

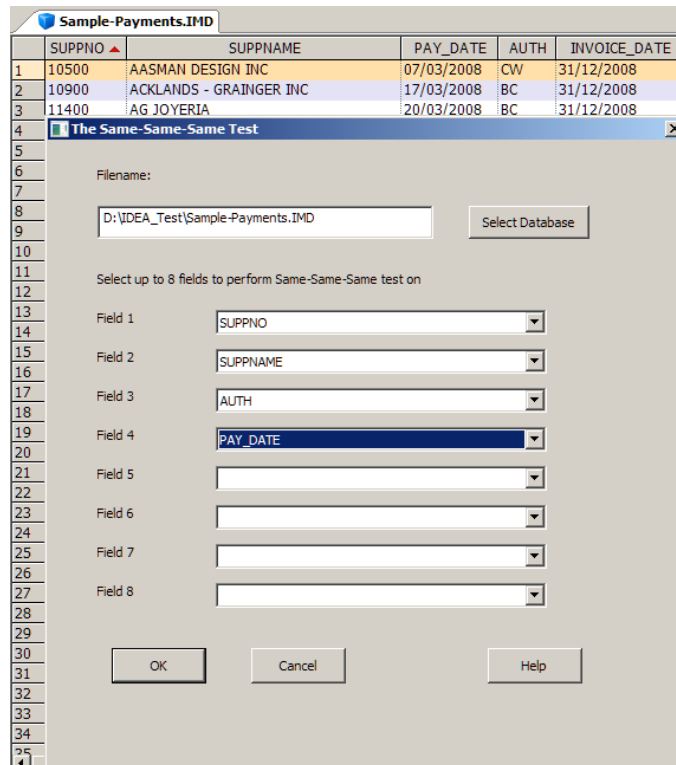
IDEAScript The Same-Same-Same Test (SSS) and The Same-Same-Different Test (SSD)

The purpose of the Same-Same-Same test (SSS) and the Same-Same-Different test (SSD) IDEAScripts are to identify abnormal duplications as potential indicators of errors or fraud.

These tests are based on chapter 12 of Mark J. Nigrini’s book, entitled, “*Forensic Analytics: Methods and Techniques for Forensic Accounting Investigations*”.¹

The Same-Same-Same Test (SSS)

This test identifies records which contain fields of information that are exact duplicates of other records. The user may select up to 8 fields to match.



¹ Nigrini, Mark J., *Forensic Analytics: Methods and Techniques for Forensic Accounting Investigations*, New Jersey: John Wiley & Sons, Inc., 2011: Print

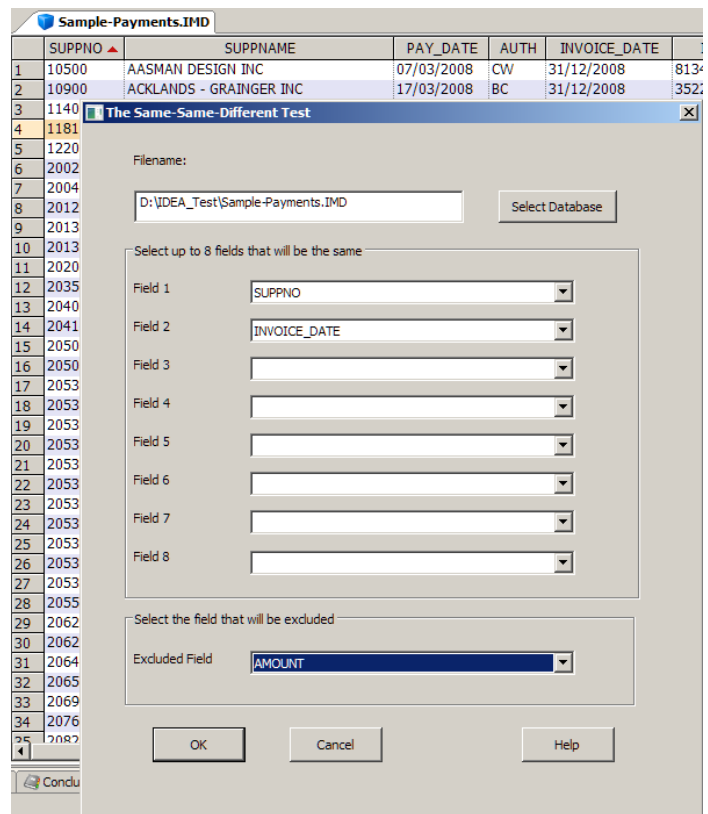
Application of this test will assist in detecting duplicate expenses claimed, occurrences of the same payment to vendors made in error, multiple warranty claims or duplicated service fees paid by private or government health plans.

SUPPNO	SUPPNAME	PAY_DATE	AUTH	INVOICE_DATE	INVOICE	AMOUNT	CHEQUE	PURCH_ORDE
1 20508	FOSSIL INC.	04/02/2008	HMV	14/01/2008	100139	37,754.37	A52645	100082100
2 20508	FOSSIL INC.	04/02/2008	HMV	08/01/2008	TJ9729	9,620.16	A52646	100082000

The Same-Same-Different Test (SSD)

This test is used to identify records with near duplicates for fields selected by the users. The user may select up to 8 fields to match and one field that is excluded from the matching.

Note that for IDEA Versions 8.5 and prior, when applying Duplicate Key Exclusion manually, incorrect output results where there are duplicate field contents for the selected exclusion field. This SSD IDEAScript produces the correct output.



In chapter 12 of Dr. Mark Nigirini’s Forensic Analytics book, he states, “The same-same-different test is a powerful test for errors and fraud. This test should be considered for every forensic analytics project.” His experience has shown that, “This

test always detects errors in accounts payable data” and “The longer the time period, the higher the chances of SSD detecting errors”.

Sample-Payments.IMD		SSDT - Sample-Payments.IMD						
	SUPPNO	SUPPNAME	INVOICE_DATE	PAY_DATE	INVOICE	AMOUNT	CHEQUE	PURCH_ORDE
1	21650	DIALOG CORPORATION	31/12/2008	19/03/2008	147873CTR	144.34	C51003	100095500
2	21650	DIALOG CORPORATION	31/12/2008	24/03/2008	147873CTR	251.58	C51010	100096200
3	40502	LOCKSMITH SERVICES LTD	31/12/2008	15/03/2008	PPN98804	1,263.89	B52226	100094900
4	40502	LOCKSMITH SERVICES LTD	31/12/2008	03/03/2008	35220DUF	5,432.93	B52179	100090200
5	40713	MACKENZIE PETROLEUM LTD.	31/12/2008	03/03/2008	7899449	-1,994.67	B52183	100090600
6	40713	MACKENZIE PETROLEUM LTD.	31/12/2008	23/03/2008	7899450	11.98	C51009	100096100
7	40713	MACKENZIE PETROLEUM LTD.	31/12/2008	03/03/2008	7899449	3,427.62	B52176	100089900
8	40713	MACKENZIE PETROLEUM LTD.	31/12/2008	03/03/2008	47/952	7,804.97	B52184	100090700
9	92211	RICARDO BAL	31/12/2008	19/03/2008	LBQ-690-XY	45.34	B52232	100095400
10	92211	RICARDO BAL	31/12/2008	09/03/2008	000509CJW	4,091.17	B52202	100092500
11	92311	ROYAL TRUST CORPORATION	31/12/2008	05/03/2008	147870CTR	1,916.80	B52186	100090900
12	92311	ROYAL TRUST CORPORATION	31/12/2008	24/03/2008	1652 IOU-97	2,072.54	C51014	100096800
13	99999	CHIMPS TEAPARTY	01/01/2008	25/02/2008	GR150 97	56,227.23	B52156	100088000
14	99999	TREVOR WILLS	01/01/2008	29/02/2008	51516	76,855.73	B52170	100089300
15	99999	A RAID	02/01/2008	20/02/2008	13597	9,264.18	B52147	100087000
16	99999	MORRIS GOLD INC	02/01/2008	18/02/2008	117- 2290	19,284.31	B52136	100082300
17	99999	TRUCKSTOP	04/01/2008	27/02/2008	2850 BNA	3,593.30	B52161	100088400
18	99999	PHILIP LUPP GARAGE	04/01/2008	22/02/2008	100150	16,700.56	B52148	100087100
19	99999	N RICH	04/01/2008	20/02/2008	51505	79,500.00	B52146	100086900
20	99999	DICK TATE	05/01/2008	20/02/2008	IN-392830	33,607.97	B52143	100085900
21	99999	L HAIR	05/01/2008	24/02/2008	10020 A	47,232.67	B52152	100087600
22	99999	FARMER	05/01/2008	20/02/2008	123461	68,262.53	B52141	100081700
23	99999	WONG WAY	07/01/2008	27/02/2008	CS - 571 -97	2,957.20	B52162	100088500
24	99999	HONOR TOZE	07/01/2008	25/02/2008	L-1236/57	42,026.88	B52155	100087800
25	99999	PENNY CILLIN	07/01/2008	27/02/2008	5750MCC	97,376.40	B52166	100088900
26	99999	LUKE HAIR	10/01/2008	20/02/2008	1351/21	1,353.14	B52142	100086400
27	99999	POLLY GUNN	10/01/2008	20/02/2008	97/1247/A	86,117.39	B52144	100082400
28	99999	WILL SCARLET	11/01/2008	27/02/2008	FR-972 42	3,649.83	B52164	100088700
29	99999	CARY S MATIC	11/01/2008	07/02/2008	5745MCC	17,304.80	A52655	100081800
30	99999	WINCHESTER	11/01/2008	27/02/2008	IN 6446 97	24,163.78	B52163	100088600
31	99999	1 MOORE	13/01/2008	13/02/2008	917328	38,309.89	A52676	100086200
32	99999	PHILLIPPA PAIL	13/01/2008	20/02/2008	82 76 1	54,881.69	B52145	100086800
33	99999	RONNIE BIGGS	14/01/2008	22/02/2008	WNNZ35C	4,178.69	B52151	100087500
34	99999	O KAY YAHS	14/01/2008	06/02/2008	871456BUZ	37,418.72	A52653	100081900

One such example which demonstrates the value of this test is in the detection of instances where a payment is made to a wrong vendor initially and then subsequently the correct vendor is properly paid (same invoice number, same amount, and different vendors).

Sample-Detailed Sales.IMD		Step 16.IMD		SSDT - Sample-Detailed Sales2.I...						
	INV_DATE	CUSTNO	PROD_CODE	SALESREP_NO	INV_NO	UNIT_PRICE	QTY	SALES_BEF_TAX	EXCLUDED_FIELD	
1	20/05/2008	21650	05	104	1000407	5.99	900	5,391.00	104	
2	20/05/2008	21650	05	125	1000168	5.99	42	251.58	125	
3	04/07/2008	60300	05	113	1000614	5.99	945	5,660.55	113	
4	04/07/2008	60300	05	118	1000576	5.99	625	3,743.75	118	
5	28/11/2008	92431	05	110	1000511	5.99	30	179.70	110	
6	28/11/2008	92431	05	112	1000812	5.99	200	1,198.00	112	

If a business system does not process orders in real time, the above example may indicate customers attempting to split their orders to avoid exceeding their credit limit (same invoice date, same customer number, same product code, and different sales representatives).