



Cargill's Best Practices for Documenting Winshuttle Scripts

Julie Mazurowski
Senior Data and Business Intelligence Analyst
Cargill, Inc

WINSHUTTLE
USER
GROUP

ANNUAL
CONFERENCE
ATLANTA 2017

Agenda

-  Introduction
-  The Challenge
-  The Solution
-  Benefits, Lessons Learned & Future Plans
-  Q&A

About Cargill



Cargill provides food, agriculture, financial and industrial products, and services

- Largest privately held company in the US (revenue)
- 150k+ employees in 70 countries
- HQ: Wayzata, MN



thrive

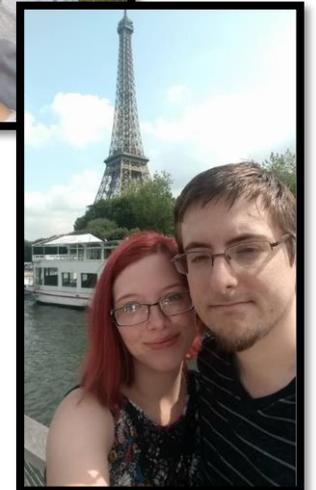
About Me



Julie Mazurowski

Senior Data and Business Intelligence Analyst | Cargill, Inc

- Hopkins, MN
- 12 years @ Cargill
- 5 years with Cargill's Transportation and Logistics department for support of their freight rate and pay systems
- 6+ years with Cargill's Master Data team
- 4+ years supporting Winshuttle
- 7 Years working in an SAP environment



SAP Landscape



Over the past several years, Cargill has been bringing its various business units onto SAP and consolidating processes.

- Cargill currently has Winshuttle deployed in 5 production ECC environments, along with TM, FSCM, GTS, APO, and Solution Manager
- 390+ Transaction users
- Developing scripts for multiple business units, corporate functions, and project teams

Challenge faced



All Winshuttle development and user support provided
by a 3-person team



Ilango Sivanthi Selvarasan



Deepak Selvaraj

The Solution



Provide information about our scripts to multiple audiences:

- End-users running the scripts
- Potential end-users
- Developers



The Details



Categories to Include in the Documentation:

1. Basic Information
2. Script Steps
3. Pre-Run Set-Up
4. Audit Tables
5. Common Errors
6. Sample Data
7. Notes for Developers

Basic Information



- Developer name, date, and reason for the script.
- Names of any contacts who advised on the script requirements.
- Version details – name, date, changes made.

1	Developed July 2017 - Julie [REDACTED]
2	TM Upgrade - TC1 - MIRO Invoice Keying
3	[REDACTED] - CTL - Freight Accountant Data Analyst
4	[REDACTED] - CTL Project Manager
5	
6	This script creates PO Reference Incoming Invoices.
7	
8	This script will read the value of the assigned vendor from SAP into the template.
9	If the assigned vendor in SAP does not match the expected vendor, the invoice will not be saved.
10	
11	Script Steps:
12	
13	Enter the Invoice date, Reference, Amount, Currency, Tax Amount, and Tax on Sales/purchase code...then hit Enter.
14	
15	
16	
17	
18	Enter Incoming Invoice: Company Code 1001
19	

Script Steps



- Step-by-step screenprints showing the script processes.
- Identify any pop-ups that have been included in the script.
- Navigation path to fields being maintained.
- Method used for filtering or otherwise isolating the required fields.
- Begin Loop and End Loop

57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
86
87
88
89
90
91
92
93
94
95
96
97
98
99

Information
Consider the subsequent documents

Read the Ship To Party to the template, then click the icon to go to the Header data...

Sales document Edit Goto Extras Environment System Help

Change Tele Sales Order 3538: Overview

Tele Sales Order 3538 Net value 13,773.35 HNL

Sold-To Party 1600003958 SUPERMERCADO LA ANTORCHA 01 / BARRIO LAS MERCEDES...

Ship-To Party 1600003958 SUPERMERCADO LA ANTORCHA 01 / BARRIO LAS MERCEDES...

PQ Number PQ date 01/26/2017

Sales Item overview Item detail Ordering party Procurement Shipping Reason for rejection

Req. deliv.date 01/27/2017 Deliver.Plant
Complete div. Total Weight 343.550 LB
Delivery block Volume 0.000
Billing block Pricing date 01/26/2017
Payment card Exp.date
Card Verif.Code
Payment terms NI 60 Incoterms FOB FREE ON BOARD
Order reason

Item	Material	Order Quantity	Un	S	Description	Customer Material Numb	ItCa	DGIP	HL	Item	D	First date	Plant	Batch
95	10100055186		15	EA	CPR JAMON PRENS 198G PQ DEL		ZIAN				D	01/27/2017	1CSF	
	20100055190		20	BOX	POL ALA RTC SABOR MEX CG 39		ZIAN				D	01/27/2017	1CSF	
	30100055193		10	SAC	POL DSHPCN GNL 30LB S/P CG		ZIAN				D	01/27/2017	1CSF	
	40100055208		15	EA	CPR SLCHA C/QUESO 445G PQ		ZIAN				D	01/27/2017	1CSF	

Sheet1 Notes Sample Data and Common Errors Notes for Developers Column D Options

Pre-Run Set-Up



- Identify any settings that should be taken care of by the runner prior to executing the script.

1 **Prior to running this script, log into SAP and go to System > User Profile > Own Data.**

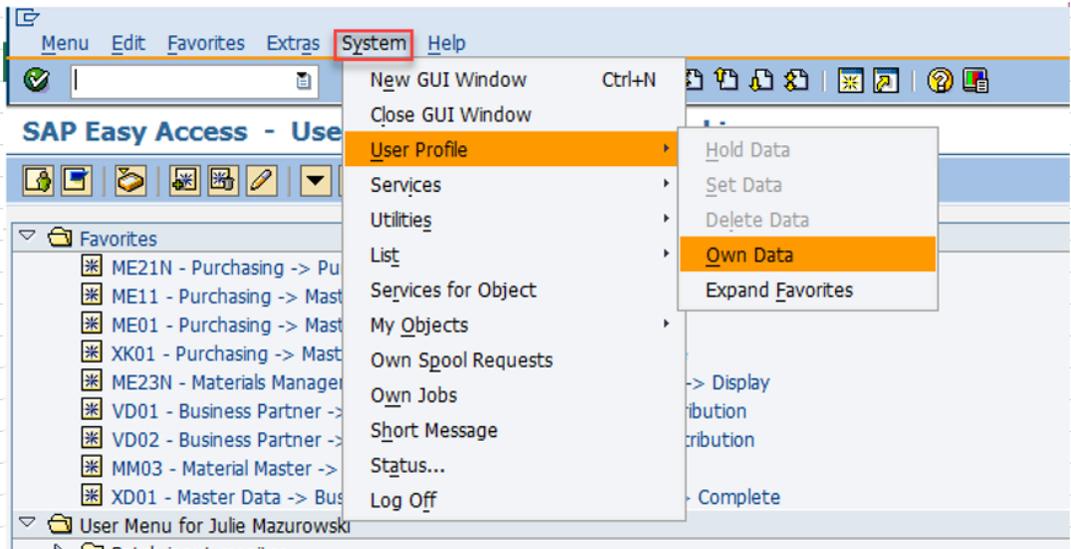
2 **1) Then go to the Parameter tab and add the BUK parameter tab. Set the parameter to any Company Code.**

3 The script will still set the Company Code for each invoice based on the value in Column B.

4 Setting the BUK parameter to a default Company Code eliminates the initial Enter Company Code pop-up that normally appears as soon as a user goes in the MIRO tcode.

5 **2) You must also have the TM_INVOICE_CLERK parameter set.**

6

7 

8

9

10

11

12

13

14

15

16

17

18

19

20

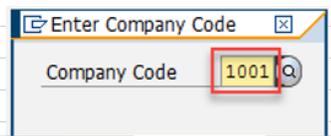
21

22

23

24

25 To avoid this pop-up at the beginning....

26 

27

28

29

30

...set the BUK parameter ID. Set the parameter value to any Company Code.

To run this script, the user must also have the TM_INVOICE_CLERK parameter set.



Sheet1 PreRun SetUp Notes Sample Data and Common Errors

READY

Audit Tables



- Especially important for master data scripts.
- May also be helpful for transactional data.

5 For pre- and post-audit, please use zse16n to query the A873 table.

6

7 Table Entry Edit Goto System Help

8

9

10 **A873: Display of Entries Found**

11

12

13 Table to be searched Sales org./Distr. Ch/Division/SalesDocTy/Sold-to pt/PH1/PH2

14 Number of hits

15 Runtime Maximum no. of hits

16

17

18

App	CnTy	SOrg.	DChl	Dv	SaTy	Sold-to party	PH1	PH2	PH3	PH4	PH5	Material	ReSt	Valid to	Valid From	PS	IncoT	CondRecNo.
V	ZXPT	1001	01	15	ZOR	1000000011	C11	203						10/31/2017	06/09/2017			0002958675
V	ZXPT	1001	01	15	ZOR	1000000054	C11	203						10/31/2017	06/09/2017			0002958676
V	ZXPT	1001	01	15	ZOR	1000000094	C11	203						10/31/2017	06/09/2017			0002958677
V	ZXPT	1001	01	15	ZOR	1000000117	C11	203						10/31/2017	06/09/2017			0002958678
V	ZXPT	1001	01	15	ZOR	1000000118	C11	203						10/31/2017	06/09/2017			0002958679
V	ZXPT	1001	01	15	ZOR	1000000122	C11	203						10/31/2017	06/09/2017			0002958680
V	ZXPT	1001	01	15	ZOR	1000000131	C11	203						10/31/2017	06/09/2017			0002958681

26

27

Common Errors

- Note the error message and it's likely cause.
- This can be very helpful if errors are identified after a script is already loaded to Central for use by the end-users.



15 **Common Error #1**

16 This error likely indicates that the value in Column D should be changed from N to Y or from N to Y.

17 **Field VBKD-BSTKD_E. does not exist in the screen SAPMV4SA 4002**

18

19 **Common Error #2**

20 This error message can indicate that the sales order is incomplete and this is most likely unrelated to anything the scripts are

21 **No batch input data for screen SAPLSPO2 0101**

22

23

24

25

26

27

28

29

30

31

32

33

34

35

36

37

38

39

40

41

42

43

44

45

46

47

48

49

50

51

52

53

54

55

56

57

58

59

60

61

62

63

64

65

66

67

The screenshot displays the SAP 'Change Standard Order 13311: Overview' screen. The 'PO Number' field is highlighted with a red box. Below the main screen, a message box says ': Enter PO number'. Another screenshot shows the 'Change Standard Order 13311: Header Data' screen with a 'Save Incomplete Document' dialog box open, asking 'Would you like to save or edit the incomplete document?' with 'Save', 'Edit', and 'Cancel' buttons.

Sample Data



- Helpful for users needing to verify fields or data format.
- This can also provide some sample records to work with should any changes be needed to the script.

	A	B	C	D	E	F	G		
1	Log Winshuttle TRANSACTION 10.7 Hotfix 2 VA03_..._SO_EXTRACT test2.TxR 7/25/2017 11:32:50 AM Mode: Winshuttle Function Module EDQ-100, jmazurow	Log Winshuttle TRANSACTION 10.7 Hotfix 2 VA02_..._SO_UPDATE test2.TxR 7/25/2017 12:11:54 PM Mode: Winshuttle Function Module EDQ-100, jmazurow	<p>Note: The Skip Field Indicator has been activated for the Update script. Enter \ in a cell in order to skip updating that field in SAP. Leave the cell blank to set the field blank in SAP. Enter a value to set the field in SAP to that value. This value could be the value that was pulled by the Extract script.</p>						
2			Sales Document VBAK-VBELN	Payment Card tab? (Y or N) - Enter Y (Yes) if the sales order has a Payment Card tab. - Enter N (No) if the sales order does not have a Payment Card tab. - The Update script will use this information to determine where to locate the Order Data tab. - For records that error out with one value (example Y), change the value (example N) and Run on Errors.	Ship-to party KUWEV-KUNNR - The Extract script will read the data from SAP and will enter it in this column. - The Update script will enter this value into SAP.	Customer purchase order number VBKD-BSTKD - The Extract script will read the data from SAP and will enter it in this column. - The Update script will enter this value into SAP.	Your Reference VBKD-IHREZ - The Extract script will read the data from SAP and will enter it in this column. - The Update script will enter the value into SAP.	Ship - The - The f F. Yo - The	
3	Consider the subsequent documents	Tele Sales Order 2209 has been saved	2209	Y	1600003173	Sold To Party PO Numberx	YOUR REF 1x		
4	Consider the subsequent documents	Tele Sales Order 2210 has been saved	2210	Y	1600004348	Sold To Party PO Number 2x	YOUR REF 2x		
5	Consider the subsequent documents	Tele Sales Order 2211 has been saved	2211	Y	1600004484	Sold To Party PO Number 3x	YOUR REF 3x		
6	Consider the subsequent documents	Tele Sales Order 2212 has been saved	2212	Y	1600003340	Sold To Party PO Number 4x	YOUR REF 4x		
7	Consider the subsequent documents	Tele Sales Order 2213 has been saved	2213	Y	1600004357	Sold To Party PO Number 5x	YOUR REF 5x		
8	Consider the subsequent documents	Tele Sales Order 2209 has been saved	2209	Y	1600003173	Sold To Party PO Numberx	YOUR REF 1x		
9	Consider the subsequent documents	Tele Sales Order 2210 has been saved	2210	Y	1600004348	Sold To Party PO Number 2x	YOUR REF 2x		
10	Consider the subsequent documents	Tele Sales Order 2211 has been saved	2211	Y	1600004484	Sold To Party PO Number 3x	YOUR REF 3x		
11	Consider the subsequent documents	Tele Sales Order 2212 has been saved	2212	Y	1600003340	Sold To Party PO Number 4x	YOUR REF 4x		
12	Consider the subsequent documents	Tele Sales Order 2213 has been saved	2213	Y	1600004357	Sold To Party PO Number 5x	YOUR REF 5x		
13									
14									
15									
16									
17									
18									
19									
20									

Notes for Developers



Note any special processing or coding needed.

For example:

- Reasons for using GUI scripting
- If an &End Session:1 was needed
- Length and reason for a delay between transactions
- ME51 “Item Overview as Grid” checkbox for ALV vs standard
- Setting a default company code before developing a MIRO script

238 **Notes for Developers:**

239

240 This script uses an EndSession command to force the toode to start fresh for each record.

241

242

243

244 UKM_BP_CRSEG_RESUB_DATE_UPDATE_FLG_DEL test1.TxR - Winshuttle TRANSACTION

245 File Edit Tools Help

246

247

248

249

250

251

252

253

Sno.	Enable	
1		+UT
2		%?FnG_ICON_SMT
3		%-fn
4		%?Fv?GX
5		+FLO
6		+FT
7		+UT
8		+FnADDR1_DATA-DEFLT_COMM
9		%-fnCommunication Method (Key) (Business Address Services)
10		%+Fv
11		+FLO
12		+FT
13		+UT
14		+FnG_PUSH_FOR_MCOM
15		%-fn
16		%?Fv?GY
17		+FLO
18		+FT
19		+UT
20		%?FnG_PUSH_FOR_SCOM
21		%-fn
22		%?Fv?GZ
23		+FLO
24		+FT
25		+UT
26		&End Session:1
27		
28		

254

255

256

257

258

259

260

261

262

263

264

265

266

267

268

269

270

271

272

273

274

275

276

277

278

279 The Launch GUI box must be checked.

280

281 UKM_BP_CRSEG_RESUB_DATE_UPDATE.TxR - Winshuttle TRANSACTION

282

283

284

285

286

287

288

289

290

291

292

293

294

295

296

297

298

299

300

301

302

303

304

305

306

307

308

309

310

311

312

313

314

315

316

317

318

319

320

321

322

323

324

325

326

327

328

329

330

331

332

333

334

335

336

337

338

339

340

341

342

343

344

345

346

347

348

349

350

351

352

353

354

355

356

357

358

359

360

361

362

363

364

365

366

367

368

369

370

371

372

373

374

375

376

377

378

379

380

381

382

383

384

385

386

387

388

389

390

391

392

393

394

395

396

397

398

399

400

401

402

403

404

405

406

407

408

409

410

411

412

413

414

415

416

417

418

419

420

421

422

423

424

425

426

427

428

429

430

431

432

433

434

435

436

437

438

439

440

441

442

443

444

445

446

447

448

449

450

451

452

453

454

455

456

457

458

459

460

461

462

463

464

465

466

467

468

469

470

471

472

473

474

475

476

477

478

479

480

481

482

483

484

485

486

487

488

489

490

491

492

493

494

495

496

497

498

499

500

501

502

503

504

505

506

507

508

509

510

511

512

513

514

515

516

517

518

519

520

521

522

523

524

525

526

527

528

529

530

531

532

533

534

535

536

537

538

539

540

541

542

543

544

545

546

547

548

549

550

551

552

553

554

555

556

557

558

559

560

561

562

563

564

565

566

567

568

569

570

571

572

573

574

575

576

577

578

579

580

581

582

583

584

585

586

587

588

589

590

591

592

593

594

595

596

597

598

599

600

601

602

603

604

605

606

607

608

609

610

611

612

613

614

615

616

617

618

619

620

621

622

623

624

625

626

627

628

629

630

631

632

633

634

635

636

637

638

639

640

641

642

643

644

645

646

647

648

649

650

651

652

653

654

655

656

657

658

659

660

661

662

663

664

665

666

667

668

669

670

671

672

673

674

675

676

677

678

679

680

681

682

683

684

685

686

687

688

689

690

691

692

693

694

695

696

697

698

699

700

701

702

703

704

705

706

707

708

709

710

711

712

713

714

715

716

717

718

719

720

721

722

723

724

725

726

727

728

729

730

731

732

733

734

735

736

737

738

739

740

741

742

743

744

745

746

747

748

749

750

751

752

753

754

755

756

757

758

759

760

761

762

763

764

765

766

767

768

769

770

771

772

773

774

775

776

777

778

779

780

781

782

783

784

785

786

787

788

789

790

791

792

793

794

795

796

797

798

799

800

801

802

803

804

805

806

807

808

809

810

811

812

813

814

815

816

817

818

819

820

821

822

823

824

825

826

827

828

829

830

831

832

833

834

835

836

837

838

839

840

841

842

843

844

845

846

847

848

849

850

851

852

853

854

855

856

857

858

859

860

861

862

863

864

865

866

867

868

869

870

871

872

873

874

875

876

877

878

879

880

881

882

883

884

885

886

887

888

889

890

891

892

893

894

895

896

897

898

899

900

901

902

903

904

905

906

907

908

909

910

911

912

913

914

915

916

917

918

919

920

921

922

923

924

925

926

927

928

929

930

931

932

933

934

935

936

937

938

939

940

941

942

943

944

945

946

947

948

949

950

951

952

953

954

955

956

957

958

959

960

961

962

963

964

965

966

967

968

969

970

971

972

973

974

975

976

977

978

979

980

981

982

983

984

985

986

987

988

989

990

991

992

993

994

995

996

997

998

999

1000

Results



During FY 2017, Cargill's Winshuttle team:

- Doubled the number of Winshuttle users from 177 to 355
- Increased the number of scripts by 36% (from 1,490 to 2,029)
- Brought on 3 additional production ECC instances
- Supported multiple BU deployments onto SAP
- Migrated from SP2007 to SP2013

...All with a 3-person support team



Best Practices



Script Documentation:

- ✓ Include the documentation in the Excel template
- ✓ Include any pertinent information
- ✓ Document at time of development
- ✓ Update the documentation if new information is needed
- ✓ Frequent communication between developers

What's next



- Circle back to our earlier scripts and add/update the documentation on our older templates.
- Bi-weekly developer meetings to review any unique aspects to the scripts that we're working on.
- Continued growth in SAP and in the number of Winshuttle users and use cases.



Thank you

Remember to complete your session evaluation!

WINSHUTTLE
USER
GROUP

ANNUAL
CONFERENCE
ATLANTA 2017