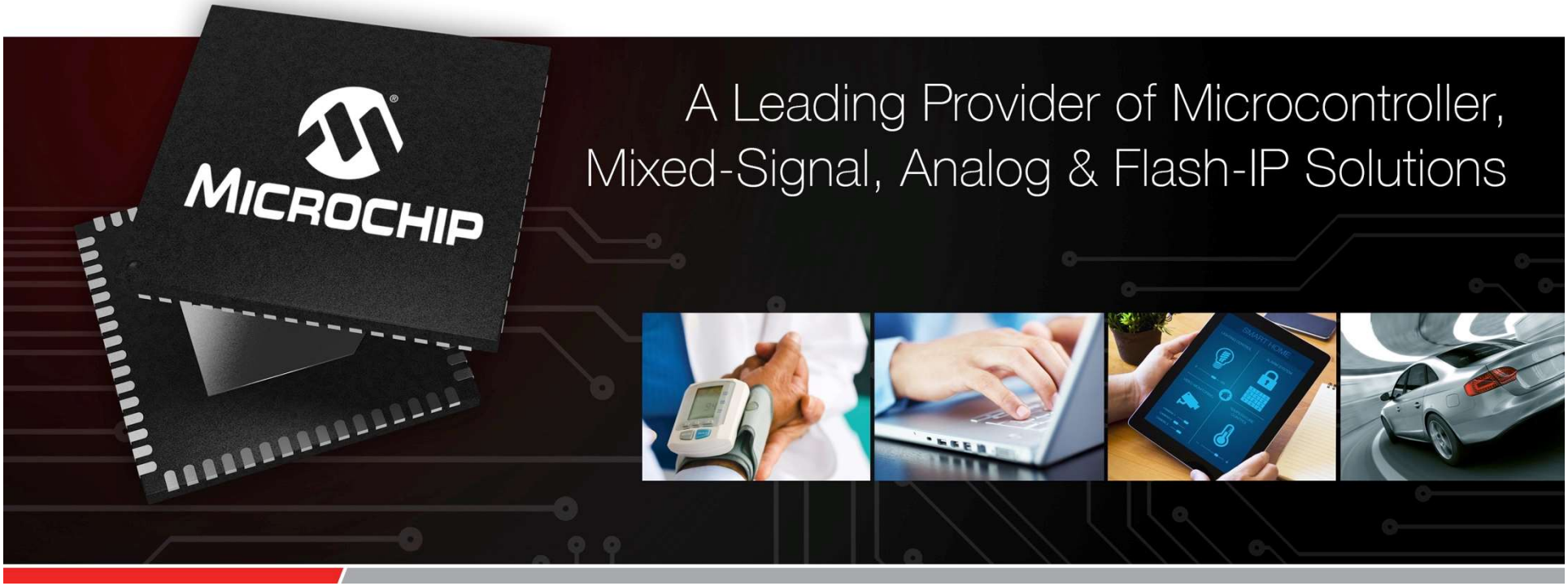
MICROCHIP



FT Engg Flow (MPhil)

Mar 2019: L.Camson

Benchmarking

TPE Tasks	From (RFA):	From (MCU):	Owner	To:	Owner	Status
Product database	HNO Databank	SJO Databank	*Line Sustaining*	**Baan/PDC**	*TPE / BU*	*100% Integrated*
Test Process Flow	Databank	Device Management Tool	*Line Sustaining*	**Baan/PDC**	*TPE / BU*	*100% Integrated*
Test Setup	Sorter Map	Device Management Tool	*Line Sustaining*	**Baan/PDC**	*TPE / BU*	*100% Integrated*
Special Flow	Work-I	Work-I	*BU / PE*	**Baan/PDC**	*TPE / BU*	*75% Integrated*
Test Time	HNO Databank	SJO Databank	*PE / Line Sustaining*	**CM**	*TPE*	*100% Integrated*
LOH and Disposition	NCM / WS	NCM / LTS	*Line Sustaining*	**PPO / MES**	*TPE / PT*	*100% Integrated*
MRB	NCM	NCM	*BU / PE / Line Sustaining*	**NCRB**	*PT / TPE / BU*	*100% Integrated*
Change Notice	CRS	CRS	*BU / PE*	**eCN**	*TPE / BU*	*100% Integrated*
Test Program Control	Network Folder	CVS, TRS, TMP, Network Folder	*Line Sustaining*	**mchpSVN**	*TPE / BU*	*75% Integrated*
Yield Report	FabTime / GTE Portal	GTE Portal	*BU / PE*	**BEWeb**	*All*	*90% Integrated*
Control Yield	Databank	Device Management Tool	*Line Sustaining*	**MES**	*TPE*	*100% Integrated*

Objective

- Replacement of ex-Atmel's Work-I
- From manual to electronic routing of engineering work instruction through eSign

Tools and Methods

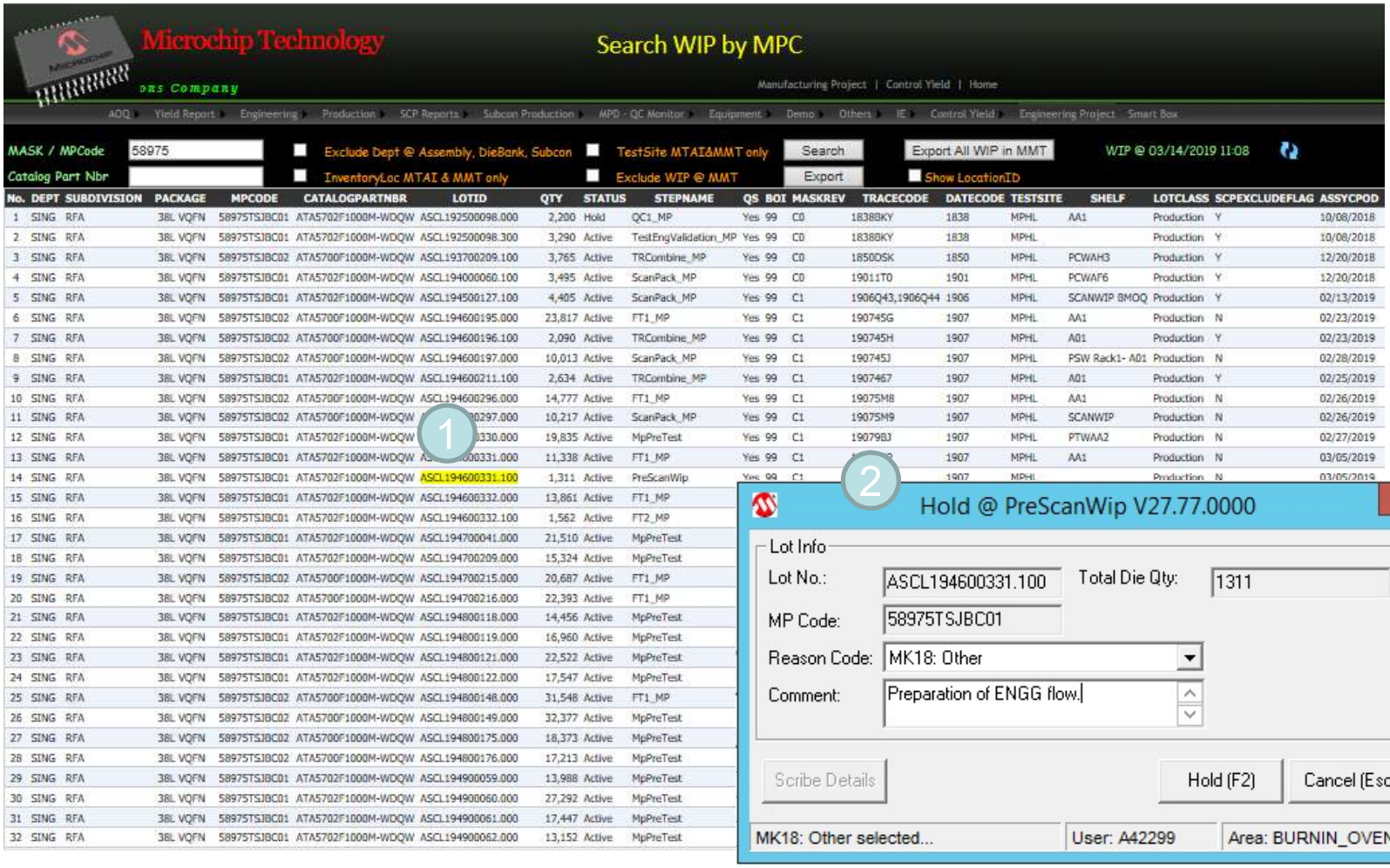
- MES
- eSign
- BAANPROD
- PSI Approval Helper

Procedure

1. Identify and hold the lot/s: Production or Engineering lot class
2. Create engineering flow in BAANPROD
3. Create eSign indicating the use of Engg Flow and special instruction/s
4. Activate created flow
5. Review created flow using PSI Approval Helper
6. Release the lot/s and “ChangeTestFlow” of identified lot/s in MES
7. Prod to Print/Reprint TSO/LTC on green traveler

Procedure

1. Identify and hold the lot/s: Production or Engineering lot class

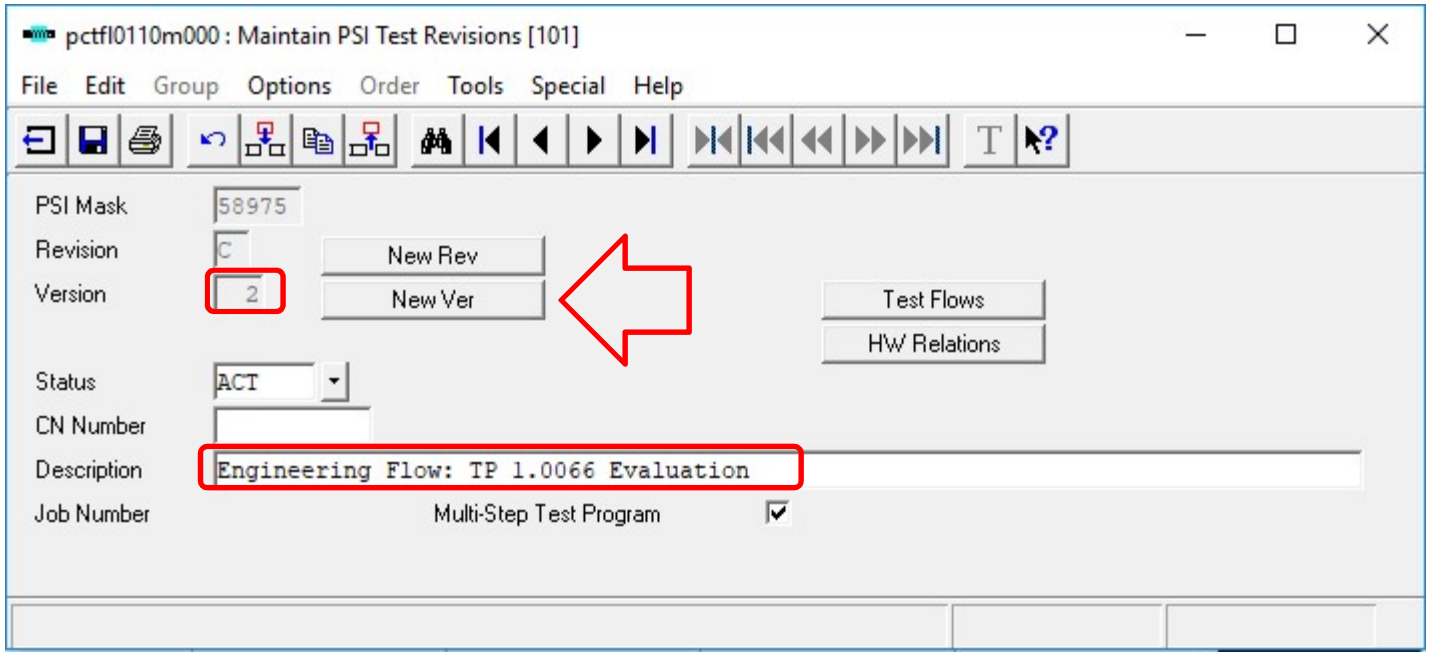


No.	DEPT	SUBDIVISION	PACKAGE	MPCODE	CATALOGPARTNBR	LOTID	QTY	STATUS	STEPNAME	QS	BOI	MASKREV	TRACECODE	DATECODE	TESTSITE	SHELF	LOTCLASS	SCPEXCLUDEFLAG	ASSYCPOD
1	SING	RFA	3BL VQFN	58975TSJBC01	ATA5702F1000M-WDQW	ASCL192500098.000	2,200	Hold	QC1_MP	Yes	99	C0	1838BKY	1838	MPHL	AA1	Production	Y	10/08/2018
2	SING	RFA	3BL VQFN	58975TSJBC01	ATA5702F1000M-WDQW	ASCL192500098.300	3,290	Active	TestEngValidation_MP	Yes	99	C0	1838BKY	1838	MPHL		Production	Y	10/08/2018
3	SING	RFA	3BL VQFN	58975TSJBC02	ATA5700F1000M-WDQW	ASCL193700209.100	3,765	Active	TRCombine_MP	Yes	99	C0	1850DSK	1850	MPHL	PCWAH3	Production	Y	12/20/2018
4	SING	RFA	3BL VQFN	58975TSJBC01	ATA5702F1000M-WDQW	ASCL194000060.100	3,495	Active	ScanPack_MP	Yes	99	C0	19011T0	1901	MPHL	PCWAF6	Production	Y	12/20/2018
5	SING	RFA	3BL VQFN	58975TSJBC01	ATA5702F1000M-WDQW	ASCL194500127.100	4,405	Active	ScanPack_MP	Yes	99	C1	1906Q43,1906Q44	1906	MPHL	SCANWIP BMOQ	Production	Y	02/13/2019
6	SING	RFA	3BL VQFN	58975TSJBC02	ATA5700F1000M-WDQW	ASCL194600195.000	23,817	Active	FT1_MP	Yes	99	C1	190745G	1907	MPHL	AA1	Production	N	02/23/2019
7	SING	RFA	3BL VQFN	58975TSJBC02	ATA5700F1000M-WDQW	ASCL194600196.100	2,090	Active	TRCombine_MP	Yes	99	C1	190745H	1907	MPHL	A01	Production	Y	02/23/2019
8	SING	RFA	3BL VQFN	58975TSJBC02	ATA5700F1000M-WDQW	ASCL194600197.000	10,013	Active	ScanPack_MP	Yes	99	C1	190745J	1907	MPHL	PSW Rack1- A01	Production	N	02/28/2019
9	SING	RFA	3BL VQFN	58975TSJBC01	ATA5702F1000M-WDQW	ASCL194600211.100	2,634	Active	TRCombine_MP	Yes	99	C1	1907467	1907	MPHL	A01	Production	Y	02/25/2019
10	SING	RFA	3BL VQFN	58975TSJBC02	ATA5700F1000M-WDQW	ASCL194600296.000	14,777	Active	FT1_MP	Yes	99	C1	19075M8	1907	MPHL	AA1	Production	N	02/26/2019
11	SING	RFA	3BL VQFN	58975TSJBC02	ATA5700F1000M-WDQW	[illegible]0297.000	10,217	Active	ScanPack_MP	Yes	99	C1	19075M9	1907	MPHL	SCANWIP	Production	N	02/26/2019
12	SING	RFA	3BL VQFN	58975TSJBC01	ATA5702F1000M-WDQW	[illegible]330.000	19,835	Active	MpPreTest	Yes	99	C1	19079BJ	1907	MPHL	PTWAA2	Production	N	02/27/2019
13	SING	RFA	3BL VQFN	58975TSJBC01	ATA5702F1000M-WDQW	AS[illegible]0331.000	11,338	Active	FT1_MP	Yes	99	C1	[illegible]	1907	MPHL	AA1	Production	N	03/05/2019
14	SING	RFA	3BL VQFN	58975TSJBC01	ATA5702F1000M-WDQW	ASCL194600331.100	1,311	Active	PreScanWip	Yes	99	C1	[illegible]	1907	MPHL	[illegible]	Production	N	03/05/2019
15	SING	RFA	3BL VQFN	58975TSJBC01	ATA5702F1000M-WDQW	ASCL194600332.000	13,861	Active	FT1_MP										
16	SING	RFA	3BL VQFN	58975TSJBC01	ATA5702F1000M-WDQW	ASCL194600332.100	1,562	Active	FT2_MP										
17	SING	RFA	3BL VQFN	58975TSJBC01	ATA5702F1000M-WDQW	ASCL194700041.000	21,510	Active	MpPreTest										
18	SING	RFA	3BL VQFN	58975TSJBC01	ATA5702F1000M-WDQW	ASCL194700209.000	15,324	Active	MpPreTest										
19	SING	RFA	3BL VQFN	58975TSJBC02	ATA5700F1000M-WDQW	ASCL194700215.000	20,687	Active	FT1_MP										
20	SING	RFA	3BL VQFN	58975TSJBC02	ATA5700F1000M-WDQW	ASCL194700216.000	22,393	Active	FT1_MP										
21	SING	RFA	3BL VQFN	58975TSJBC01	ATA5702F1000M-WDQW	ASCL194800118.000	14,456	Active	MpPreTest										
22	SING	RFA	3BL VQFN	58975TSJBC01	ATA5702F1000M-WDQW	ASCL194800119.000	16,960	Active	MpPreTest										
23	SING	RFA	3BL VQFN	58975TSJBC01	ATA5702F1000M-WDQW	ASCL194800121.000	22,522	Active	MpPreTest										
24	SING	RFA	3BL VQFN	58975TSJBC01	ATA5702F1000M-WDQW	ASCL194800122.000	17,547	Active	MpPreTest										
25	SING	RFA	3BL VQFN	58975TSJBC02	ATA5700F1000M-WDQW	ASCL194800148.000	31,548	Active	FT1_MP										
26	SING	RFA	3BL VQFN	58975TSJBC02	ATA5700F1000M-WDQW	ASCL194800149.000	32,377	Active	MpPreTest										
27	SING	RFA	3BL VQFN	58975TSJBC02	ATA5700F1000M-WDQW	ASCL194800175.000	18,373	Active	MpPreTest										
28	SING	RFA	3BL VQFN	58975TSJBC02	ATA5700F1000M-WDQW	ASCL194800176.000	17,213	Active	MpPreTest										
29	SING	RFA	3BL VQFN	58975TSJBC01	ATA5702F1000M-WDQW	ASCL194900059.000	13,988	Active	MpPreTest										
30	SING	RFA	3BL VQFN	58975TSJBC01	ATA5702F1000M-WDQW	ASCL194900060.000	27,292	Active	MpPreTest										
31	SING	RFA	3BL VQFN	58975TSJBC01	ATA5702F1000M-WDQW	ASCL194900061.000	17,447	Active	MpPreTest										
32	SING	RFA	3BL VQFN	58975TSJBC01	ATA5702F1000M-WDQW	ASCL194900062.000	13,152	Active	MpPreTest										

Procedure

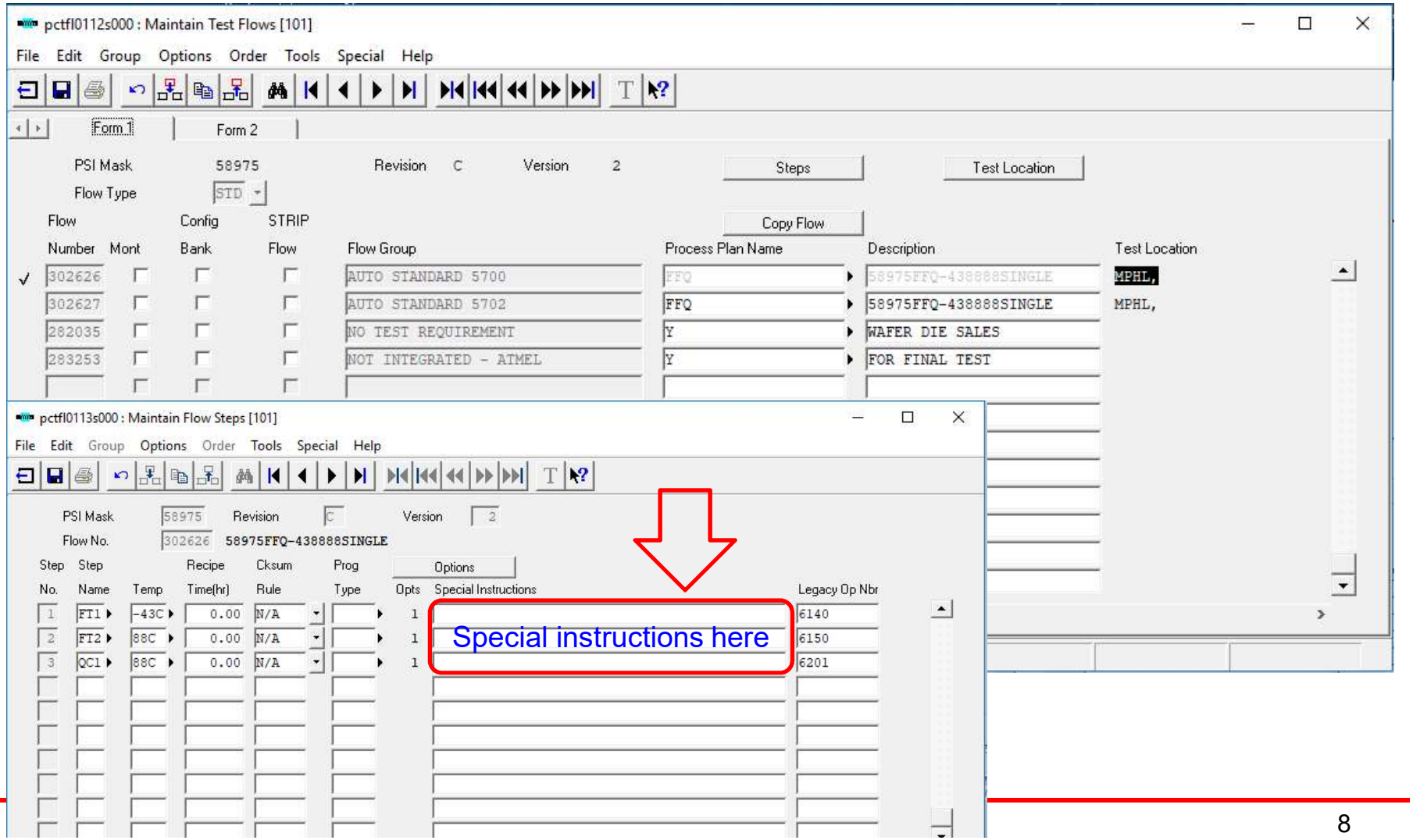
2. Create engineering flow in BAANPROD

Recommend to delete all unnecessary flow from the version to prevent confusion since production will be able to see all available flows.



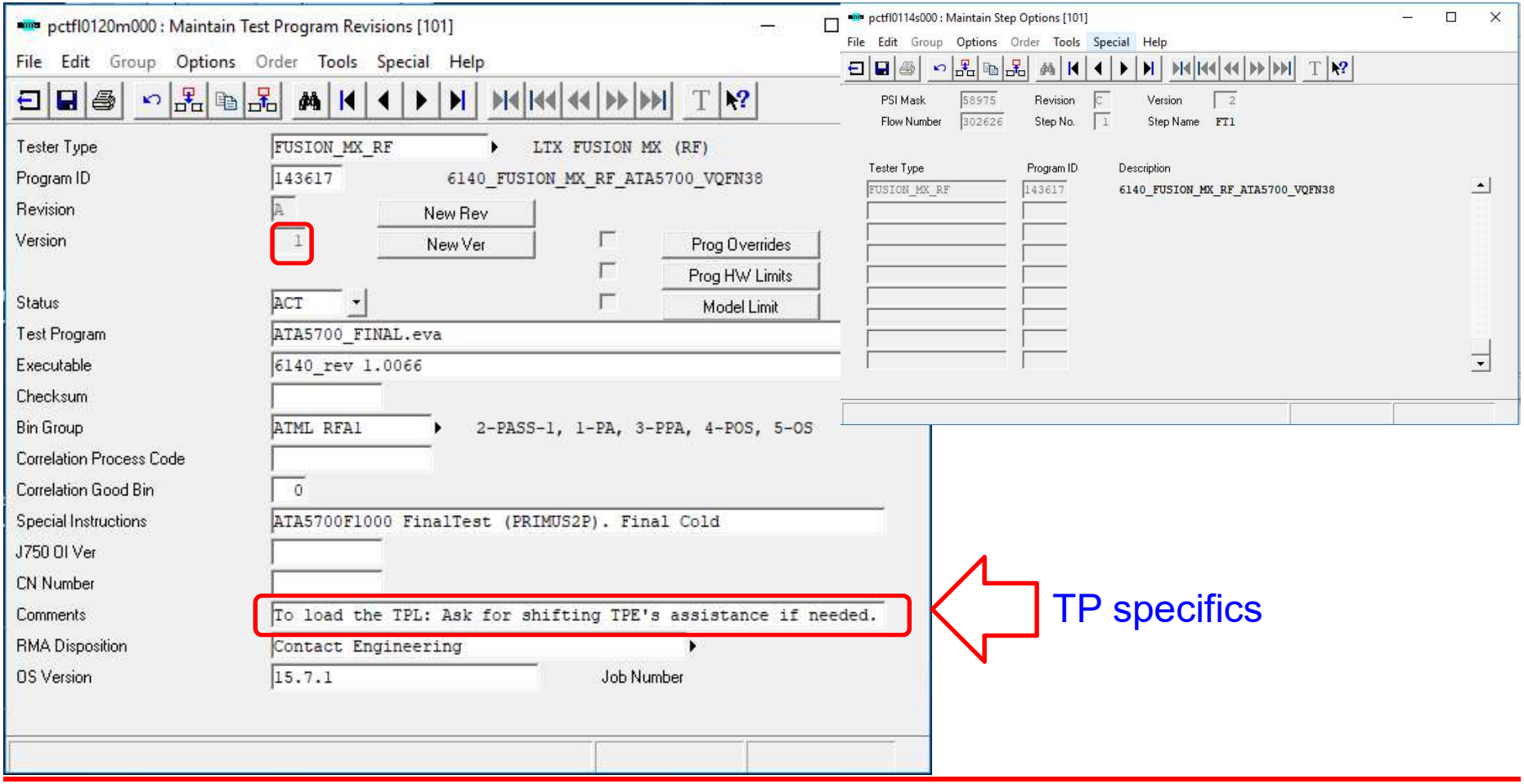
Procedure

2.1 Specify your special instructions



Procedure

2.2 It is recommended to create new program ID with “Ver” 1 and up for TP evaluations



Procedure

3. Create eSign indicating the use of Engg Flow and special instruction/s

Inventory Disposition Request

ID: 19892
ES284460
Submitted

This record superseded another: No

Inventory Disposition Type: Final Test *Required Field

Final Test Location:	☑ MPHL				
Mask #	58975	Division	WSG	Request Date	3/17/2019
Requestor	Domingo Cacal Jr - A50127			Date Needed	4/7/2019
Microchip Lot#	ASCL194600332.100, ASCL194600331.10	Foundry/Subcon Lot#			
Current QS Status	Yes	Current Lot Class	Engineering Lot		
MPC	58975TSJBC01	CPN	ATA5702F1000M-WDQW		
Quantity of Die		Base CPN			
Quantity	1441, 1316	Mask Call Rev	C1		
Major Prod Rev		Wafer or Die Source MPC			
ORDER INFORMATION					
Customer PO#		Microchip SO#			
Comment					
*For multiple entries - attach spreadsheets					
Attachments					

SPECIAL INSTRUCTION

These lot has been used for tp evaluation, ok to release

INVENTORY DISPOSITION

Disposition	☑ Ship non-conforming FG	*If Disposition "Hold", Enter Comment*

Please use eNCRB system for scraping Production lot.

SHIP TO INSTRUCTION Add:

Location 1		Quantity		Attention To	
Address					

eSign
ES284460

Welcome: Luther Mark Camson - A42299
Created By: Domingo Cacal Jr - A50127
Created On: 03/14/2019
Status: Submitted

*Required Field ^Approver Editable Field

Approval Category* BEWO Inventory Disposition

Subject*^ Test Program 1.0066 evaluation (FT) — If this eSign supersedes a previous one, enter "Supersede ESXXXXXX:id" in subject line.

Description*^ 2 lots used for TP 1.0066 evaluation and can be moved to FG. No change in LotClass.

Mask#^ 58975 Enter Mask#

Division^ WSG

Superseded ES#^

Attachment

File Attachments^ (Word, Excel, PDF, etc.)

Click here to upload files >> (Not seeing your files? Click here to refresh)

SharePoint Library/List Records

ID	Attached By	Form URL	Comment
19892	Domingo Cacal Jr - A50127	58975-Final Test-Lot:Eng-2019-04-04	

Sign-off

Sign-off Method: (•) Parallel ( ) Sequential

Approvers*^
- Luther Mark Camson - A42299;
- Carlo Joseph Siman - A19370;
- Juthathip Waiyasanit - B06444;
- Adrian Caramol - A42307;
- SPS_MPHL_BEWO;

☐ Insert Approver

Update Approvers

Important Instructions

Only one approver allowed in a field. Use "Insert Approver" link to add additional approvers.

Refer to SPI-41001 Table A-5 for Approval Matrix

Observers
- Judy Hugo - A42521
- Maricris Ramos - A42787
- Ligaya Batacan - A50327
- Jor Magpayo - A42600

(Receive an email after the request is submitted)

Note: you can't ship any lot that was processed using Engg Flow to FG. You need to have an approved eSign before shipment.

Procedure

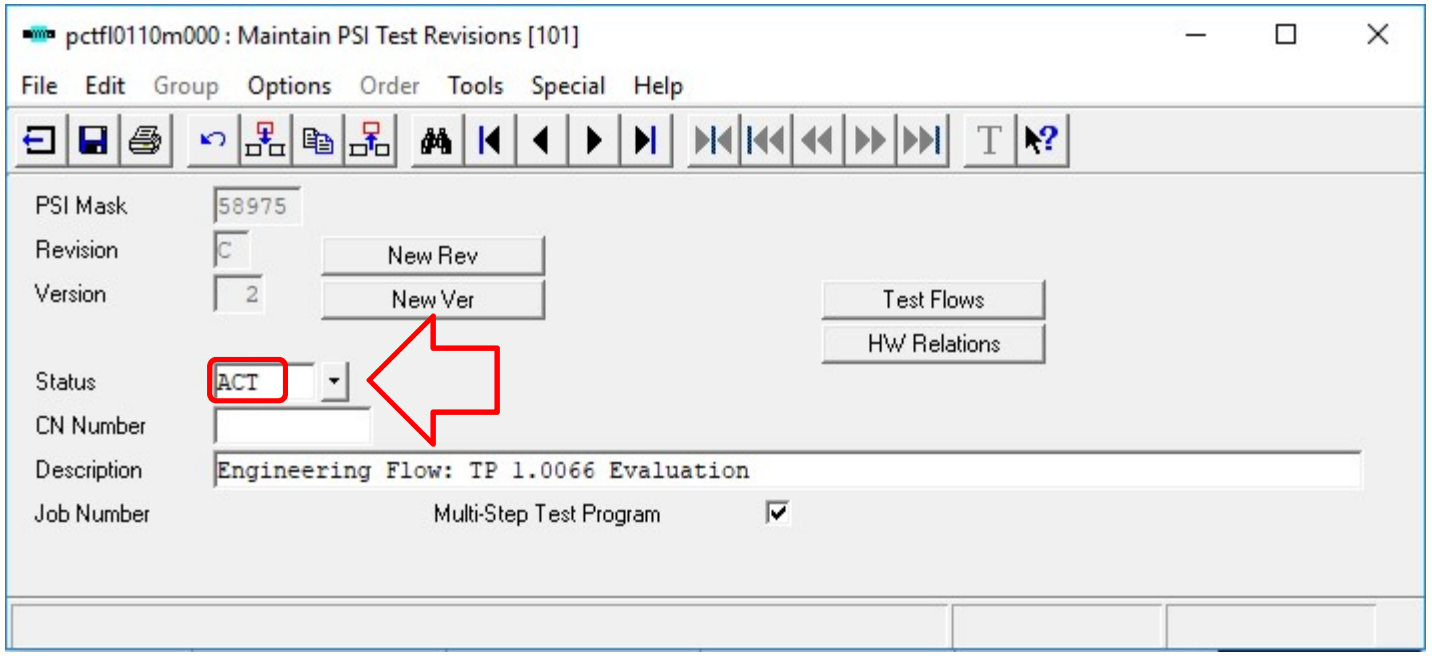
3.1 Follow eSign approvers

Master Product Specification System & Approval Matrices

Table A-5	Backend Work Orders (Probe/Assembly/Final Test/Qual) Approval Matrix	
BE WO Approval Category	Approvers	
	Eng Lot	Prod Lot
BEWO Inventory Disposition: *No processing to be done except for a change to the inventory class, restriction level, location, etc.*	- Division/BU Engineering Planner - Product Engineer or Process Engineer - "SPS_Mthai_EngPlanner" – Required for MTHAI & External Fab/Subcon processing	- Division/BU Engineering Planner - Product Engineer or Process Engineer - Production Planning
	- "SPS_Probe_Chan" – Required for Chandler (CHAN) processing - "SPS_SJ_BEWO_Proc" – Required for San Jose (MCRL) processing - "SPS_CSO_BEWO" – Required for Colorado Springs (MCSO) processing - "SPS_MPHL_BEWO" – Required for MPhil (MPHL) processing - Yield Enhancement Engineer – Required for change in Lot Class or change to QS Status - Test Engineer – Required for Probe Test Instruction Only (not applicable for MPD_FLASH)	

Procedure

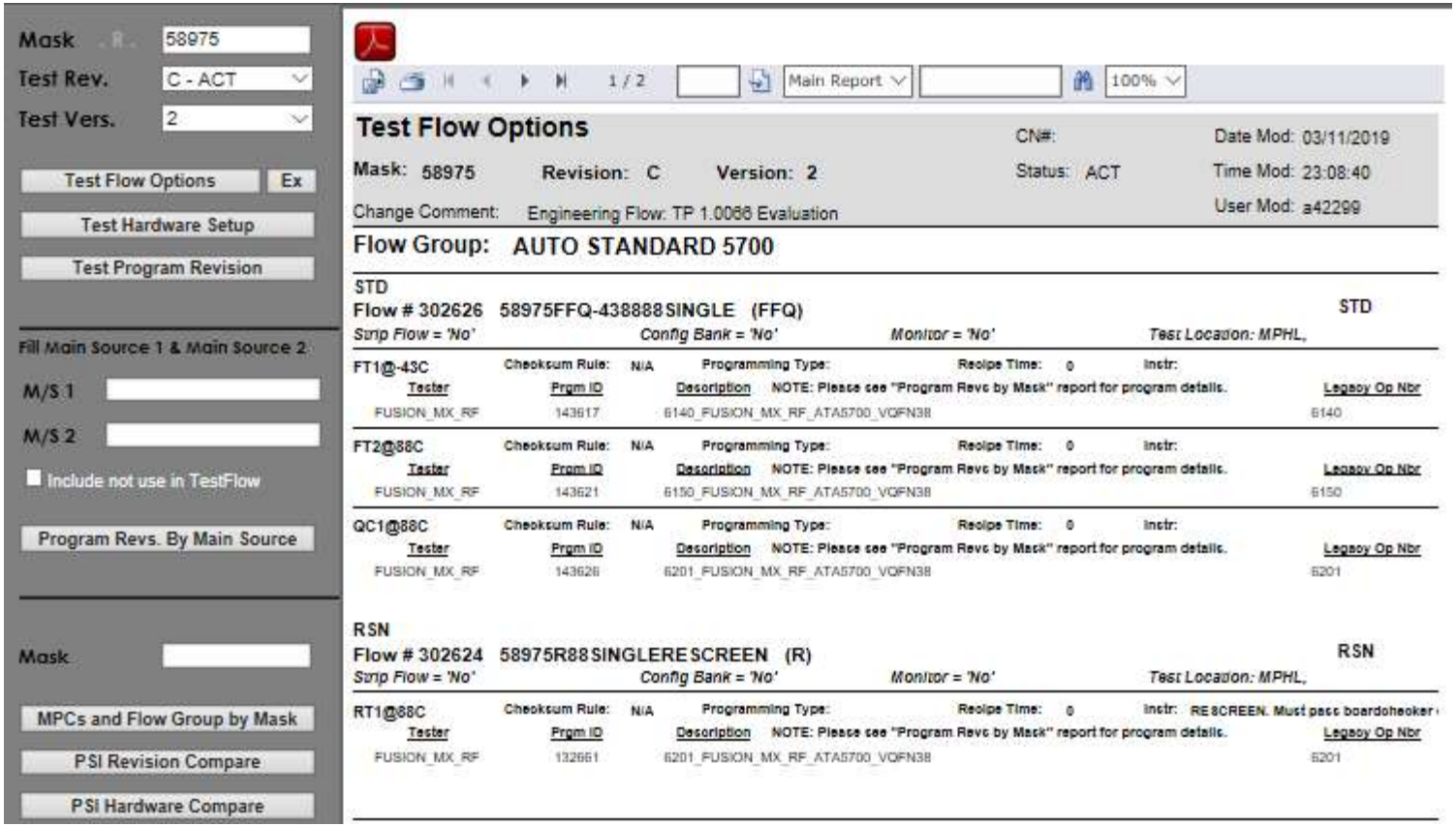
4. Activate created flow



Once done, change status to PEND then save, then change the status to ACT then save.

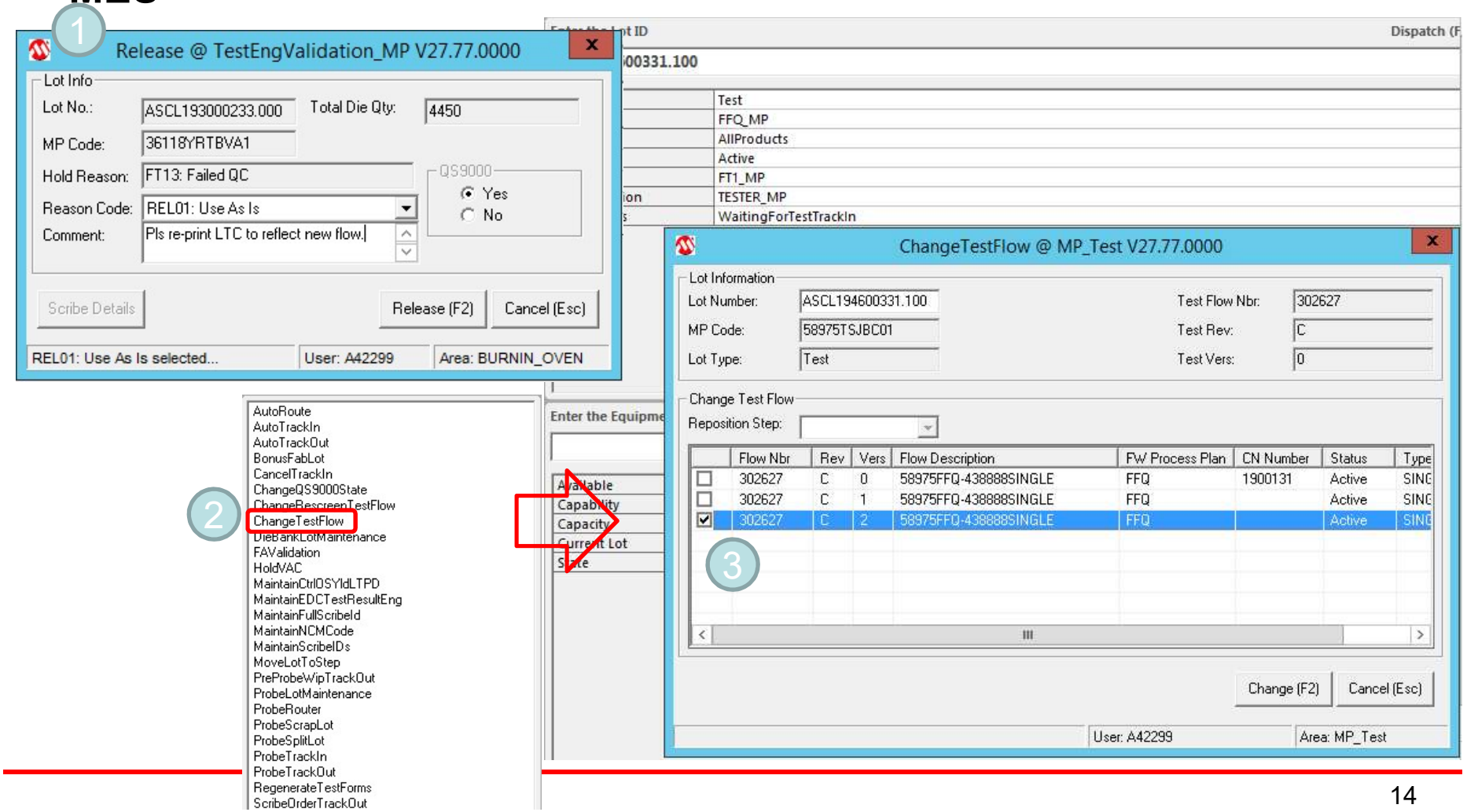
Procedure

5. Review created flow using PSI Approval Helper



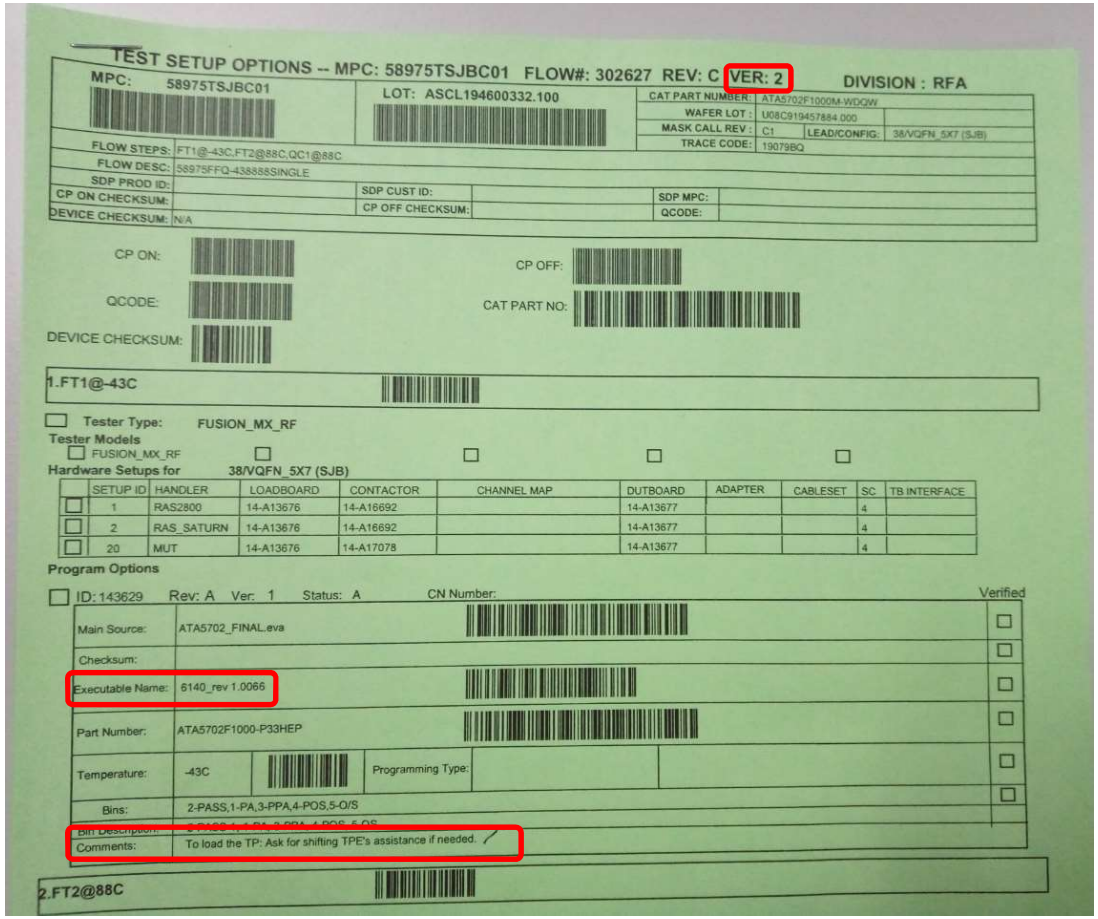
Procedure

6. Release the lot/s and “ChangeTestFlow” of identified lot/s in MES



Procedure

7. Prod to Print/Reprint TSO/LTC on green test traveler



Note: Engineering lot is identified when TSO version (Ver) is NOT zero “0”.

Ref. Spec

- **PI-92002 - TEST TRAVELER OPERATING PROCEDURE**

6 PROCEDURES AND REQUIREMENTS

6.1 Test traveler consists of Test Setup Options and Singulated or Strip Test Traveler forms.

6.2 There are three categories of the production lot which is specified in three different colors of the test traveler as follow :

TEST TRAVELER OPERATING PROCEDURE

White = Normal Production Lot.

Green = Experiment/Engineering Lot.

Orange = Hot Lot.

BAAN to MES refresh time of MTAI/MMT/MPHL databases

PDC to DD (kick off)	DD to MES MTAI (kick off)	DD to MMT MES (kick off)	DD to MPHL MES (kick off)
3:30 AM	4:00 AM	4:20 AM	4.30 AM (3:30 AM MTAI time)
7:00 AM	7:30 AM	7:40 AM	7:40 AM (6:40 AM MTAI time)
11:00 AM	12:00 PM	12:20 PM	12.10 PM (11:10 AM MTAI time)
16.00 PM	17.00 PM	17.20 PM	17.10 PM (16:10 PM MTAI time)

DD = Data Distributor