_CLSCLBRA0001	The compared images are different.	☐
84	TANGO DataDriver 02	Create WWTAN_SVO_PAY_en-CN_CNBJSBRR0003	The compared images are different.	☐
85	TANGO DataDriver 02	Create WWTAN_SVO_PAY_en-DE_DESTRBR0001	The compared images are different.	☐
86	TANGO DataDriver 02	Create WWTAN_SVO_PAY_en-IN_INDELBR0001	The compared images are different.	☐
87	TANGO DataDriver 02	Create WWTAN_SVO_PAY_es-CL_CLSCLBRA0001	The compared images are different.	☐
88	TANGO DataDriver 02	Create WWTAN_SVO_PPYREQ_en-CA_CATORBR0001	The compared images are different.	☐
89	TANGO DataDriver 02	Create WWTAN_SVO_ST_en-AU_AUSYDBR0001	Reference File and Candidate File ...	☐
90	TANGO DataDriver 02	Create WWTAN_SVO_ST_en-CA_CATORBR0001	The compared images are different.	☐
91	TANGO DataDriver 02	Create WWTAN_SVO_ST_en-RS_RSBEGBR0002	The compared images are different.	☐

Reference Data Folder

C:\Users\MKASIRIH\Downloads\TANGO_tests_INT-master (10)\reports\reference_data

Bug Data Folder

C:\Users\MKASIRIH\Downloads\TANGO_tests_INT-master (10)\reports\bug_data

Schenker d.o.o.
Doljeva 1b
11070 Beograd
Serbia

Phone No.: +381 11 4241 070
Fax No.: +381 22 32 12 190
E-mail: of@schenker.rs
Web: www.schenker.rs

Invoice Date: 22-Oct-2020
Invoice No.: 0500001863
Acco. # No.: 27911
Please reference these numbers on all inquiries!

Payment due by: 05-Oct-2020
Contact Person: Verica Guter
E-mail: Verica.Guter@schenker.rs
Phone No./Mobile: +381 66 86 7652454

U.L. ing d.o.o.
Bulevar Oslobođenja 14
11070 Beograd
Serbia

VAT No.: 1120001863

Invoice: 0500001863

From: Schenker d.o.o. (B2B) / Client: U.L. ing d.o.o. (B2B) / Invoice: 0500001863

Invoice Date: 22-Oct-2020
Invoice No.: 0500001863
Acco. # No.: 27911
Please reference these numbers on all inquiries!

Payment due by: 05-Oct-2020
Contact Person: Verica Guter
E-mail: Verica.Guter@schenker.rs
Phone No./Mobile: +381 66 86 7652454

U.L. ing d.o.o.
Bulevar Oslobođenja 14
11070 Beograd
Serbia

VAT No.: 1120001863

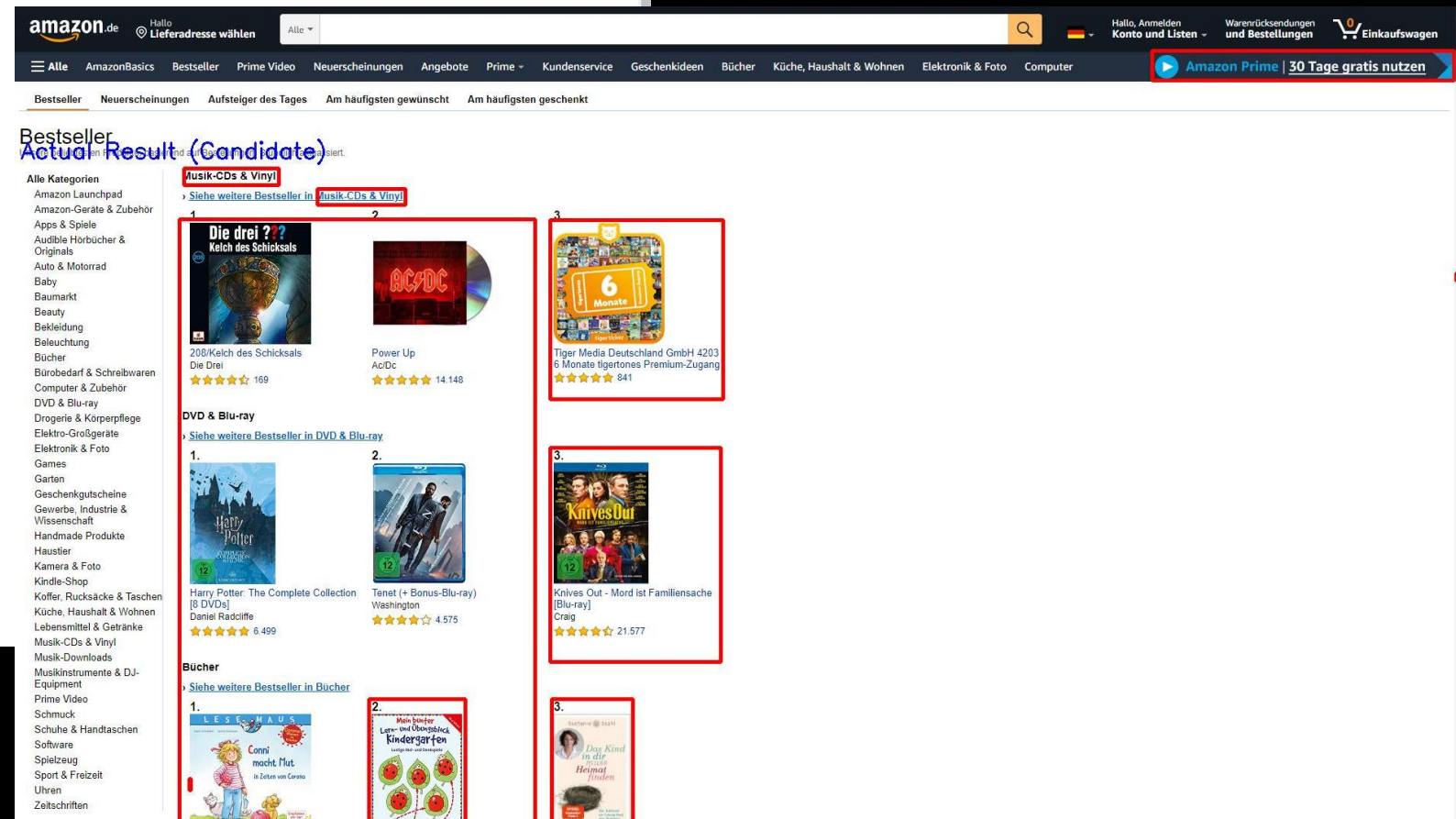
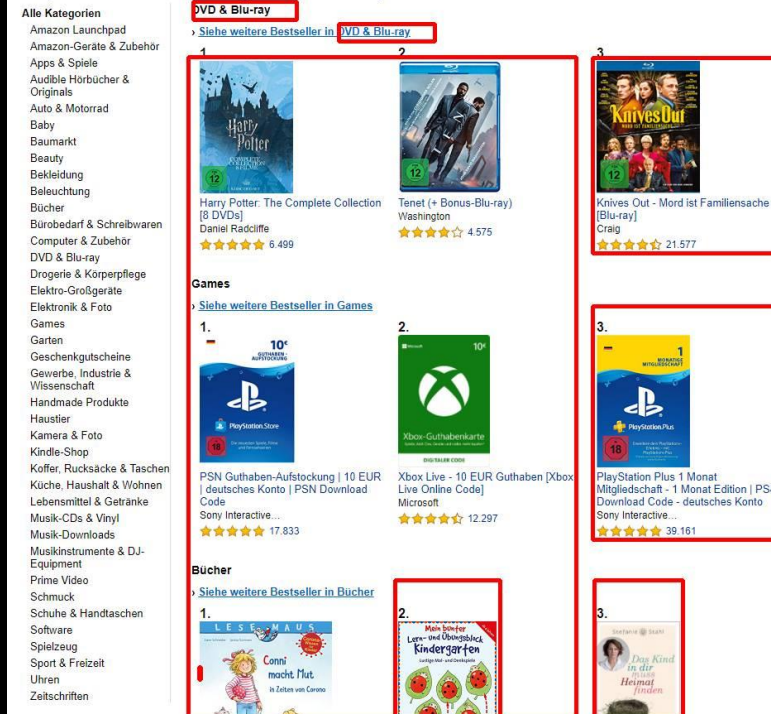
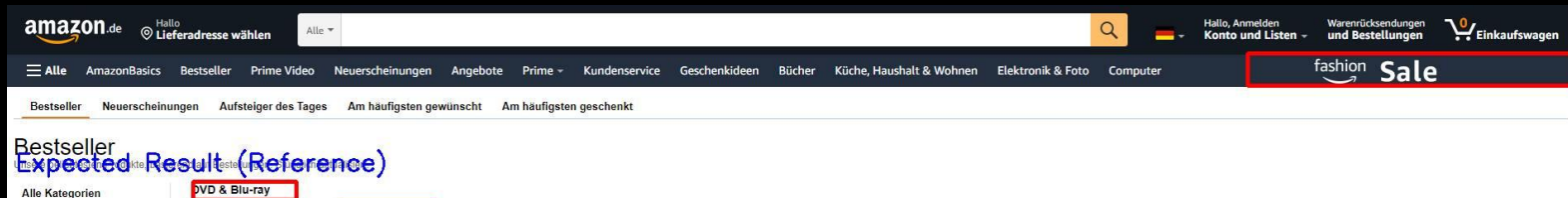
Invoice: 0500001863

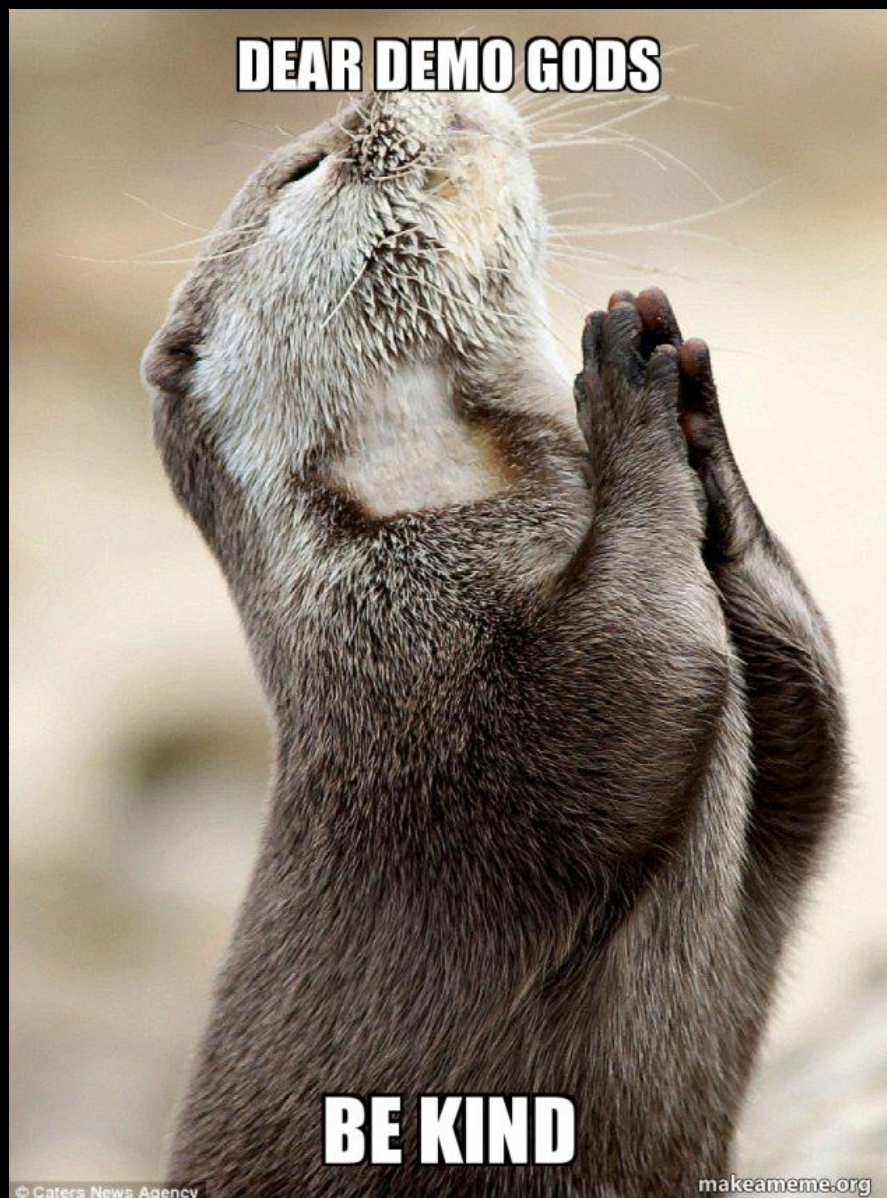
From: Schenker d.o.o. (B2B) / Client: U.L. ing d.o.o. (B2B) / Invoice: 0500001863

Invoice Date: 22-Oct-2020
Invoice No.: 0500001863
Acco. # No.: 27911
Please reference these numbers on all inquiries!

Payment due by: 05-Oct-2020
Contact Person: Verica Guter
E-mail: Verica.Guter@schenker.rs
Phone No./Mobile: +381 66 86 7652454

...learning that Amazon will show different bestseller categories when you open the same link





DEMO TIME

☰ Beach.robot ✕

atest > Sample > ☰ Beach.robot > ...

Run Suite | Debug Suite

1 *** Settings ***

2 Library DocTest.VisualTest

3

4 *** Test Cases ***

Run | Debug

5 Compare two Beach Images

6 | Compare Images testdata/Beach_left.jpg testdata/Beach_right.jpg

Test Execution Log

SUITE

Beach

Full Name: Beach

Source: c:\RoboCon-DocTest\atest\Sample\Beach.robot

Start / End / Elapsed: 20210623 21:55:53.379 / 20210623 21:55:56.510 / 00:00:03.131

Status: 1 test total, 0 passed, 1 failed, 0 skipped

TEST

Compare two Beach Images

Full Name: Beach.Compare two Beach Images

Start / End / Elapsed: 20210623 21:55:56.356 / 20210623 21:55:56.510 / 00:00:00.154

Status: FAIL

Message: The compared images are different.

KEYWORD

DocTestVisualTest.Compare Images testdata/Beach_left.jpg, testdata/Beach_right.jpg

Documentation: Compares the documents/images 'reference_image' and 'test_image'.

Start / End / Elapsed: 20210623 21:55:56.357 / 20210623 21:55:56.510 / 00:00:00.153

21:55:56.496 INFO Compare Image Object created in 0.0180 seconds

21:55:56.496 INFO Compare Image Object created in 0.0176 seconds

Expected Result (Reference)

Actual Result (Candidate)

01 Images Log

REPORT

Generated
20210624 11:58:40 UTC+02:00
6 seconds ago

Test Statistics

Total Statistics	Total	Pass	Fail	Skip	Elapsed	Pass / Fail / Skip
All Tests	1	0	1	0	00:00:00	
Statistics by Tag	Total	Pass	Fail	Skip	Elapsed	Pass / Fail / Skip
No Tags						
Statistics by Suite	Total	Pass	Fail	Skip	Elapsed	Pass / Fail / Skip
01 Images	1	0	1	0	00:00:01	

Test Execution Log

SUITE

01 Images

00:00:01.245

Full Name:

01 Images

Source:

c:\RoboCon-DocTest\atest\Visual\01_Images.robot

Start / End / Elapsed:

20210624 11:58:39.016 / 20210624 11:58:40.261 / 00:00:01.245

Status:

1 test total, 0 passed, 1 failed, 0 skipped

TEST

Compare two Beach images

00:00:00.166

Full Name:

01 Images.Compare two Beach images

Start / End / Elapsed:

20210624 11:58:40.094 / 20210624 11:58:40.260 / 00:00:00.166

Status:

FAIL

Message:

The compared images are different.

KEYWORD

DocTest:VisualTest.Compare Images testdata/Beach_left.jpg, testdata/Beach_right.jpg

Documentation:

Compares the documents/images 'reference_image' and 'test_image'.

Start / End / Elapsed:

20210624 11:58:40.094 / 20210624 11:58:40.260 / 00:00:00.166

11:58:40.259

INFO

Compare Image Object created in 0.0055 seconds

11:58:40.259

INFO

Compare Image Object created in 0.0052 seconds

11:58:40.259

INFO



11:58:40.259

INFO



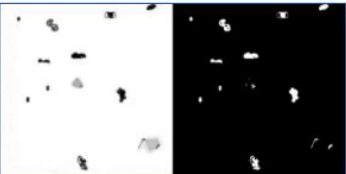
11:58:40.259

INFO



11:58:40.259

INFO



Robot Framework

Where to start...?

- Generic Open Source Automation Framework
 - Test Automation
 - Robotic Process Automation
- Developed by Nokia Networks in 2008
- Actively developed by Robot Framework Foundation
 - Schenker AG is also a member
- Open and extensible
 - Extensions can be developed in Python
- Easy to integrate with other tools
- Easy syntax with human-readable keywords
- Rich ecosystem, consisting of other libraries and tools
- Independent of Operation System and applications
- Very well documented
- Supporting community
 - Discussion Boards, Slack Channel, Stackoverflow, ..



robotframework.org

*** Test Cases ***

Valid Login

Open Browser To Login Page

Input Username demo

Input Password mode

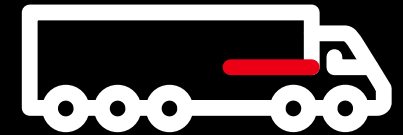
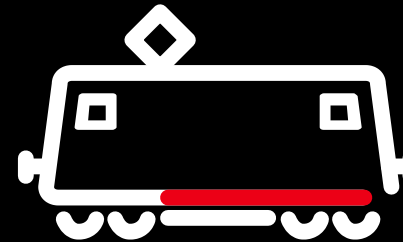
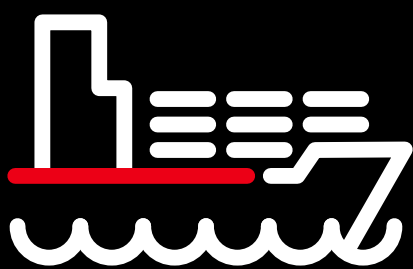
Submit Credentials

Welcome Page Should Be Open

[Teardown] Close Browser

Freight Forwarding, Documents and Testing..

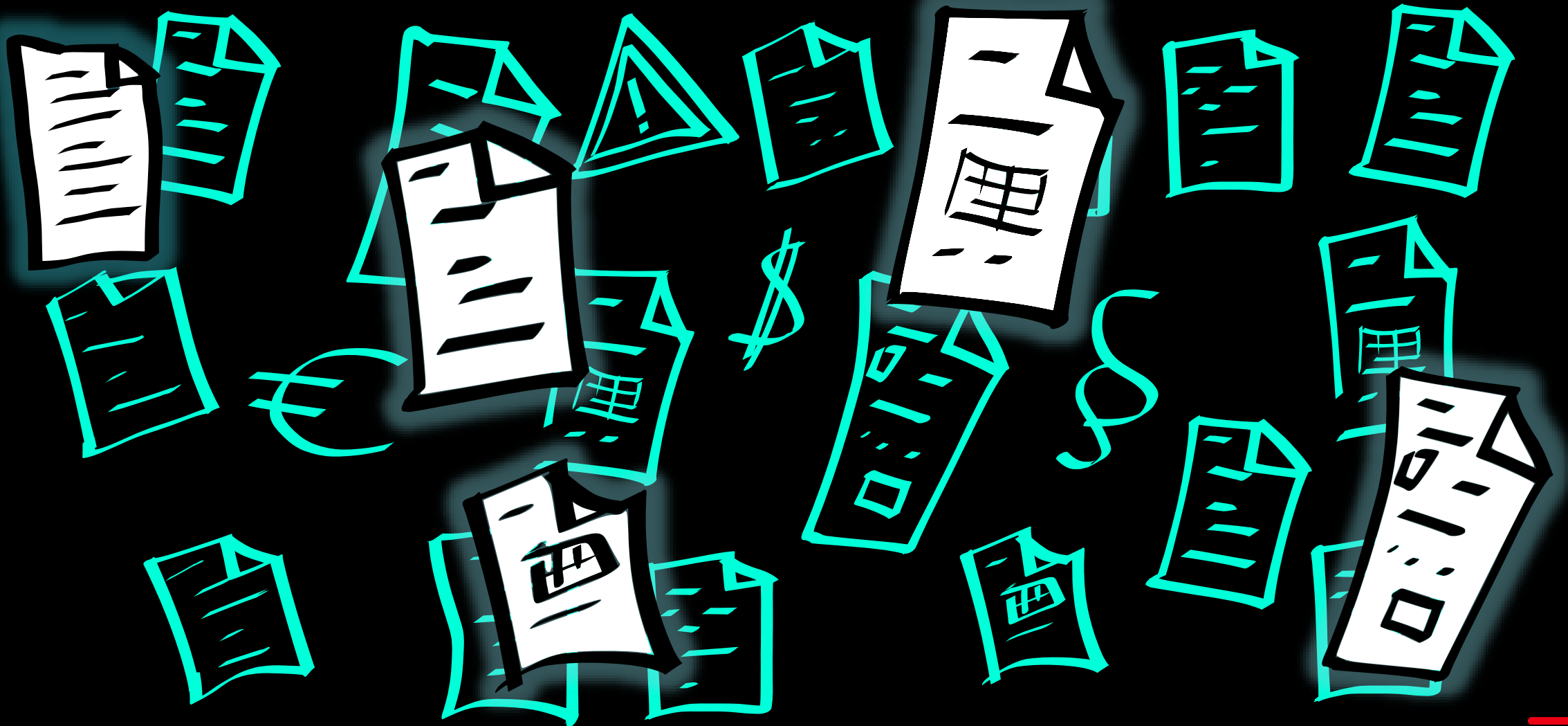
What people think freight forwarding is about



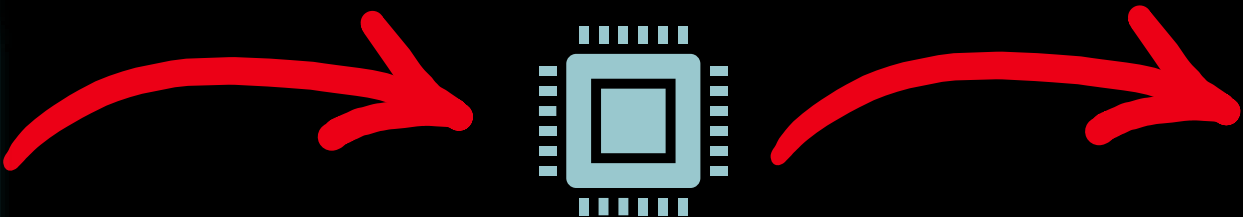
What people think freight forwarding is about



But it is also about documents



Output creation is simple, right?



Output
Management
System

JobID FB1DE50A3D5FE2A60B0B1AE616C653

SCHENKEROcean ORIGINAL
Ocean or Combined Transport Bill of Lading

THE "TUST" SHIPPER POSTBUS 123 1234 AH GELDROP NETHERLANDS		RTEID123456789 8.5880577 52890011723387 / RTEID123456789	
(2) Consignee TEST CONSIGNEE 2ND ROW CONSIGNEE STR. 123 12345 DUSSELDORF GERMANY		(4) SCHENKER LOGISTICS NEDERLAND B.V. SCHEEPSBOUWEG 65 3089 JW ROTTERDAM NETHERLANDS	
(3) Party Party SAME AS CONSIGNEE		(5) The Delivery of Goods Made By: THE IMPORTING COMPANY 2ND ROW THE IMPORTER STREET P.O. BOX 6702, 12345 DUSSELDORF GERMANY TEL: 1111111 / FAX: 2222222	
(6) Vessel/Voyage (see clause 16.2 of the Bill of Lading terms) MSC TESTER / IP037A		(11) Place of Receipt (Applicable when the goods are received as Combined Transport Bill) GELDROP (DOOR)	
(9) Port of Loading ROTTERDAM		(12) Port of Discharge DUSSELDORF	
(13) Place of Receipt (Applicable when the goods are received as Combined Transport Bill) GELDROP (DOOR)		(14) Place of Delivery (Applicable when the goods are delivered as Combined Transport Bill) DUSSELDORF (DOOR)	
BELOW PARTICULARS FURNISHED BY SHIPPER. CARRIER NOT RESPONSIBLE FOR MERCHANDISE'S USE ONLY AND NOT PART OF THE BILL OF LADING CONTRACT			
(15) Kind of Goods (Description of goods, marks and numbers, Container No, Seal No) TEST CONSIGNEE 2 PALLETS SLAC 2		(16) Gross Weight 500,000 KGS	
(17) Measurement 2ND ROW CONSIGNEE STR. 12345 DUSSELDORF GERMANY LOADED INTO CONTAINER: ABCD7800572 (SEAL) SEAL123456789		(18) Measurement CARBOBARKERES STEEL 30-35 PAKES FOUR CRAMPTON BOKETS REC 1 84799070 CIF DUSSELDORF BY SEA	
TOTALS:		2 500,000 KGS 0.500 CBM	

FREIGHT PREPAID
Amount paid in advance by Shipper, for the use of the carrier's services, as represented by the Carrier (see clause 8).

(14) Carrier's Receipt (see clause 1 and 8)
This receipt is not a receipt for the goods, but a receipt for the carrier's services only.

(15) Freight and Charges (16) Freight (17) Other

(18) Unladen Cargo Value (see clause 7.3a)
NO VALUE DECLARED

(19) Place and Date of Issue
ROTTERDAM 17-SEP-2020

(20) Signed and sealed on behalf of the carrier for the carrier's use only
SCHENKER LOGISTICS NEDERLAND B.V.

ORIGINAL

But there are some things to consider...



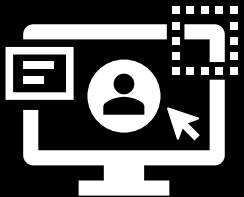
- Lots of different documents



- Country specific rules per document



- Different output channels/formats



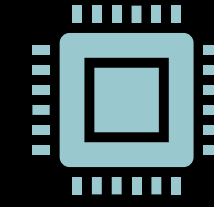
- Different applications sending data

Output Testing is basically about comparing documents..

Reference
Output



Candidate
Output



OM
System

Test Report



...finding differences and making them visible...

Expected Result (Reference)	Actual Result (Technology)
SCHENKEROcean Ocean or Combined Transport Bill of Lading (1) Shipper/Exporter THE TEST SHIPPER POSTBUS 123 1234 AH GELDROF NETHERLANDS (4) B/L No. RTMOE123456789 (3) Reference No.: 52890011723387 / RTMOE123456789 (2) Consignee TEST CONSIGNEE 2ND ROW CONSIGNEE STR. 123 12345 DÜSSELDORF GERMANY (6) Consignee SCHENKER LOGISTICS NEDERLAND B.V. SCHEEPSBOUWEG 65 3089 JW ROTTERDAM NETHERLANDS (7) Notify Party SAME AS CONSIGNEE (8) Vessel/Voyage (see clause 16.1 of the Bill of Lading) MSC TESTER / IF037A (9) Port of Loading ROTTERDAM BELOW PARTICULARS FURNISHED BY SHIPPER (13) Kind of packages, description of goods, marks and numbers TEST CONSIGNEE 2 2ND ROW CONSIGNEE STR. 123 12345 DÜSSELDORF GERMANY LOADED INTO CONTAINER: ABCD7800572 SEAL: SEAL123456789 STEEL SPARE PARTS FOR CYCLISTIC ROBOTS HSC 1 84799070 CIF DÜSSELDORF BY SEA TOTALS 500.000 KGS 0.500 CBM FREIGHT PREPAID Above particulars as declared by Shipper, but without responsibility of or representation by the Carrier (see clause 8). (16) Carrier's Receipt (see clauses 1 and 8) Total number of containers or packages: 2 (17) Freight and Charges (18) Prepaid (19) Collect (20) Declared Cargo Value (see clause 7.3) NO VALUE DECLARED (21) Number of Original Bills of Lading 3/THREE (22) Place and Date of Issue of B/L: (23) Signed and issued as agents for SCHENKEROcean as Carrier by: SCHENKER LOGISTICS NEDERLAND B.V.	SCHENKEROcean Ocean or Combined Transport Bill of Lading (1) Shipper/Exporter THE TEST SHIPPER POSTBUS 123 1234 AH GELDROF NETHERLANDS (4) B/L No. RTMOE123456789 (3) Reference No.: 52890011723387 / RTMOE123456789 (2) Consignee (6) Consignee SCHENKER LOGISTICS NEDERLAND B.V. SCHEEPSBOUWEG 65 3089 JW ROTTERDAM NETHERLANDS (7) Notify Party SAME AS CONSIGNEE (8) Vessel/Voyage (see clause 16.1 of the Bill of Lading) MSC TESTER / IF037A (9) Port of Loading ROTTERDAM BELOW PARTICULARS FURNISHED BY SHIPPER (13) Kind of packages, description of goods, marks and numbers TEST CONSIGNEE 2 PALL 2ND ROW CONSIGNEE STR. 123 12345 DÜSSELDORF GERMANY LOADED INTO CONTAINER: ABCD7800572 SEAL: SEAL123456789 STEEL SPARE PARTS FOR CYCLISTIC ROBOTS HSC 1 84799070 CIF DÜSSELDORF BY SEA TOTALS FREIGHT PREPAID Above particulars as declared by Shipper, but without responsibility of or representation by the Carrier (see clause 8). (16) Carrier's Receipt (see clauses 1 and 8) Total number of containers or packages: 2 (17) Freight and Charges (18) Prepaid (19) Collect (20) Declared Cargo Value (see clause 7.3) NO VALUE DECLARED (21) Number of Original Bills of Lading 3/THREE (22) Place and Date of Issue of B/L: (23) Signed and issued as agents for SCHENKEROcean as Carrier by: SCHENKER LOGISTICS NEDERLAND B.V.

...ignoring dynamic parts from comparison...

The diagram illustrates a process of ignoring dynamic parts from comparison. It shows a magnifying glass focusing on a date field in a document, with an arrow pointing to a JSON pattern definition.

Document Content:

2019-02-20 13:36

Date: 04-Dec-2018

Schenker
380 Littelfield Ave
San Francisco, CA 94104
United States of America
Phone No.: +1 650 745 3800
Fax No.: +1 650 745 2237
E-mail: usa@db-schenker.com
VAT-Id: 13-5619239

Payment Receipt No: PRN000000008367

Received from: Quant Logistics
3130 Bluff Rd
Columbia, SC 29204
United States

By email from: [redacted] UTC, To: [redacted]

DB SCHENKER

WITH ANY APPLICABLE TARIFFS.

JSON Pattern Definition:

```
{
  "page": 1,
  "name": "Date",
  "type": "pattern",
  "pattern": ".*[0-9]{4}-[0-9]{2}-[0-9]{2}.*"
},
```

...with different mask types...

- Area Masks

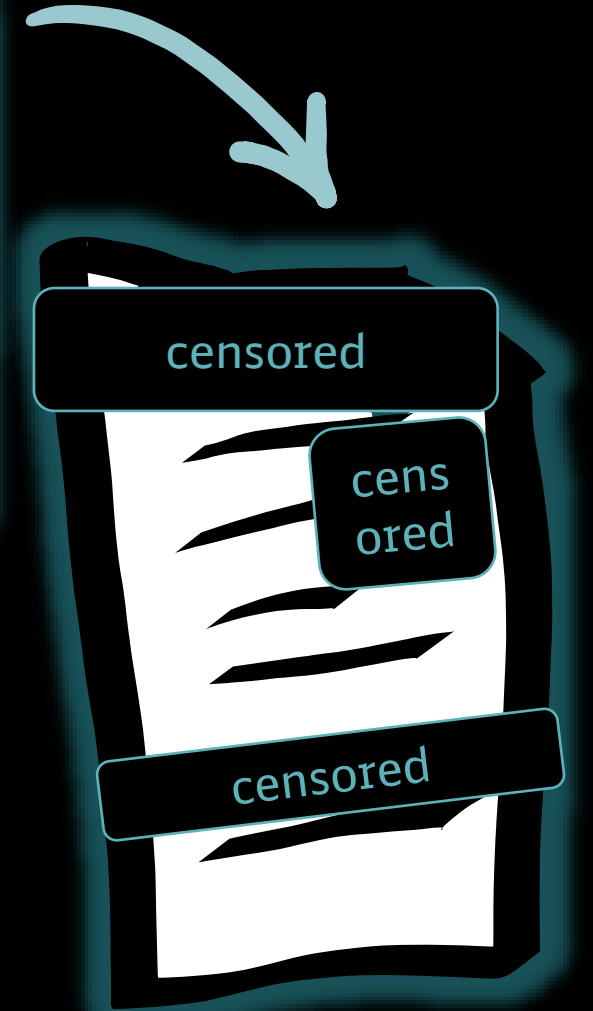
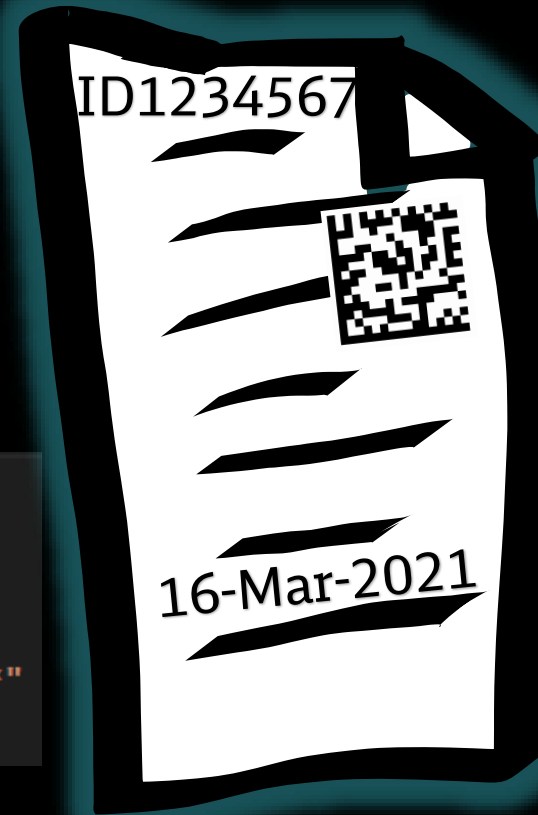
```
{  
  "page": "all",  
  "type": "area",  
  "location": "top",  
  "percent": 10  
},
```

- Text Pattern Masks

```
{  
  "page": 1,  
  "name": "Date",  
  "type": "pattern",  
  "pattern": ".*[0-9]{4}-[0-9]{2}-[0-9]{2}.*"
```

- Coordinate Masks

```
{  
  "page": 1,  
  "name": "Header",  
  "type": "coordinates",  
  "x": 0,  
  "y": 0,  
  "height": 10,  
  "width": 210,  
  "unit": "mm"  
}
```



..sometimes accepting small visual differences..

SCHENKERocean

ORIGINAL

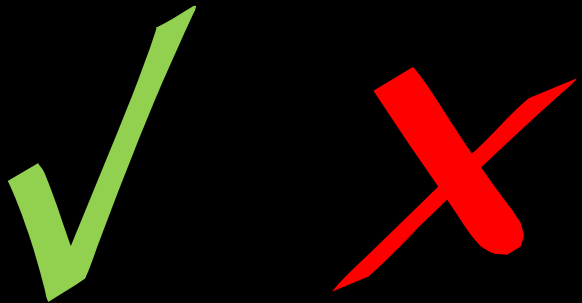
Ocean or Combined Transport Bill of Lading

(1) Shipper/Exporter THE TEST SHIPPER POSTBUS 123 1234 AH GELDROP NETHERLANDS		(4) B/L No. RTMOE123456789
(2) Consignee TEST CONSIGNEE 2ND ROW CONSIGNEE STR. 123 12345 DUSSELDORF GERMANY		(6) Reference No. 52890011723387 / RTMOE123456789
(3) Notify Party SAME AS CONSIGNEE		(7) For Delivery of Goods apply to: THE IMPORTING COMPANY 2ND ROW THE IMPORTER STREET P.O. BOX 6702, 12345 DUSSELDORF GERMANY TEL: 1111111 FAX: 2222222
(8) Vessel/Voyage (see clause 16.1 of the Bill of Lading terms) MSC TESTER / IP037A		(11) Place of Receipt (Applicable only when document used as Combined Transport B/L) GELDROP (DOOR)
(9) Port of Loading ROTTERDAM	(10) Port of Discharge DUSSELDORF	(12) Final Destination (Applicable only when document used as Combined Transport B/L) DUSSELDORF (CFS)
BELOW PARTICULARS FURNISHED BY SHIPPER - CARRIER NOT RESPONSIBLE - FOR MERCHANT'S USE ONLY AND NOT PART OF THE BILL OF LADING CONTRACT		
(13) Kind of packages; description of goods; marks and Numbers; Container No./Seal No. TEST CONSIGNEE 2 PALLETS 2ND ROW CONSIGNEE STR. 123 12345 DUSSELDORF GERMANY LOADED INTO CONTAINER: ABCD7800572 SEAL: SEAL123456789		
(14) Gross Weight 500.000 KGS		
(15) Measurement 0.500 CBM		
TOTALS: 2 500.000 KGS 0.500 CBM		
FREIGHT PREPAID		
Above particulars as declared by Shipper, but without responsibility of or representation by the Carrier (see clause 8).		
(16) Carrier's Receipt (see clauses 1 and 8) Total number of containers or packages received by Carrier: 2		
RECEIVED by the Carrier in external apparent good order and condition unless otherwise stated the number of containers, packages or other customary freight units to be transported to such place as agreed, authorized or permitted herein and subject to all the terms and conditions appearing on the front and reverse of this Bill of Lading either written, printed or stamped or otherwise incorporated by which the Merchant agrees to be bound in accordance with this Bill of Lading. The		
(17) Freight and Charges	(18) Prepaid	(19) Collect

(2) Consignee

TEST CONSIGNEE
2ND ROW
CONSIGNEE STR. 123
12345 DUSSELDORF GERMANY

- Optional pass criteria:
- Moved Textblock by max. 10 pixels?
 - Same Text Content in changed area?



DEMO TIME

```
Run | Debug
8   Compare two Beach images with date without mask
9   Compare Images      testdata/Beach_date.png    testdata/Beach.png
10
```



```
Run | Debug
11 Compare two Beach images with date with patter mask
12 Compare Images testdata/Beach_date.png testdata/Beach.png placeholder_file=testdata/pattern_mask.json
```

TEST Compare two Beach images with date with patter mask

Full Name: 01 Images.Compare two Beach images with date with patter mask
Start / End / Elapsed: 20210623 22:00:44.736 / 20210623 22:00:48.188 / 00:00:03.452
Status: **PASS**

KEYWORD DocTest.VisualTest. Compare Images testdata/Beach_date.png, testdata/Beach.png, placeholder_file=testdata/pattern_mask.json

Documentation: Compares the documents/images 'reference_image' and 'test_image'.
Start / End / Elapsed: 20210623 22:00:44.737 / 20210623 22:00:48.188 / 00:00:03.451

22:00:48.188 **INFO** Compare Image Object created in 0.0131 seconds
Re-Render document for OCR at 300 DPI as current resolution is only 72 DPI
Re-Render document for OCR at 300 DPI as current resolution is only 72 DPI
Identified Masks: [{"page": 1, "x": 153, "y": 5, "height": 25, "width": 124}, {"page": 1, "x": 318, "y": 405, "height": 44, "width": 124}]
Compare Image Object created in 3.3782 seconds

22:00:48.188 **INFO**



```
testdata > {} pattern_mask.json > ...
1  [
2    {
3      "page": "all",
4      "name": "Date Pattern",
5      "type": "pattern",
6      "xoffset": 5,
7      "yoffset": 5,
8      "pattern": "[0-9]{2}-[a-zA-Z]{3}-[0-9]{4}"
9    },
10   {
11     "page": "all",
12     "name": "JobID Pattern",
13     "type": "pattern",
14     "xoffset": 5,
15     "yoffset": 5,
16     "pattern": ".*[0-9A-Z]{9}.*"
17   }
18 ]
19
```

Run | Debug

14 Compare two Beach images with date with area mask

15 Compare Images testdata/Beach_date.png testdata/Beach.png placeholder_file=testdata/area_mask_top_bottom.json

TEST

Compare two Beach images with date with area mask

Full Name:

01 Images.Compare two Beach images with date with area mask

Start / End / Elapsed:

20210623 22:00:48.188 / 20210623 22:00:48.269 / 00:00:00.081

Status:

PASS

KEYWORD

DocTest:VisualTest.Compare Images testdata/Beach_date.png, testdata/Beach.png, placeholder_file=testdata/area_mask_top_bottom.json

Documentation:

Compares the documents/images 'reference_image' and 'test_image'.

Start / End / Elapsed:

20210623 22:00:48.189 / 20210623 22:00:48.268 / 00:00:00.079

22:00:48.268

INFO

Compare Image Object created in 0.0083 seconds

Identified Masks:

[{'page': 'all', 'x': 0, 'y': 0, 'height': 45, 'width': 450}, {'page': 'all', 'x': 0, 'y': 405, 'height': 45, 'width': 450}]

22:00:48.268

INFO

Compare Image Object created in 0.0162 seconds



The compared images are equal

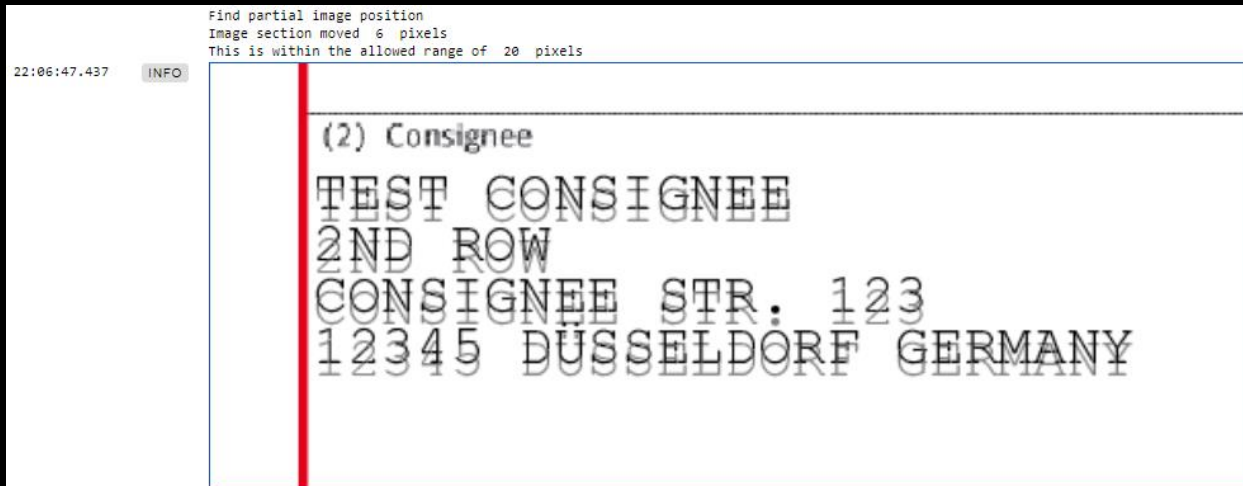
Visual Image comparison performed in 0.2583 seconds

```

testdata > {} area_mask_top_bottom.json > ...
1  [
2    {
3      "page": "all",
4      "type": "area",
5      "location": "top",
6      "percent": 10
7    },
8    {
9      "page": "all",
10     "type": "area",
11     "location": "bottom",
12     "percent": 10
13   }
14 ]

```

```
14 Compare two different PDF Files with moved text within tolerance via visual comparison
15   Compare Images    testdata/reference.pdf    testdata/candidate_movedtext.pdf    move_tolerance=20
16
17   Run | Debug
18 Compare two different PDF Files with moved text within tolerance via pdf content
19   Compare Images    testdata/reference.pdf    testdata/candidate_movedtext.pdf    move_tolerance=20    get_pdf_content=${true}
```



Find partial image position
Image section moved 6 pixels
This is within the allowed range of 20 pixels

Capabilities of Visual Output Testing Library

Visual Output Testing Library

- Different Filetypes
 - Images, PDF, PCL, Postscript
- Visual (pixel wise) comparison of outputs
- Definition of masks to ignore areas
 - Based on Coordinates, Text Patterns or Areas
- Reading and masking barcode content (not presented)
- Compare text value for changed areas
- Allow moved text blocks within a defined range
- Test Report highlighting changed areas
 - Separate view of reference/candidate output
 - Merged view of reference/candidate output

SCHENKEROcean ORIGINAL
Ocean or Combined Transport Bill of Lading

(1) Shipper THE SHIPPER POSTBUS 123 1234 AH GELDROP NETHERLANDS		(4) Reference No. 52890011723387 / RTMOE123456789	
(2) Consignee TEST CONSIGNEE 2ND ROW CONSIGNEE STR. 123 12345 DUSSELDORF GERMANY		(6) SCHENKER LOGISTICS NEDERLAND B.V. SCHEEPSBOUWEG 65 3089 JW ROTTERDAM NETHERLANDS	
(22) Notify Party SAME AS CONSIGNEE		(7) For Delivery of Goods apply to: THE IMPORTING COMPANY 2ND ROW THE IMPORTER STREET P.O. BOX 6702, 12345 DUSSELDORF GERMANY TEL: 1111111 / FAX: 2222222	
(8) Vessel/Voyage (see clause 16.1 of the Bill of Lading terms) MSC TESTER / IP037A		(11) Place of Receipt (Applicable only when document used as Combined Transport B/L) GELDROP (DOOR)	
(9) Port of Loading ROTTERDAM	(10) Port of Discharge DUSSELDORF	(12) Final Destination (Applicable only when document used as Combined Transport B/L) DUSSELDORF (CFS)	
(13) Below particulars furnished by shipper - carrier not responsible - for merchant's use only and not part of the bill of lading contract			
(13) Kind of package, description of goods, marks and numbers, Container No. and No. of TEST CONSIGNEE 2 PALLETS SLAC 2 500.000 KGS (15) Measurement 2ND ROW CONSIGNEE STR. 123 12345 DUSSELDORF GERMANY LOADED INTO CONTAINER: ABCD7800572 SEAL: SEAL123456789		CARDBOARDBOXES STEEL SPARE PARTS FOR GIGANTIC ROBOTS HSC 84799070 CIF DUSSELDORF BY SEA	
FREIGHT PREPAID			
(14) Carrier's Receipt (see clauses 1 and 8) Total number of containers or packages: 2			
(17) Freight and Charges		(18) Prepaid (19) Collect	
(20) Declared Cargo Value (see clause 7.3): NO VALUE DECLARED			
(21) Number of Original Bills of Lading: 3/THREE			
(22) Place and Date of Issue of B/L: [Redacted]			
(23) Signed and issued as agents for SCHENKEROcean as Carrier by: SCHENKER LOGISTICS NEDERLAND B.V.			

ORIGINAL

Capabilities of Printer File Comparison (Not shown in demo)

Printer file comparison

- Filetypes: PCL, Postscript
- Properties for comparison
 - PCL
 - Paper Source, Copies, Duplex, Page Orientation, Paper Format
 - Postscript
 - Comments, Pages, Features, Setup, Header, Trailer, PjL Commands
- Comparison of Reference/Candidate File
- Check properties of single file (without Reference File)

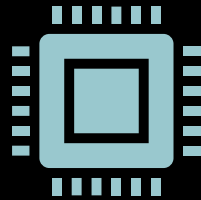
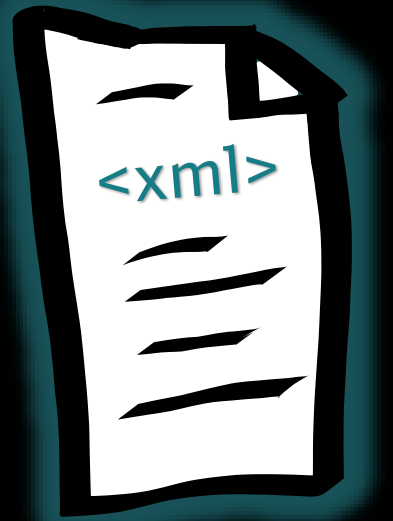
```
%S%&u300D%S%&l1S%S%&t0P%S%&l1H%S%&l0o0E%S%&l1X%S%*c14400x14400Y%S%*p0x0Y%S%*c0T%S%&0BIN;  
WU0;  
SP1;  
PU;  
SC0,3.3867,0,3.3867,2;  
TR0;  
LA1,2;  
LA2,1;  
PW0;  
PA-131,6000;  
PM0;  
PD;  
PR2480,0;  
PR0,-3508;  
PR-2480,0;  
PR0,3508;  
PU;  
PM2;
```

PCL File

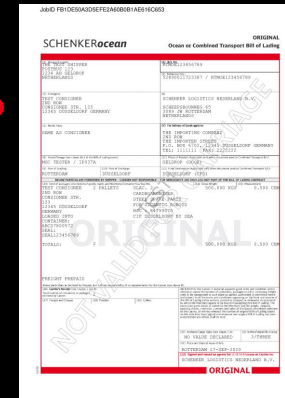
```
19 /StrsPSOct10 50 dict dup begin  
20 /bd{bind def}bind def  
21 /ld{load def}bd  
22 /TR{translate}bd  
23 /M{moveto}bd  
24 /A{0 moveto}bd  
25 /RM{rmoveto}bd  
26 /L{lineto}bd  
27 /RL{rlineto}bd  
28 /RT/rotate ld  
29 /LW{setlinewidth}bd  
30 /ST{stroke}bd  
31 /SD{1 eq {2 array astore 0 setdash}{[] 0 setdash}ifelse}bd  
32 /RCT{moveto exch dup 0 rlineto exch 0 exch rlineto neg 0 rlineto closepath}bd  
33 /XS/xshow ld  
34 /rgb/setrgbcolor ld  
35 /t/show ld
```

Postscript File

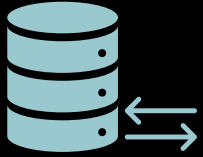
Output creation is simple, right?
But how to retrieve the outputs before testing..?



Output
Management
System



You might need different ways to retrieve outputs



Retrieve Outputs from a Database

- Execute SQL statement and store Binary Object



Retrieve Outputs from Mailbox

- Access Office 365 Mailbox via Microsoft **Graph API**



Retrieve Outputs from Filesystem

- Connect to Server **Filesystem** via SSH



Retrieve Outputs from a Webservice

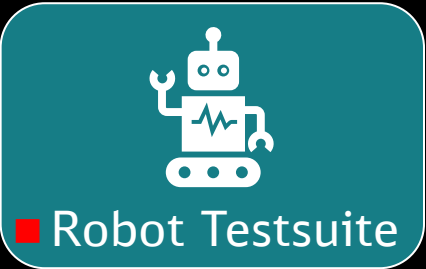
- Retrieve Output as response to a Webservice request



Retrieve Outputs from SMS

- Fake SMS by sending as eMail and retrieve from Mailbox

...having a proper test data and test suite setup..



```
1  *** Settings ***
2  Resource  ../../../../resources/Keywords.robot
3  Library   ../../../../resources/VisualTest.py    DPI=${DPI}
4  Library   OperatingSystem
5  Library   DataDriver      PROCARS.csv      optimize_pabot=Equal
6  Test Template  Compare Documents
7  Suite Setup    Extract Zip File    ${CURDIR}/${reference}/${reference.zip}    ${CURDIR}/${reference}
8
9  *** Variables ***
10 ${REFERENCE_DIR}    ${CURDIR}/${reference}
11 ${CANDIDATE_DIR}    ${CURDIR}/${candidate}
12 ${REQUEST_DIR}     ${CURDIR}/${requests}
13 ${DPI}             200
14
15 *** Test Cases ***
16 Create ${payload_file}
17
18 *** Keywords ***
19 Compare Documents
20 [Arguments]    ${reference_image}    ${payload_file}    ${om_application}    ${placeholder_file}    ${check_text_content}    ${move_tolerance}    ${contains_barcode}    ${get_pdf_content}    ${DPI}
21 [Teardown]    Run Keyword If    '${KEYWORD STATUS}'=='FAIL'    Copy Files    ${REQUEST_DIR}/${reference_image}    ${candidate_file}    ${OUTPUT DIR}/${Failed}/${TEST NAME}
22    ${candidate_file}=    Send Payload and retrieve Output from Filesystem    ${REQUEST_DIR}/${payload_file}    ${CANDIDATE_DIR}    ${om_application}
23    Compare Images    reference_image=${REFERENCE_DIR}/${reference_image}    test_image=${candidate_file}    placeholder_file=${placeholder_file}    check_text_content=${check_text_content}    move_tolerance=${move_tolerance}
```

Tests

ODM

PROCARS

reference

reference.zip

requests

PROCARS_DataDriver_POC.robot

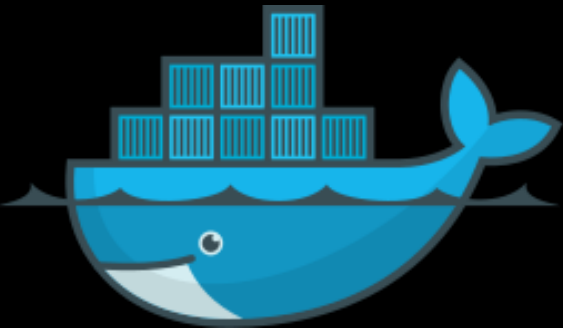
PROCARS_DataDriver.robot

PROCARS.csv

	A	B	C	D	E	F	G	H	I	J
1	*** Test Cases ***	\$(reference_image)	\$(payload_file)	\$(om_application)	\$(placeholder_file)	\$(check_text_content)	\$(move_tolerance)	\$(contains_barcode)	\$(get_pdf_content)	\$(DPI)
2	Create ABL_MANIF_AIR_SJCDXB	WWSPC_SJCDXB#####SJCDXB024114791SJCDXB#2496580AWB8110036452.pdf	WWSPC_SJCDXB#####SJCDXB024114791SJCDXB#2496580AWB8110036452.xml	WWSPC	\$(Masks_DIR)/A4_footer.json	\$(false)	\$(None)	\$(false)	\$(false)	\$(DPI)
3	Create ABL_MANIF_AIR_SJCBRU	WWSPC_SJCBRU#####SJCBRU018477131SJCBRU#1949009AWB8120088436.pdf	WWSPC_SJCBRU#####SJCBRU018477131SJCBRU#1949009AWB8120088436.xml	WWSPC	\$(Masks_DIR)/A4_footer.json	\$(false)	\$(None)	\$(false)	\$(false)	\$(DPI)
4	Create ABL_MANIF_AIR_SJCBER	WWSPC_SJCBER#####SJCBER009592151SJCBER#2194945AWB7209000205.pdf	WWSPC_SJCBER#####SJCBER009592151SJCBER#2194945AWB7209000205.xml	WWSPC	\$(Masks_DIR)/A4_footer.json	\$(false)	\$(None)	\$(false)	\$(false)	\$(DPI)
5	Create ABL_MANIF_AIR_SJCCGN	WWSPC_SJCCGN#####SJCCGN023509451SJCCGN#6136675AWB7209000442.pdf	WWSPC_SJCCGN#####SJCCGN023509451SJCCGN#6136675AWB7209000442.xml	WWSPC	\$(Masks_DIR)/A4_footer.json	\$(false)	\$(None)	\$(false)	\$(false)	\$(DPI)
6	Create ABL_MANIF_AIR_SJCFRA	WWSPC_SJCFRA#####SJCFRA051887841SJCFRA10543437AWB7209004969.pdf	WWSPC_SJCFRA#####SJCFRA051887841SJCFRA10543437AWB7209004969.xml	WWSPC	\$(Masks_DIR)/A4_footer.json	\$(false)	\$(None)	\$(false)	\$(false)	\$(DPI)
7	Create ABL_MANIF_AIR_SJGGUA	WWSPC_SJGGUA#####SJGGUA001705340SJGGUA##65433AWB8120000185.pdf	WWSPC_SJGGUA#####SJGGUA001705340SJGGUA##65433AWB8120000185.xml	WWSPC	\$(Masks_DIR)/A4_footer.json	\$(false)	\$(None)	\$(false)	\$(false)	\$(DPI)
8	Create ABL_MANIF_AIR_SJCBUD	WWSPC_SJCBUD#####SJCBUD010283881SJCBUD#1026970AWB8109000370.pdf	WWSPC_SJCBUD#####SJCBUD010283881SJCBUD#1026970AWB8109000370.xml	WWSPC	\$(Masks_DIR)/A4_footer.json	\$(false)	\$(None)	\$(false)	\$(false)	\$(DPI)
9	Create ABL_MANIF_AIR_SJCDUB	WWSPC_SJCDUB#####SJCDUB009868811SJCDUB#1048487AWB8115019718.pdf	WWSPC_SJCDUB#####SJCDUB009868811SJCDUB#1048487AWB8115019718.xml	WWSPC	\$(Masks_DIR)/A4_footer.json	\$(false)	\$(None)	\$(false)	\$(false)	\$(DPI)
10	Create ABL_MANIF_AIR_SJCLUX	WWSPC_SJCLUX#####SJCLUX003587221SJCLUX##948212AWB7809000119.pdf	WWSPC_SJCLUX#####SJCLUX003587221SJCLUX##948212AWB7809000119.xml	WWSPC	\$(Masks_DIR)/A4_footer.json	\$(false)	\$(None)	\$(false)	\$(false)	\$(DPI)
11	Create ABL_MANIF_AIR_SJCMEX	WWSPC_SJCMEX#####SJCMEX008264660SJCMEX#6064831AWB8101029934.pdf	WWSPC_SJCMEX#####SJCMEX008264660SJCMEX#6064831AWB8101029934.xml	WWSPC	\$(Masks_DIR)/A4_footer.json	\$(false)	\$(None)	\$(false)	\$(false)	\$(DPI)
12	Create ABL_MANIF_AIR_SJCAMS	WWSPC_SJCAMS#####SJCAMs062049021SJCAMs#7875735AWB8100565500.pdf	WWSPC_SJCAMS#####SJCAMs062049021SJCAMs#7875735AWB8100565500.xml	WWSPC	\$(Masks_DIR)/A4_footer.json	\$(false)	\$(None)	\$(false)	\$(false)	\$(DPI)
13	Create ABL_MANIF_AIR_SJCOSL	WWSPC_SJCOSL#####SJCOSL014980581SJCOSL#1928551AWB8120025453.pdf	WWSPC_SJCOSL#####SJCOSL014980581SJCOSL#1928551AWB8120025453.xml	WWSPC	\$(Masks_DIR)/A4_footer.json	\$(false)	\$(None)	\$(false)	\$(false)	\$(DPI)
14	Create ABL_MANIF_AIR_SJCLIM	WWSPC_SJCLIM#####SJCLIM006989381SJCLIM##851260AWB8110020167.pdf	WWSPC_SJCLIM#####SJCLIM006989381SJCLIM##851260AWB8110020167.xml	WWSPC	\$(Masks_DIR)/A4_footer.json	\$(false)	\$(None)	\$(false)	\$(false)	\$(DPI)
15	Create ABL_MANIF_AIR_SJCWAW	WWSPC_SJCWAW#####SJCWAW002265951SJCWAW##257606AWB8110017252.pdf	WWSPC_SJCWAW#####SJCWAW002265951SJCWAW##257606AWB8110017252.xml	WWSPC	\$(Masks_DIR)/A4_footer.json	\$(false)	\$(None)	\$(false)	\$(false)	\$(DPI)
16	Create ABL_MANIF_AIR_SJCOPO	WWSPC_SJCOPO#####SJCOPO008132141SJCOPO#1071095AWB8150000701.pdf	WWSPC_SJCOPO#####SJCOPO008132141SJCOPO#1071095AWB8150000701.xml	WWSPC	\$(Masks_DIR)/A4_footer.json	\$(false)	\$(None)	\$(false)	\$(false)	\$(DPI)
17	Create ABL_MANIF_AIR_SJCSVX	WWSPC_SJCSVX#####SJCSVX000407240SJCSVX##254211AWB8150000039.pdf	WWSPC_SJCSVX#####SJCSVX000407240SJCSVX##254211AWB8150000039.xml	WWSPC	\$(Masks_DIR)/A4_footer.json	\$(false)	\$(None)	\$(false)	\$(false)	\$(DPI)
18	Create ABL_MANIF_AIR_SJCLJU	WWSPC_SJCLJU#####SJCLJU001253681SJCLJU##133346AWB8109000070.pdf	WWSPC_SJCLJU#####SJCLJU001253681SJCLJU##133346AWB8109000070.xml	WWSPC	\$(Masks_DIR)/A4_footer.json	\$(false)	\$(None)	\$(false)	\$(false)	\$(DPI)

..running large amounts of tests in containers...

```
1 Running with gitlab-runner 13.8.0 (775dd39d)
2   on runner-spawner KB2N2Huy
3   ✓ Preparing the "docker+machine" executor 00:48
4   Using Docker executor with image docker.signintra.com/ta3s/odm/output-tests/robotframework-outputtest:master ...
5   Authenticating with credentials from job payload (GitLab Registry)
6   Pulling docker image docker.signintra.com/ta3s/odm/output-tests/robotframework-outputtest:master ...
7   Using docker image sha256:2ff76463371f38dc694c7674d02d92acb42c2ff247db74ebcfbab508a808f934 for docker.signintra.com/ta3s/odm/output-tests/robotframework-outputtest:master with digest docker.signintra.com/ta3s/odm/output-tests/robotframework-outputtest@sha256:1e8da0228710c7c9496f7e1292baa5848f31c8d0b98fd2bfecb40d88b1f9fc3b ...
9   ✓ Preparing environment 00:07
10  Running on runner-kb2n2huy-project-5075-concurrent-0 via runner-kb2n2huy-gitlab-runner-machine-1611583184-72fad5be...
12  ✓ Getting source from Git repository 00:20
13  Fetching changes with git depth set to 1...
14  Initialized empty Git repository in /builds/ta3s/odm/output-tests/.git/
15  Created fresh repository.
16  Checking out d0a2d906 as master...
17  Skipping Git submodules setup
19  ✓ Executing "step_script" stage of the job script
20  $ export PYTHONPATH="$PYTHONPATH:."
21  $ set -a
22  $ . $PWD/resources/configuration/${ENVIRONMENT}.env
23  $ set +a
24  $ envsubst < $PWD/resources/OMSender/conf/PROCARS.properties.subst > $PWD/resources/OMSender/conf/PROCARS.properties
25  $ envsubst < $PWD/resources/OMSender/conf/TANGO.properties.subst > $PWD/resources/OMSender/conf/TANGO.properties
26  $ envsubst < $PWD/resources/OMSender/conf/STAR.properties.subst > $PWD/resources/OMSender/conf/STAR.properties
```



Pipeline

Needs

Jobs8

Failed Jobs4

Tests1901

Summary

1901 tests

35 failures

0 errors

98.16% success rate

27654.37s

Jobs

Job	Duration	Failed	Errors	Skipped	Passed	Total
TANGO_tests_INT	19181.65s	20	0	0	1268	1288
PROCARS_tests_INT	7847.60s	2	0	0	564	566
Regression_Tests	387.13s	0	0	0	22	22
ODM_Template_Tests	49.56s	3	0	0	0	3
Demo_Document_Tests	188.41s	10	0	0	12	22

DEMO TIME

No screenshots available

..using custom tools to support evaluation of results..

Output Test Result Evaluator

File

Test Results

	Test Suite	Test Case	Error Message	Accept
72	TANGO DataDriver 02	Create WWTAN_SBL_PICKPRE_SINGLESTOP_en-...	The compared images are different.	☐
73	TANGO DataDriver 02	Create WWTAN_SBL_SDO_en-CA_CATORBR0001	The compared images are different.	☐
74	TANGO DataDriver 02	Create WWTAN_SMN_SUB2_en-DE_AEDXBRR0004	"No matching Document was fou...	☐
75	TANGO DataDriver 02	Create WWTAN_SVO_IN_CASH_en-NZ_NZAKLBR0001	Reference File and Candidate File ...	☐
76	TANGO DataDriver 02	Create WWTAN_SVO_IN_PROFORMA_it-IT_ITCTABR0001	DelegateError: ...	☐
77	TANGO DataDriver 02	Create WWTAN_SVO_IN_en-AU_AUBNEBR0001	Reference File and Candidate File ...	☐
78	TANGO DataDriver 02	Create WWTAN_SVO_IN_en-CA_ATLNZBR0001	The compared images are different.	☐
79	TANGO DataDriver 02	Create WWTAN_SVO_IN_en-NZ_NZAKLBR0001	Reference File and Candidate File ...	☐
80	TANGO DataDriver 02	Create WWTAN_SVO_IN_en-RS_RSBEGBR0002	The compared images are different.	☐
81	TANGO DataDriver 02	Create WWTAN_SVO_IN_fr-CA_CATORBR0001	The compared images are different.	☐
82	TANGO DataDriver 02	Create WWTAN_SVO_IN_sr-RS_RSBEGBR0002	The compared images are different.	☐
83	TANGO DataDriver 02	Create WWTAN_SVO_PAY_en-CL_CLSCLBRA0001	The compared images are different.	☐
84	TANGO DataDriver 02	Create WWTAN_SVO_PAY_en-CN_CNBSBR0003	The compared images are different.	☐
85	TANGO DataDriver 02	Create WWTAN_SVO_PAY_en-DE_DESTBR0001	The compared images are different.	☐
86	TANGO DataDriver 02	Create WWTAN_SVO_PAY_en-IN_INDELBR0001	The compared images are different.	☐
87	TANGO DataDriver 02	Create WWTAN_SVO_PAY_es-CL_CLSCLBRA0001	The compared images are different.	☐
88	TANGO DataDriver 02	Create WWTAN_SVO_PPYREQ_en-CA_CATORBR0001	The compared images are different.	☐
89	TANGO DataDriver 02	Create WWTAN_SVO_ST_en-AU_AUSYDBR0001	Reference File and Candidate File ...	☐
90	TANGO DataDriver 02	Create WWTAN_SVO_ST_en-CA_CATORBR0001	The compared images are different.	☐
91	TANGO DataDriver 02	Create WWTAN_SVO_ST_en-RS_RSBEGBR0002	The compared images are different.	☐

Reference Data Folder

C:\Users\MKASIRIH\Downloads\TANGO_tests_INT-master (10)\reports\reference_data

Browse

Generate

Bug Data Folder

C:\Users\MKASIRIH\Downloads\TANGO_tests_INT-master (10)\reports\bug_data

Browse

Generate

DB SCHENKER

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 E-Mail: info@schenker.rs
 Web Site: www.schenker.rs

Invoice Date: 22-Oct-2020
 Invoice No.: 0500001863
 Acc. Ref. No.: 2791
 Please reference these numbers on all inquiries!

Payment due by: 02-Oct-2020
 Payment Terms: 0/2
 Contact Person: Vencelka Stokic
 E-Mail: Vencelka.Stokic@schenker.rs
 Phone No./Ext. on: +381 11 4344 670

VAT No.: 112000000

Invoice: 0500001863

STT No.: 34500079324
 Invoice No.: 05000000079
 VAT No.: 1120000000000
 Vendor / Vozila: JEN - ANYON SR DUE, 111
 Shipper: JEN - ANYON SR DUE, 111
 Consignee: JEN - ANYON SR DUE, 111
 Consignee Reference: JEN - ANYON SR DUE, 111
 Consignee Reference: JEN - ANYON SR DUE, 111

Invoice: 0500001863

STT No.: 34500079324
 Invoice No.: 05000000079
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 Vendor / Vozila: JEN - ANYON SR DUE, 111
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Thank you!

Questions?

Many.Kasiriha@dbschenker.com

**[https://github.com/manykarim/
robotframework-doctestlibrary/](https://github.com/manykarim/robotframework-doctestlibrary/)**