PDC for Final Test

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MThai Project Engineering

2 February, 2018

Agenda

- PDC - Overview – The 1st Day (3 hours)
- PDC – Hand on – The 2nd Day (3 hours)
- PDC – Change Notice – The 3rd Day (3 hours)

Table of Contents - 1

Table of Contents - 2

Final Test Setup Data - 1

- **Baan PDC :** Engineering Lot, Test setup data for subcontractor
  - Special Test Setup Options

Baan-TSO

  - Special Test Traveler

Baan-TT

- **MES :** In house Production Lot (MTAI, MMT, MPHL)
  - Test Setup Options : FRM-95002-031

MES-TSO

  - Singulated Test Traveler : FRM-95002-014

MES-STT

  - MTAI Strip Test Traveler : FRM-95002-030

MES-MTAI-STT

MES-YGAY2TV2X 031

  - Subcon Strip Test Traveler : FRM-95002-032

MES-SUB-STT

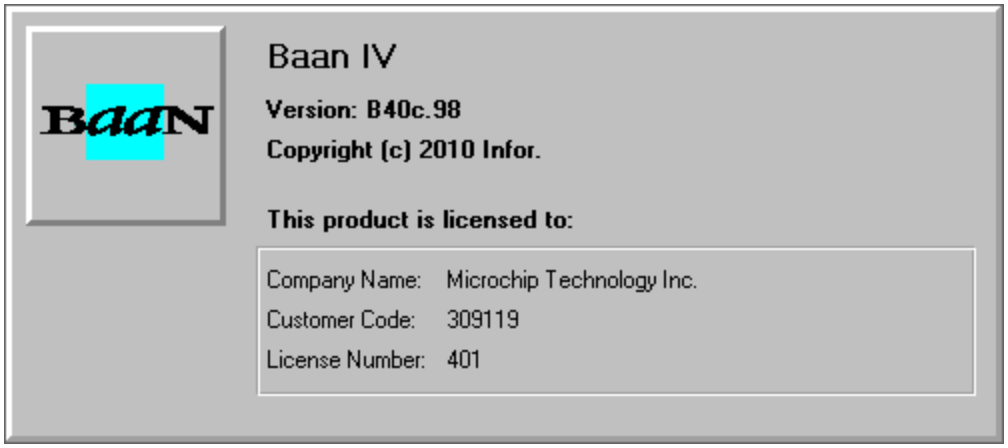
MES-LEAR4YM4X V03

What is Baan ?

- **Baan was a vendor of Enterprise Resource Planning (ERP) software that is now owned by Infor Global Solutions.**
- **History :**

The Baan Corporation was created by Jan Baan in 1978 in Barneveld, Netherlands, to provide financial and administrative consulting services.

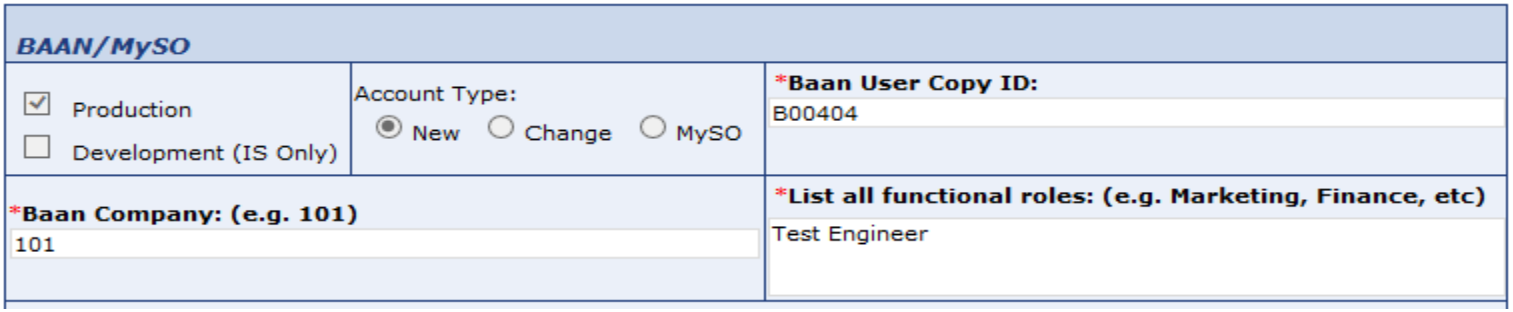
The Baan company focused on the creation of ERP software.



Request for Baan PDC User Account

- Go to : http://microchipweb/
- Tools & Resources → Information Services
- Application Request (iTURF) → Create New Request
- Fill in iTURF and have your manager approve it.

  [Fill in *BAAN/MySo* section per below example. Change role only.
  If you have already had Baan user account for another function,
  Please check Account Type as Change.]



BAAN/MySO		
☑ Production ☐ Development (IS Only)	Account Type: ◉ New ○ Change ○ MySO	*Baan User Copy ID: B00404
*Baan Company: (e.g. 101) 101		*List all functional roles: (e.g. Marketing, Finance, etc) Test Engineer

- You will be notified via email when the approval is completed and when the Baan changes have been completed.
- IS team will provide you user account and install Baan PDC software on your PC.
- Note : iTURF = Information Technology User Request Form

What is PDC ? - 1

- **PDC : Product Data Characteristics**
  - **Microchip has started using it since year 2003.**
  - **It contains data used to define how Microchip products are made.**
  - **The data structure exists in the Baan database as a separate module.**
  - **It's a control database that requires CN to activate the data.**

What is PDC ? - 2

- Reference Documents :
  - BPC-00005 : PDC Test Process Guidelines
  - BPC-00006 : PDC User's Guide – Test Hardware
  - PI-70009 : PSI Test Revision
  - PI-70010 : PDC Test Programs
  - PI-70011 : PDC Test Hardware
  - PI-70012 : Process Plan Maintenance

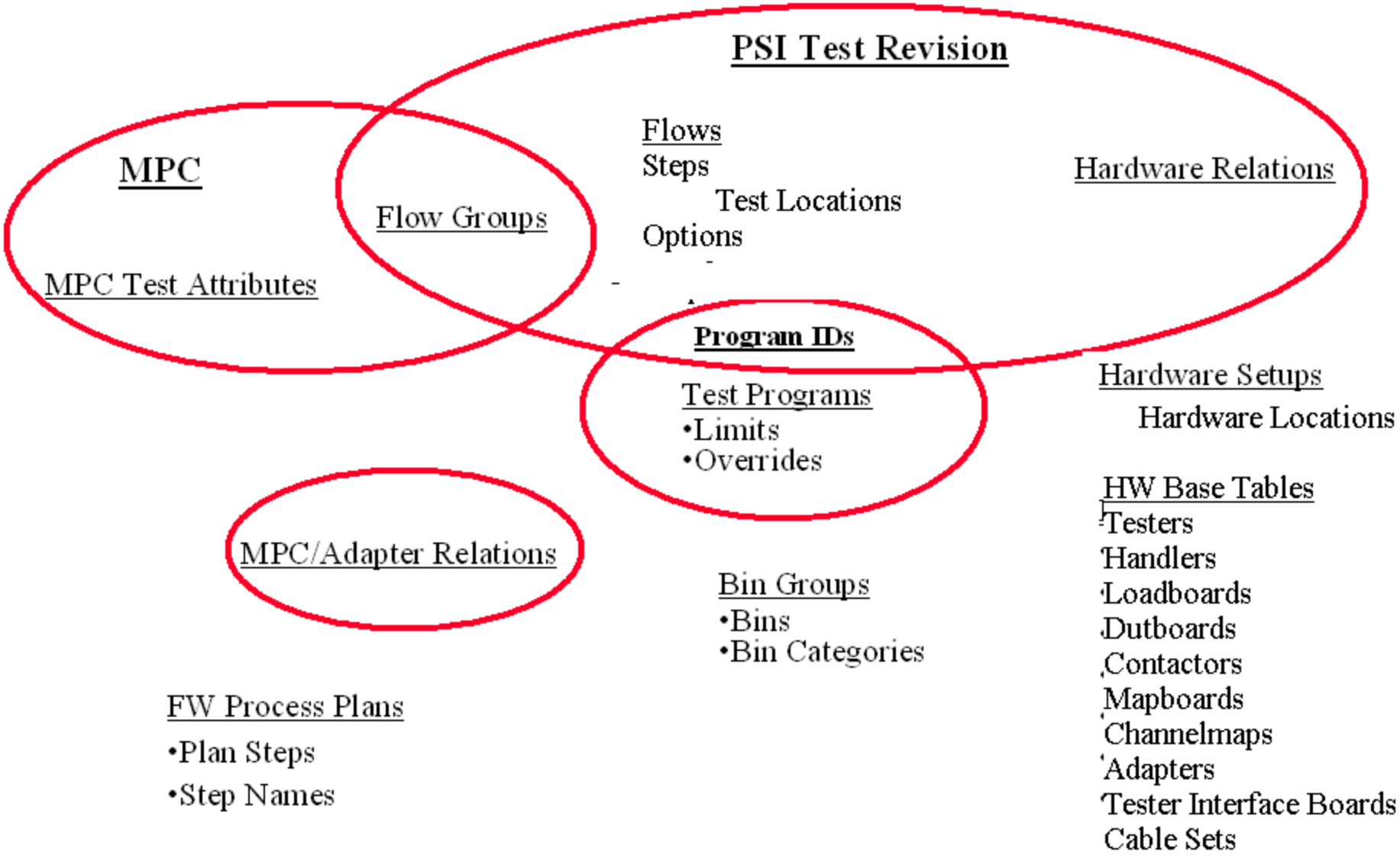
- Find the above specification at http://microchipweb/
  - MCHPWEB → Tools & Resources
  - Tools by popular Category → Document Management System (DMS)
  - DMS SharePoint Applications → Controlled Document Libraries
  - Specification Index → PI → Search

What is PDC ? - 3

- **Content (Focus on the data for Final Test only) :**
  - **Tester Type**
  - **Handler Type**
  - **Test Hardware (Load Board, DUT Board, Contactor, etc.)**
  - **Test Flow**
  - **Test Program**
  - **Handler Bins (Hardware Bins Per Test Program Assignment)**
  - **MPC Test Attributes**

    [Tester Device (Part Number for Test Program Loading)]

What is PDC ? - 4


PSI Test Revision
MPC
Flow Groups
Flows
Steps
Test Locations
Options
Hardware Relations
MPC Test Attributes
Program IDs
Test Programs
•Limits
•Overrides
Hardware Setups
Hardware Locations
HW Base Tables
Testers
Handlers
Loadboards
Dutboards
Contactors
Mapboards
Channelmaps
Adapters
Tester Interface Boards
Cable Sets
MPC/Adapter Relations
Bin Groups
•Bins
•Bin Categories
FW Process Plans
•Plan Steps
•Step Names

What is MPC ? - 1

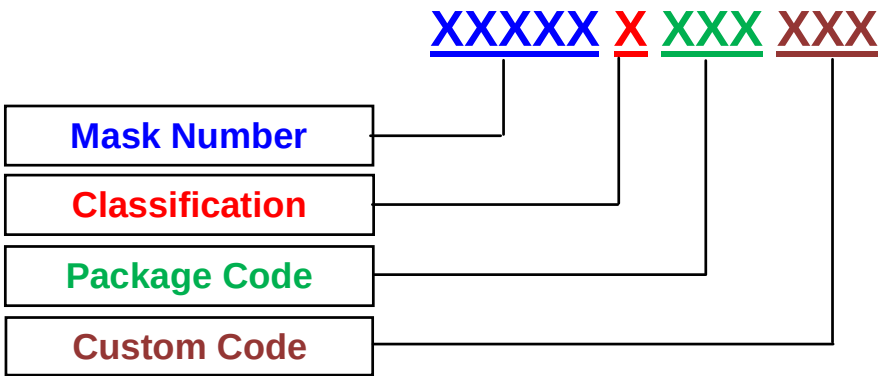
- **MPC : Manufacturing Product Code**

  Note : The MPC can be linked to only one Flow Group.

- **Consists of a 12-digit alphanumeric code**
  - **1st - 5th Characters : Mask number**
  - **6th Character : Classification**
  - **7th - 9th Characters : Package Code**
  - **10th - 12th Characters : Custom Code**

- **See more detail from :**
  - **SPI-43506 : Product Identification System**
  - **MS-14000-001 : Package Code Tables**

What is MPC ? - 2



Product Class Code	Description	Temperature Level	Temperature Range (degrees)
1	Commercial Temperature	Commercial	0°C to +70°C
4	Extended Temperature (E)	Extended	-40°C to +125°C
7	Industrial Temperature (I)	Industrial	-40°C to +85°C
J	High Temperature Range, Tape &Reel	High	-40°C to >+125°C
S	Commercial Temperature Tape & Reel	Commercial	0°C to +70°C
T	Industrial Temperature (I) Tape & Reel	Industrial	-40°C to +85°C
Y	Extended Temperature (E) Tape & Reel	Extended	-40°C to +125°C

What is MPC ? - 3

Package Code	Package Code Description	Package Type (8 Char Max.)	Lead Count	Industry Standard	Package Width Or Size	Pkg Otln Dwg No.	Solder Composition (Terminal Finish)
2EX	Very Thin Quad Flatpack No-Leads	VQFN	028	JEDEC	5x5x0.9mm	C04-239	Matte Tin
2JX	Low-profile Plastic Quad Flat Pack	LQFP	176	JEDEC	20x20x1.4mm	C04-367	Matte Tin
2MX	Very, Very Thin Profile Fine Pitch Ball Grid Array	WFBGA	034	JEDEC	4x6x0.73mm	C04-164	SAC
2NX	Ultra Thin Quad Flatpack No-Leads	UQFN	028	JEDEC	6x6x0.55mm	C04-385	Matte Tin
2TX	Extremely-Thin Profile Fine Pitch Land Grid Array	XFLGA	048	JEDEC	4x6x0.6mm	C04-163	SAC
2WX	Very Thin Fine-Pitch Land Grid Array	VFLGA	068	JEDEC	8x8x1.0mm	C04-373	NiAu
2XX	Thin Profile Square Ball Grid Array	TFBGA	121	JEDEC	10x10x1.20mm	C04-148	SAC
3JX	Low Profile Fine Pitch Ball Grid Array	LFBGA	256	JEDEC	14x14x1.14mm	C04-369	SAC105
3RX	Very Thin Dual Flatpack No-Lead	VDFN	008	JEDEC	4x4x1.0mm	C04-285	NiPdAu
3XX	System In Package	SiP	121	-	8x8x1.08mm	C04-212	SAC
4AX	Super-thin Dual Flatpack No-Lead	X2DFN	006	JEDEC	1.5x1.8x0.33mm	C04-441	Au
4DX	Thin Ball Grid Array	TBGA	024	JEDEC	6x8x1.2mm	C04-199	SAC
4GX	Very Thin Fine Pitch Ball Grid Array	VFBGA	064	JEDEC	7x7x1.0mm	C04-370	SAC125+Ni
4QX	Thin Dual Flatpack No-Lead	TDFN	006	JEDEC	2x2x0.8mm	C04-078	NiPdAu
4XX	PCB Module	MODULE	043	–	32x15x2.5mm	C04-10041	NiAu
5SX	Very, Very Thin Leadless Array Package	WTLA	020	-	3x3x0.7mm	C04-184	NiPdAu
6QX	Ultra Thin Dual Flatpack No-Lead	UDFN	008	JEDEC	2x3x0.5mm	C04-136	NiPdAu
6SX	Very Thin Leadless Array Package	VTLA	044	-	6x6x0.9mm	C04-157	NiPdAu
7BX	Micro Small Outline Package	MSOP	008	JEDEC	3x3mm	C04-111	NiPdAu
8PX	Leadless Land Grid Array	LLGA	026	-	6x6x0.60mm	C04-277	NiPdAu
8XX	Super Thin Dual Flatpack No-Leads	X2SON	008	JEDEC	1.5x1.5x0.40mm	C04-338	Matte Tin
9AX	Dual Flatpack No-Leads Simulator	TDFN-S	008	JEDEC	6x5x0.8mm	C04-169	NiPdAu
9HX	Quarter Size Outline Package	QSOP	044	JEDEC	7.5mm(.300in)	C04-282	Matte Tin
9XX	Super Thin Quad Flatpack No-Leads	X2QFN	010	JEDEC	1.5x1.5x0.40mm	C04-378	Matte Tin
A4X	Thin Shrink Small Outline Package	TSSOP	008	JEDEC	4.4mm	C04-086	Matte Tin
A6X	Dual Flatpack No-lead	DFN-S	008	JEDEC	6x5x0.9mm	C04-122	Matte Tin
A7X	Dual Flatpack No-lead	DFN	008	JEDEC	3x3x0.9mm	C04-062	Matte Tin
ACA	Plastic Ball Grid Array	PBGA	289	JEDEC	19x19x2.36mm	C04-1085	SAC
ALA	Very Thin Land Grid Array	VLGA	006	JEDEC	3.2x2.5x0.9mm	C04-1215	NiAu
ASX	High-Power Dual Flatpack No-Lead	PDFN	008	JEDEC	5x6x0.9mm	C04-188	Matte Tin
B9X	Metric Plastic Quad Flat Pack	MQFP	100	JEDEC	14x20x2.7mm	C04-050	Matte Tin
C2X	Plastic Small Outline Integrated Circuit	SOIC	008	JEDEC	.150In(3.90mm)	C04-057	Matte Tin
C3X	Plastic Small Outline IC	SOIJ	008	EIAJ	.208in	C04-056	Matte Tin
C4X	Plastic Dual-In-Line Package	PDIP	008	JEDEC	.300in	C04-018	Matte Tin
FDX	Ultra Thin Fine Pitch Ball Grid Array	UFBGA	025	JEDEC	3x3x0.6	C04-412	SAC
G3X	Shrink Small Outline Package	SSOP	020	JEDEC	.209in	C04-072	Matte Tin
L4X	Plastic J-Leaded Chip Carrier	PLCC	028	JEDEC	11.5x11.5x4.3	C04-026	Matte Tin
LFX	Very-Thin Quad Flatpack No-Lead, Routable (HLA™)	VQFN-R	025	JEDEC	6x6x0.9mm	C04-331	Cu
M2X	Quad Flatpack No-Leads	QFN-S	028	JEDEC	6x6x0.9mm	C04-124	Matte Tin
M3X	Skinny Plastic Dual-In-Line Package	SPDIP	028	JEDEC	.300in	C04-070	Matte Tin
M4X	Quad Flatpack No-Leads	QFN	028	JEDEC	6x6x0.9mm	C04-105	Matte Tin
N6X	Thin Small Outline Transistor	TSOT	006	JEDEC	2.9x1.6x1.0mm	C04-141	Matte Tin
NAX	Dual Row Quad Flatpack No-Lead	DQFN	124	JEDEC	10x10x0.85mm	C04-395	Matte Tin
Q3X	Ultra Thin Small Outline No-Leads (SON or DFN)	USON	008	JEDEC	2x3x0.6mm	C04-203	Matte Tin
Q7X	Extremely Thin Dual Flatpack No-Leads	XSON	008	JEDEC	2x2x0.45mm	C04-205	Matte Tin
RWX	Very, Very Thin Dual Flatpack No-Leads	WDFN	008	JEDEC	2x2x0.8mm	C04-261	Matte Tin
T4X	Thin Plastic Quad Flat Pack	TQFP	044	JEDEC	10x10x1mm	C04-076	Matte Tin
THX	Flip Chip Ball Grid Array	FCBGA	169	JEDEC	11x11mm	C04-309	SnPb
TJX	Fine Pitch Ball Grid Array	FPBGA	025	JEDEC	5.7x5mm	C04-310	SnPb
TVX	Plastic Metric Quad Flatpack	PQFP	044	JEDEC	10x10x2mm	C04-119	SnPb
UDX	Very Thin Quad Flatpack No Lead	SQFN	036	JEDEC	6x6x1.0mm	C04-272	Matte Tin
W6X	Thin Small Outline Package	TSOP	032	JEDEC	8x14mm	C04-174	Matte Tin

What is MPC ? - 4

- There are 4 MPC Stages.
  - NREL : Non-Release / Engineering
  - REL : Released / Production Released
  - PHAS : Phase out / Last Time Buy
  - EOL : End of Life

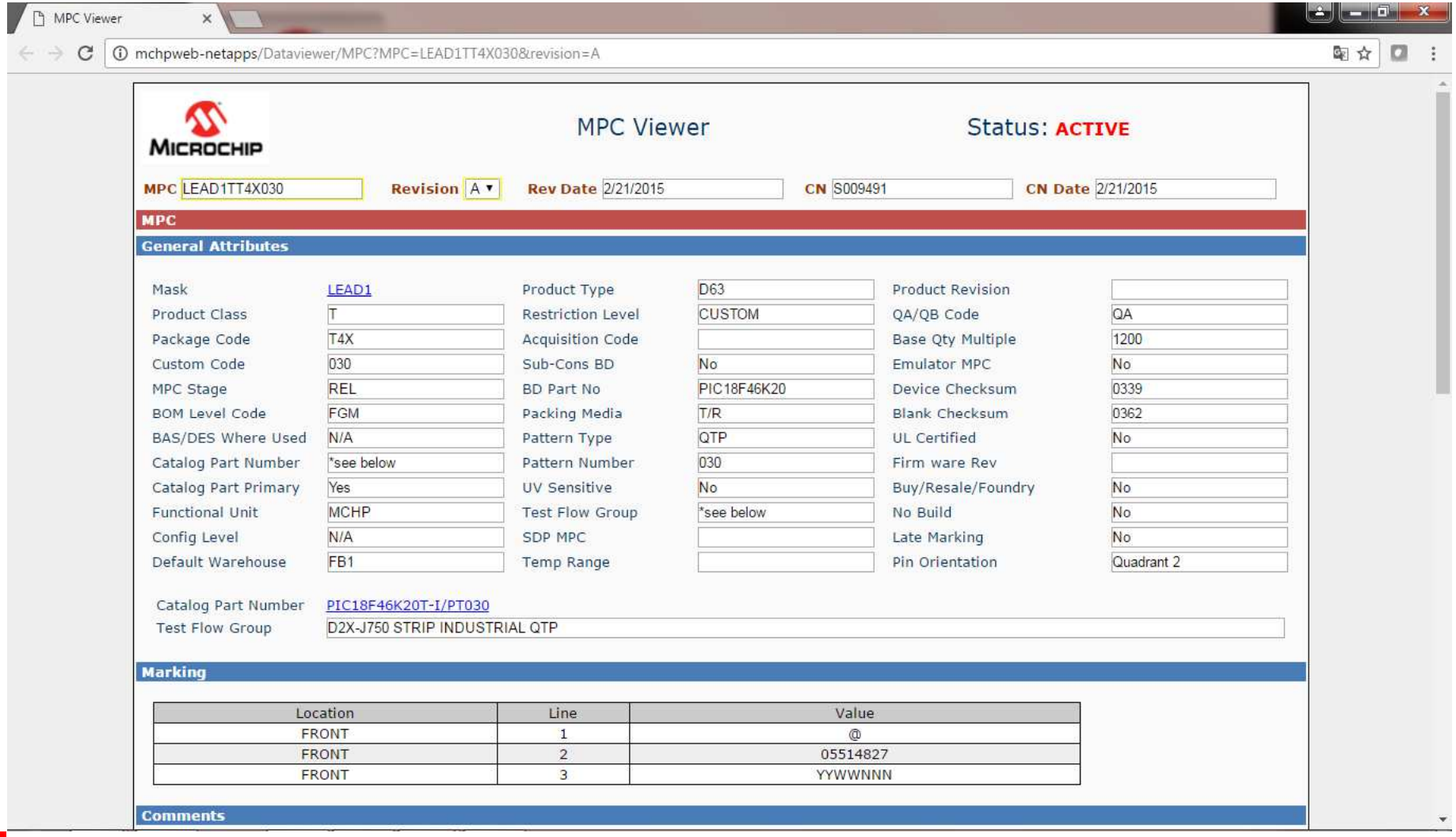
What is MPC ? - 5

- MPC Lookup

- Go to http://microchipweb/
  - MCHPWEB → Tools & Resources
  - Tools by popular Category → Document Management System (DMS)
  - DMS SharePoint Applications → Lookup Applications
  - MPC Lookup
  - Search by Mask, MPC, Division, CPN, Customer, etc.
  - Click “View Detail”

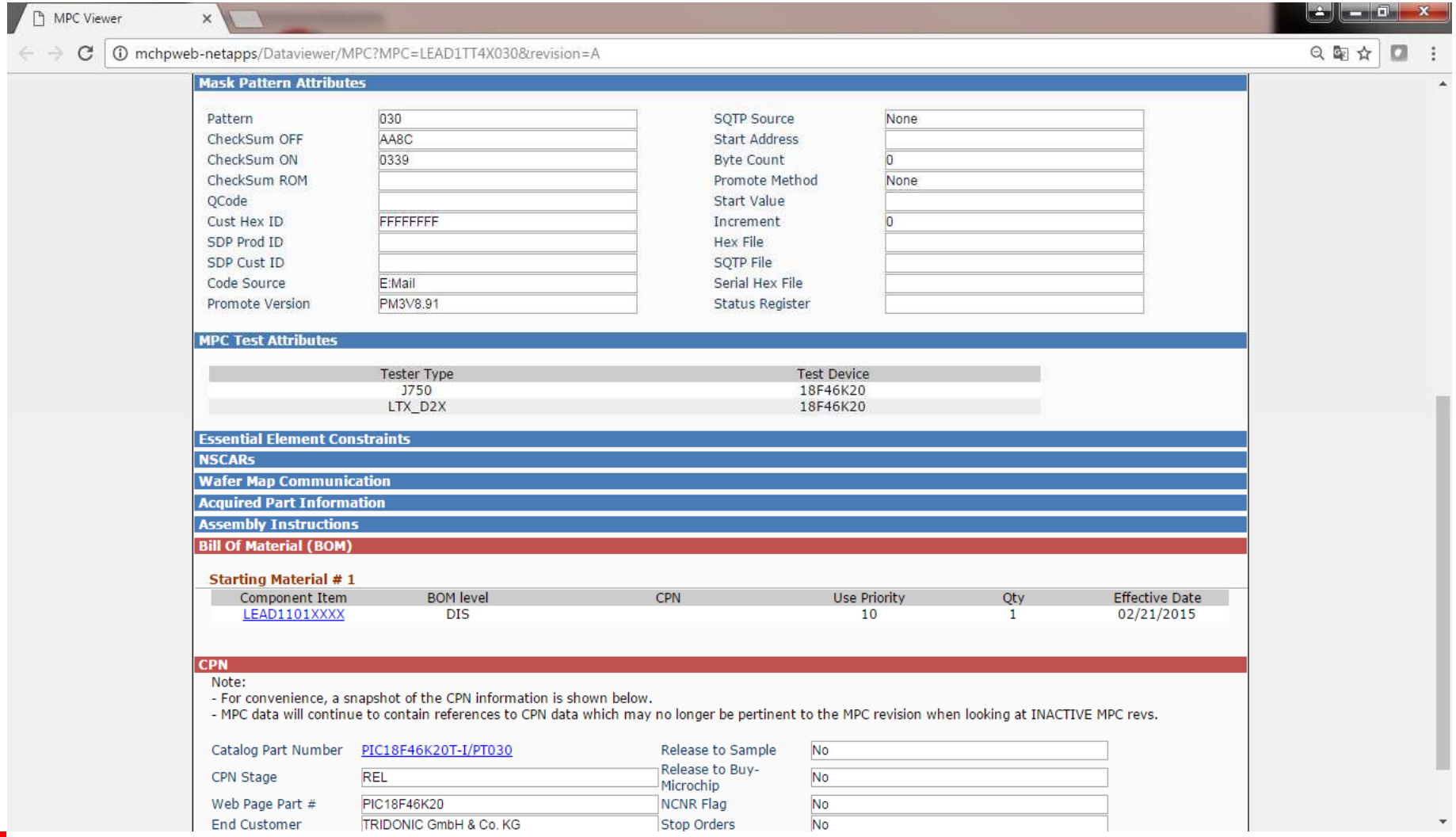
What is MPC ? - 6

- **LEAD1TT4X030**



What is MPC ? - 7

- **LEAD1TT4X030**



Process Step Characters

(PI-70012)

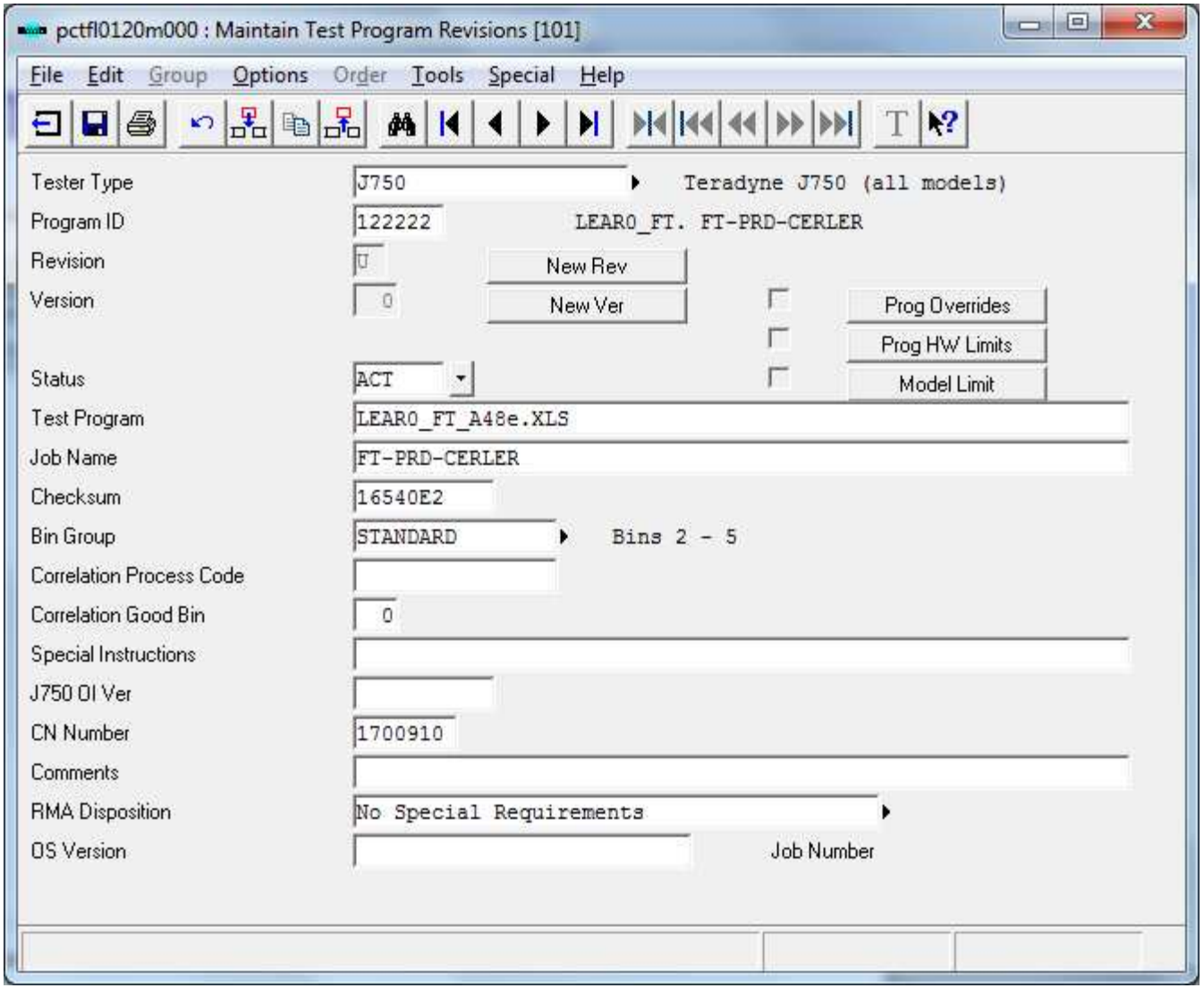
Step Character	Description
B	Burn-in
C	Temperature Cycles
E	Endurance Test (Singulated)
F	Final Test (Singulated)
I	100% Integrated Final Test (Strip Final Test + Inline QC)
J	100% Integrated (Singulated Final Test + Inline QC)
K	Bake and 24 Hour Hold Bake at Room Temperature
Q	QC Sampling (Singulated) per LTPD Table
R	Rescreen (Singulated) – 100% of the lot
S	100% Final Test (Strip)
T	QC Sampling (Strip) per LTPD Table
U	Rescreen (Strip)
V	Rescreen all QC samples from previous step (QC(n)) – QC Sample only
Y	No Final Test required step

Process Step Names

(PI-70012)

Step Character	Step Name	Test Method	Description
B	BI(n)	Singulated	Where (n) is the number of Burn - IN Test being performed
E	ET(n)	Singulated	Where (n) is the number of Endurance Test being performed
S	FS(n)	Strip	Where (n) is the number of Final Test being performed
F	FT(n)	Singulated	Where (n) is the number of Final Test being performed
I	IS(n)	Strip	Where (n) is the number of Integrated Final Test being performed
J	IT(n)	Singulated	Where (n) is the number of Integrated Final Test being performed
Q	QC(n)	Singulated	Where (n) is the number of Quality Sampling Test being performed
T	QS(n)	Strip	Where (n) is the number of QC Sampling Test being performed
K	RB(n)	Singulated	Where (n) is the number of Retention Bake being performed
U	RS(n)	Strip	Where (n) is the number of Re-screen (100% Test) being performed
R	RT(n)	Singulated	Where (n) is the number of Re-screen (100% Test) being performed
C	TC(n)	Singulated	Where (n) is the number of the Temperature Cycle being performed
Y	YY1	Singulated	Used for MPCs where no final test steps are necessary. Allows print out SCAN and QC FOI lot traveler.
V	VT(n)	Singulated	Where (n) is the number of Re-screen all QC Sample being performed

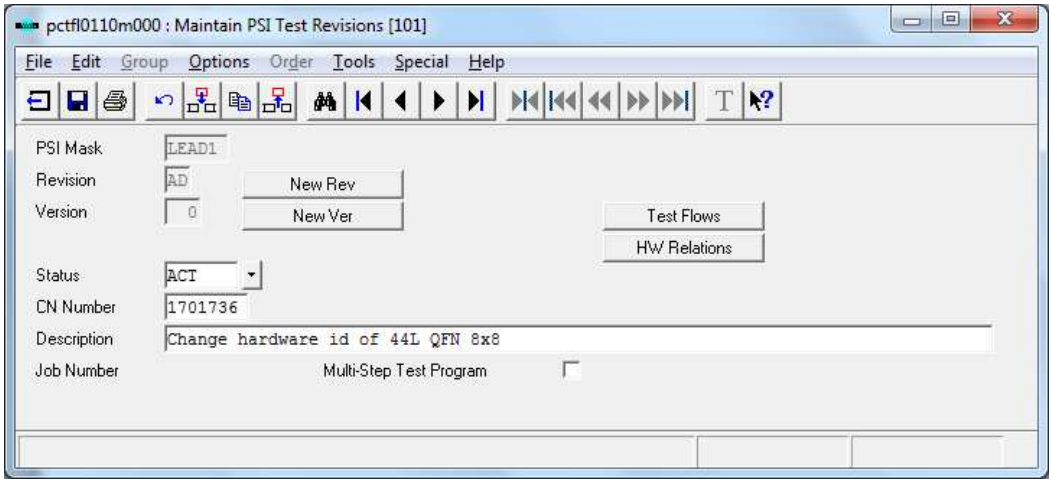
Test Program Revision
(PI-70010)



PSI Test Revision – 1

(PI-70009)

- **PSI : Product Specification Index**
- **The combination of Test Flow, Test Hardware and Test Program defined for use in the production for each product (Mask Number).**



- **Note :**
- **Job Number - When a mass load is used to add new PSI Test Revision data to the tables, a job number is assigned by the data loader process.**
- **Multi-Step Test Program – Set to YES if the mask may be using an 'operation number' at each test step when testing products.**

PSI Test Revision – 2

(PI-70009)

- **Revision** is defined with letter designation.
  [A,B,C,…, AA,AB,AC,…,ZZ] Except I,O

- **Version** is defined with number designation.
  Version : 0 is the production version.
  Version : 1,2,3,…,99 is engineering version
  (Engineering Sample Test Flow, Correlation Test Flow,
  Special rescreen flow for quality issue lot, etc.).

- **Note :** When update production test flow, should start from version 0.
  When create engineering version, should have only the flow you created, delete all other flows.

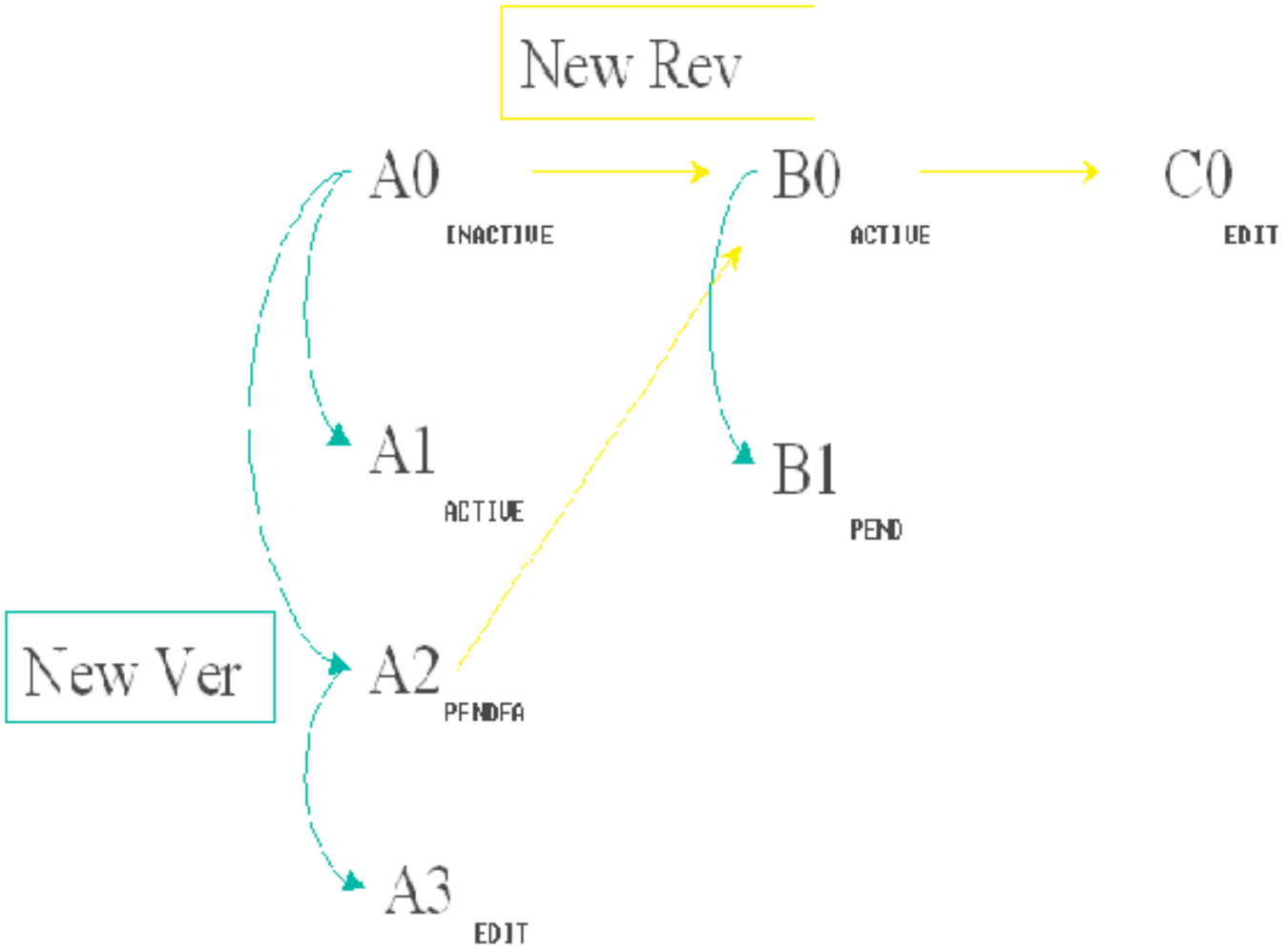
PSI Test Revision – 3

(PI-70009)

- Status
- EDIT : Add, Modify, Delete Data
  Default state for new revision/version
- PEND : Pending Approval (Will get all approvals before start using it in production)
- PENDEA : Pending Engineering Approval
  (In urgent case, production will proceed before getting all approvals but the lots will be placed on hold in manufacturing before they are moved to Finished Goods inventory.)
- ACT : Active. Data in this status is available for use by manufacturing.
- INACT : Inactive. Data in this status is no longer available for use by manufacturing.

PSI Test Revision – 4

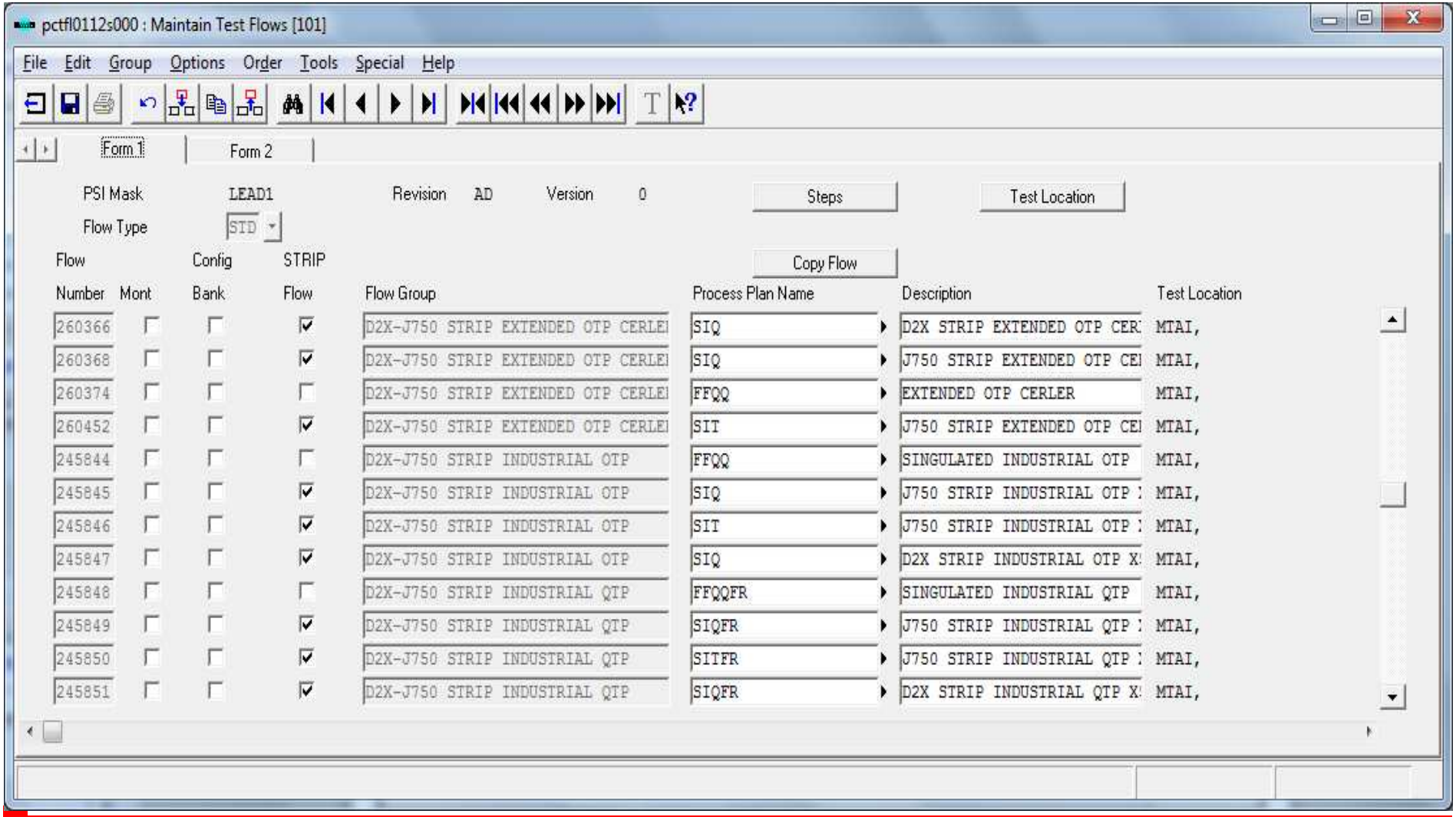
(PI-70009)



PSI Test Revision – 5

(PI-70009)

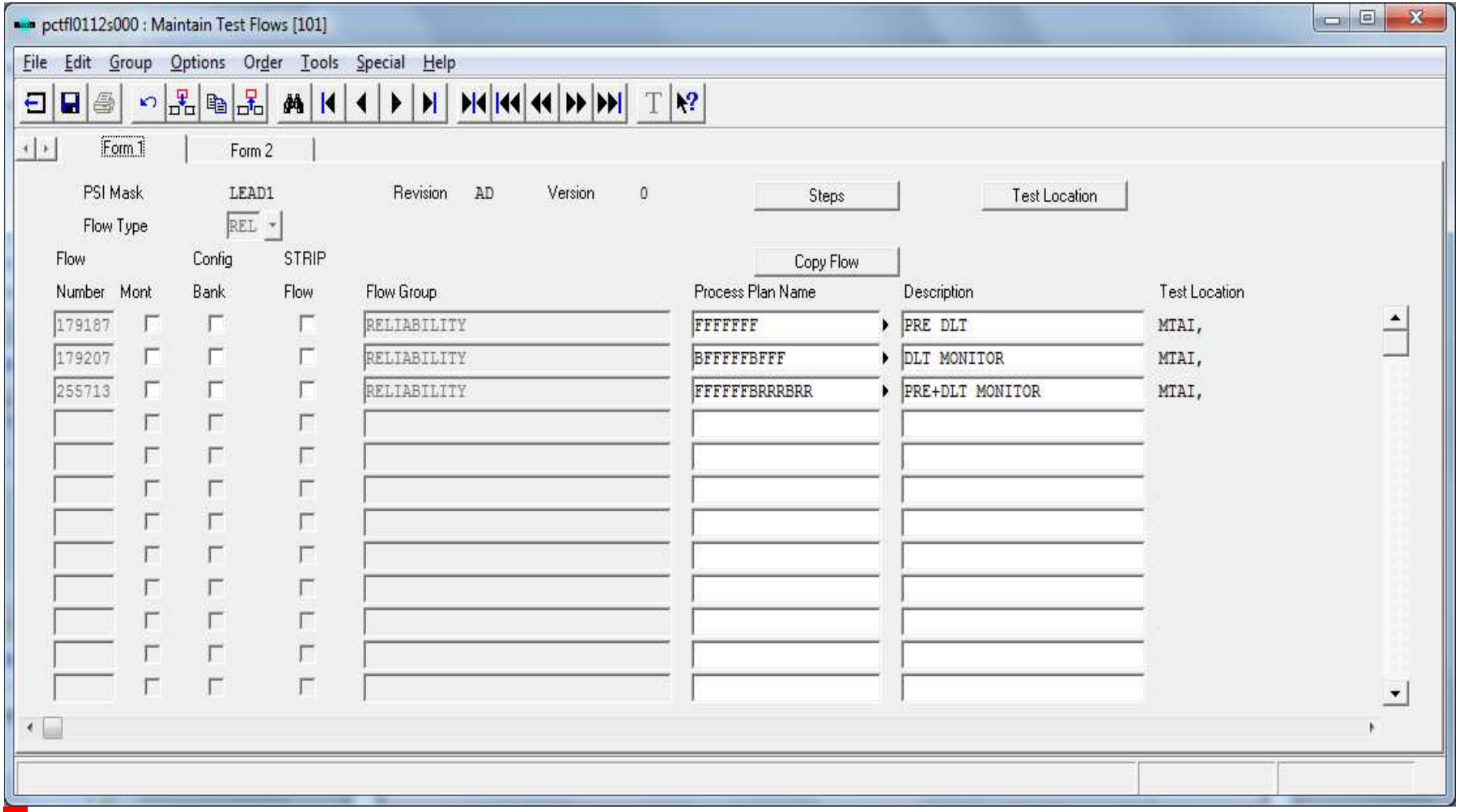
- **Flow Type – STD (Standard – Production Test Flow)**



PSI Test Revision – 6

(PI-70009)

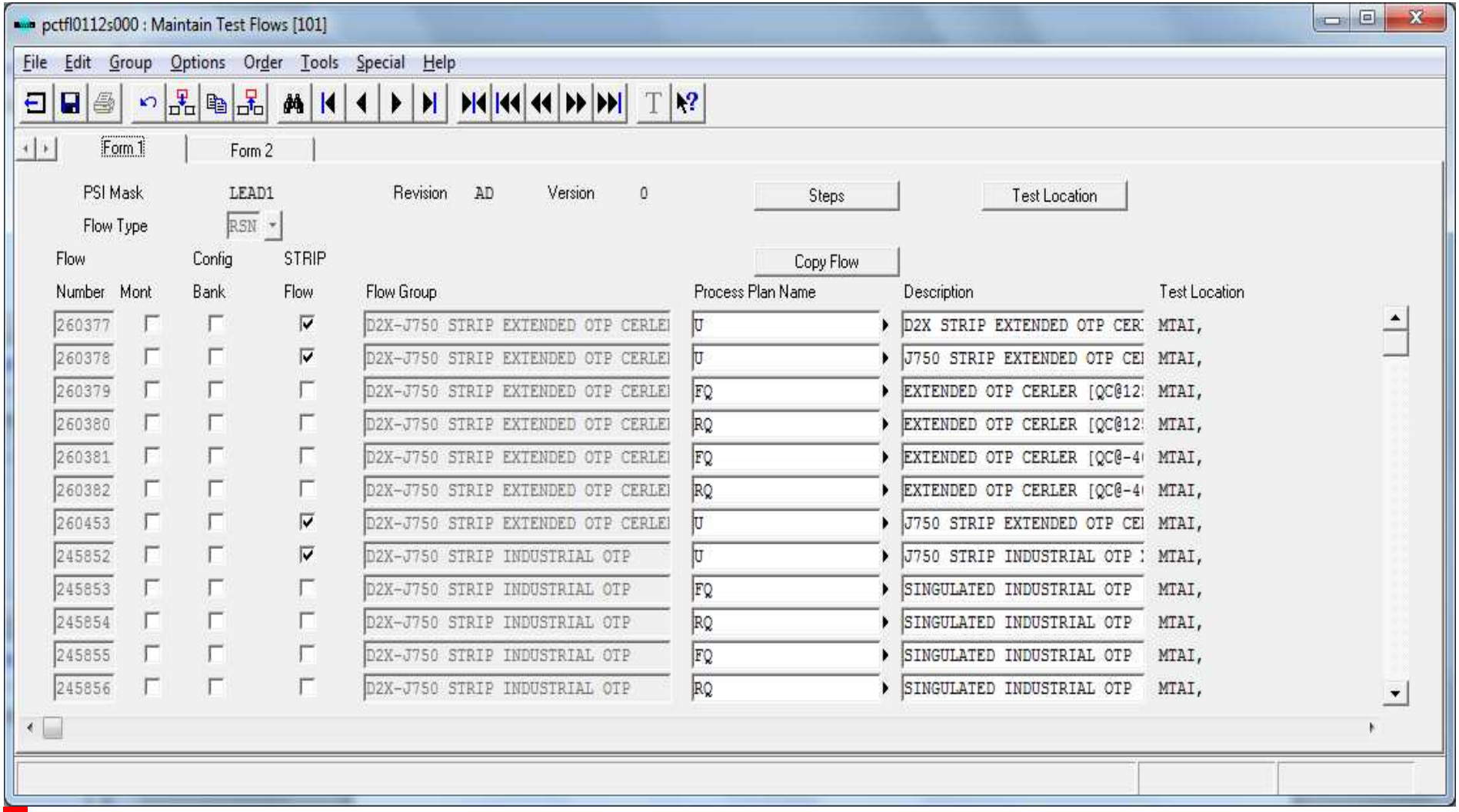
- **Flow Type – REL (Reliability Test Flow)**



PSI Test Revision – 7

(PI-70009)

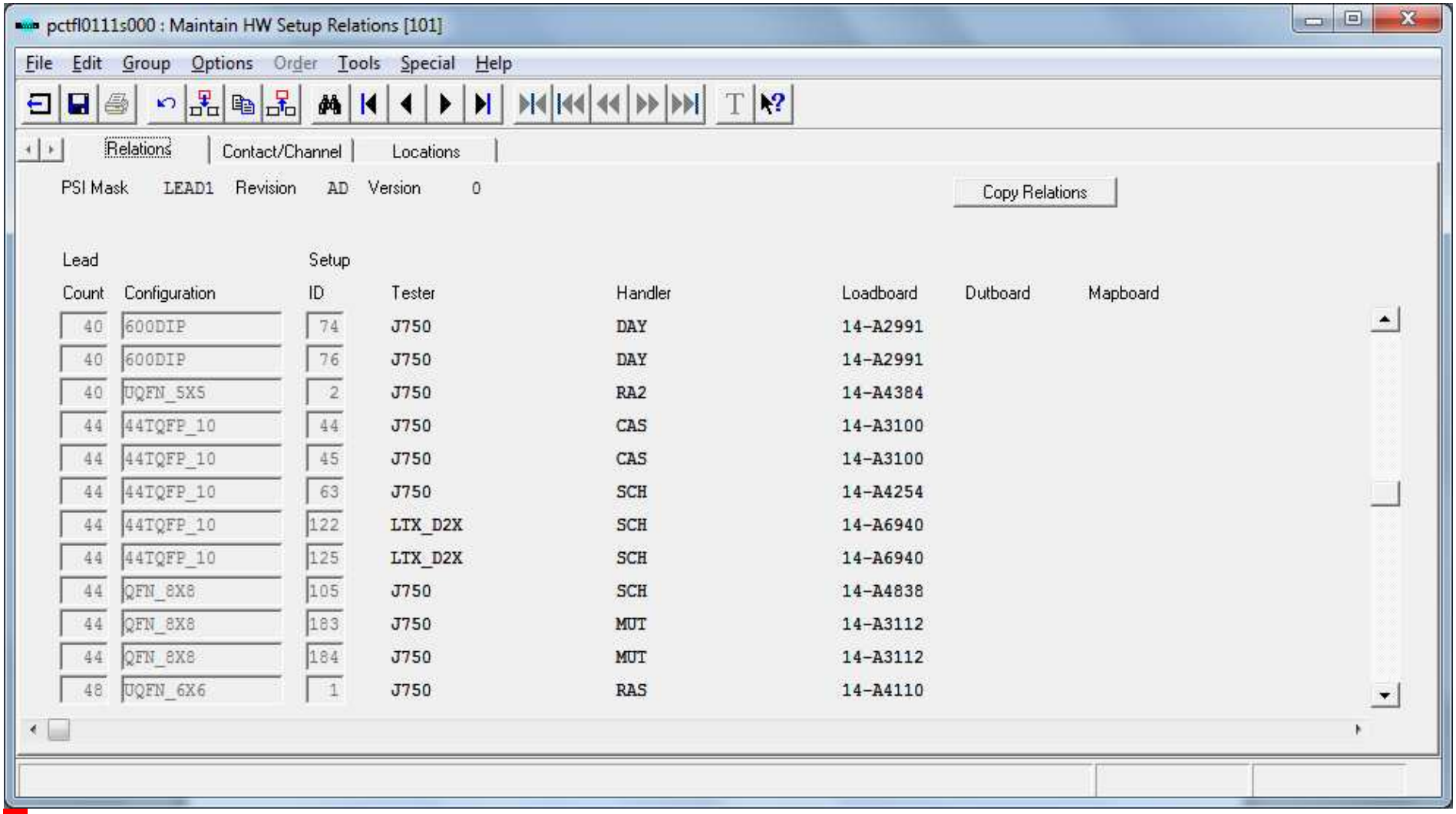
- **Flow Type – RSN (Rescreen - Test Flow for QC Rejected Lot)**



PSI Test Revision – 8

(PI-70009)

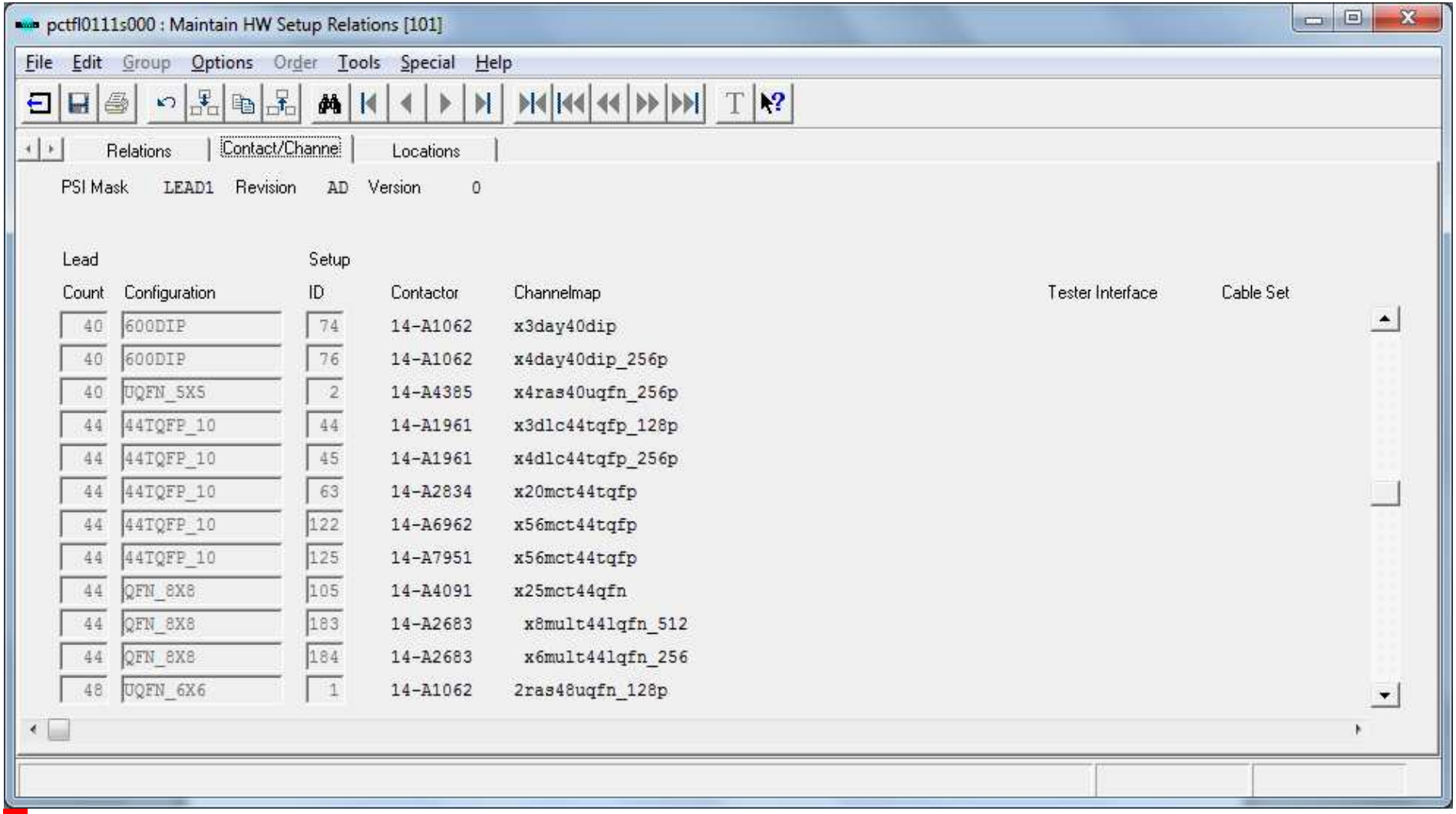
- **HW Relations - Relations**



PSI Test Revision – 9

(PI-70009)

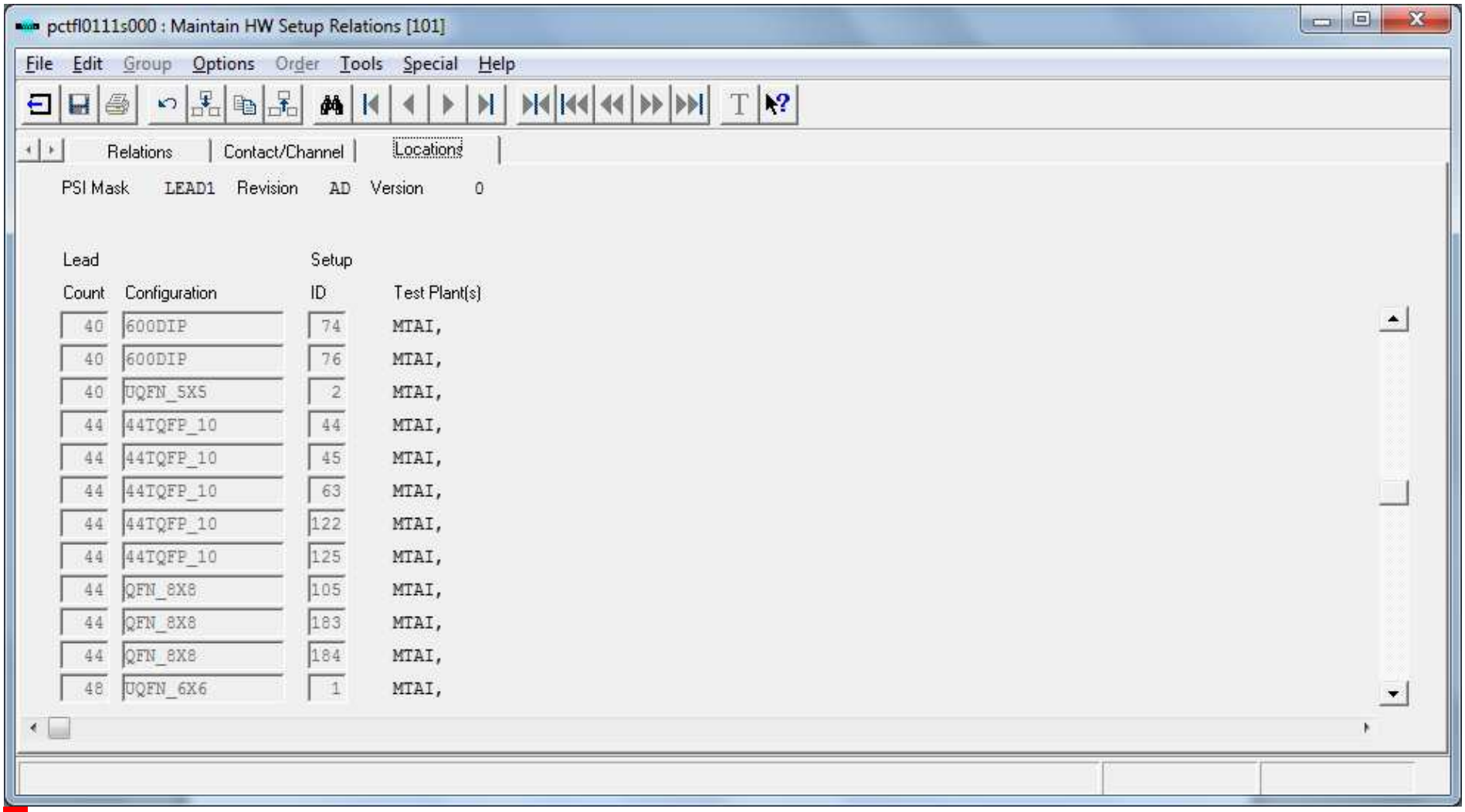
- **HW Relations – Contact/Channelmap**



PSI Test Revision – 10

(PI-70009)

- **HW Relations – Locations**



Tester Type / Handler Type - 1

- **Tester Type : 20-Character Maximum**

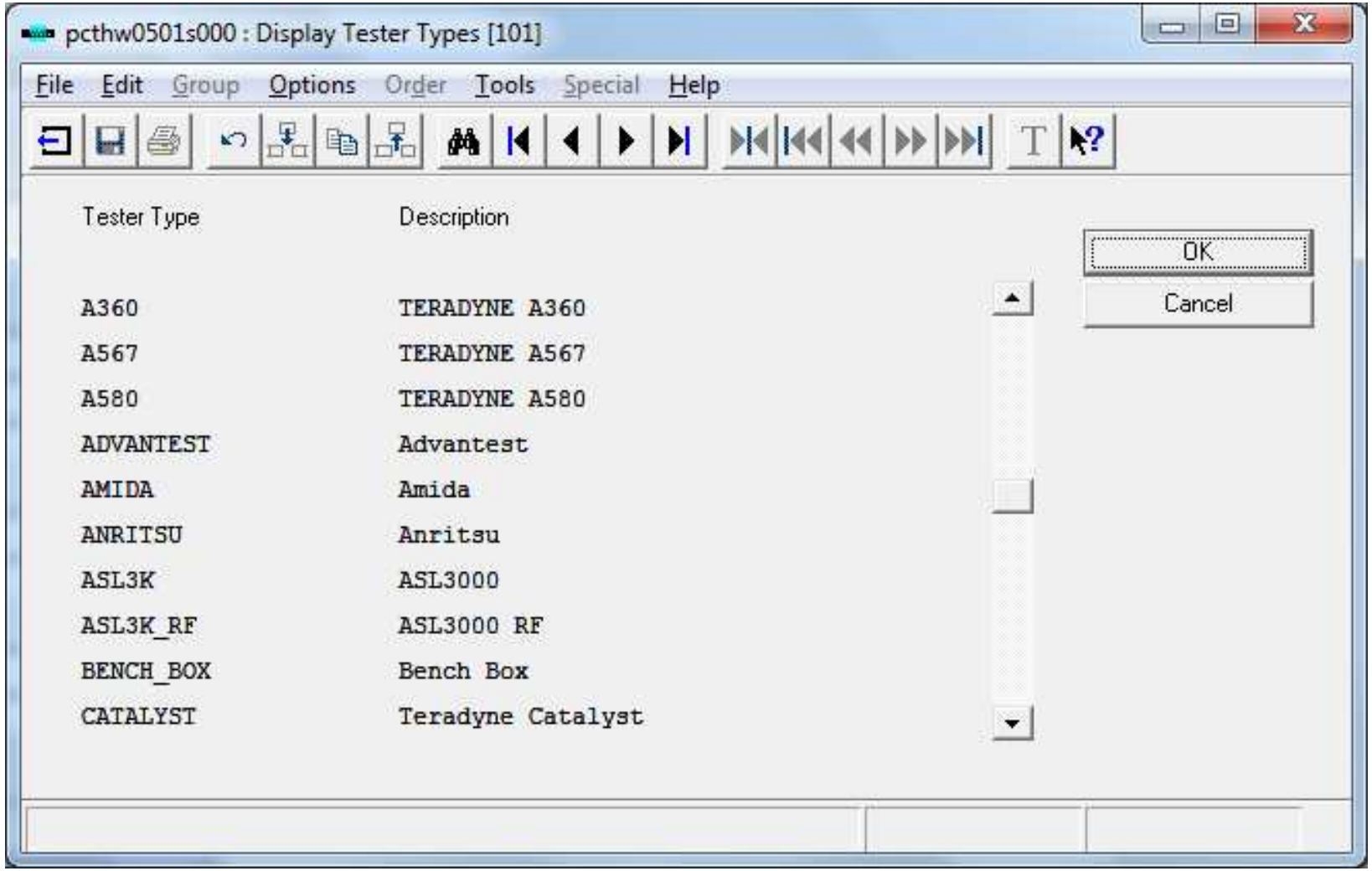
  141 Tester Types as of Dec 7, 2017

- **Handler Type : 20-Character Maximum**

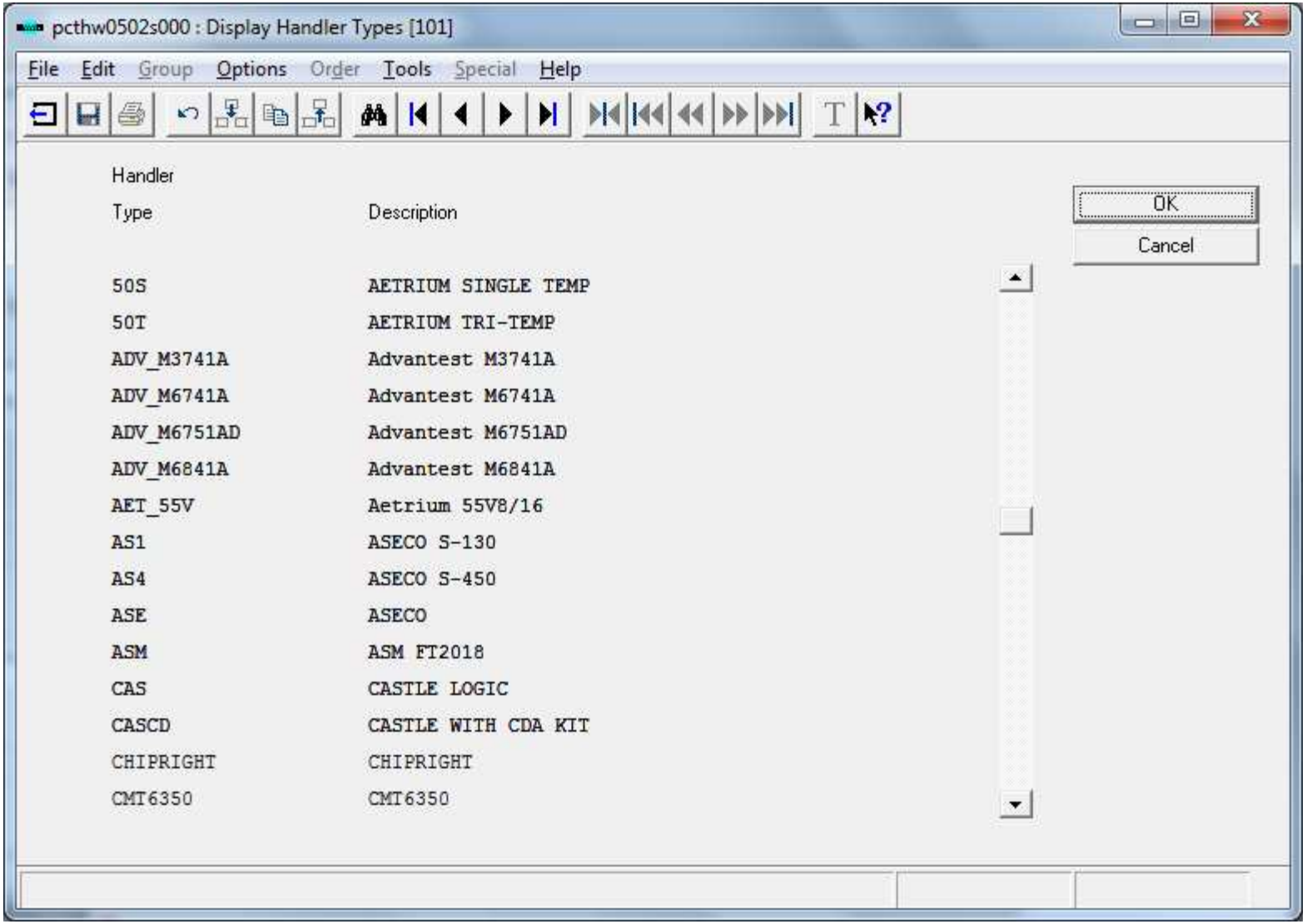
  96 Handler Types as of Dec 7, 2017

Tester-Handler

Tester Type / Handler Type - 2



Tester Type / Handler Type - 3



Tester Type / Handler Type - 4

- **Add New Tester / Handler Type**
- **Discuss with Soravorn Pochpring - B00022 (MThai IE) on the Tester/Handler name then submit a request.**
- **Go to : http://mth-sv-qaapp/ApproveCenter/equipname**
- **Login by using your PC login User name and Password.**
- **Select “Equipment Name”.**
- **Choose “New Tester” or “New Handler”.**
- **Input the purpose.**
- **Select “Add Tester” or “Add Handler”, Fill in the data then click “Submit”.**
- **Click “Create Approval Loop” and leave all default approvers.**
- **Click “Submit to Approval”.**
- **You will get a notification email once your request got all approvals or rejected.**

Load Board / Contactor Data - 1

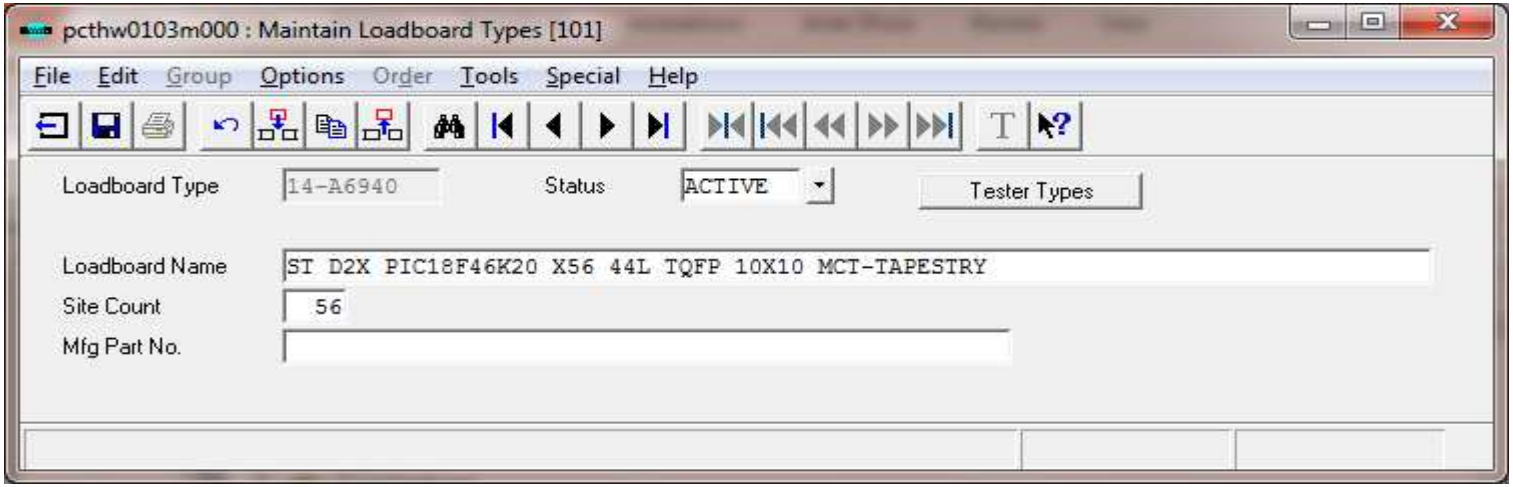
- **Load Board Design files on DMS.**
- **Go to http://microchipweb/**
  - **MCHPWEB → Tools & Resources**
  - **Tools by popular Category → Document Management System (DMS)**
  - **DMS SharePoint Applications → Controlled Document Libraries**
  - **Specification Index → 14-A Hardware Schematics**
  - **Search by Spec Num**
  - **Click "View Detail" to get .zip file.**

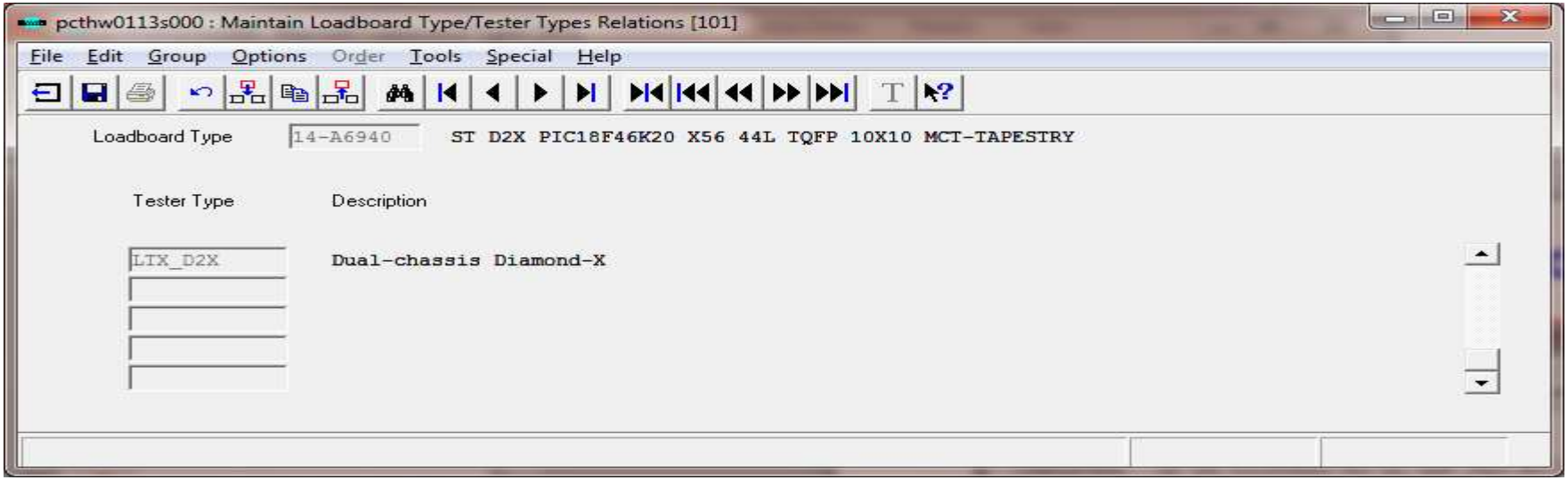
Drag a column header and drop it here to group by that column

Detail	Type	Status	Spec Num	Revision	Title	Originator	Owner	Part Number	Incorporated CN
			14-A6940						
View Detail	14	Current	14-A6940	A	ST CREDENCE DIAMOND 2X PIC18F46K20 x56 44L TQFP 10X10 MCT-TAPESTRY	Ponthanathorn Udomrattanasiriporn - B09836	Valen Burd - C10844		CN_14001845

Load Board / Contactor Data - 2

- **Load Board Data in Baan PDC.**





Load Board / Contactor Data - 3

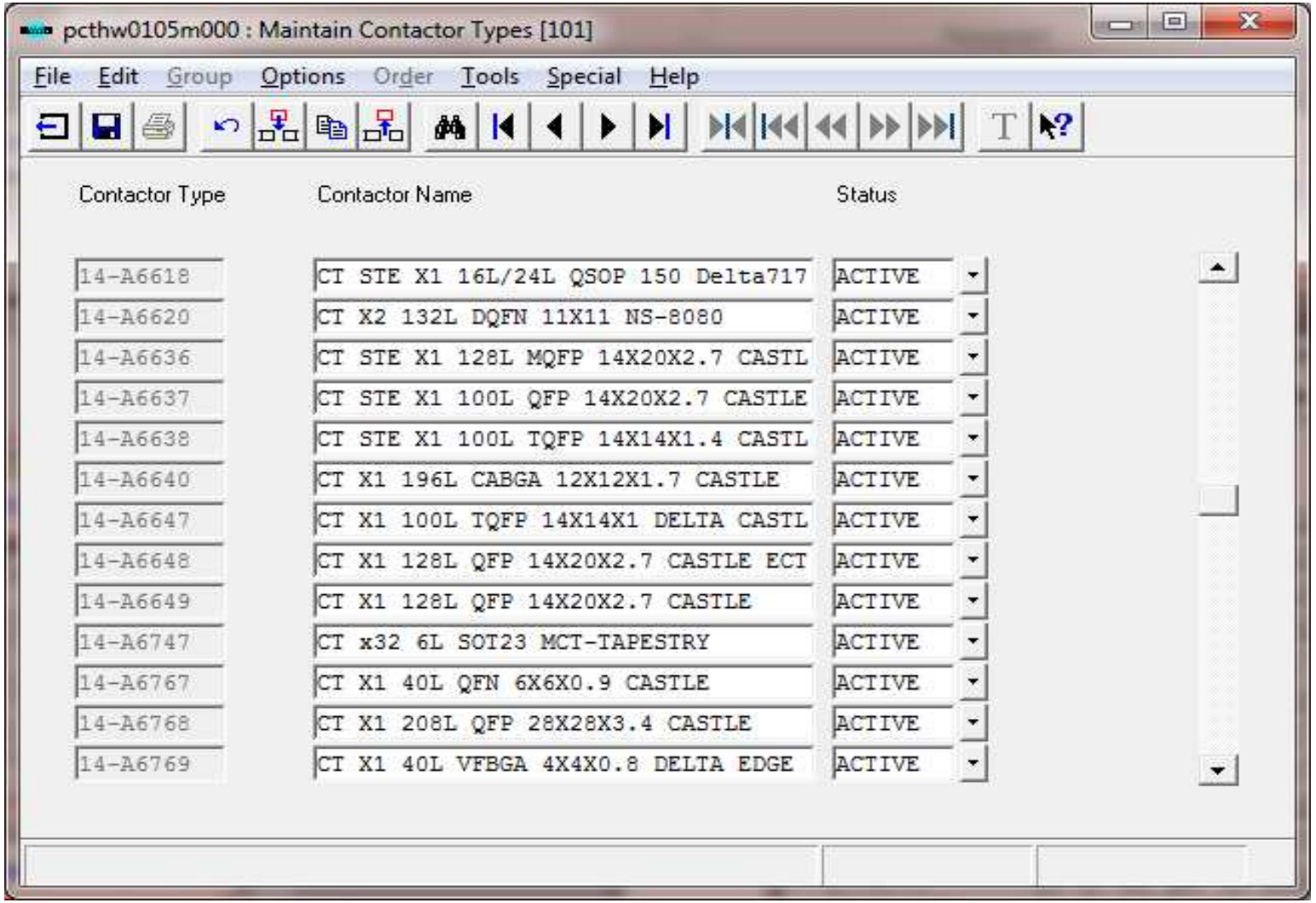
- **Contactor Design files on DMS.**
- **Go to http://microchipweb/**
  - **MCHPWEB → Tools & Resources**
  - **Tools by popular Category → Document Management System (DMS)**
  - **DMS SharePoint Applications → Controlled Document Libraries**
  - **Specification Index → 14-A Hardware Schematics**
  - **Search by Spec Num**
  - **Click "View Detail" to get .zip file.**

Drag a column header and drop it here to group by that column

Detail	Type	Status	Spec Num	Revision	Title	Originator	Owner	Part Number	Incorporated CN
			14-A6747						
View Detail	14	Current	14-A6747	A	CT x32 6L SOT23 MCT-TAPESTRY	Noppakun Permkhuer - B02110	Valen Burd - C10844	SPC0158A-T01	B1401A

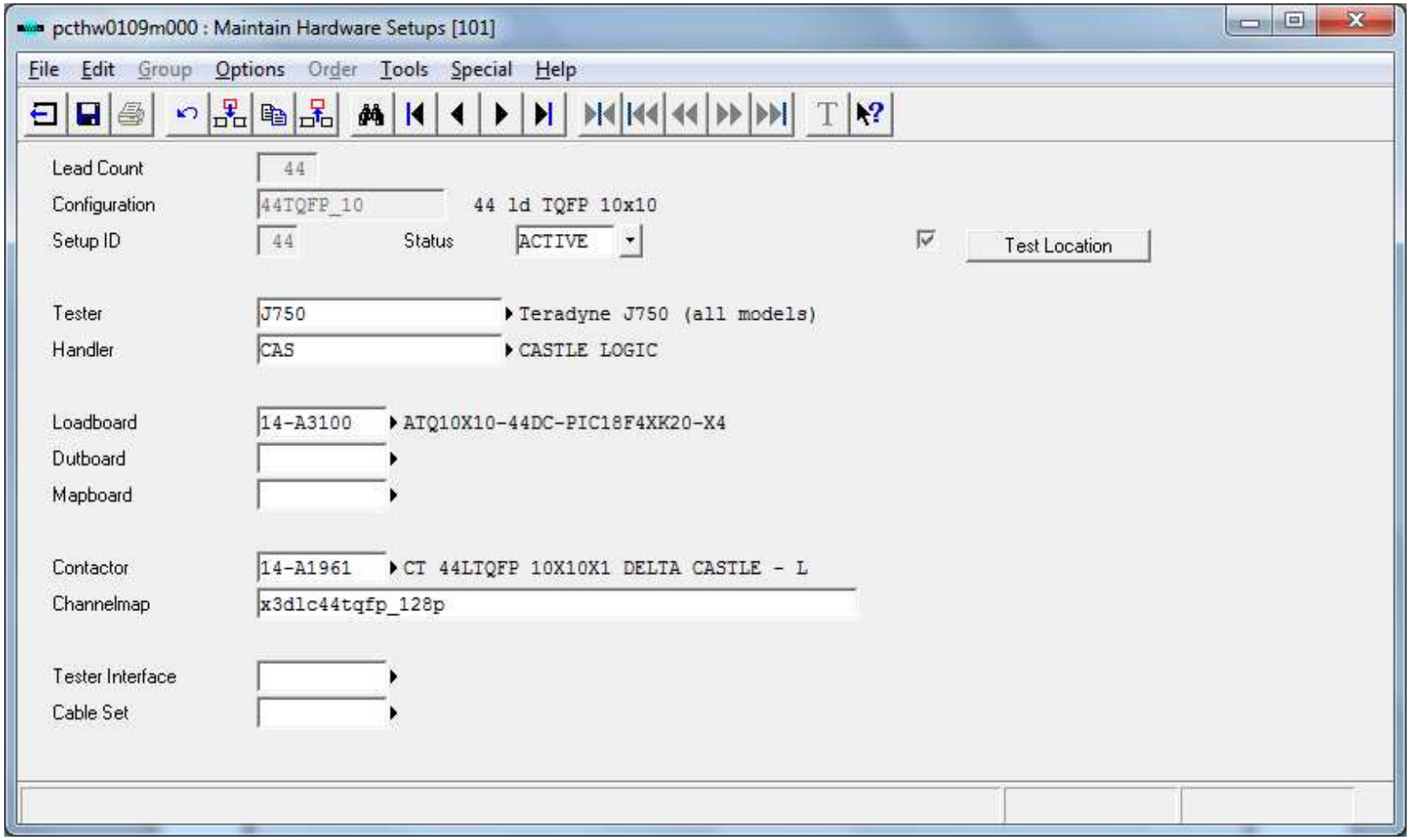
Load Board / Contactor Data - 4

- **Contactor Data in Baan PDC.**



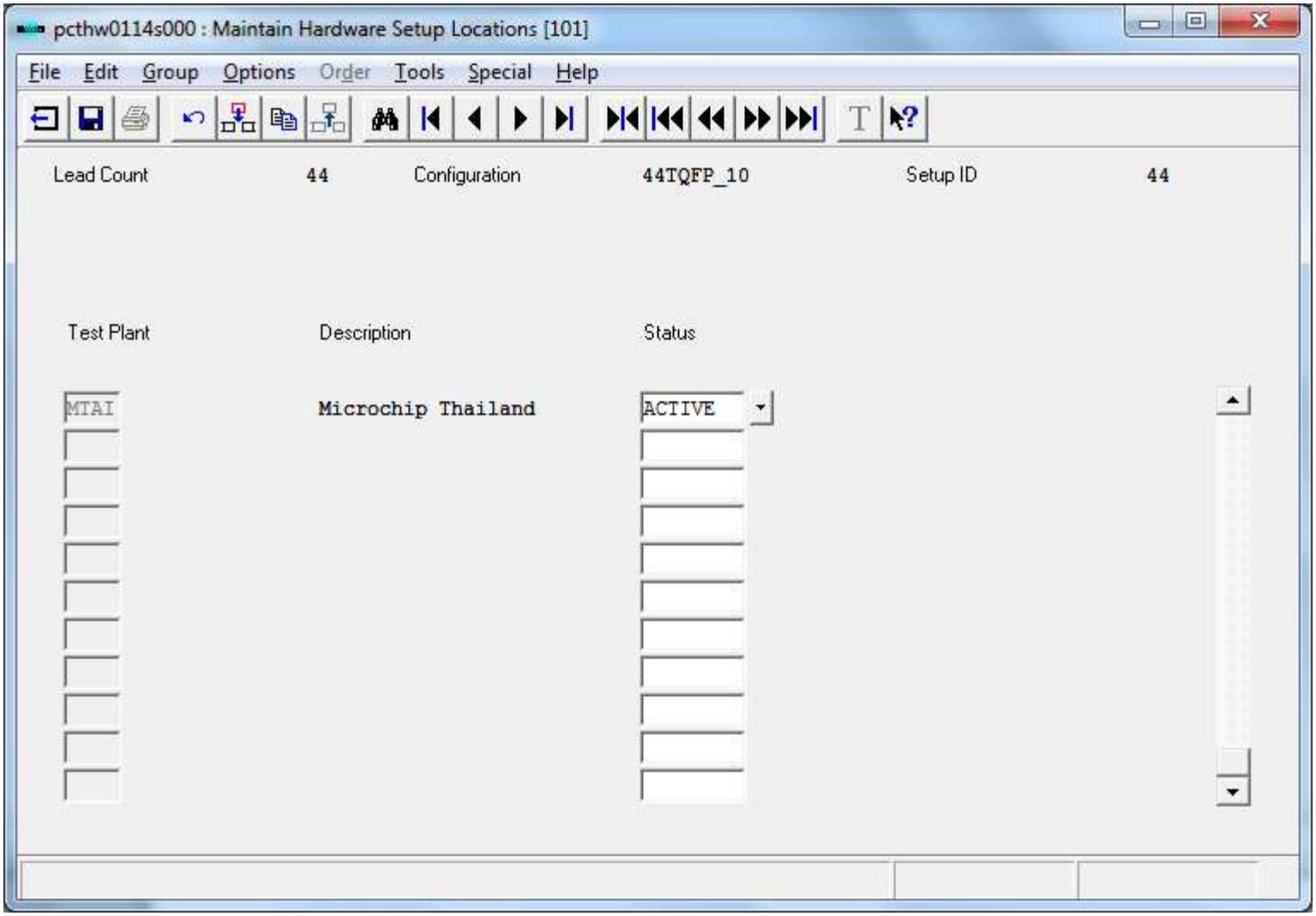
Hardware Setup - 1

- **HW Setup is consist of Tester, Handler, Loadboard, Dutboard, Mapboard, Contactor, Channelmap, Tester Interface, Cable Set,**



Hardware Setup - 2

- **And Test Location.**

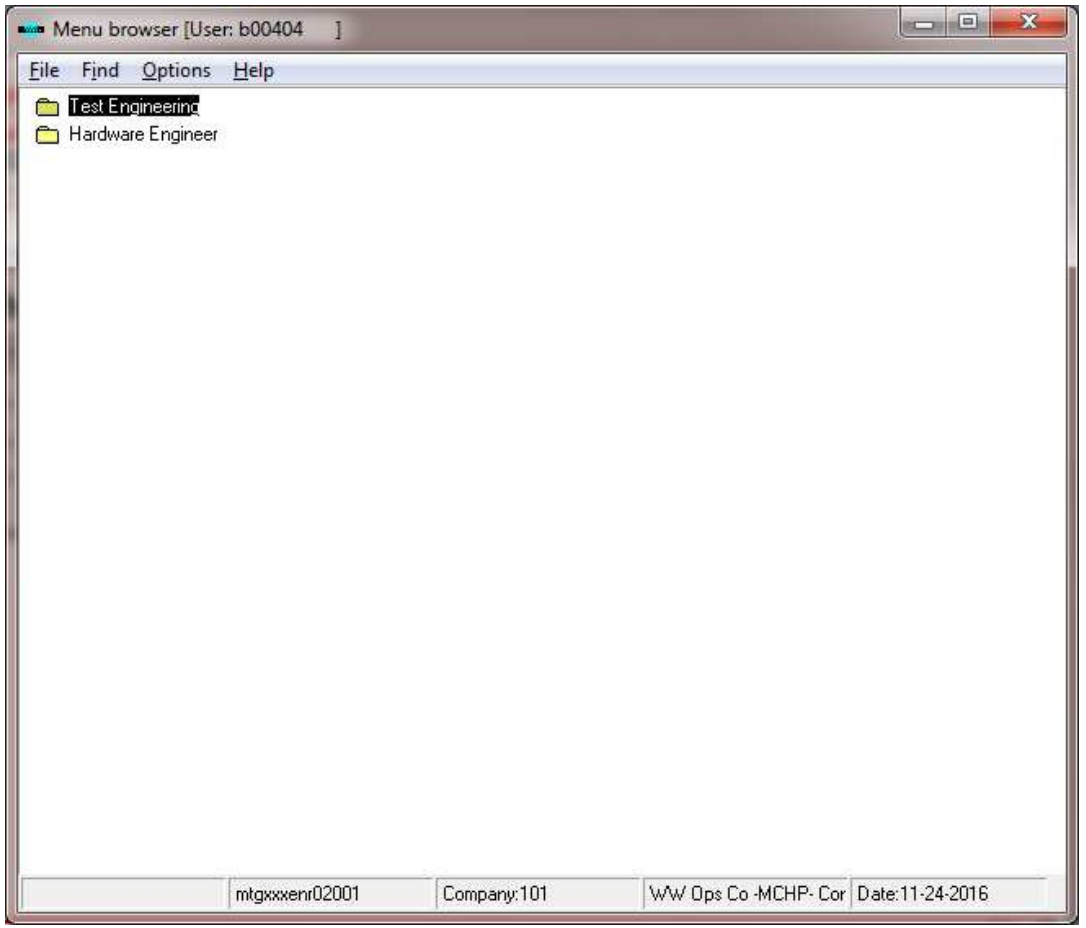


Final Test Data Collection for PDC Creation

- **Data for PDC Creation :**
  - **Mask / MPC**
  - **Package / Package Code**
  - **Tester / Handler**
  - **Test Hardware (Loadboard,Contactor,..) Spec no.(14-Axxxxx)**
  - **Test Flow & Test Temperature**
  - **Test Program Name and Test Program Option for each Test Step**
  - **Test Program Channel Map Name (if any) (Mapping DUT pins with Tester Pin Electronics)**
  - **Handler Binning (Good/Reject, Define in the test program)**
  - **Operating System (OS) if require special version**
  - **Special Instruction (if any)**

Login to Baan PDC

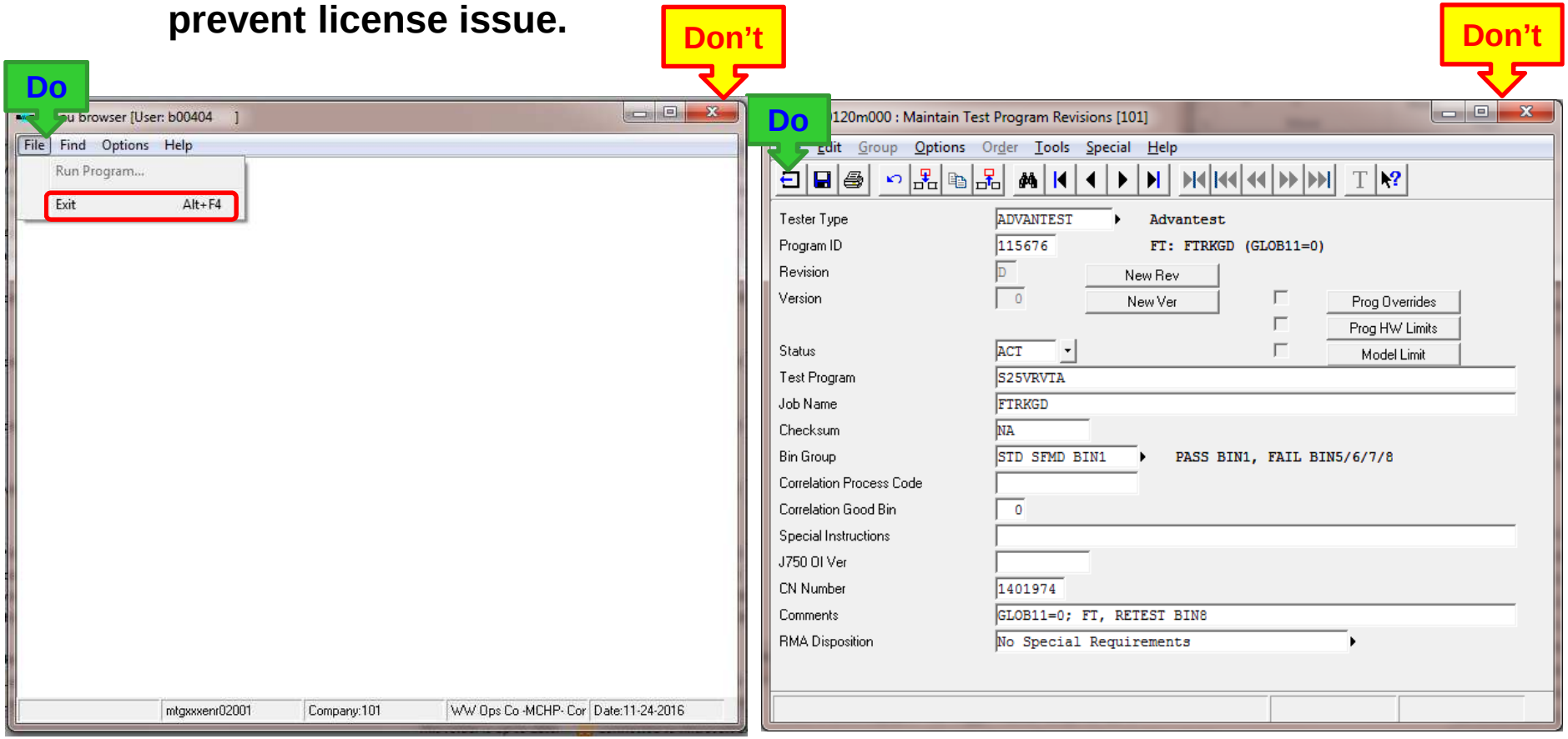
- **Login by using PC login User name and Password.**
- **Then press “Enter” button or click “Connect” button.**



Exit From Baan PDC - 1

Caution: Do not exit by clicking "X" box at the upper right hand corner of the screen.

Exit all screens via File menu or Save and Exit button (the button right under File menu with the blue arrow pointing the left inside a black box) to prevent license issue.



Exit From Baan PDC - 2

From: Microchip Information Systems
Sent: Sunday, January 15, 2017 10:27 PM
To: #All WorldWide Employees
Subject: Baan licenses - please read

If you are not a Baan user, you may disregard this message.

Our Baan licenses are a precious and costly resource which Microchip owns. In the past few days, we have had issues with the number of users who are able to log onto the system, especially in the heavily used Asia region.
Frustrations rise quickly if you need to log in and you get a message saying that the user limit has been reached.

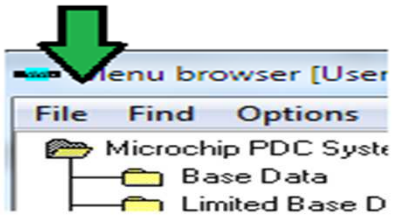
We have enough licenses to support everyone's work if we are careful in how we manage our Baan log in activity.

Please be aware of 2 key rules for using your Baan account

1. If you are not actively working in the system, LOG OFF!

2. When you do log off, DO NOT use the red "X" in the upper right corner to close your account

    a. ALWAYS use the File > Exit path to leave the application



We are monitoring system usage and we do have some clean-up tools for helping to remove stale accounts, but it is better to develop good Baan habits from the beginning than to chase these problems.
Thank you for your help in keeping our Baan system available for everyone.

Please do not reply to this email address. Please send any questions to the Helpdesk at helpdesk@microchip.com or call 480.792.7600.

Baan Buttons

- **Frequently use buttons :**

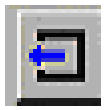
 **Find/Search Function**

 **Insert Function**

 **Delete Function**

 **Bowtie Function (Select the option)**

 **Save Function**

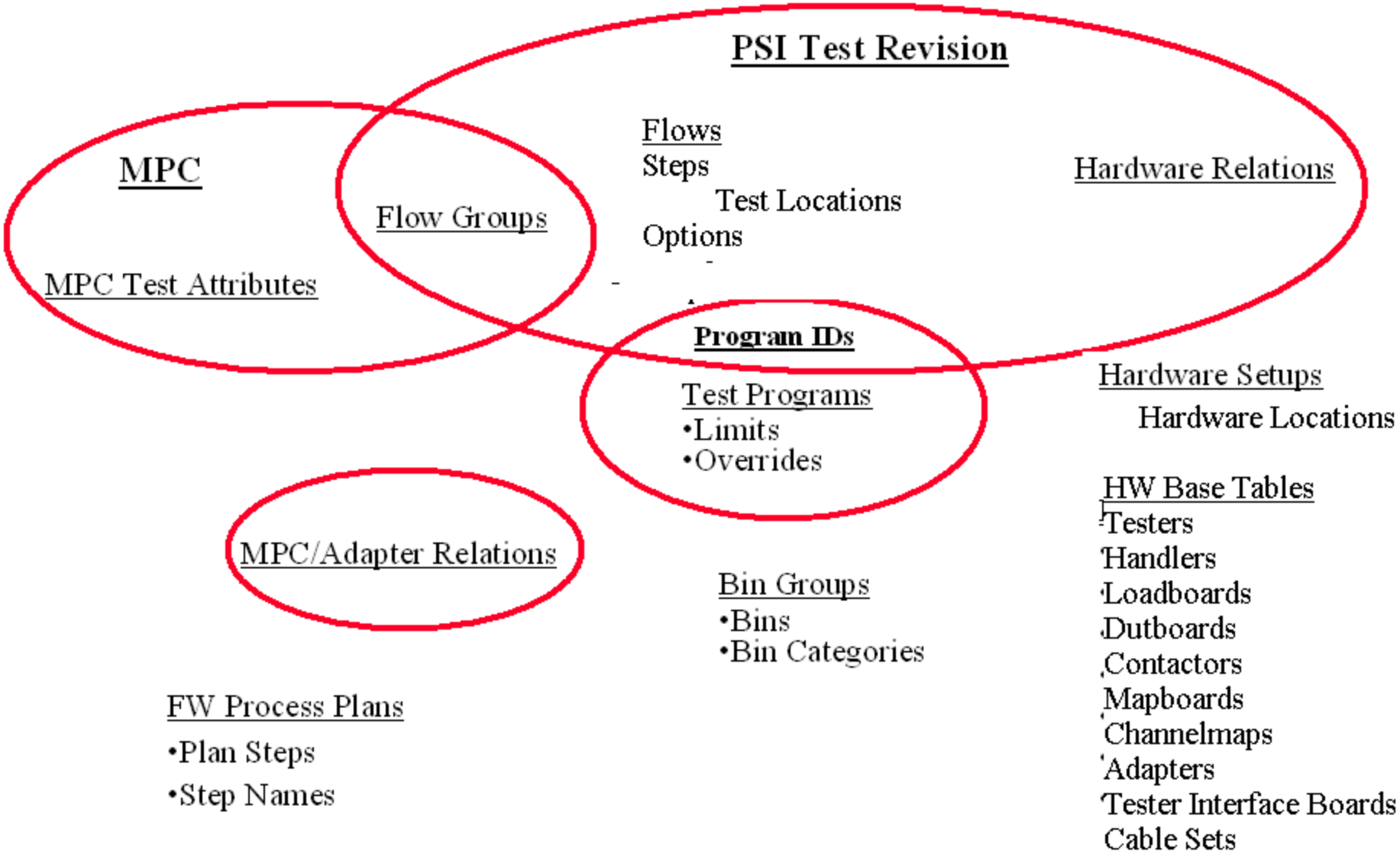
 **Save and Exit Function**

 **Copy Function**

 **Next Function**

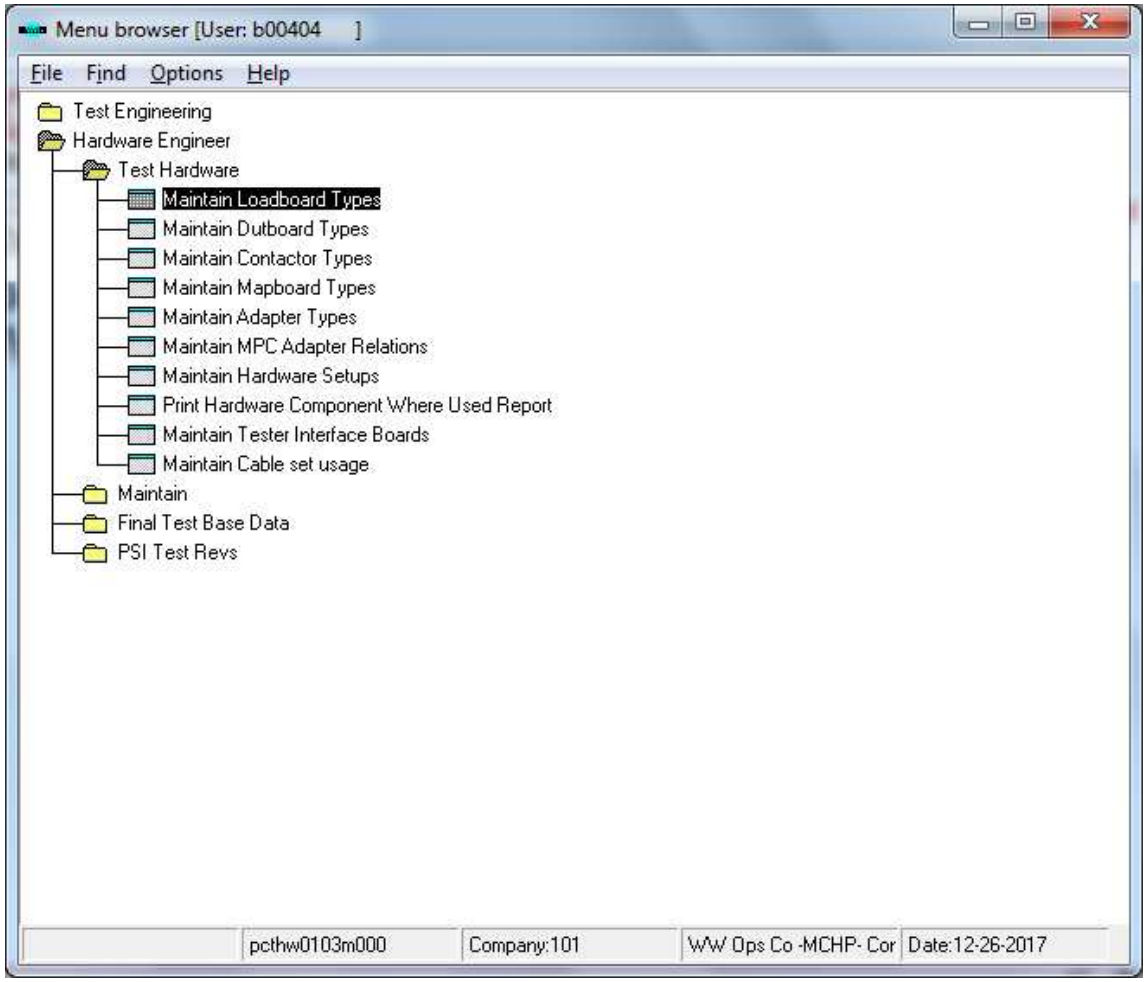
 **Prior Function**

PDC Data Structure



Add Loadboard Type - 1

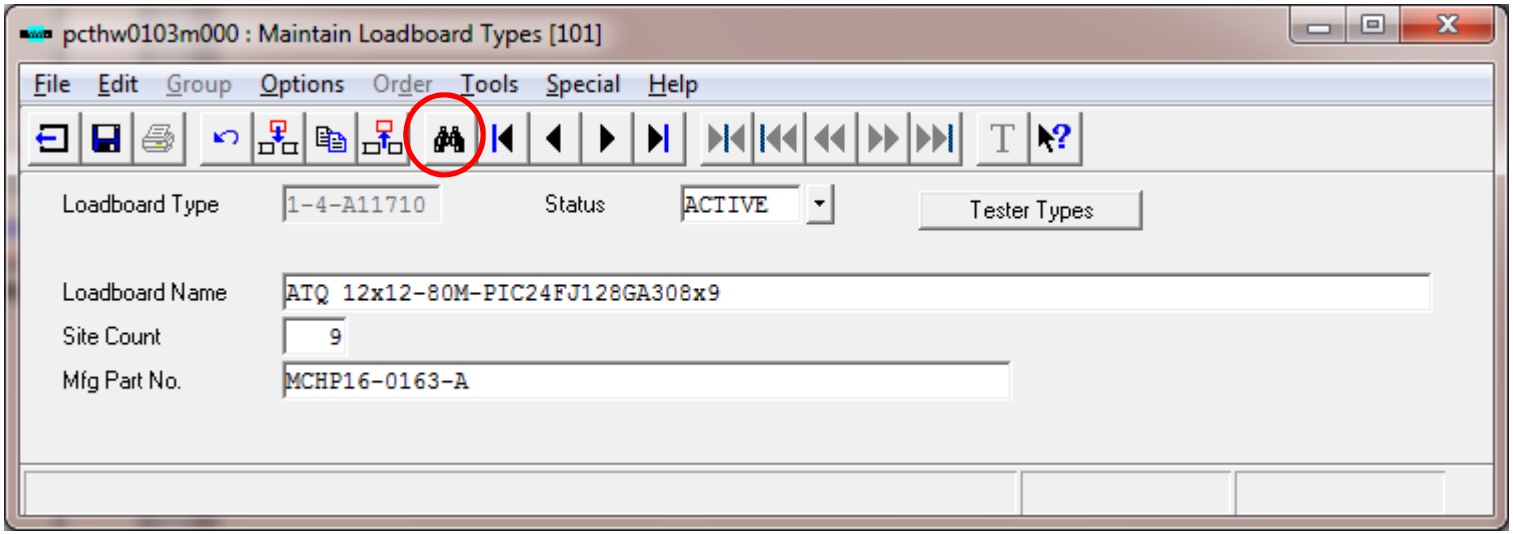
- Double clicks “Hardware Engineer”.
- Double clicks “Test Hardware” then “Maintain Loadboard Types.

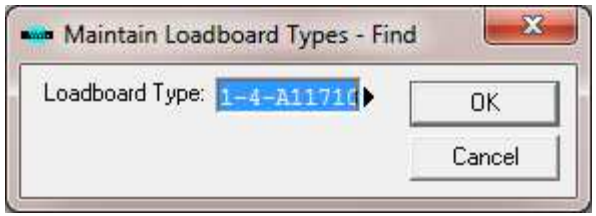


Add Loadboard Type - 2

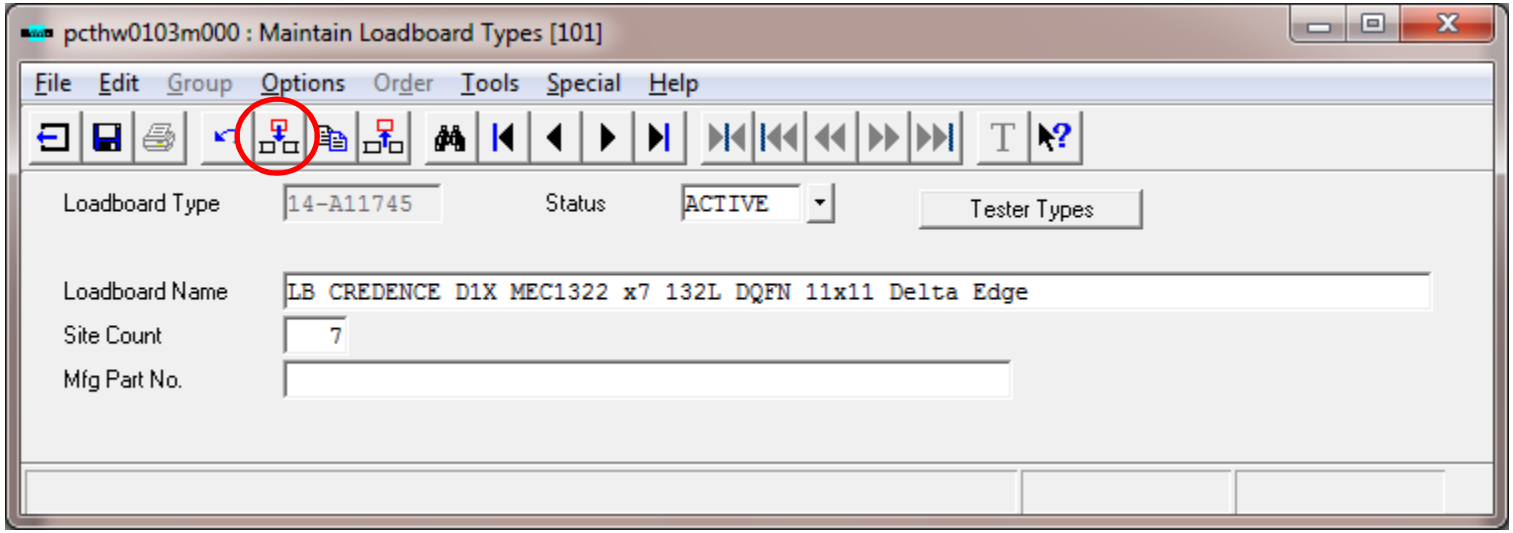
- Click Find button (binoculars symbol)
- Input 14-Axxxxx Loadboard spec no. then press “Enter” button or click “OK” to verify if it has already existed or not.

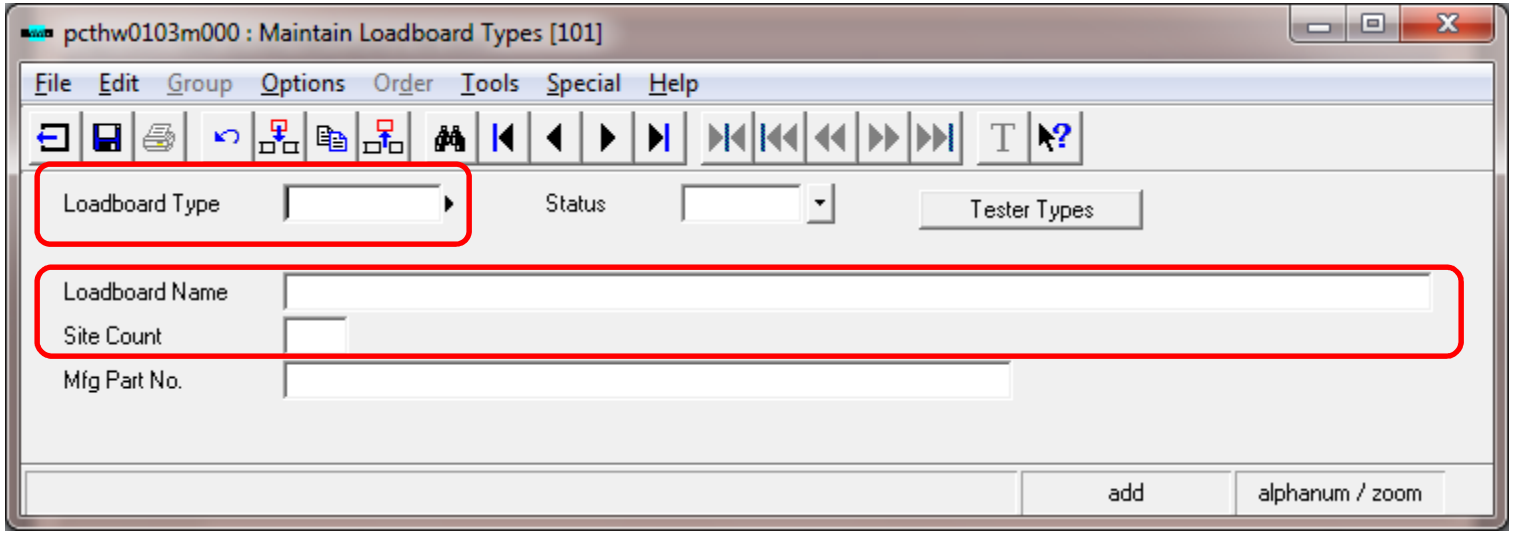
  If not, it will go to the nearest Loadboard spec no.





Add Loadboard Type - 3





Add Loadboard Type - 4

- Click Insert button.
- Input 14-Axxxxx Loadboard spec no. at Loadboard Type field.
- Input Loadboard Name (120 Char. Max) per Title of DMS data or Description of Hardware Database System (HDS).

DMS Data

Drag a column header and drop it here to group by that column

Detail	Type	Status	Spec Num	Revision	Title	Originator	Owner	Part Number	Incorporated CN
			14-A11742						
View Detail	14	Current	14-A11742	A	ST CREDENCE DIAMOND D2X PIC18F66J16/67J11 x56 64L TQFP 10x10x1 MCT-TAPESTRY	Siam Pungmaneesakul - B04711	Siam Pungmaneesakul - B04711	MCHP16-0199-A	CN_14006870

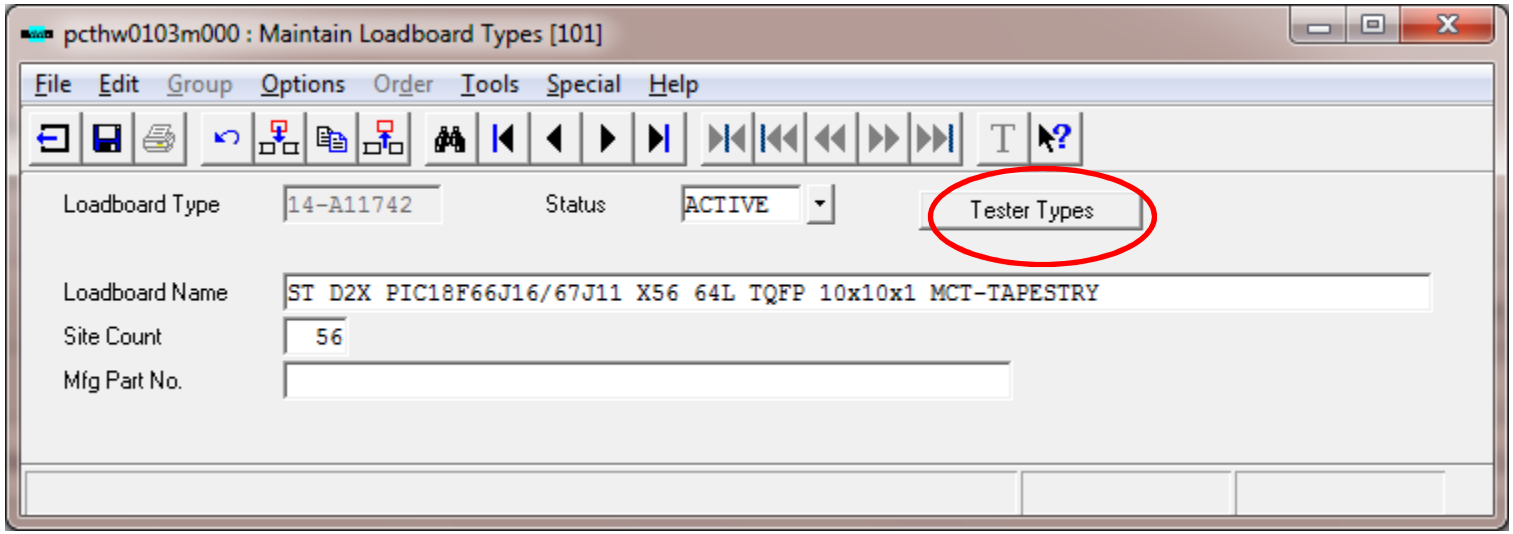
HDS Data

Drag a column header and drop it here to group by that column

Job Number	Spec Number	Description	Board Type	Priority	Job Type	Status
	14-A11742					
ST-18399	14-A11742	ST CREDENCE DIAMOND D2X PIC18F66J16/67J11 x56 64L TQFP 10x10x1 MCT-TAPESTRY	ST	2	StripTest	RTE/Complete

Add Loadboard Type - 5

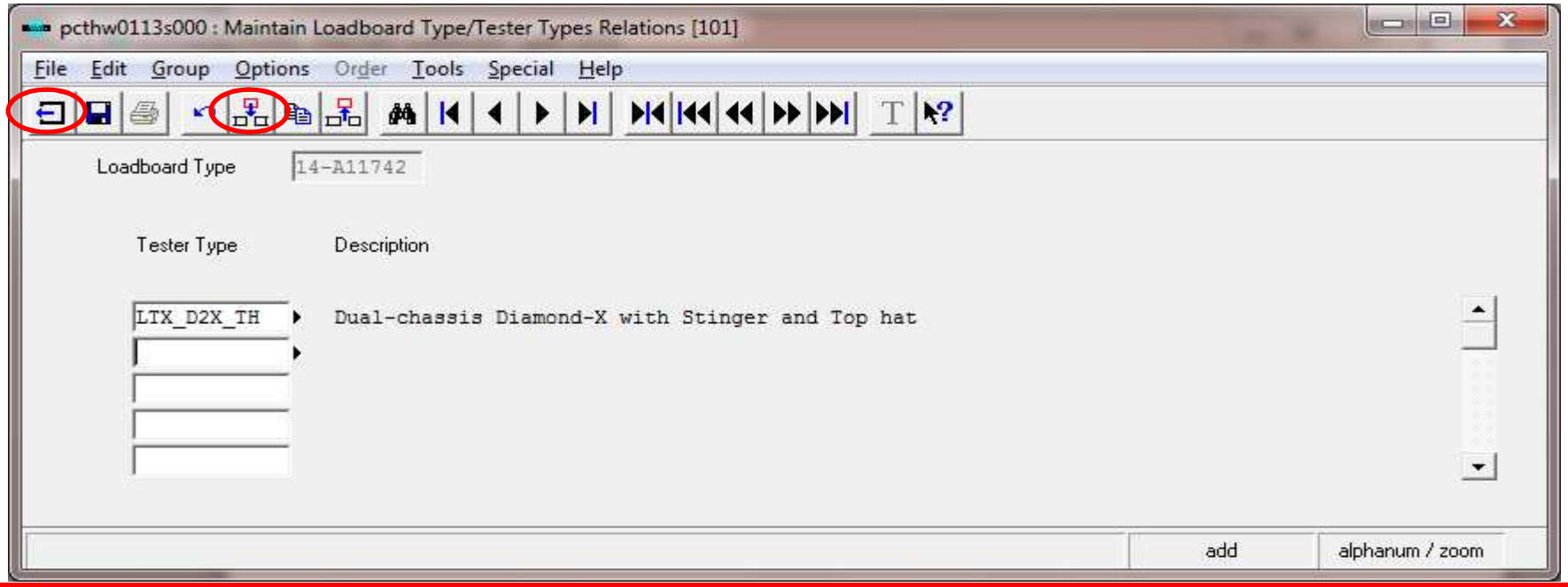
- **Input Site Count (Number of maximum sites of the Loadboard).**
- **Click “Tester Types” button.**



Add Loadboard Type - 6

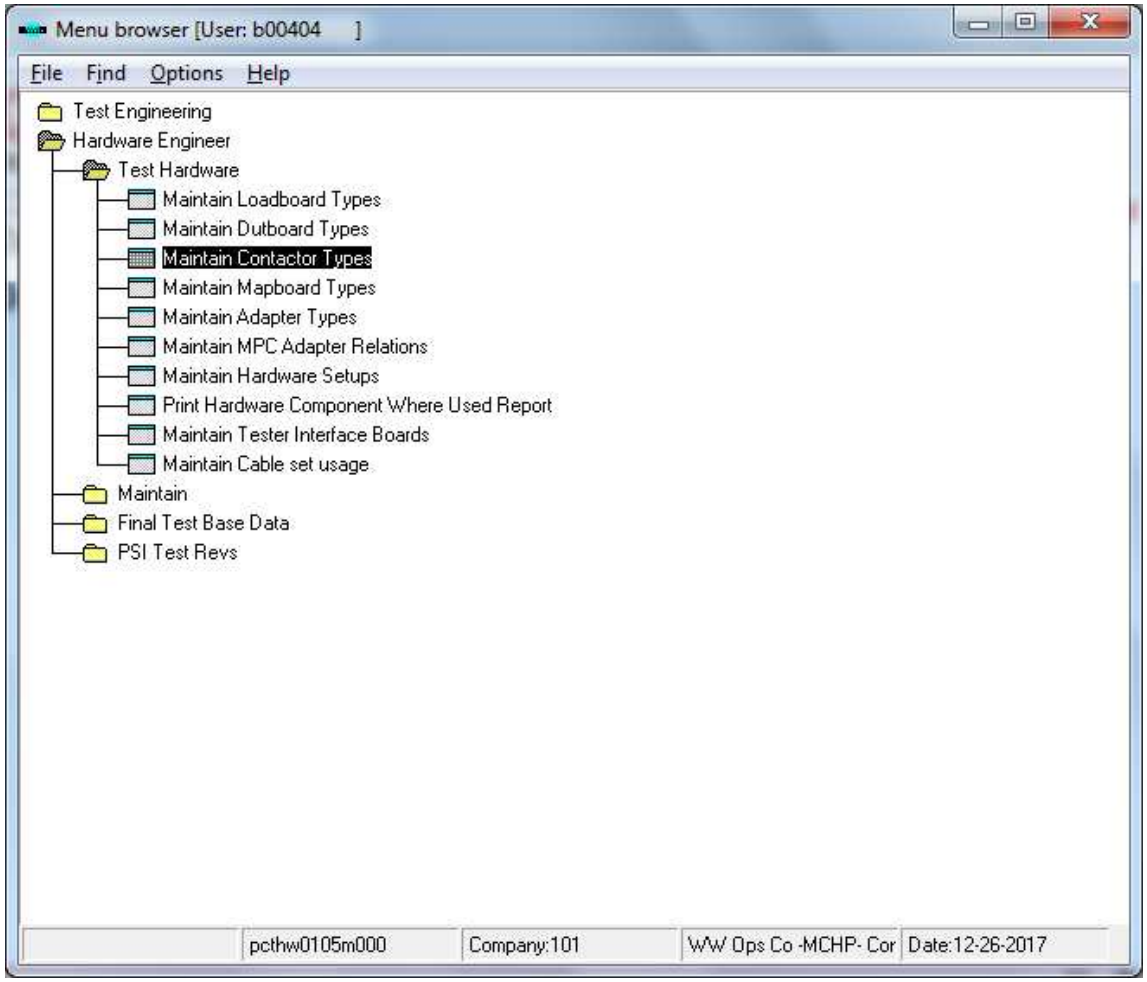
- Click Insert button. Select Tester Type or Type it in.

  Note : See the list of Tester Types by moving mouse to the triangle sign. Click mouse when it changes to magnifier.
- Click "Save & Exit" button to go back to the 1st page.
- Click "Save & Exit" button again to go back to "Hardware Engineer" screen.



Add Contactor Type - 1

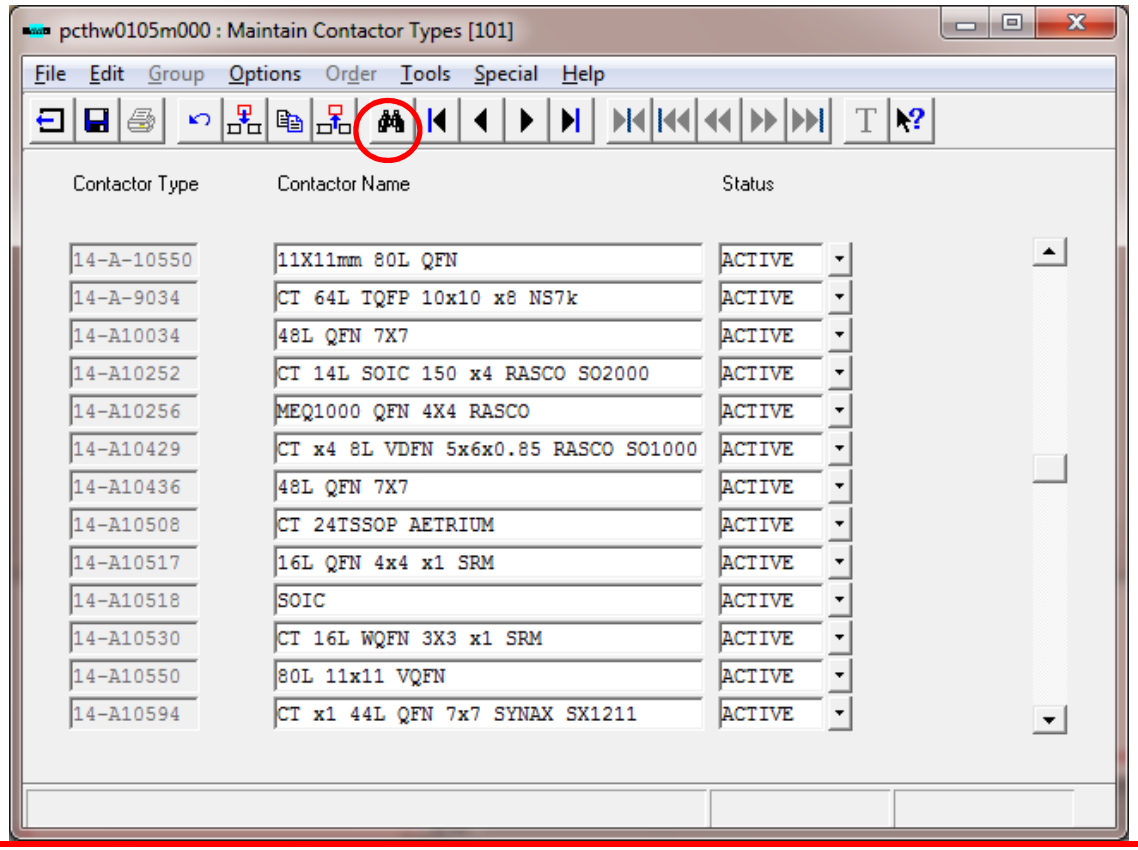
- Double clicks “Hardware Engineer”.
- Double clicks “Test Hardware” then “Maintain Contactor Types.

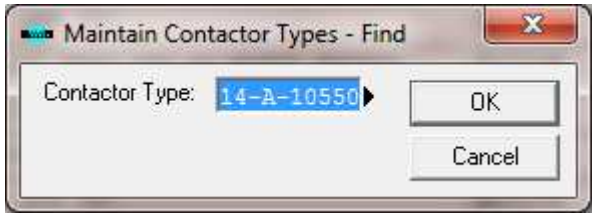


Add Contactor Type - 2

- Click Find button (binoculars symbol)
- Input 14-Axxxxx Contactor spec no. then press “Enter” button or click “OK” to verify if it has already existed or not.

  If not, it will go to the nearest Contactor spec no.





Add Contactor Type - 3

- Click Insert button.
- Input 14-Axxxxx Contactor spec no. at “Contactor Type” field.
- Input Contactor Name (120 Char. Max) per Title of DMS data or Description of Hardware Database System (HDS).

DMS Data

Drag a column header and drop it here to group by that column

Detail	Type	Status	Spec Num	Revision	Title	Originator	Owner	Part Number	Incorporated CN
			14-A7303						
View Detail	14	Current	14-A7303	A	CT x56 64L TQFP 10X10 MCT-TAPESTRY	Murriel Natiola - A04734	Valen Burd - C10844		CN_14002107

HDS Data

Drag a column header and drop it here to group by that column

Job Number	Spec Number	Description	Board Type	Priority	Job Type	Status
	14-A7303					
CT-13938	14-A7303	CT x56 64L TQFP 10x10x1 MCT-TAPESTRY	CT	0	Contactor	Closed

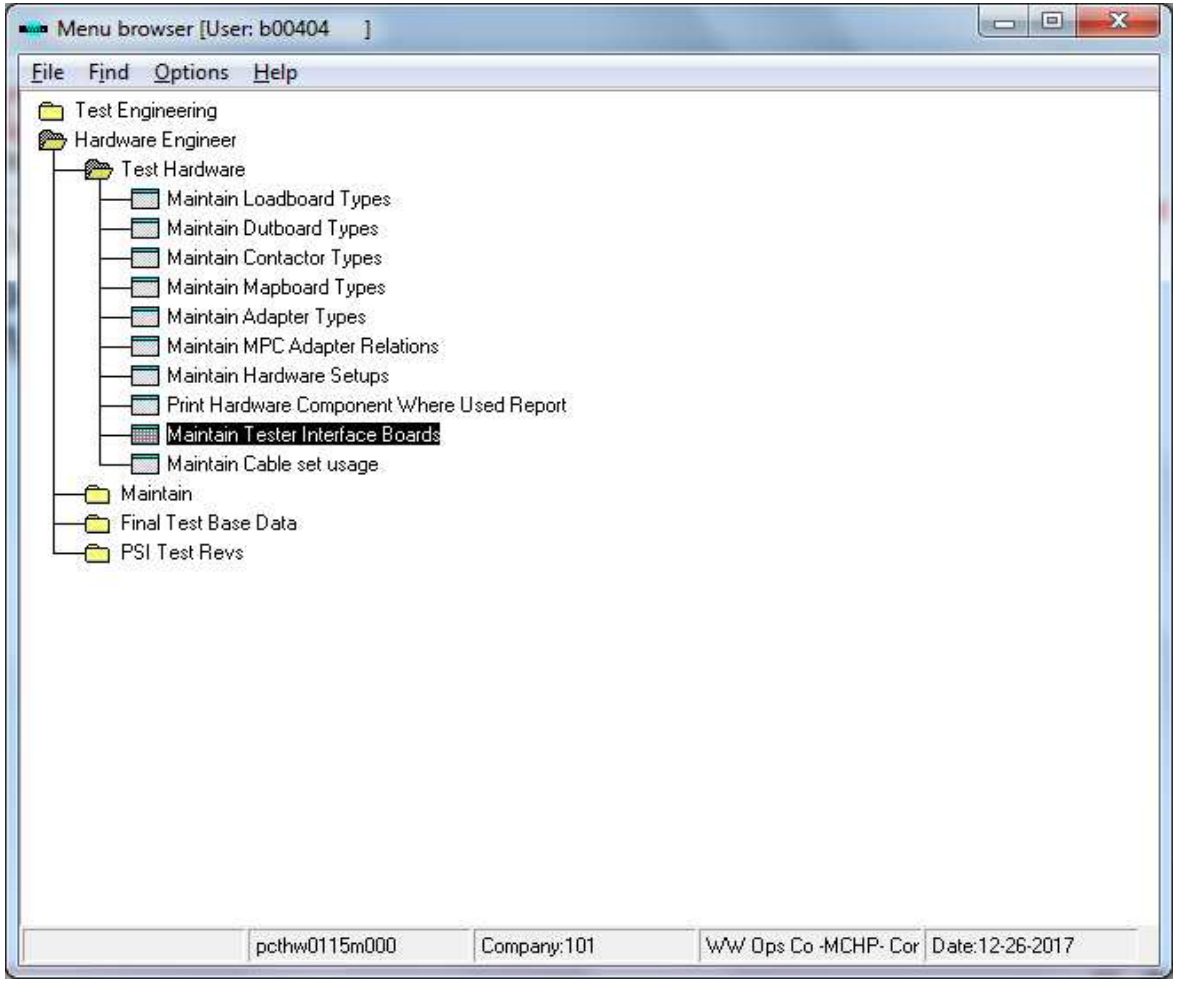
Add Contactor Type - 4

- **Press “Tab” button to move the cursor to “Status” field.**

  The default value is ACTIVE.
- **Click  “Save & Exit” button to go back to “Hardware Engineer” screen.**

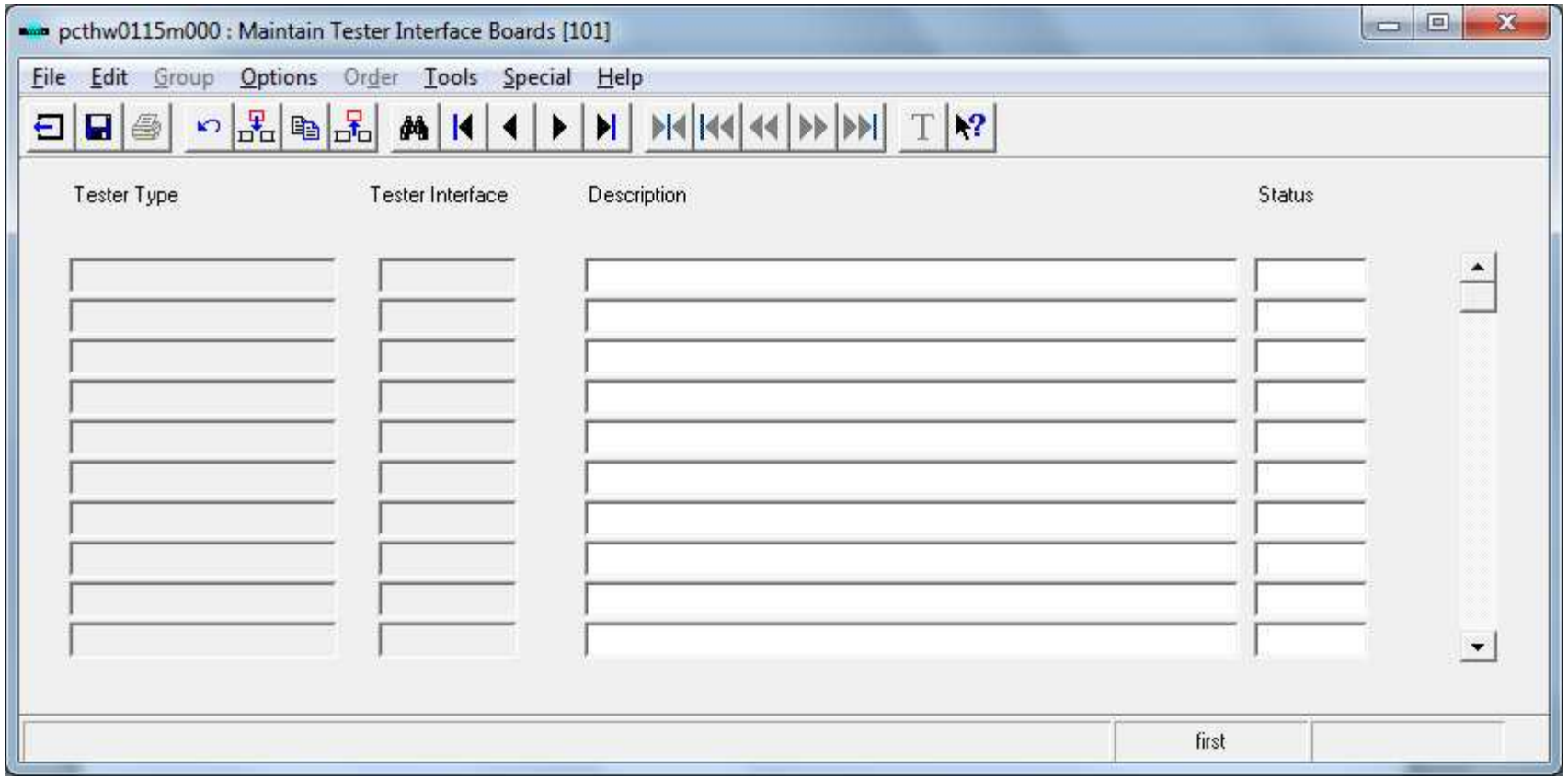
Add Tester Interface Board - 1

- Double clicks “Hardware Engineer”.
- Double clicks “Test Hardware” then “Maintain Tester Interface Boards.



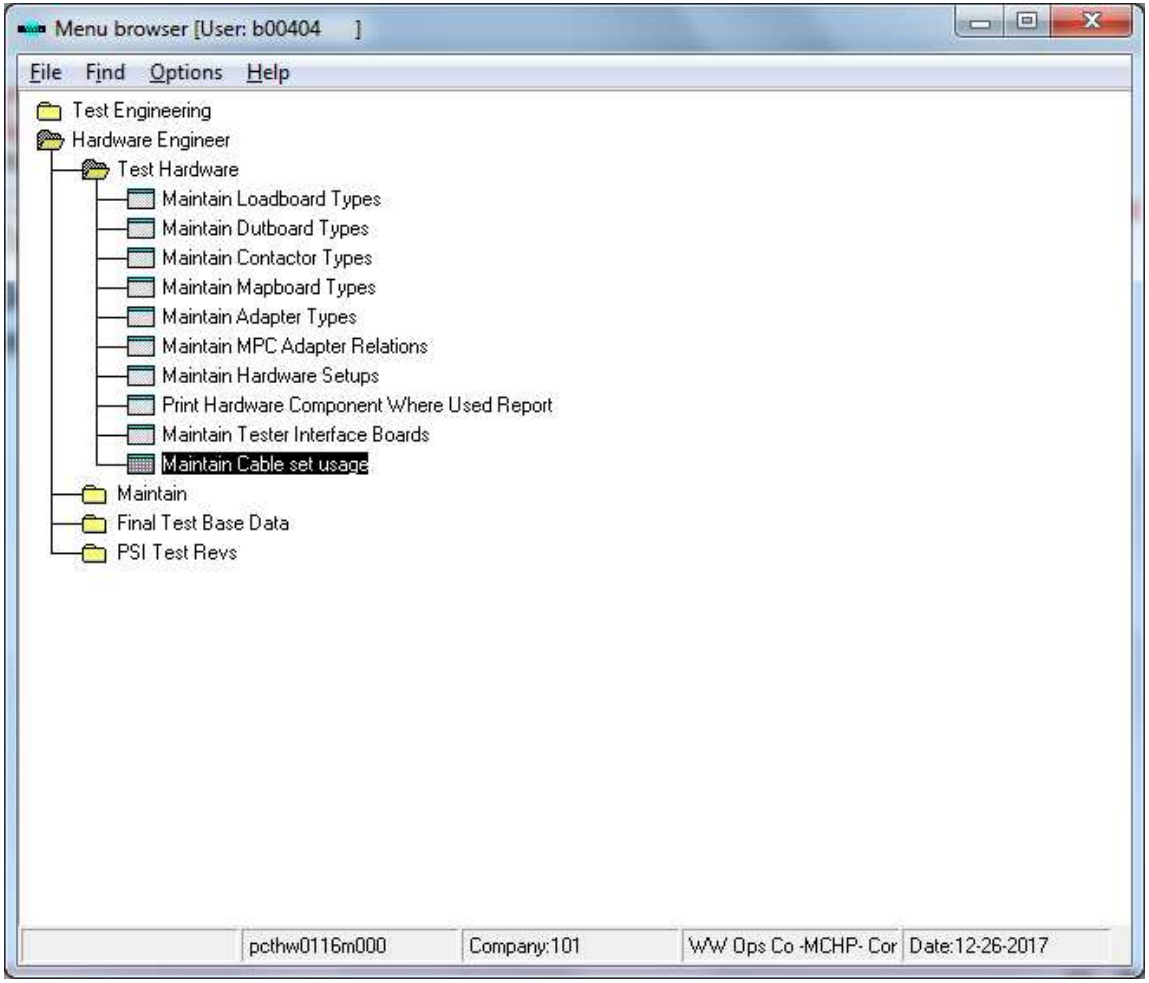
Add Tester Interface Board - 2

- **Input Tester Type, Tester Interface (14-Axxxxx) and Description (120 Char. Max) per Title of DMS data.**



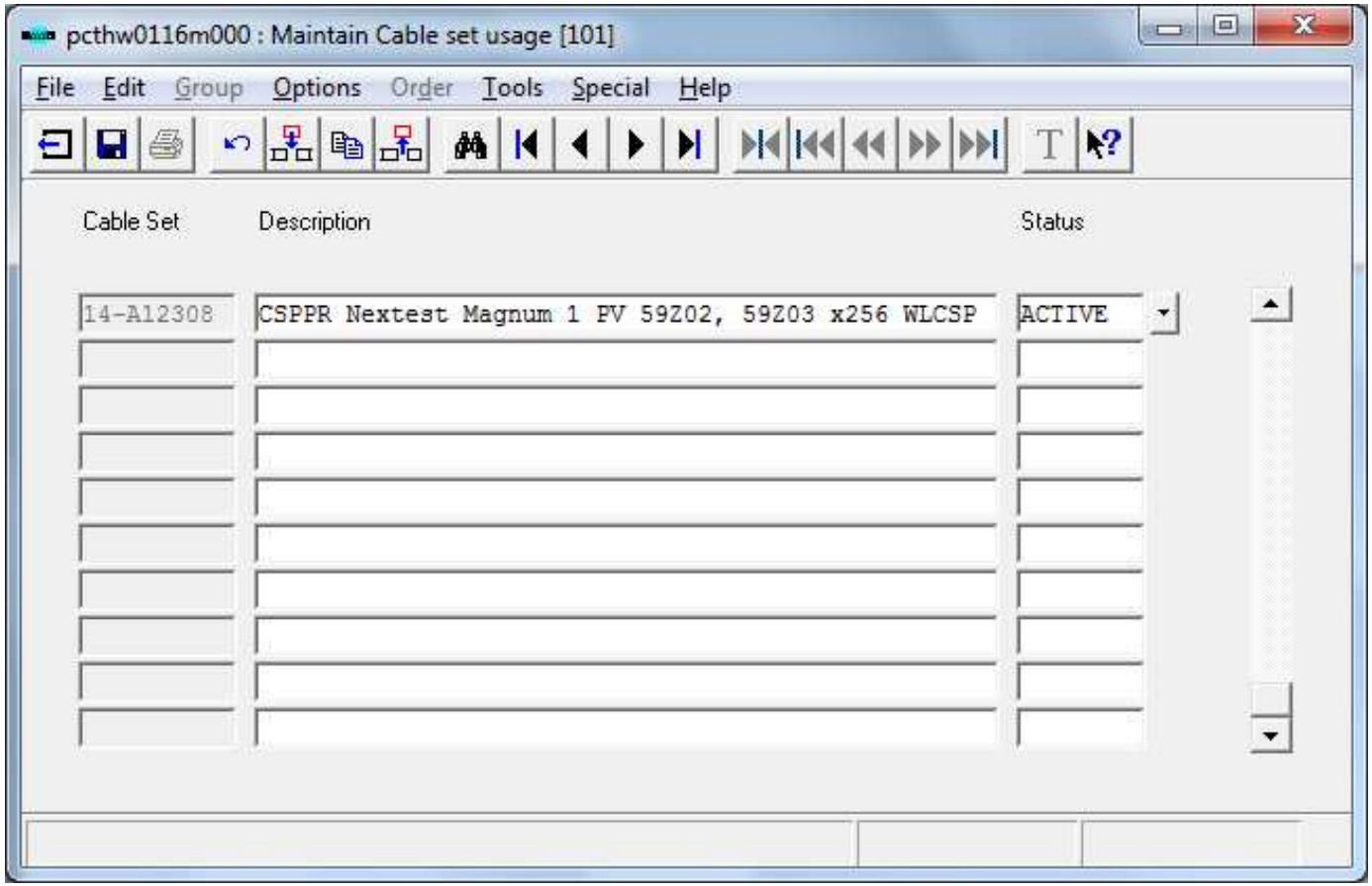
Add Cable set usage - 1

- Double clicks “Hardware Engineer”.
- Double clicks “Test Hardware” then “Maintain Cable set usage.



Add Cable set usage - 2

- **Input Cable Set (14-Axxxxx) and Description (120 Char. Max) per Title of DMS data.**



Create Hardware Setup ID - 1

- Hardware Setup data in PDC will be shown at each test step of Test Setup Options (Per package code of the MPC).
- If “Prog HW Limits” of the Program ID has been used, it will show only the assigned Setup ID.

FT1@IN25C

☐ **Tester Type:** J750 **Program ID:** 114137 **Legacy Op Num:**

1) Tester Models

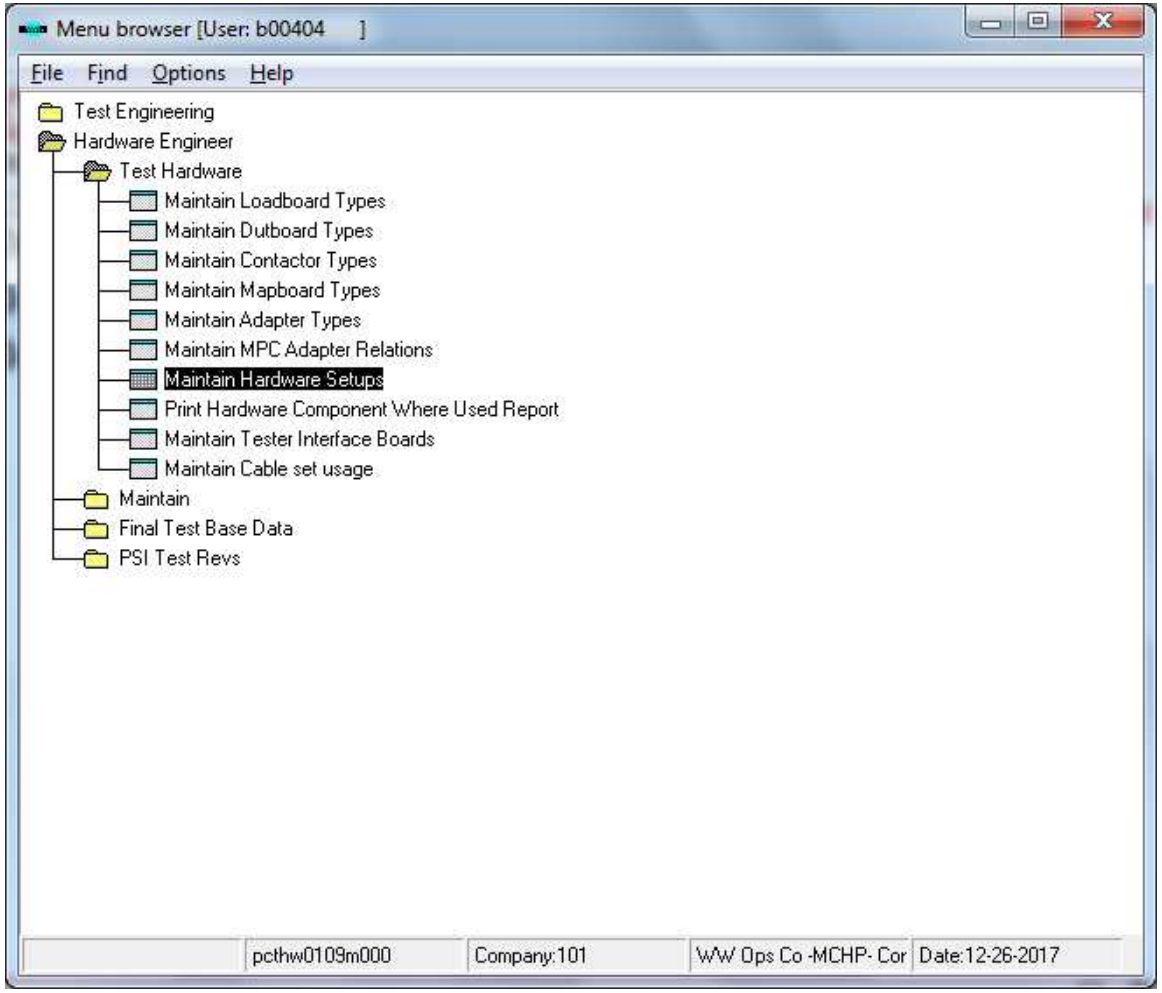
- ☐ J750_1024
- ☐ J750_128
- ☐ J750_256
- ☐ J750_512
- ☐ J750_640
- ☐ J750_832
- ☐ J750_MSO_128
- ☐ J750_MSO_256
- ☐ J750_SCAN
- ☐ J750_SCAN_448
- ☐ J750_SCAN_512

2) Hardware Setups for 44/44TQFP_10 (T4X)

	SETUP ID	HANDLR. CHANNELMAP	LOADBOARD ADAPTER	CONTACTOR TESTER INTERFACE BOARD	DUTBOARD CABLE SET	MAPBOARD H/W LOCATION
☐	44	CAS x3dlc44tqfp_128p	14-A3100	14-A1961		MTAI,
☐	45	CAS x4dlc44tqfp_256p	14-A3100	14-A1961		MTAI,
☐	63	SCH x20mct44tqfp	14-A4254	14-A2834		MTAI,

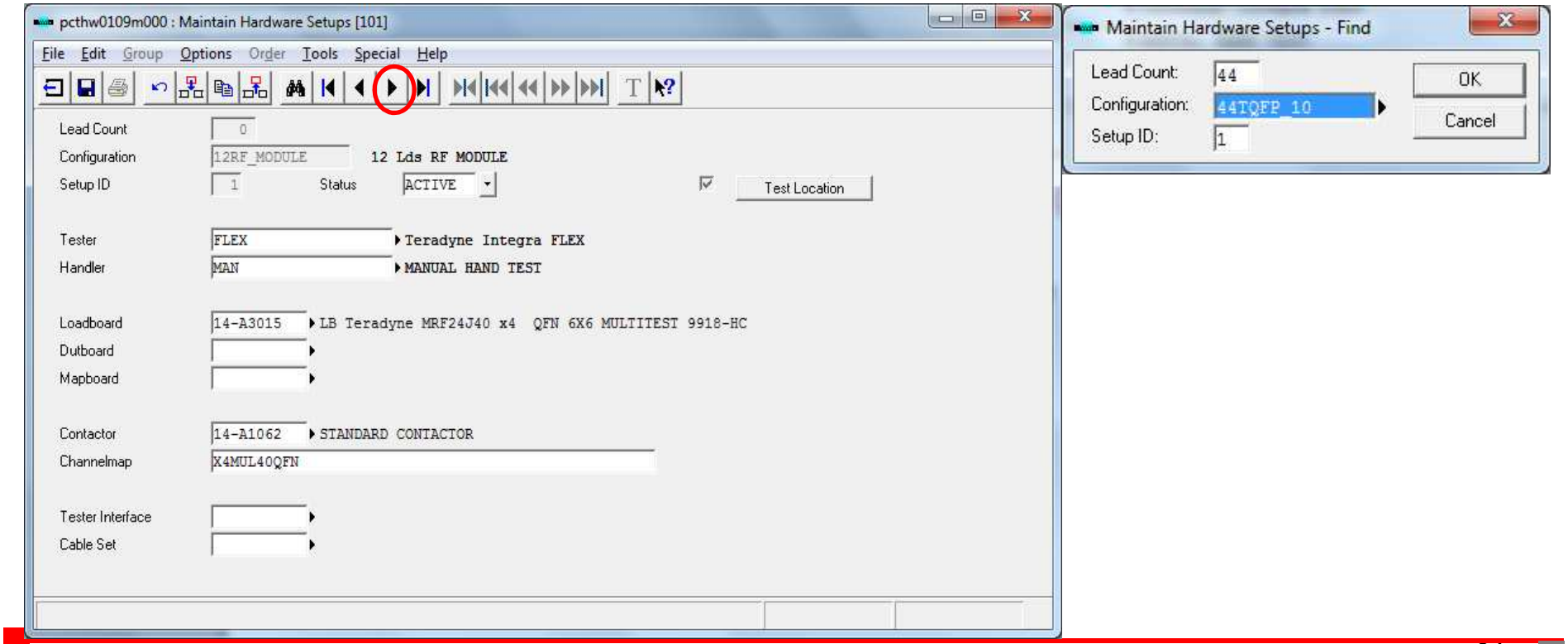
Create Hardware Setup ID - 2

- Double clicks “Hardware Engineer”.
- Double clicks “Test Hardware” then “Maintain Hardware Setups”.



Create Hardware Setup ID - 3

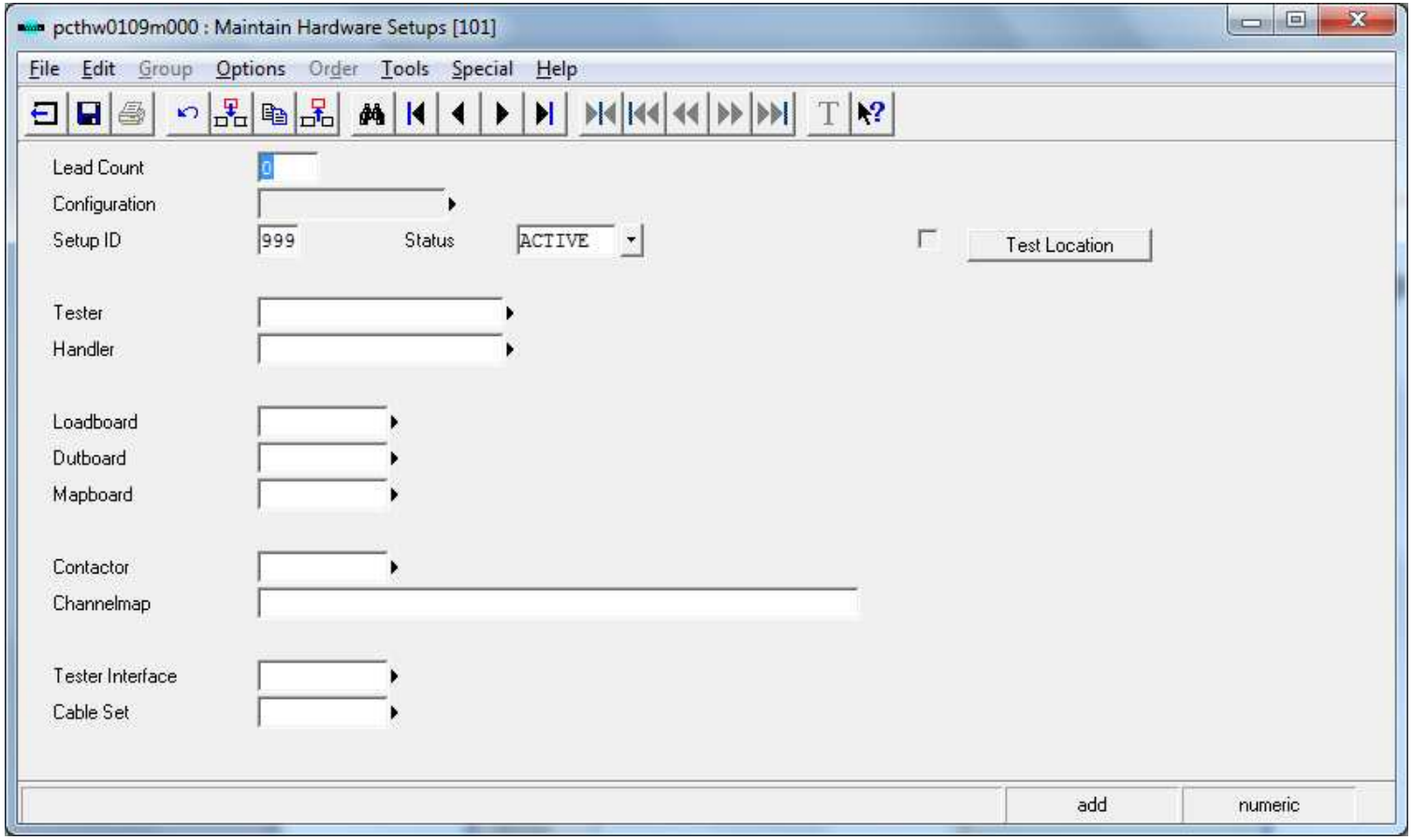
- Click Find button (binoculars symbol).
- Input Lead Count and Configuration then press “Enter” button or click “OK” button.
- It will go to the 1st Setup ID. Click Next button to see if there is the Hardware Setup ID you needed.



Create Hardware Setup ID - 4

- If there is no Hardware Setup ID you needed.
- Click Insert button to create new Hardware Setup ID.
- Input Lead Count, Configuration (handler kit), Tester, Handler.

Configuration



Create Hardware Setup ID - 5

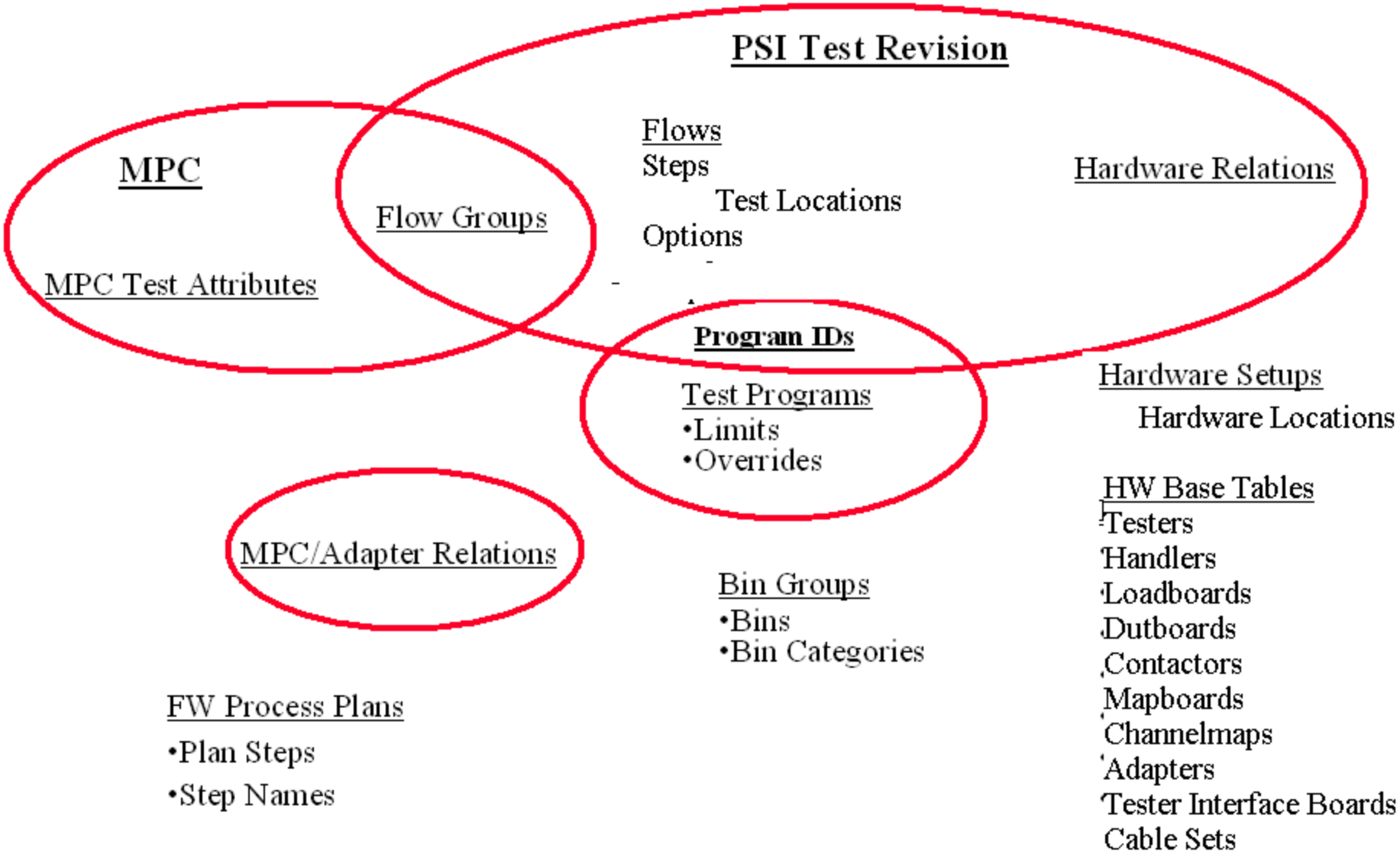

Tester Type

- Input Load Board, DUT Board, Map Board, Contactor, Channel Map, Tester Interface Board, Cable Set.
- Note : Not need to input all of them, depends on Tester Type.
- Click “Test Location” button to add Test Plant.


Test Plant

- Click  “Save & Exit” button after finished inputting all necessary data to new Hardware Setup ID.
- In case that you can’t find Configuration (Package) you needed, please inform Soravorn Pochpring - B00022 (MThai IE) to create it.

PDC Data Structure



Add New Bin Groups - 1

- **List of available Bin Groups as of Jan 4, 2018**

Bin Groups

pctfl0104m000 : Maintain Bin Groups [101]

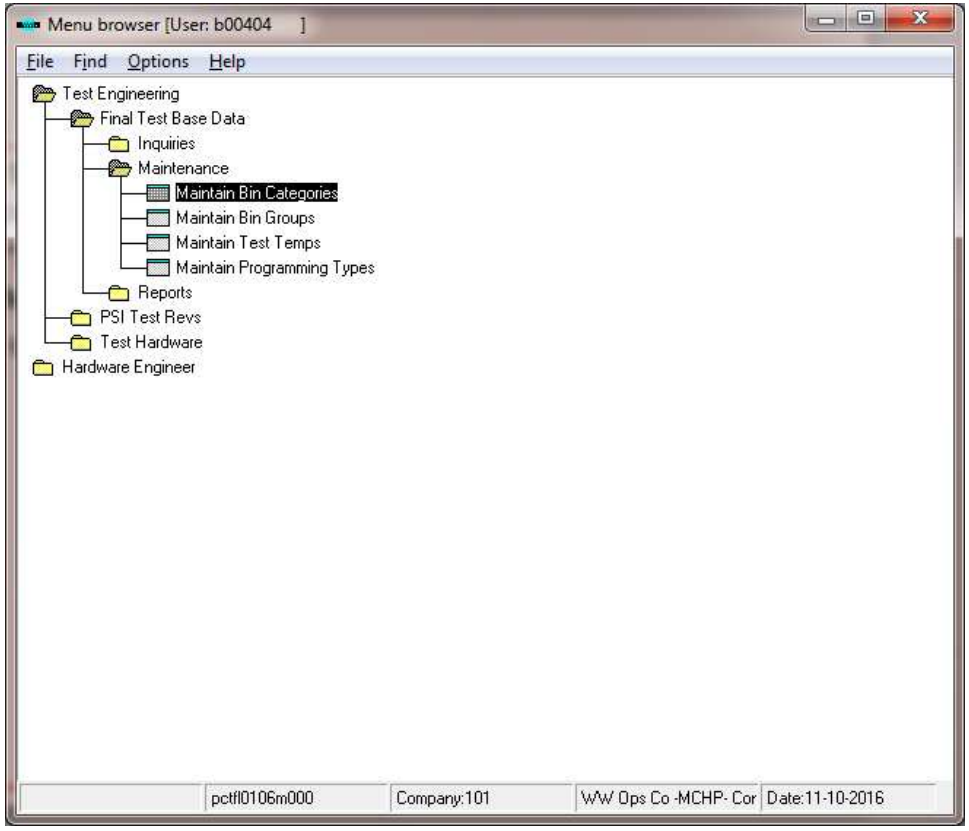
File Edit Group Options Order Tools Special Help

Bin Details

Bin Group	Description	Bin Group Type	Status
ATML ARM-NTO1	1-GOOD, 5-O/S, 6-PA/FU	PHYSICAL	ACTIVE
ATML ARM-RFO1	1-GOOD, 2-PA, 3-FU, 4-O/S	PHYSICAL	ACTIVE
ATML ARM-RFO2	1-GOOD,2-PA,3-FU,4-O/S,5-Analog	PHYSICAL	ACTIVE
ATML ARM-RFO3	1-GOOD,2-PA,3-FU,4-O/S,5-Analog,	PHYSICAL	ACTIVE
ATML ARM-RFO4	1-GOOD,2-PA,3-FU,4-O/S,5-Analog,	PHYSICAL	ACTIVE
ATML ARM-RFO5	1-GOOD,2-PA,3-FU,4-IDD,5-EEPROM	PHYSICAL	ACTIVE
ATML CPLD1	1-GOOD, 5-PA/FU, 6-CONT/LEAK	PHYSICAL	ACTIVE
ATML CRYPTO1	1-GOOD, 2-O/L VOL/H, 3-PA/FU, 4-I	PHYSICAL	ACTIVE
ATML NTO NPI1	1-GOOD, 2-GOOD-BIN2, 3-GOOD-BIN3	PHYSICAL	ACTIVE
ATML NTO1	1-GOOD,2-GOOD-B2,3-GOOD-B3,4-GOOI	PHYSICAL	ACTIVE
ATML RFA1	2-GOOD, 1-PA/FU, 3-NON RETEST, 4-	PHYSICAL	ACTIVE
ATML SEEPROM 1	1-GOOD, 2-GOOD Normal W, 5-O/S,	PHYSICAL	ACTIVE
ATML SEEPROM 2	1-GOOD, 7-O/S, 8-OTHER	PHYSICAL	ACTIVE

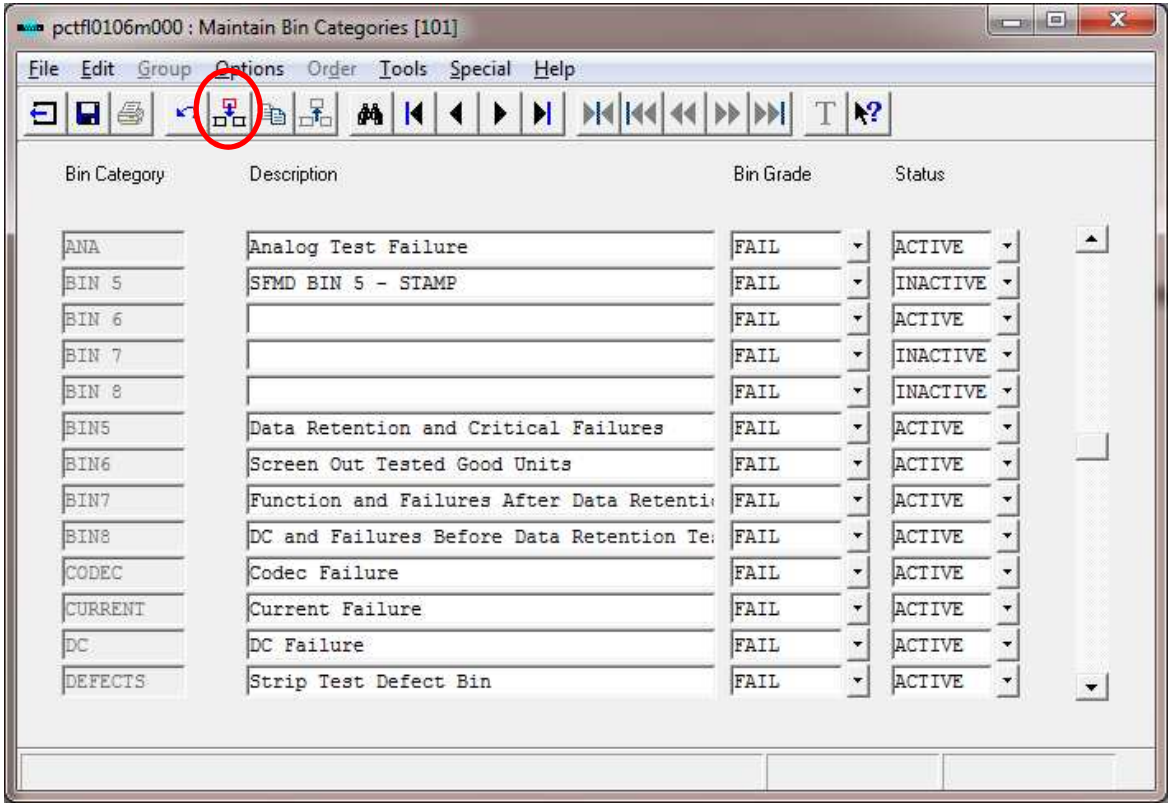
Add New Bin Groups - 2

- If no existing Bin Group you can use.
- Under “Test Engineering”, Double clicks “Final Test Base Data” then Double clicks “Maintenance”.
- Double clicks “Maintain Bin Categories”.



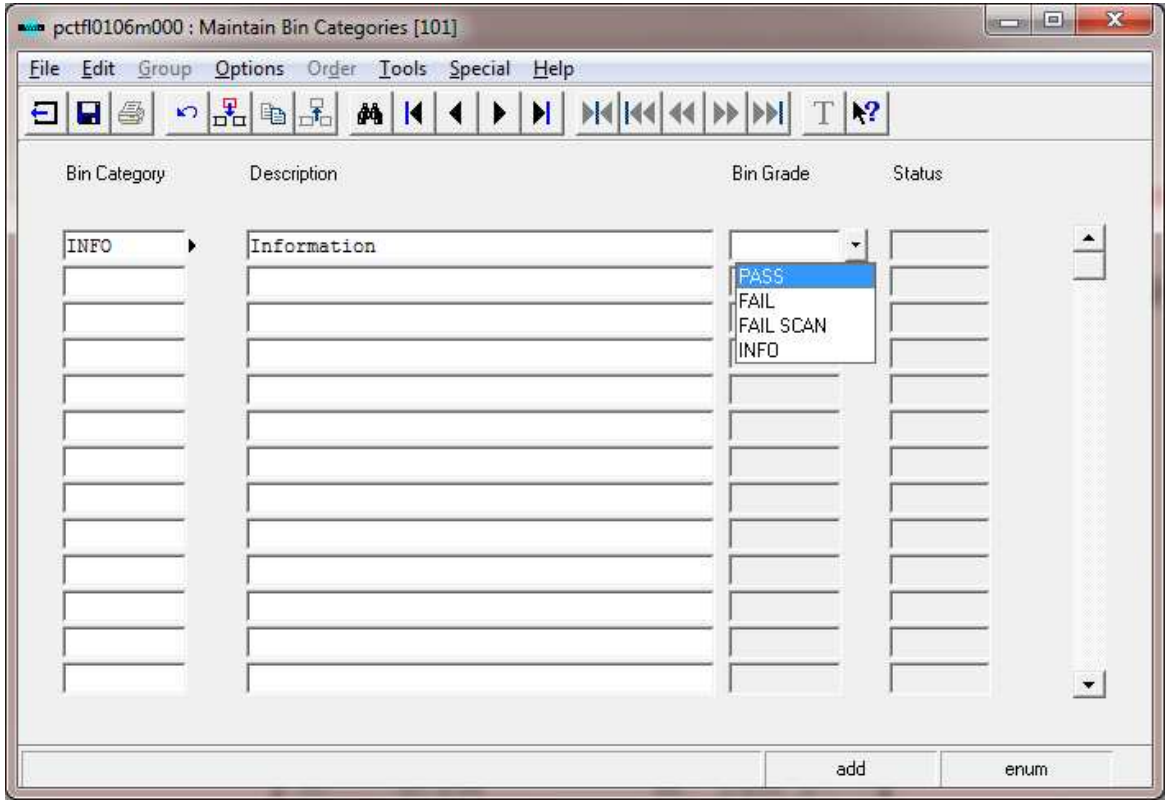
Add New Bin Groups - 3

- Look for Bin Categories you needed.
- If you can't find the one you needed, click button to add new Bin Category.
- Note : Can't delete any Bin Category, only change it to be INACTIVE.



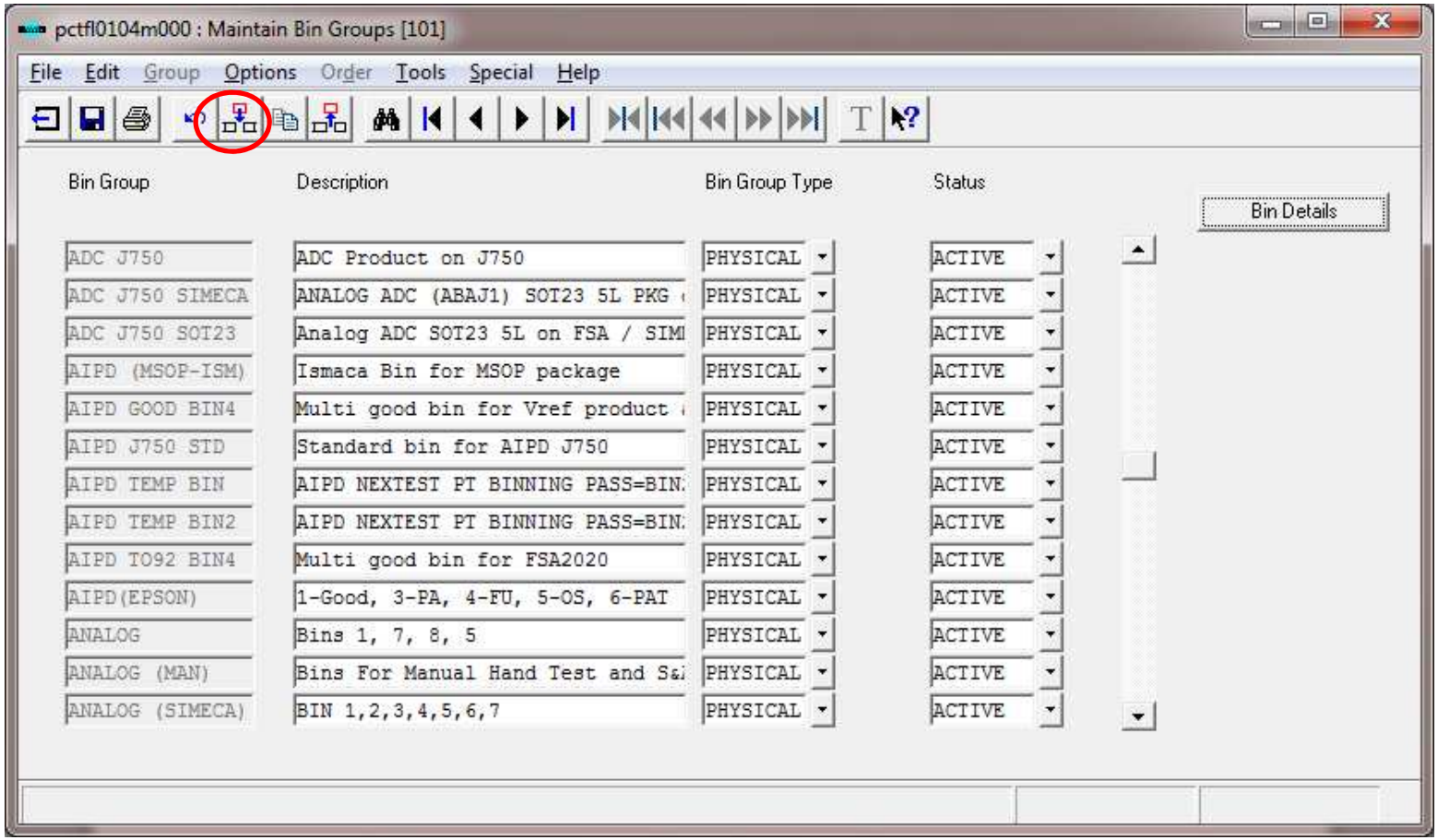
Add New Bin Groups - 4

- Input Bin Category (10 Char. Max), Description (50 Char. Max).
- Select Bin Grade and set Status to be ACTIVE.
- Click Save and Exit button once complete adding all new Bin Categories.



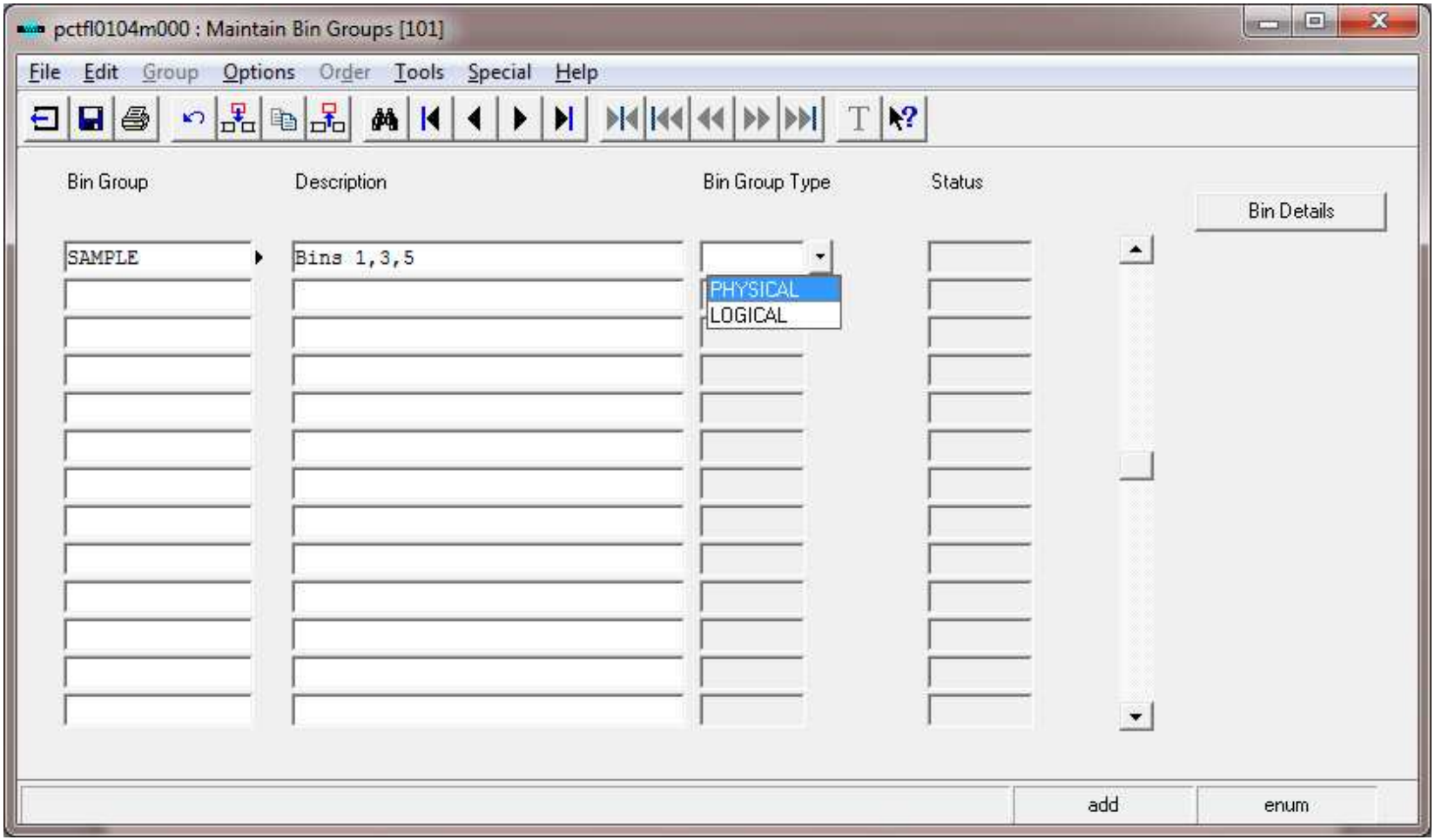
Add New Bin Groups - 5

- Double clicks “Maintain Bin Groups”.
- Click button to add new Bin Group.



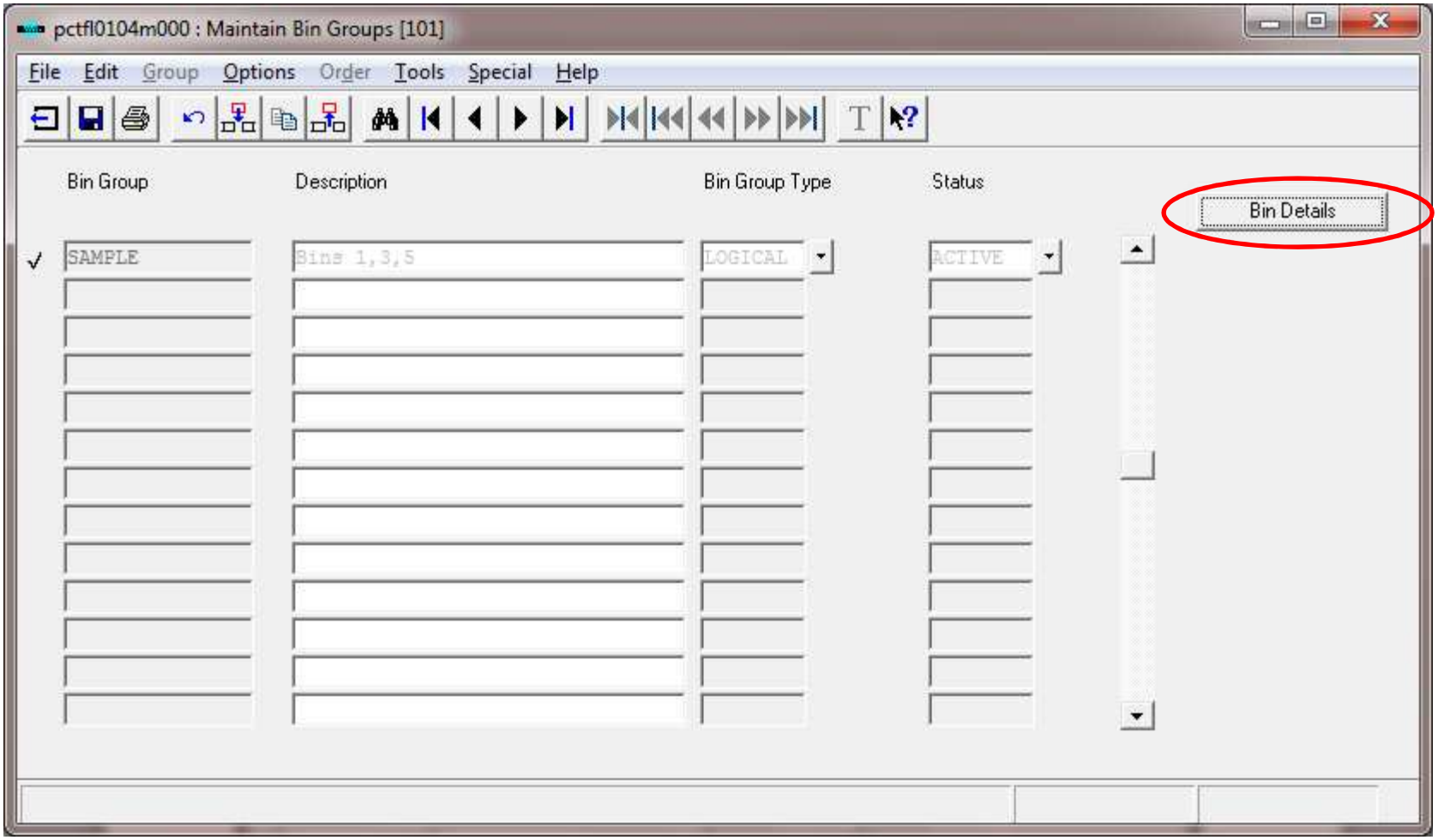
Add New Bin Groups - 6

- Input Bin Group (15 Char. Max), Description (50 Char. Max).
- Select Bin Group Type and set Status to be ACTIVE.



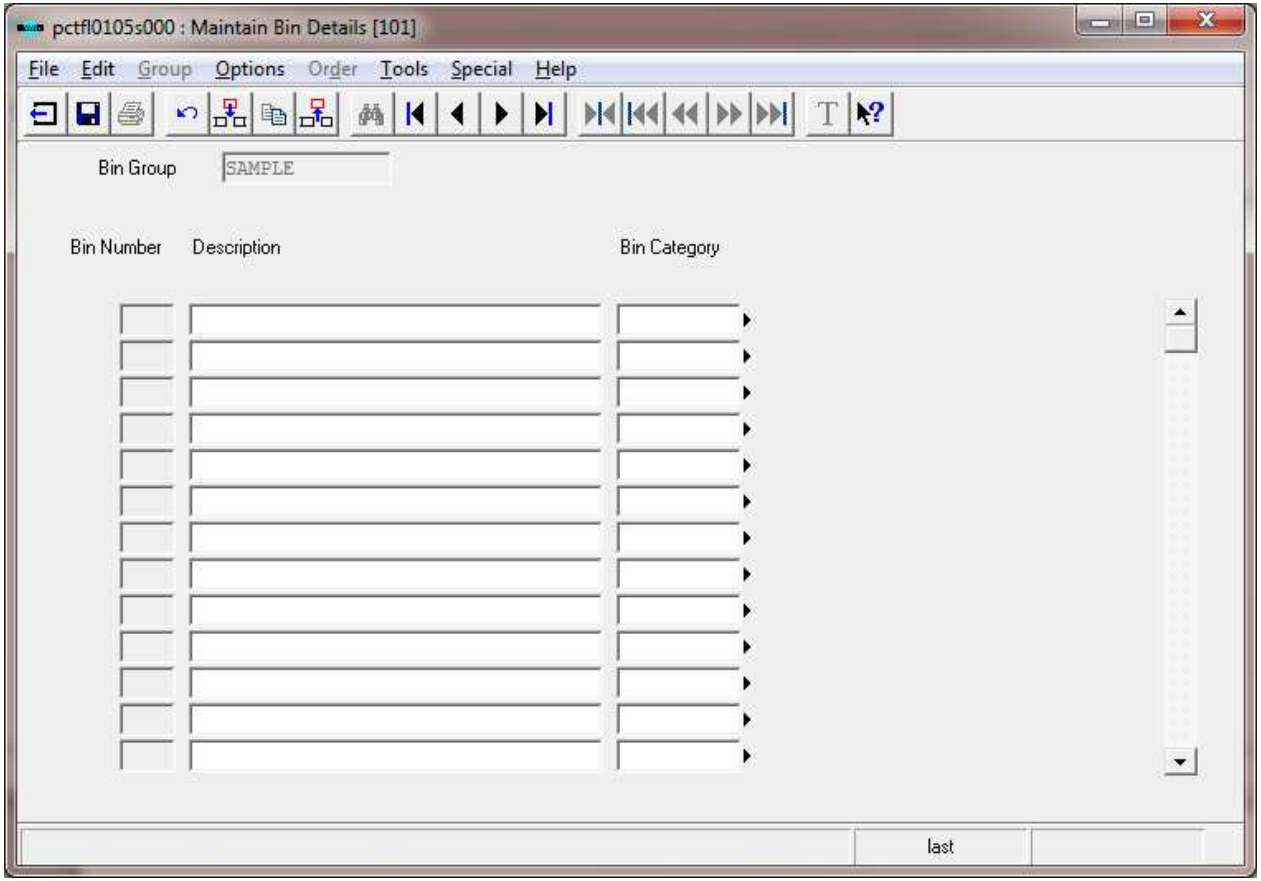
Add New Bin Groups - 7

- **Select the Bin Group you just added.**
- **Click “Bin Details” button.**



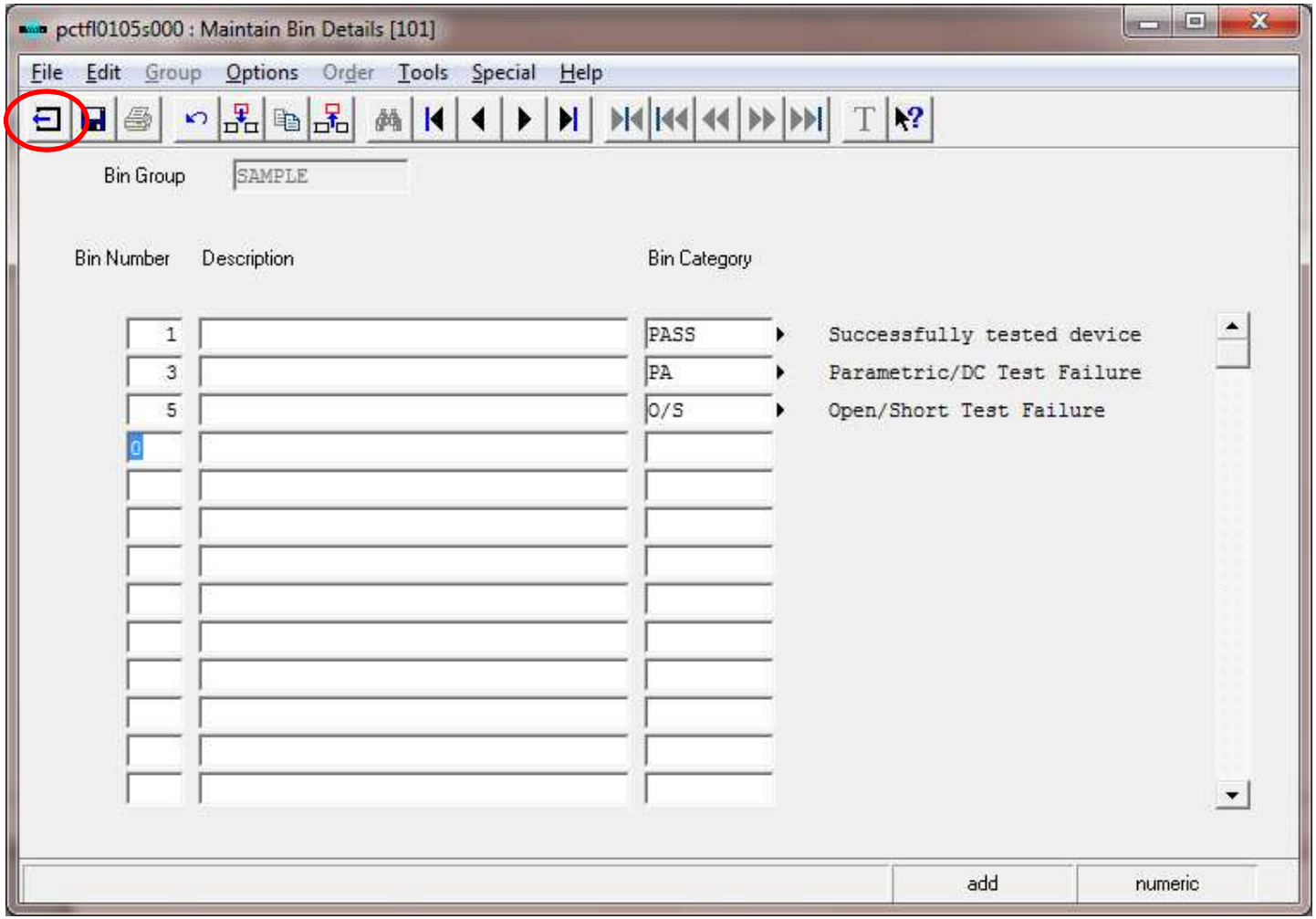
Add New Bin Groups - 8

- Click Insert button to add Bin Number
- Press Tab button twice and select Bin Category.
- Add next Bin Number until complete all of them.



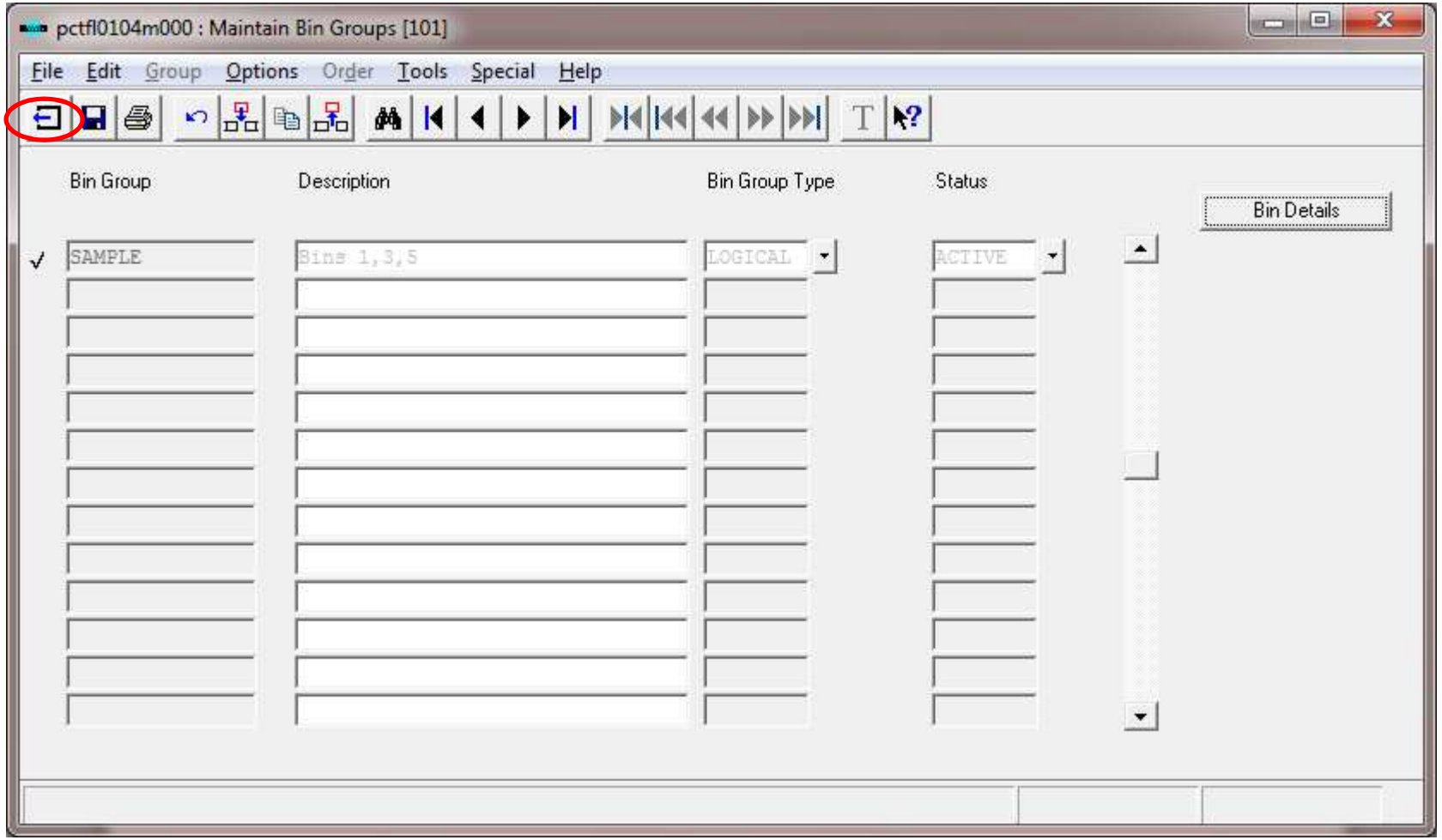
Add New Bin Groups - 9

- Click Save and Exit button.



Add New Bin Groups - 10

- Click Save and Exit button again to go back to Test Engineering screen.



Create Test Program ID - 1

- Test Program ID data in PDC will be shown at Program Options of Test Setup Options.
- Those data will be shown at Main Source, Checksum, Executable Name, Bins, OS, Special Instructions, Comments.

☐ ID: 114137 Rev: AX Ver: 0 Status: ACT

		Verified
Main Source:	LEAR0_FT_A48e.xls	☐
Checksum:	16540E2	☐
Executable Name:	ft-qtp-std	☐
Part Number:	18F46K20	☐
Temperature:	IN25C	☐
Programming Type:	QTP	☐
Bins:	2-PASS, 3-PA, 4-FU, 5-O/S	☐
Hardware Limits:		☐
Correl. Process Code:		☐
Correlation Good Bin:	0	☐
OS Version		☐
Special Instructions:		☐
CN Number:	1700910	
Comments:		

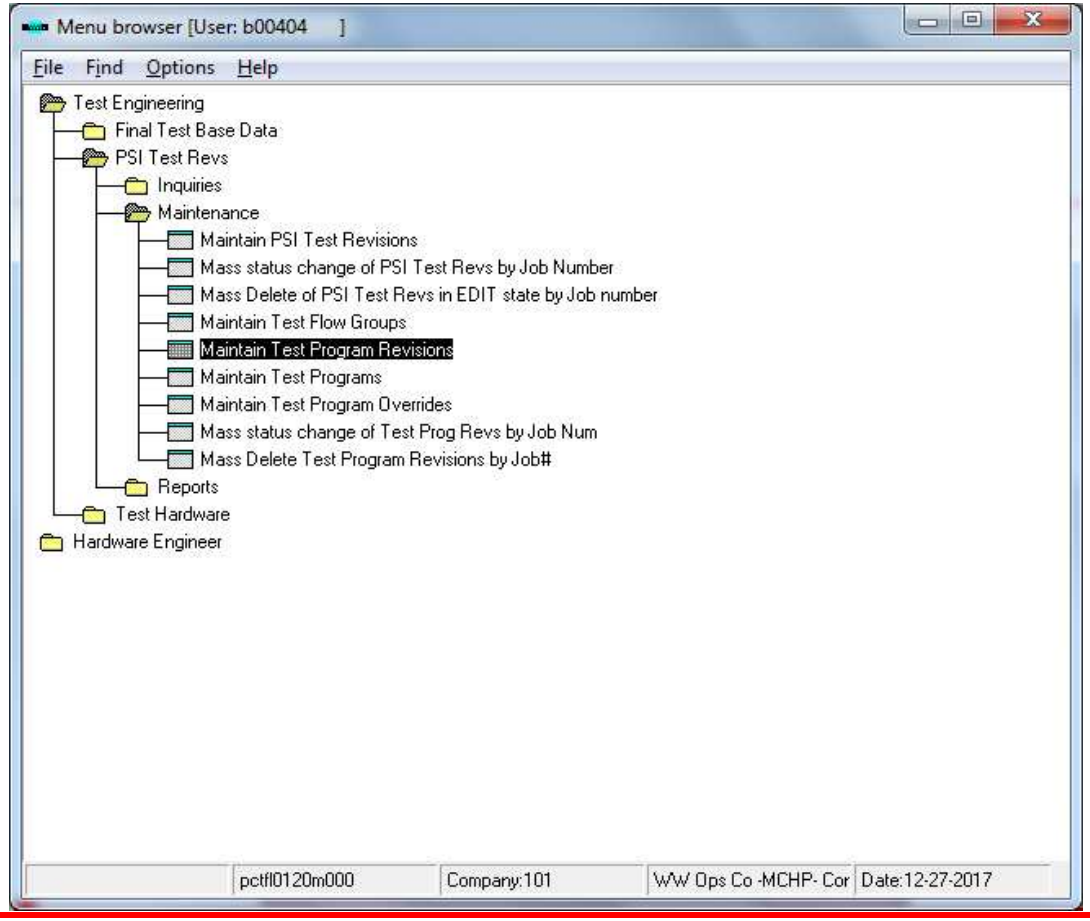
Create Test Program ID - 2

- **Review Test Program Name and Test Program Option of each test step to minimize the number of Program IDs to be created.**
- **Example : One Mask has 2 Part Numbers (A & B)**
  - Test Flow for Part A : FT 110C → FT 25C → QC 25C
  - FT 110C & FT 25C : Use the same TP & TP Option
    Need only 1 Program ID for these 2 steps (Program ID1).
  - QC 25C uses the same TP but different TP Option
    Need another Program ID for this step (Program ID2).

  - Test Flow for Part B : FT 110C → FT 25C → QC 25C
    FT 110C uses the same TP & TP Option as FT 110C of Part A so, can use Program ID1.
  - FT 25C, QC 25C use the same TP as Part A but different TP Option.
    Need to create 1 Program ID for FT 25C (Program ID3)
    Need to create 1 Program ID for QC 25C (Program ID4)

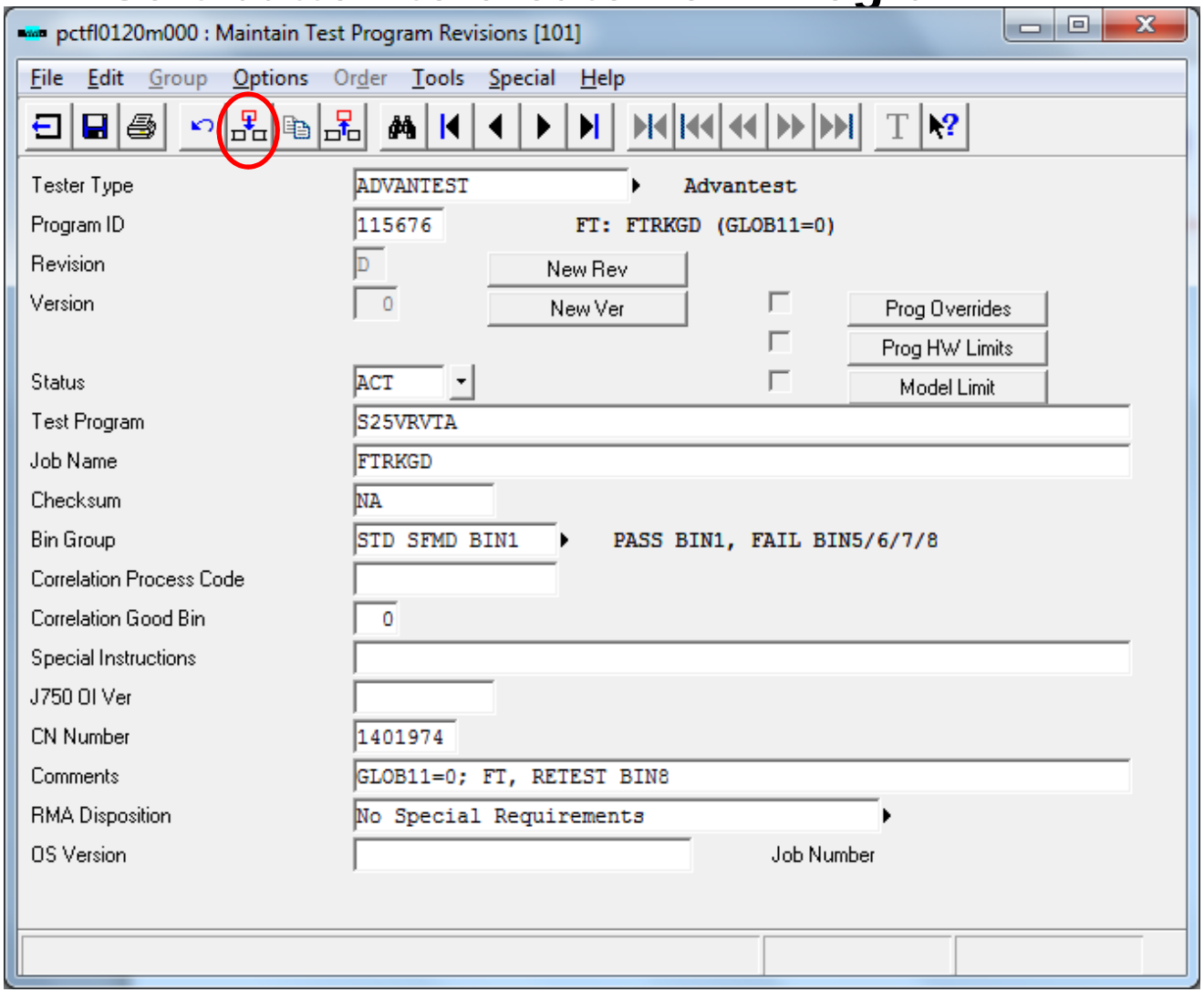
Create Test Program ID - 3

- Under “Test Engineering”, Double clicks “PSI Test Revs”.
- Double clicks “Maintenance”.
- Double clicks “Maintain Test Program Revisions”.



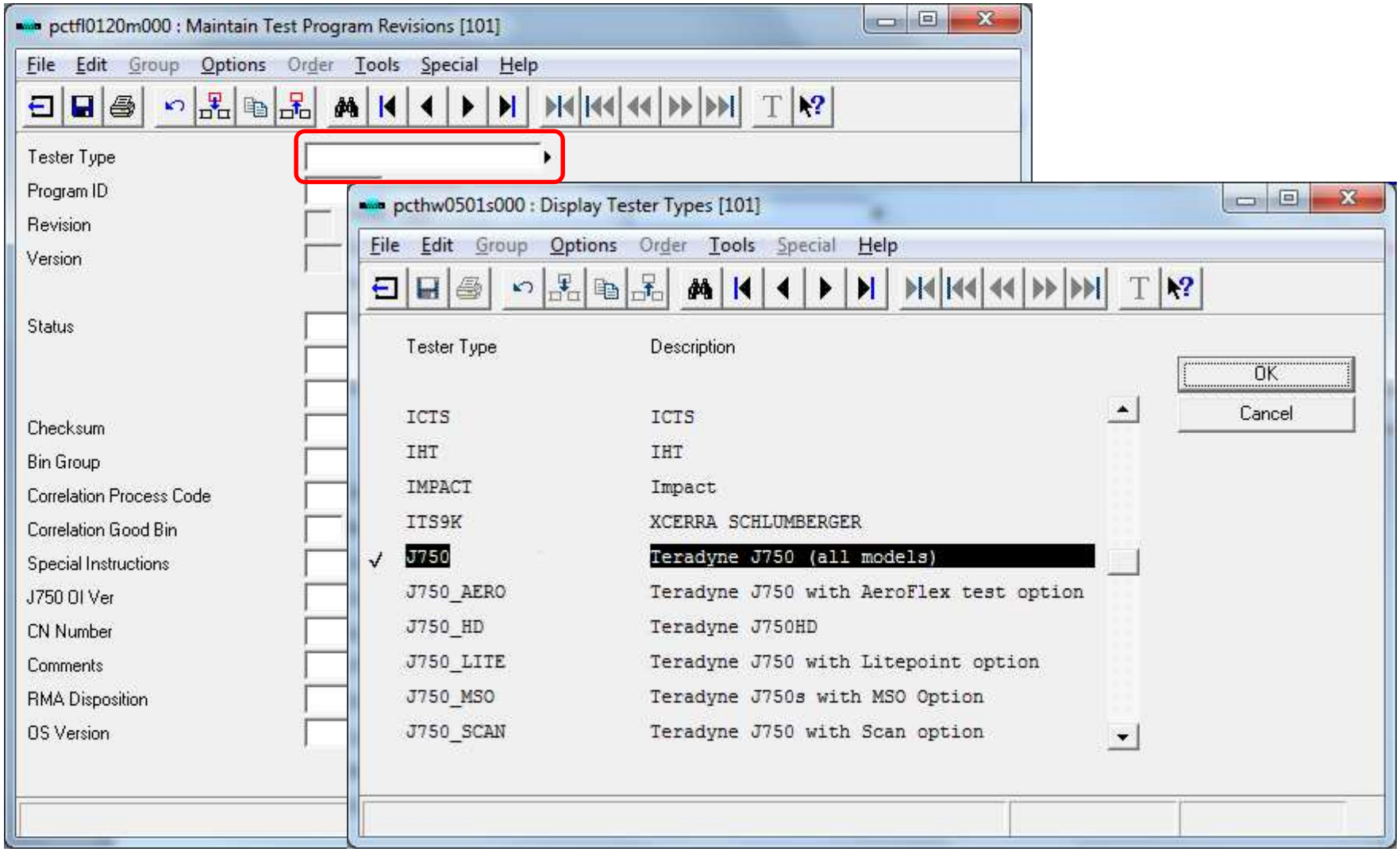
Create Test Program ID - 4

- Click Insert button to create new Program ID.



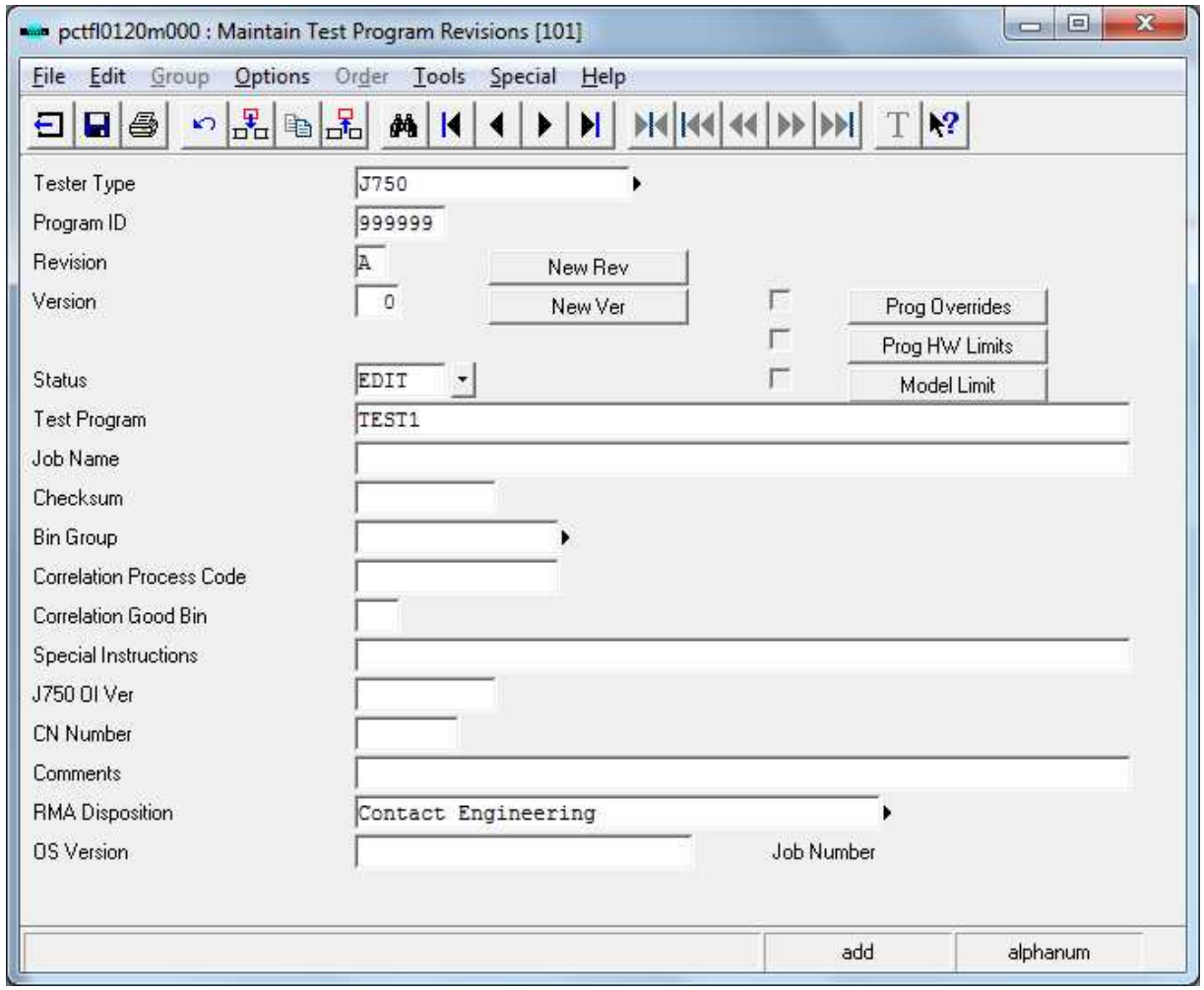
Create Test Program ID - 5

- **Select Tester Type then click OK button.**



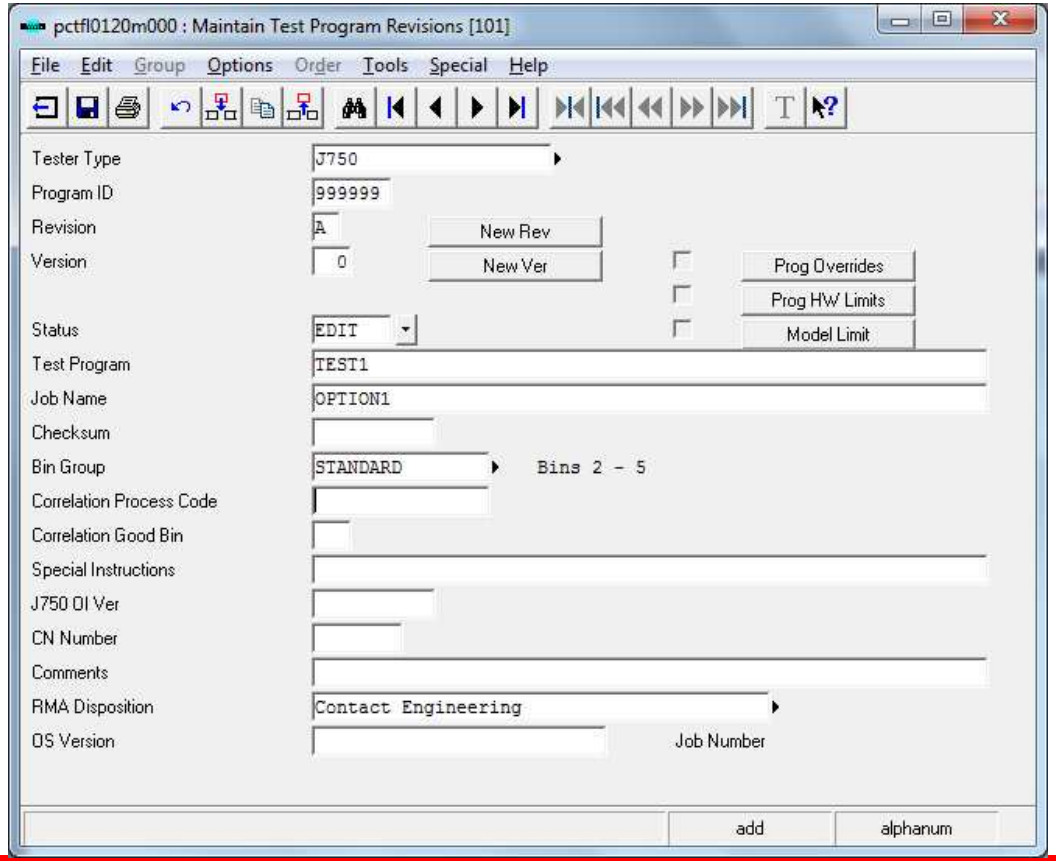
Create Test Program ID - 6

- **Input Test Program name (60 characters maximum ; Main Source on Test Setup Options).**



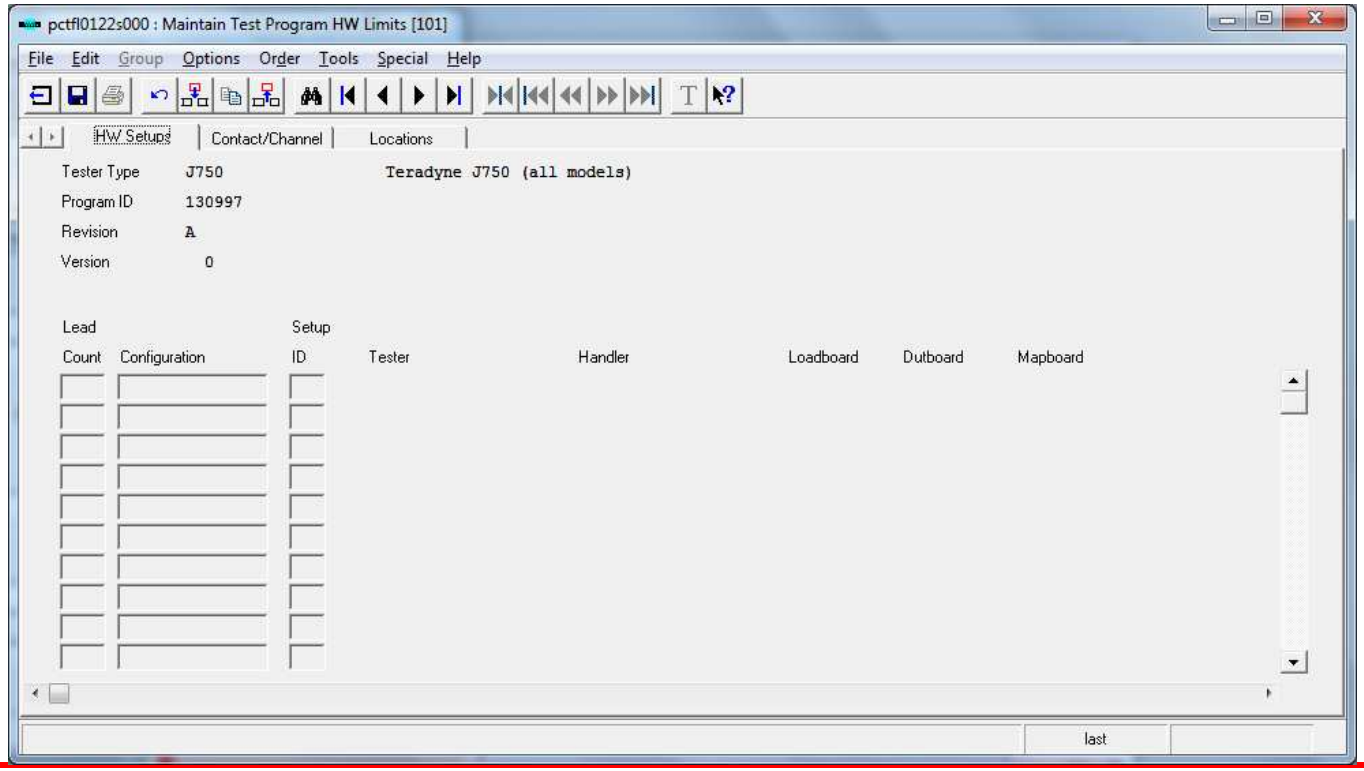
Create Test Program ID - 7

- **Input Test Program Option (Job Name for below example, 60 characters maximum ; Executable Name on Test Setup Options). Can leave it blank for some Tester Types.**
- **Test Program Checksum is an option, can leave it blank.**
- **Select Bin Group.**



Create Test Program ID - 8

- Put Special Instructions (120 Characters maximum) if needed.
- Put Comment (200 Characters maximum) if needed.
- Put OS Version (25 Characters maximum) if needed.
- If you want to limit Test HW that can be used for this program ID, click “Prog HW Limits” button then add Setup ID.



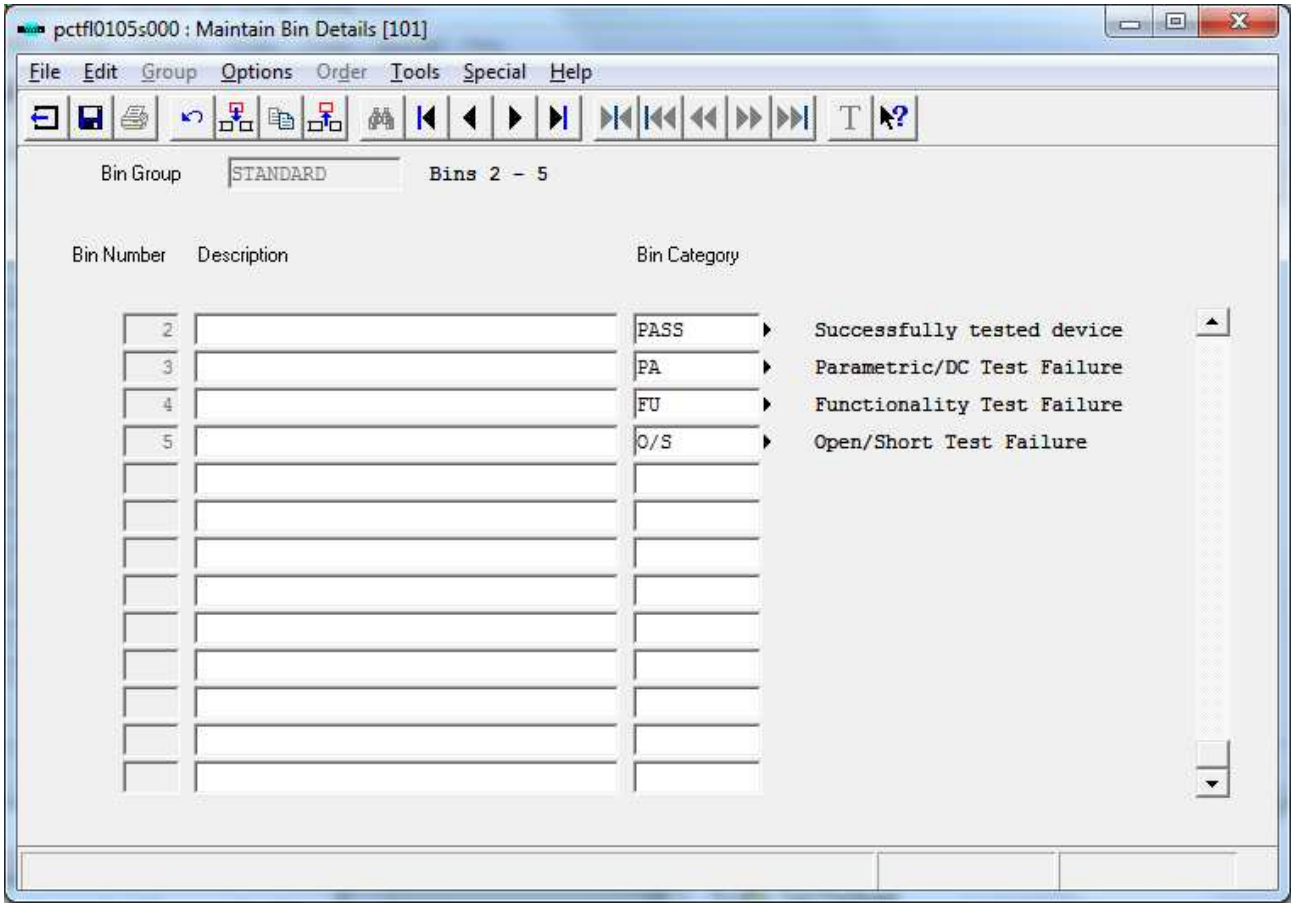
Create Test Program ID - 9

- Click  “Save” button.
- Change Status from EDIT to PEND (Pending Approval).
- Click  “Save” button.
- Click  Insert button to add the other new Program ID(s).
- Click  “Save & Exit” button after finished creating new Program ID(s).

Create Test Program ID - 10

- MThai Bin Groups
- "STANDARD" is standard MThai Bin Group for MCU Product.

  [Bin 2 = PASS ; Bin 3 = PA ; Bin 4 = FU ; Bin 5 = O/S]

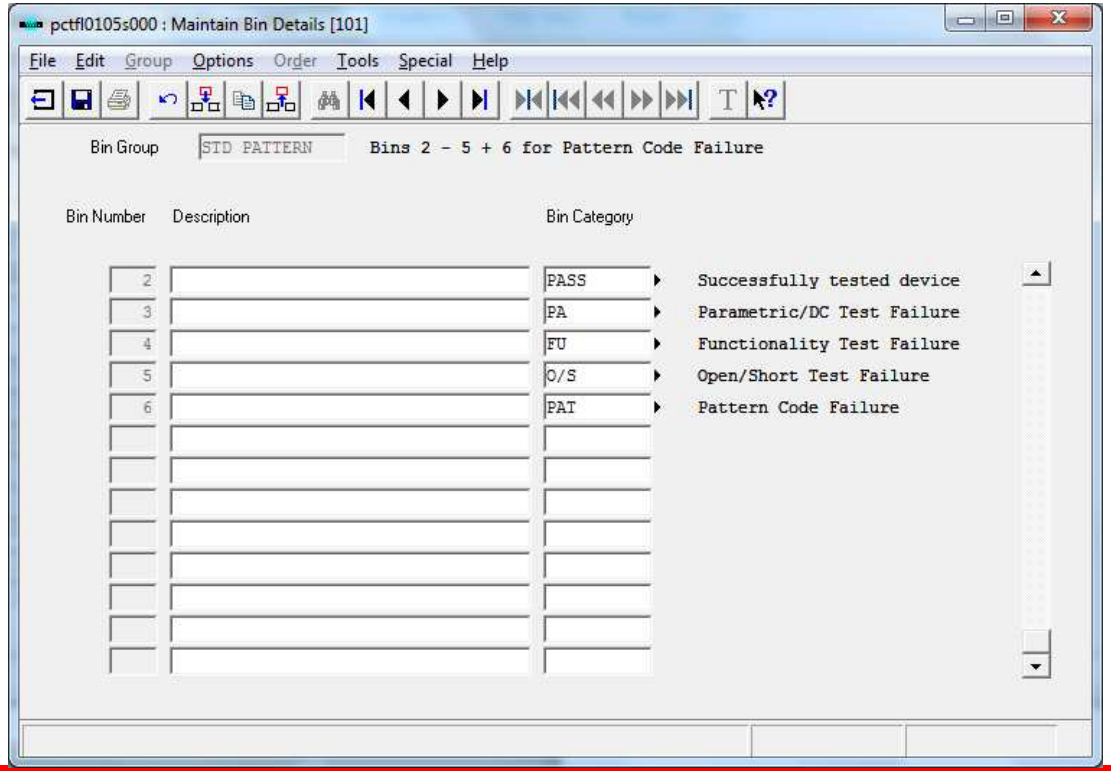


Create Test Program ID - 11

- **MThai Bin Groups**
- **"STD PATTERN" is standard MThai Bin Group for Memory Product.**

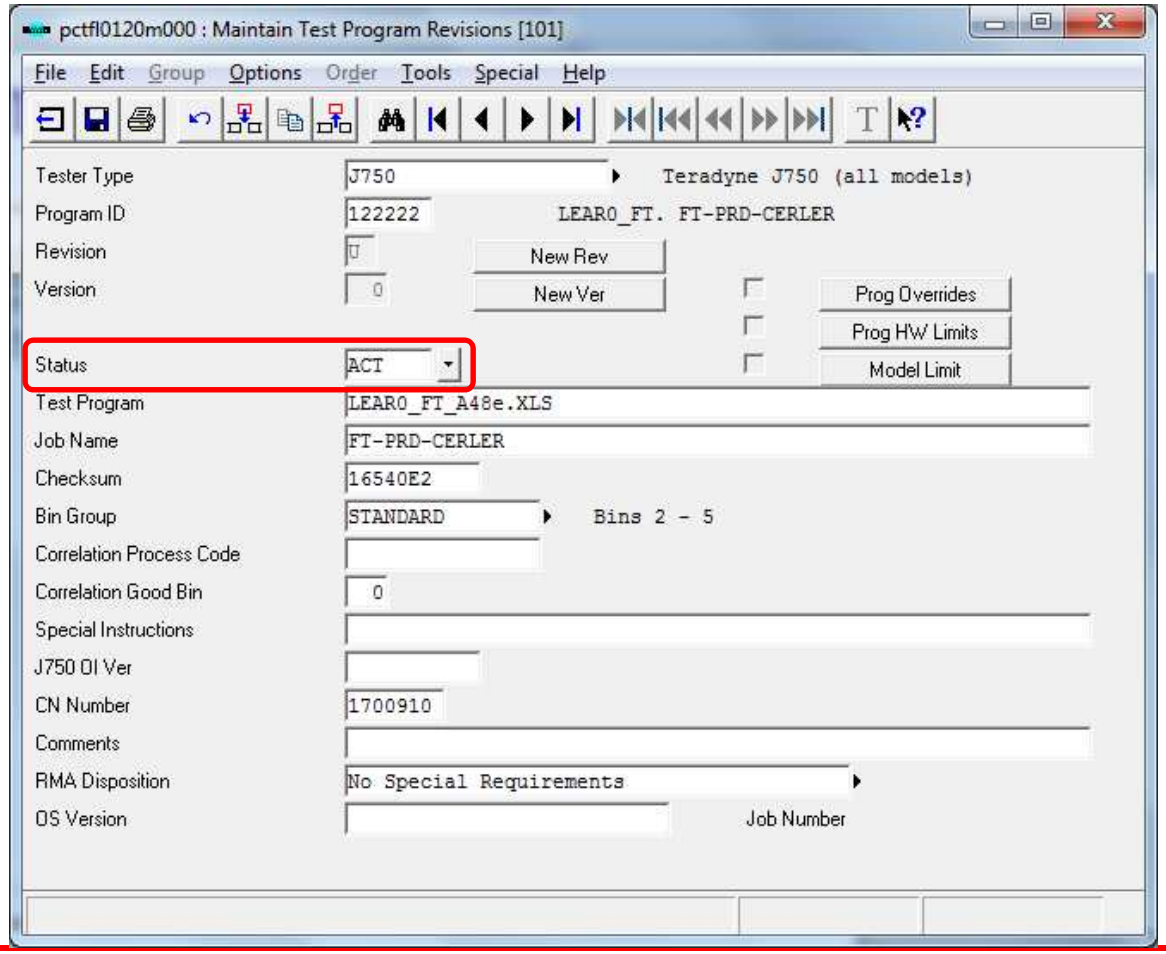
  [Bin 2 = PASS

  Bin 3 = PA ; Bin 4 = FU ; Bin 5 = O/S ; Bin 6 = PAT]



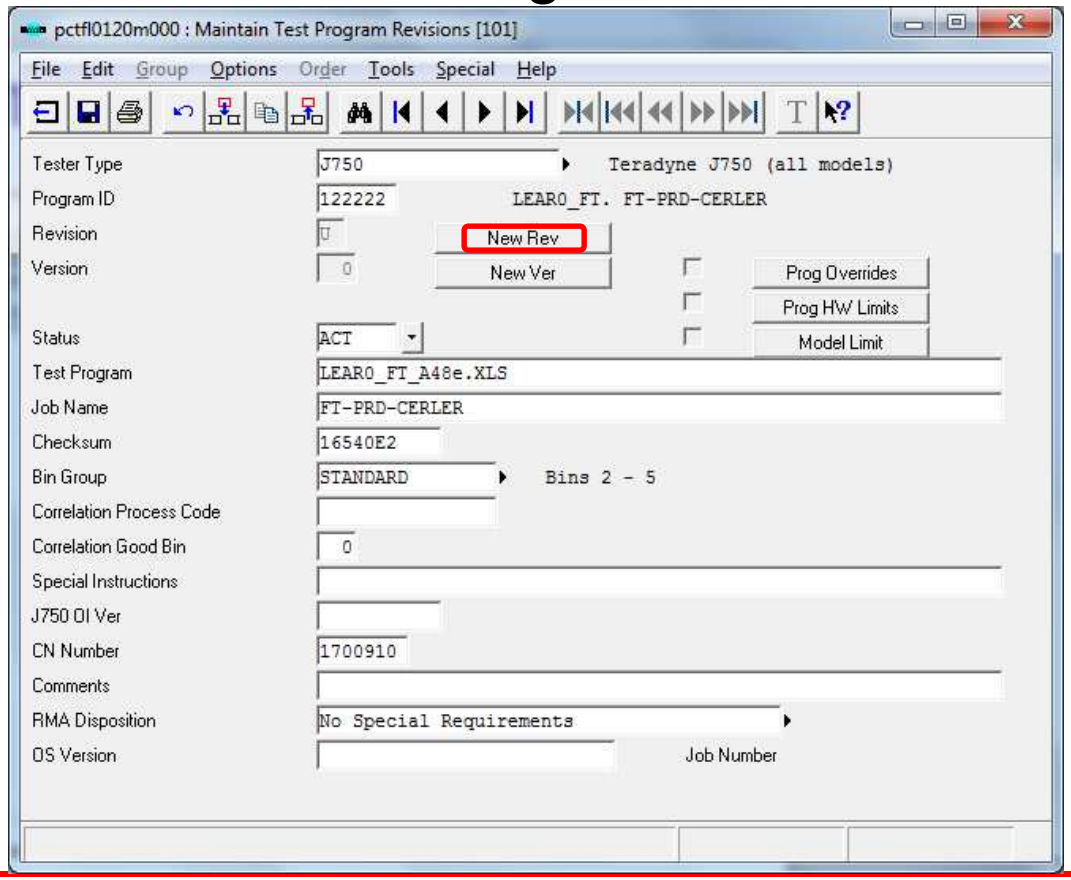
Create Test Program ID - 12

- **After the CN to release the Test Program has been approved, MThai Document Control Team will change its Status from PEND to ACT.**



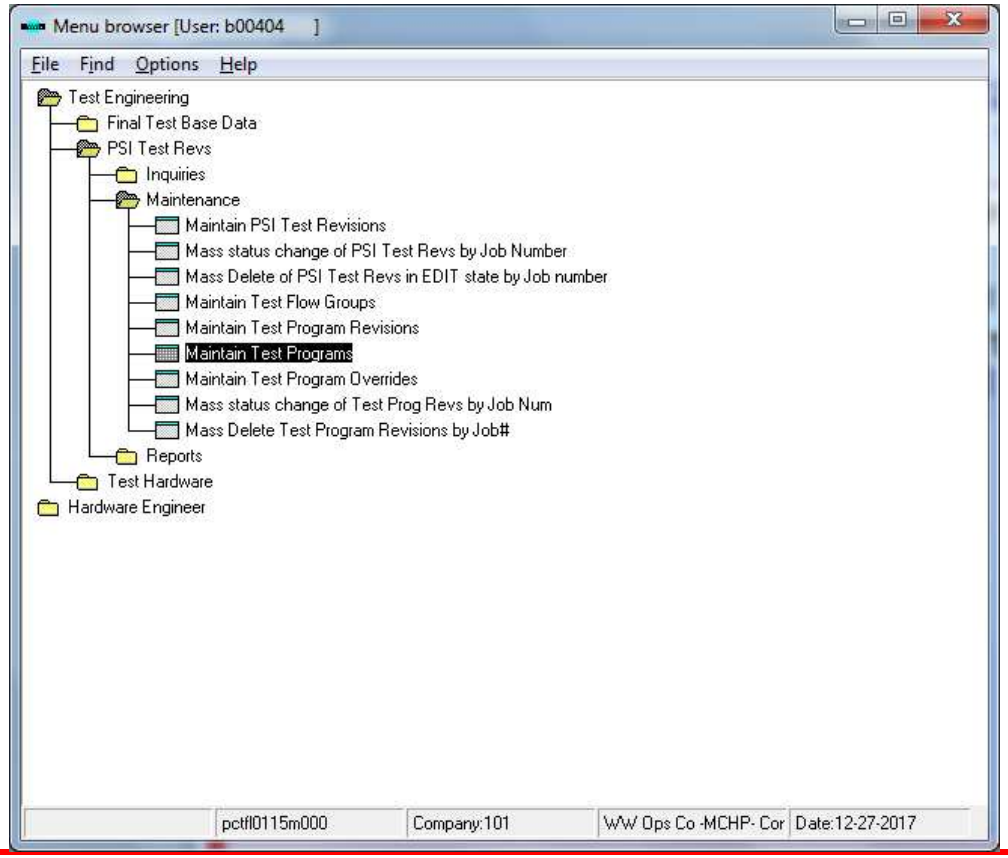
Create Test Program ID - 13

- When you need to release the new Test Program revision to production, click “New Rev” button, Update Test Program and Checksum.
- Click “Save” button and change Status from “EDIT” to “PEND”



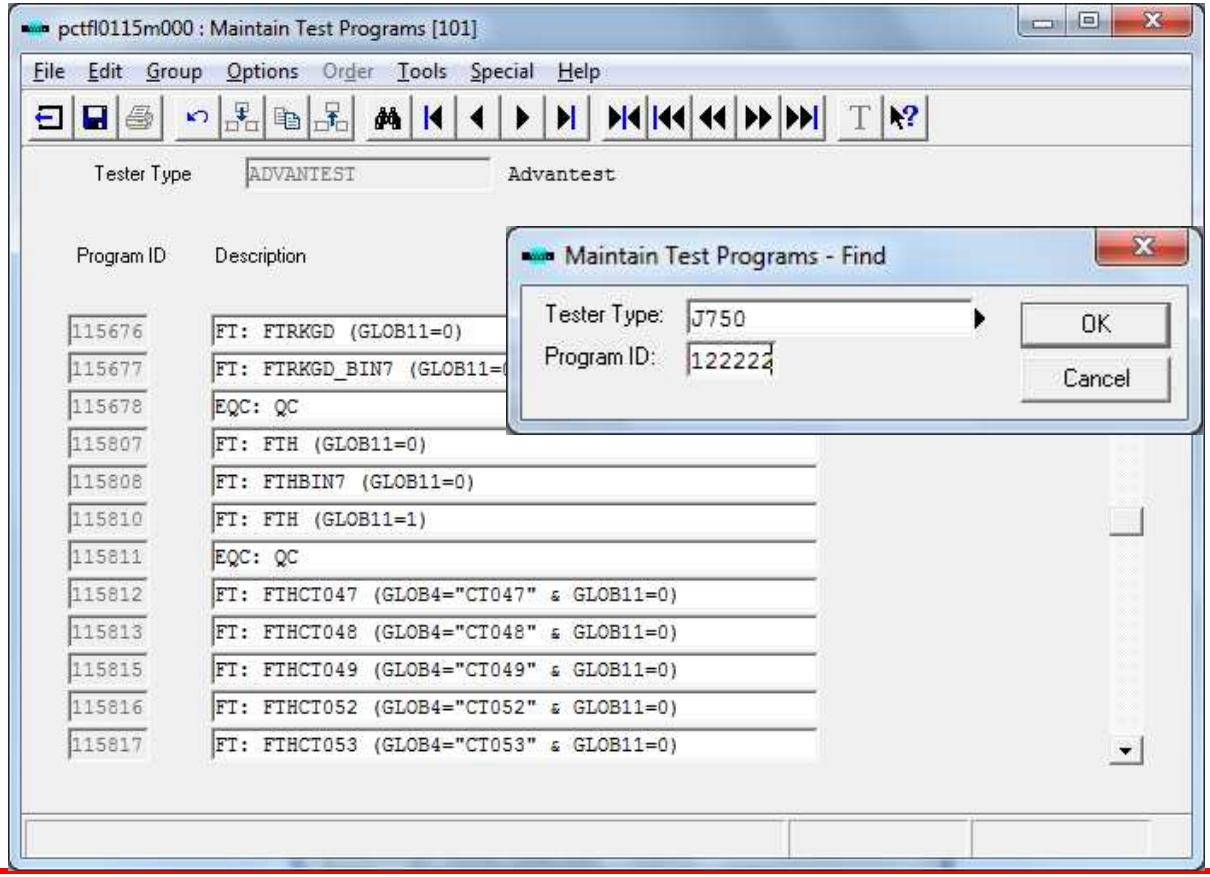
Create Test Program ID Description - 1

- Program ID is 6-digit number which is very hard to remember so, we need to put description to each ID.
- Under “Test Engineering”, Double clicks “PSI Test Revs”.
- Double clicks “Maintenance” then “Maintain Test Programs”.



Create Test Program ID Description - 2

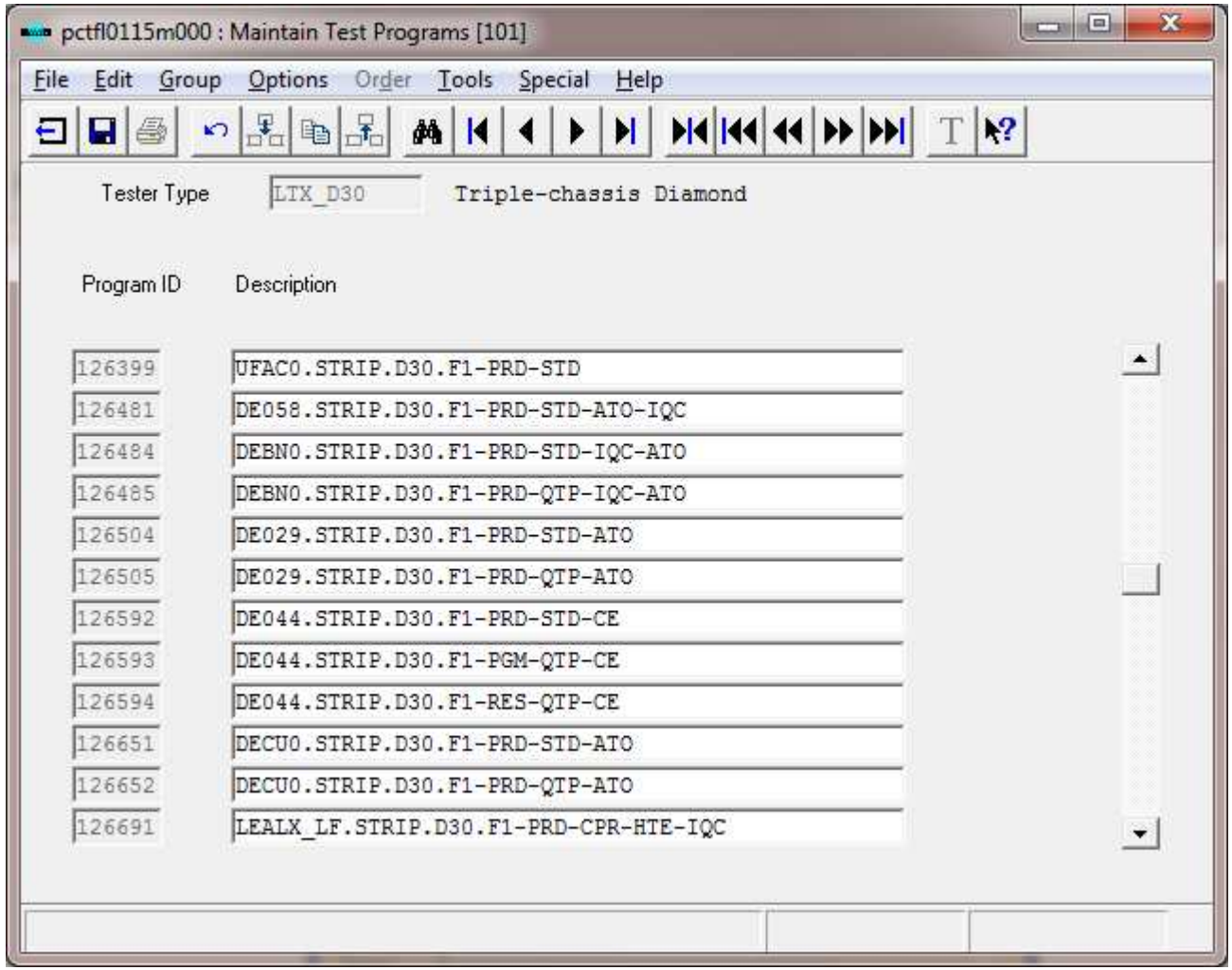
- **Click Find button (binoculars symbol), select Tester Type and click OK.**
- **The new Program ID you just added will be at the bottom of the table.**



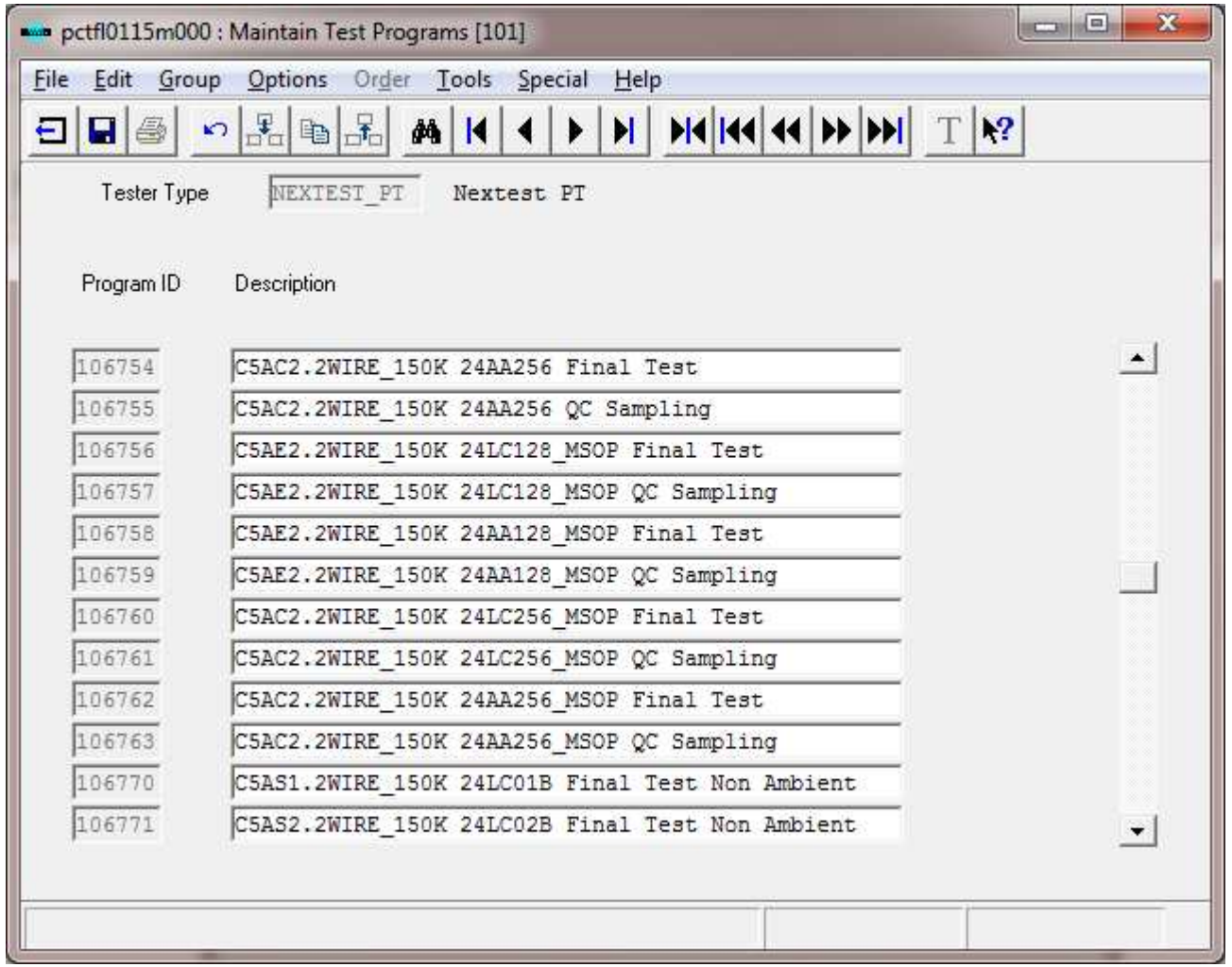
Create Test Program ID Description - 3

- Input unique Description (50 characters maximum) for each Program ID you created.
- We usually put Test Program Name with no revision and Test Program Option.
- Click  "Save & Exit" button after finished adding description.

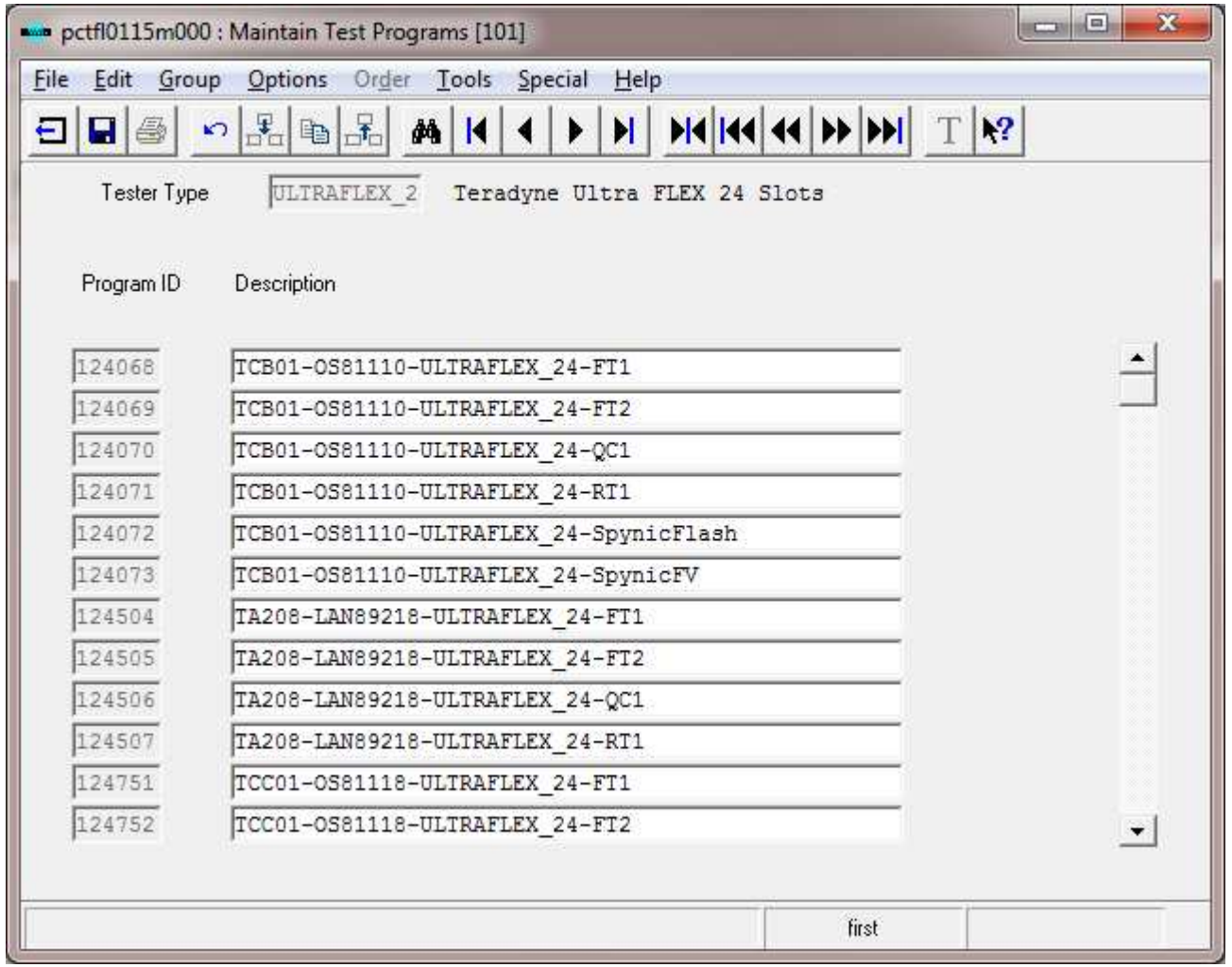
Create Test Program ID Description - 4



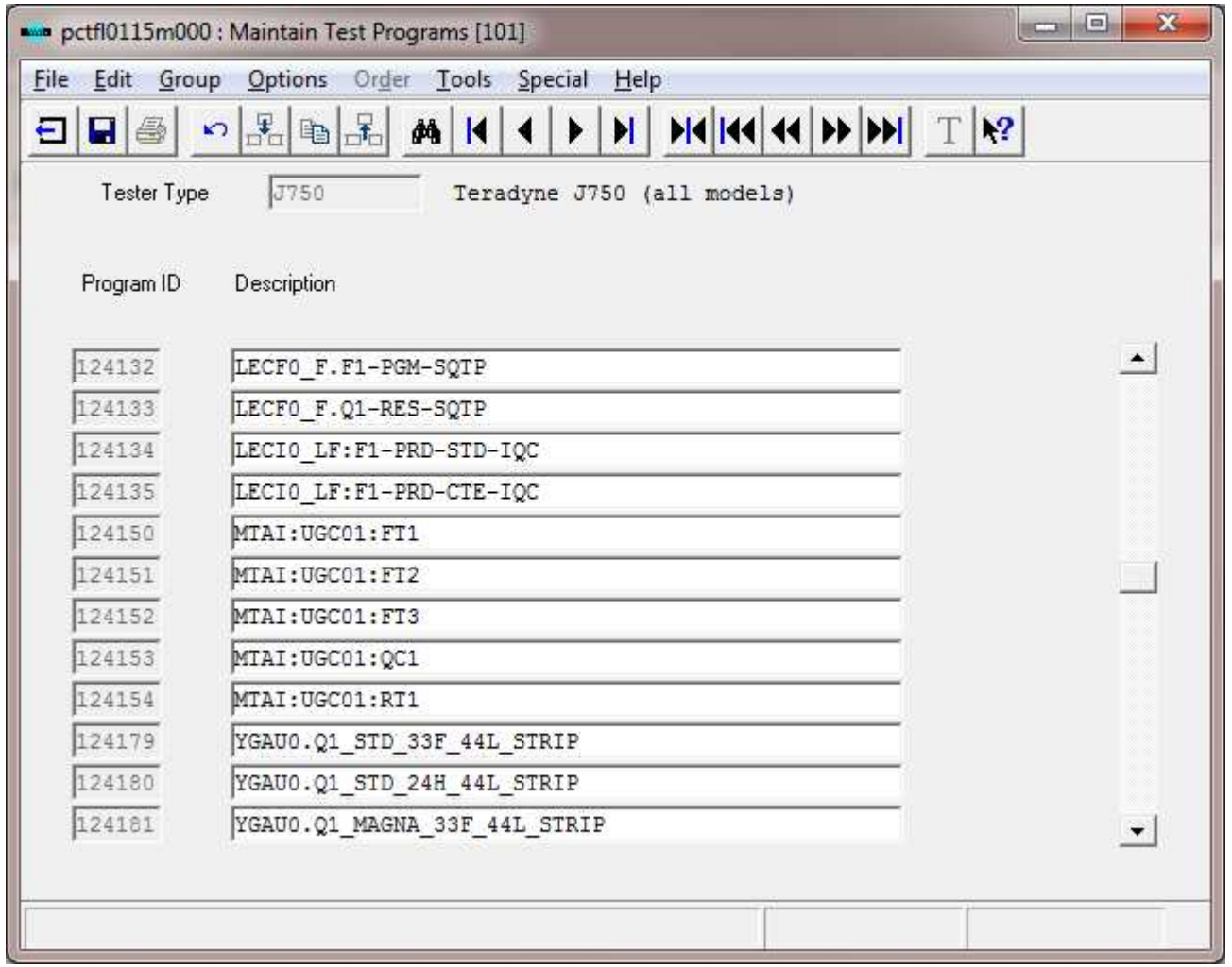
Create Test Program ID Description - 5



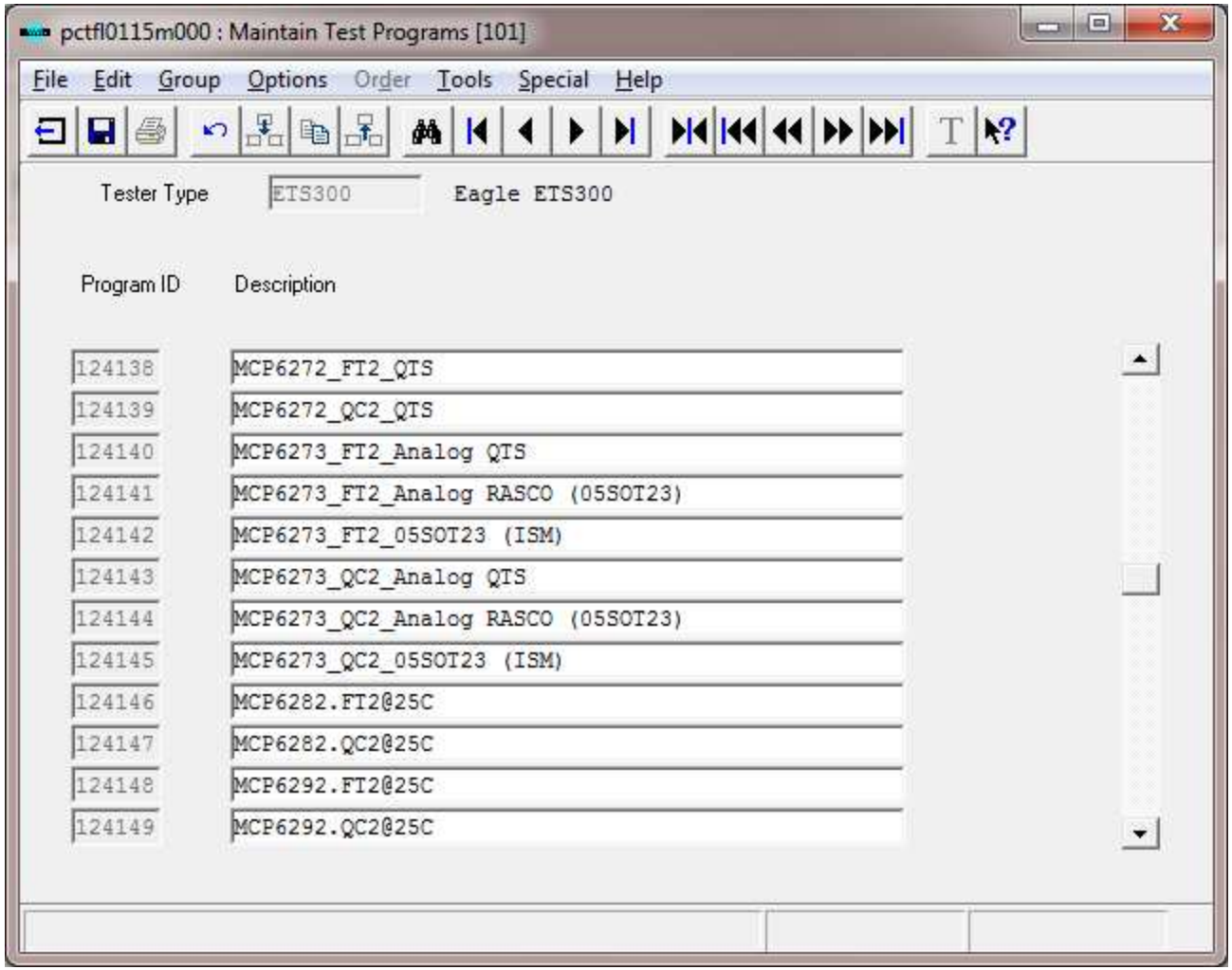
Create Test Program ID Description - 6



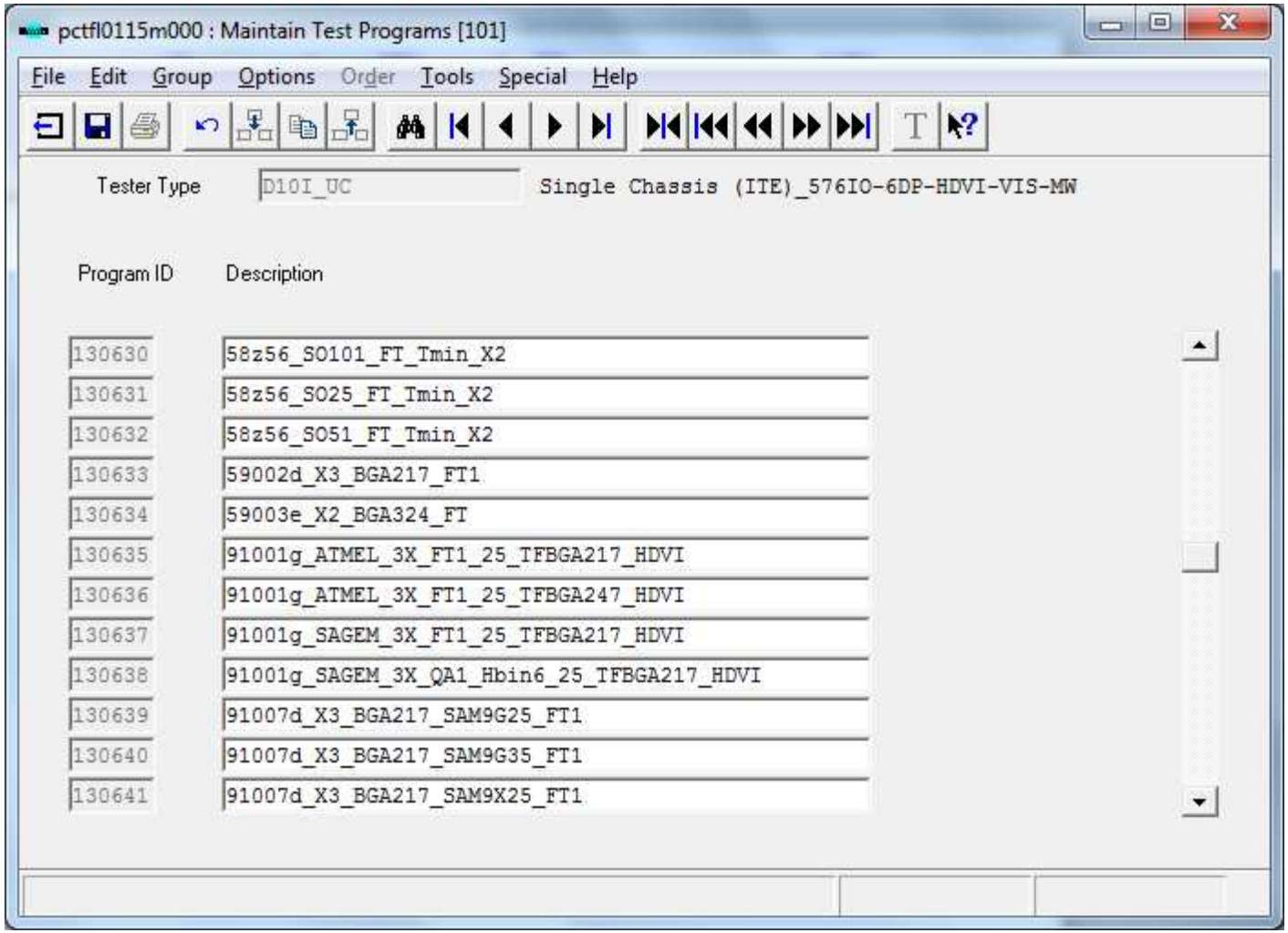
Create Test Program ID Description - 7



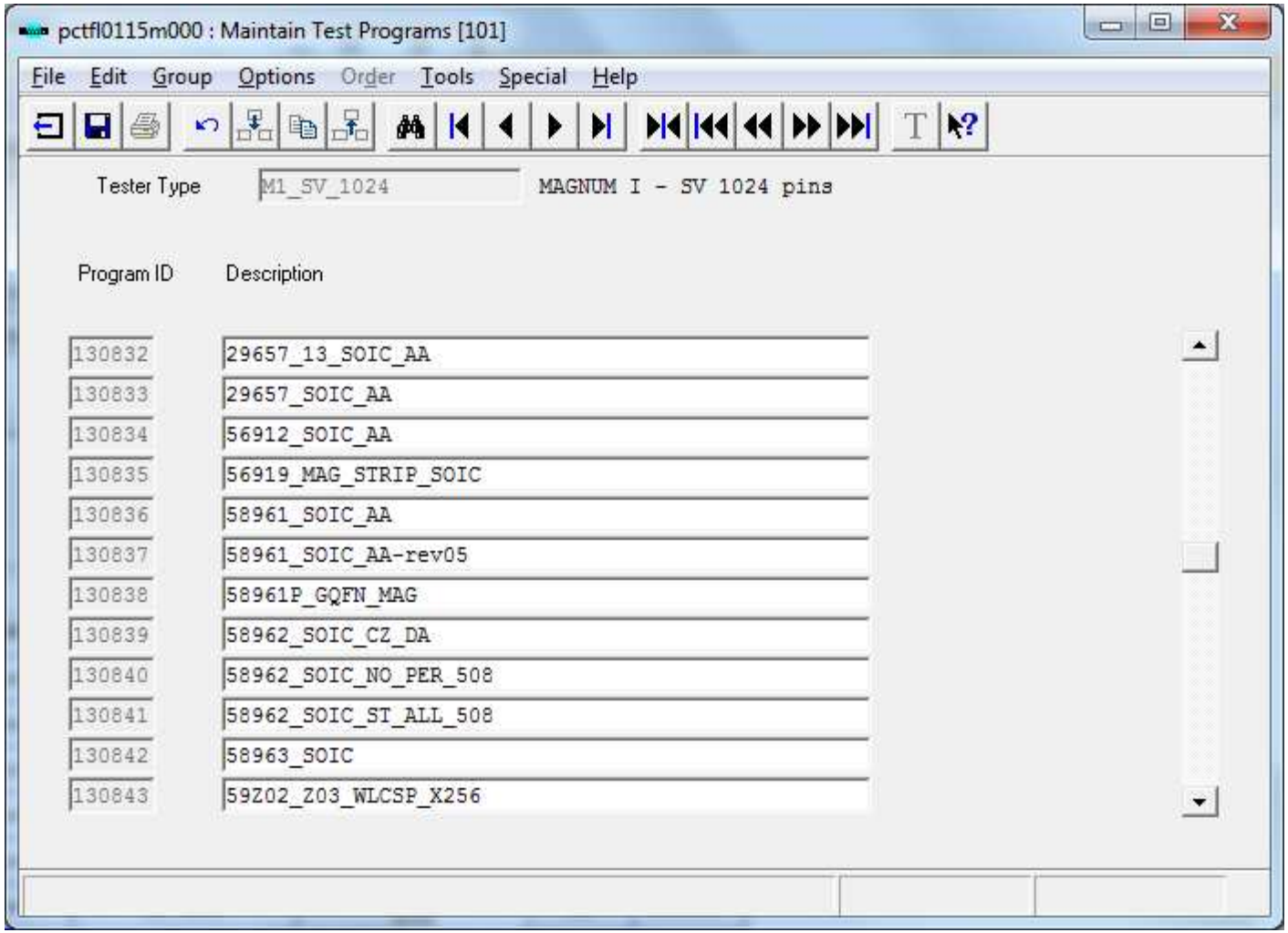
Create Test Program ID Description - 8



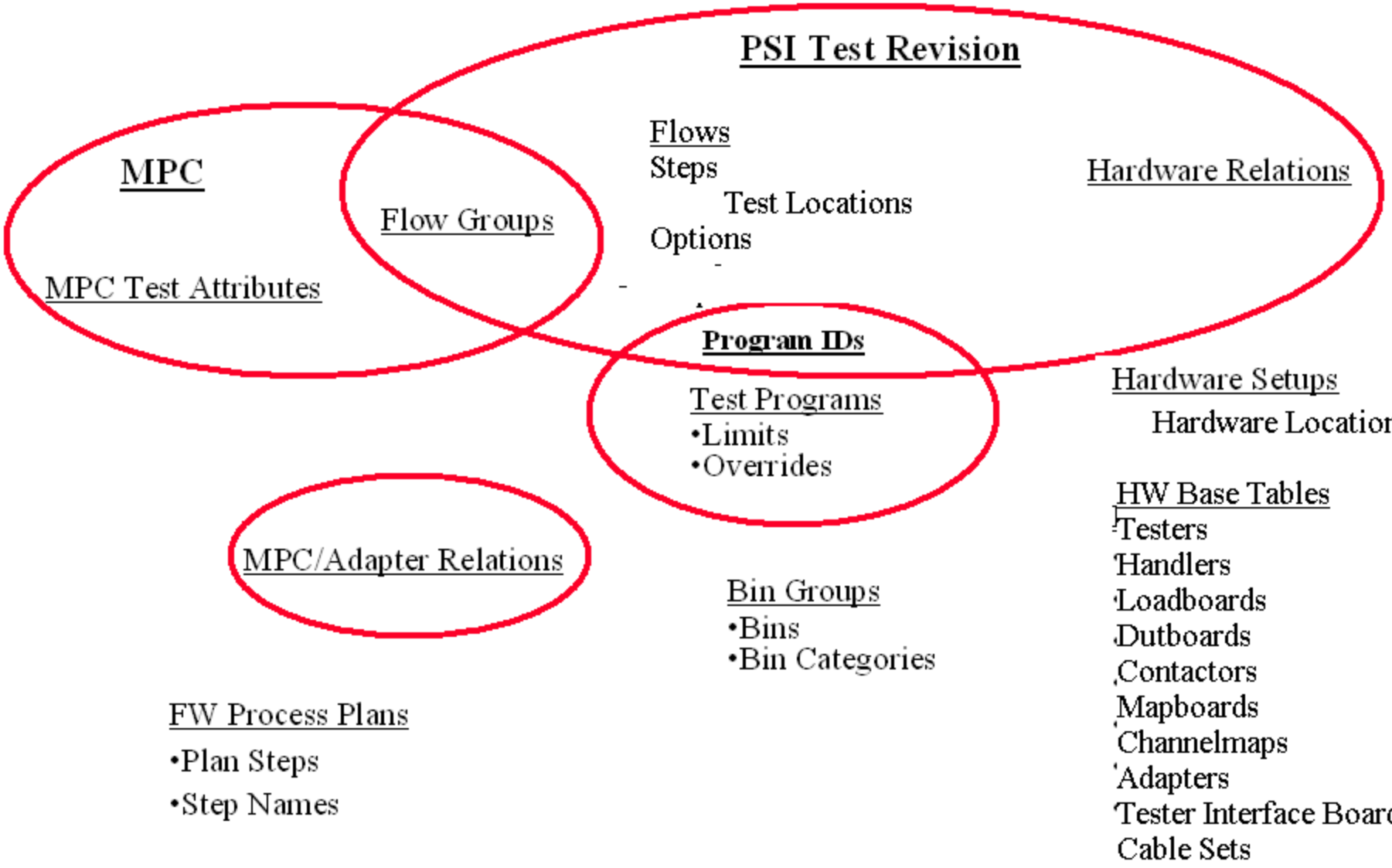
Create Test Program ID Description - 9



Create Test Program ID Description - 10



PDC Data Structure



Create Test Flow Group Name - 1

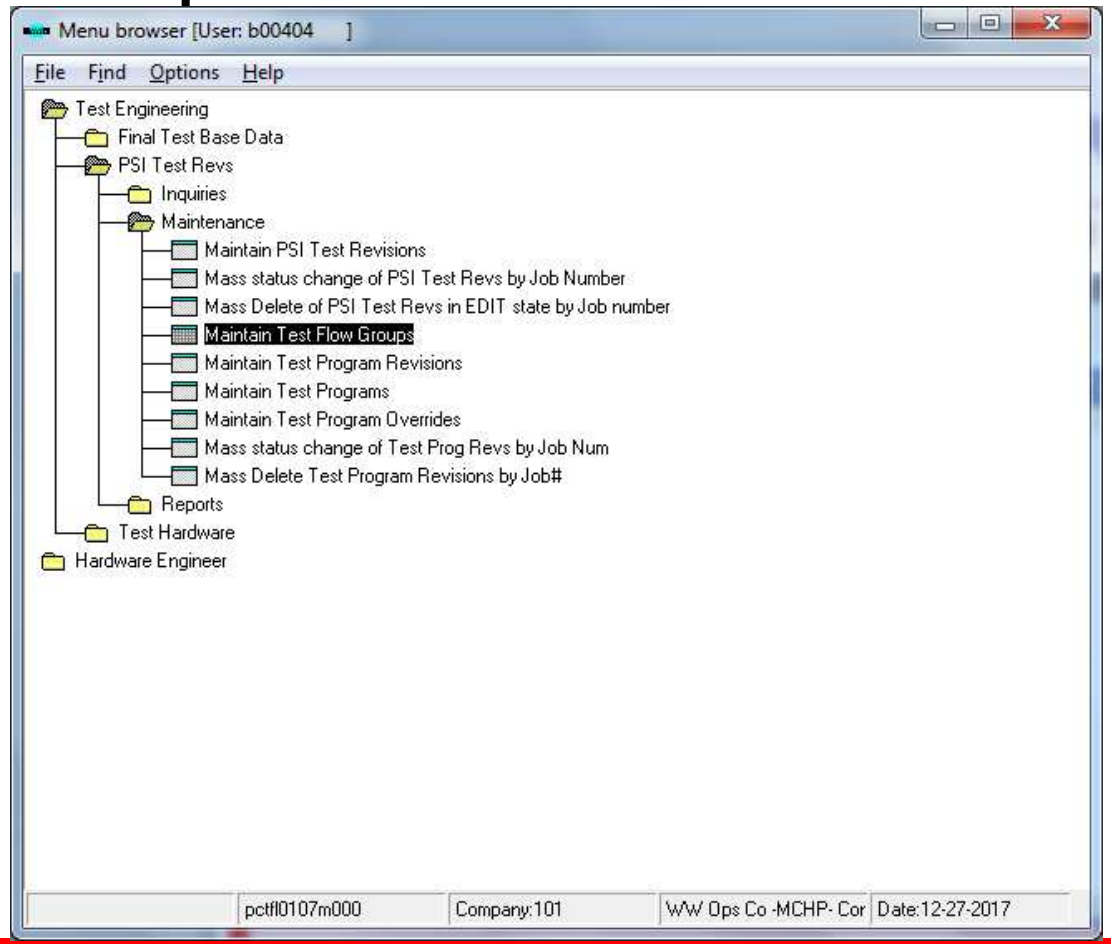
- Review all Test Flows and Test Program Options at every test step of all MPCs (MPNs) of that Mask to minimize the number of Test Flows.
- Define name of each Test Flow.
- Create Test Flow Group Name in PDC.

Note 1 : We call Flow Group since we can have more than 1 Test Flows under the same Flow Group Name.

Note 2 : The MPC can be linked to only one Flow Group.

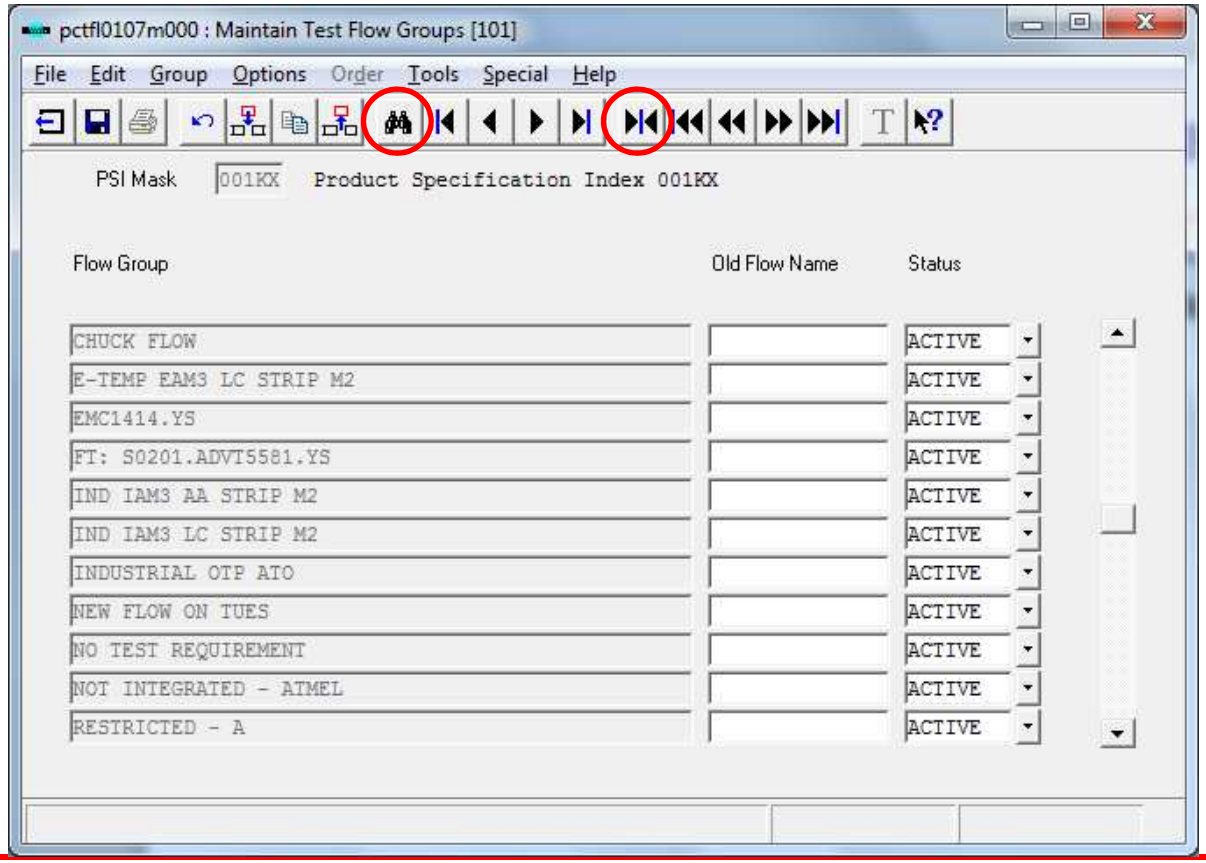
Create Test Flow Group Name - 2

- Under “Test Engineering”, Double clicks “PSI Test Revs”.
- Double clicks “Maintenance” then Double clicks “Maintain Test Flow Groups”.



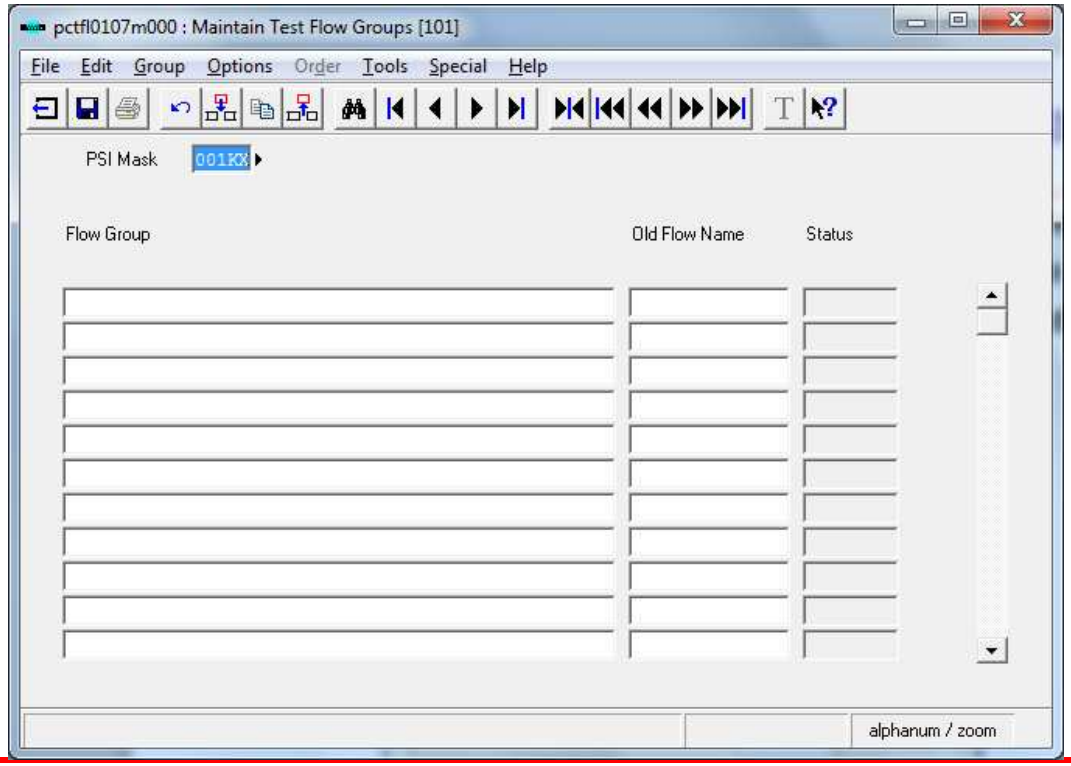
Create Test Flow Group Name - 3

- Click Find button, input Mask number then click OK.
- If it is the initail release product, click Bowtie button to add new Mask.
- Input new Mask then click Save button.

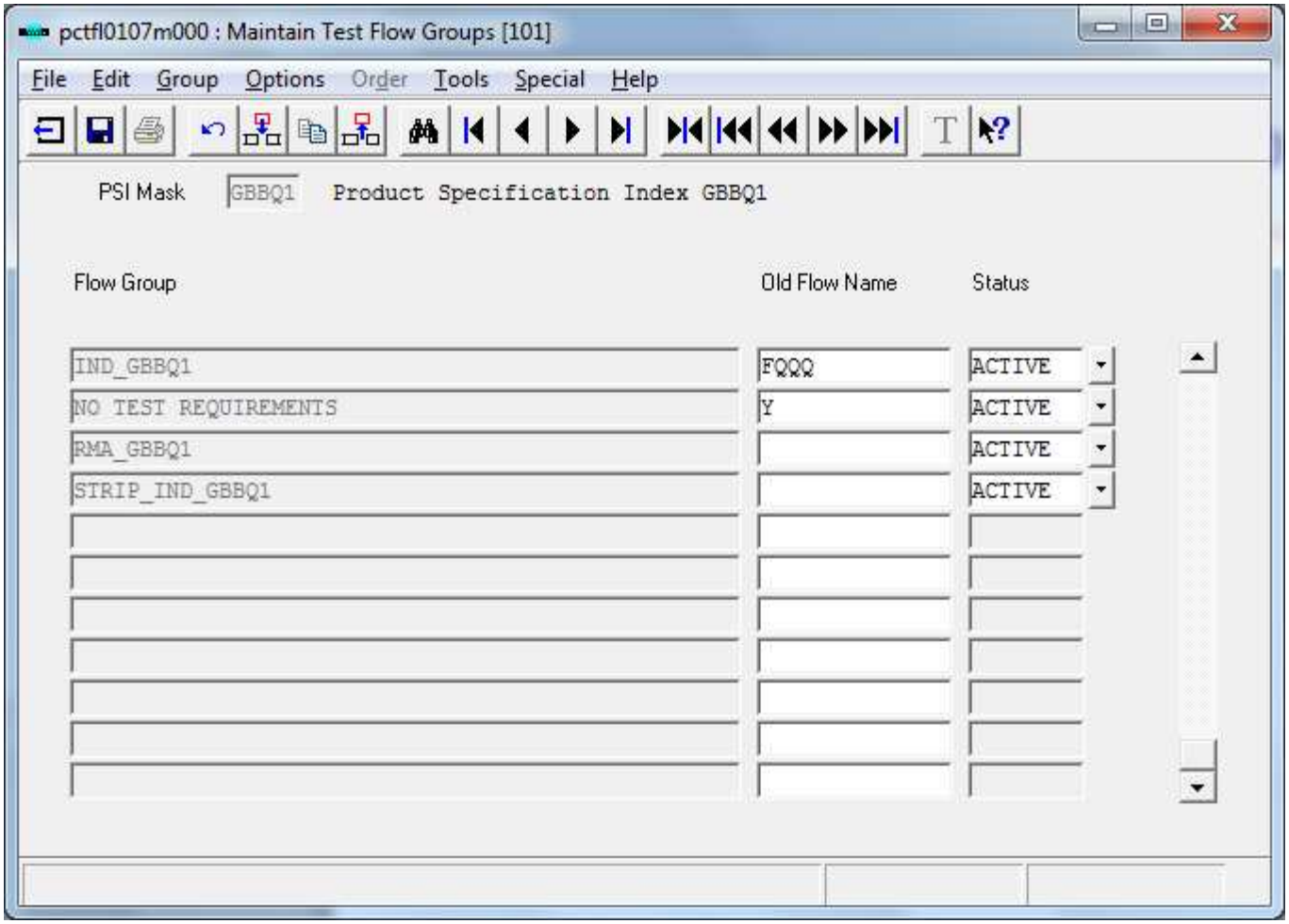


Create Test Flow Group Name - 4

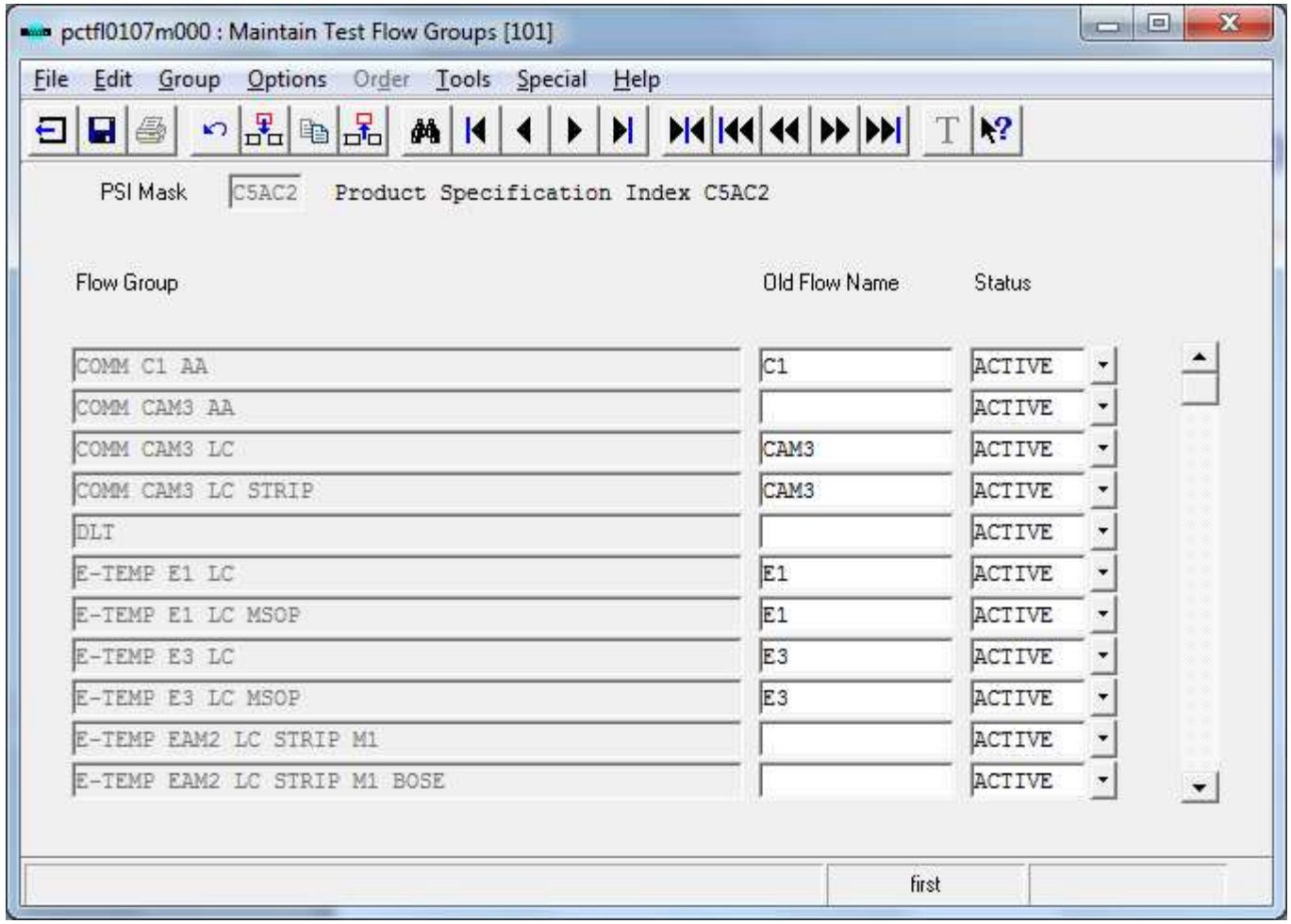
- Click Insert button. Input the 1st Flow Group Name.
- Press “Tab” key for 3 times, the cursor will go to the next line.
- Input the 2nd Flow Group Name, the 3rd, the 4th,… until complete all of them.
- Click Save & Exit button.



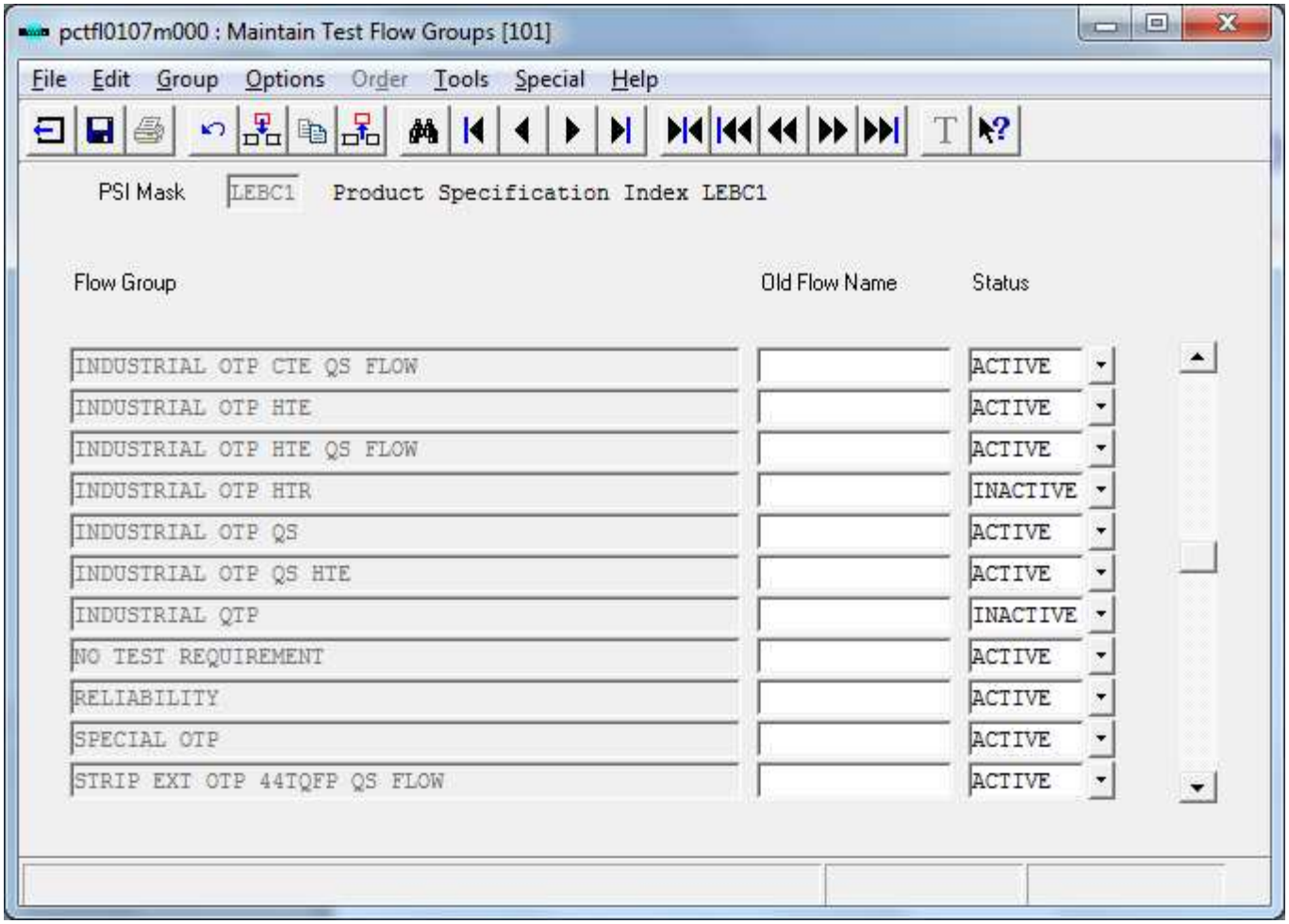
Create Test Flow Group Name - 5



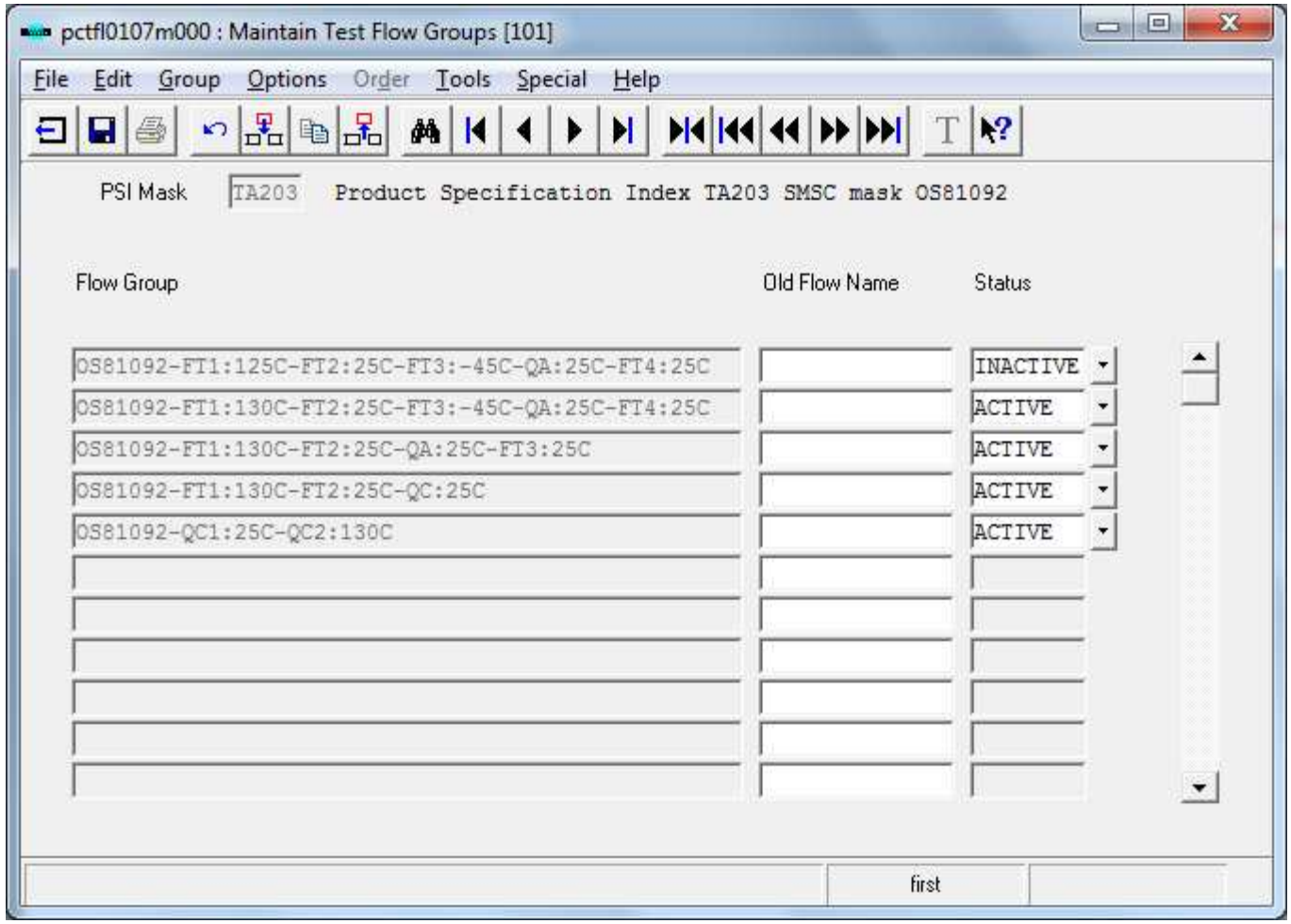
Create Test Flow Group Name - 6



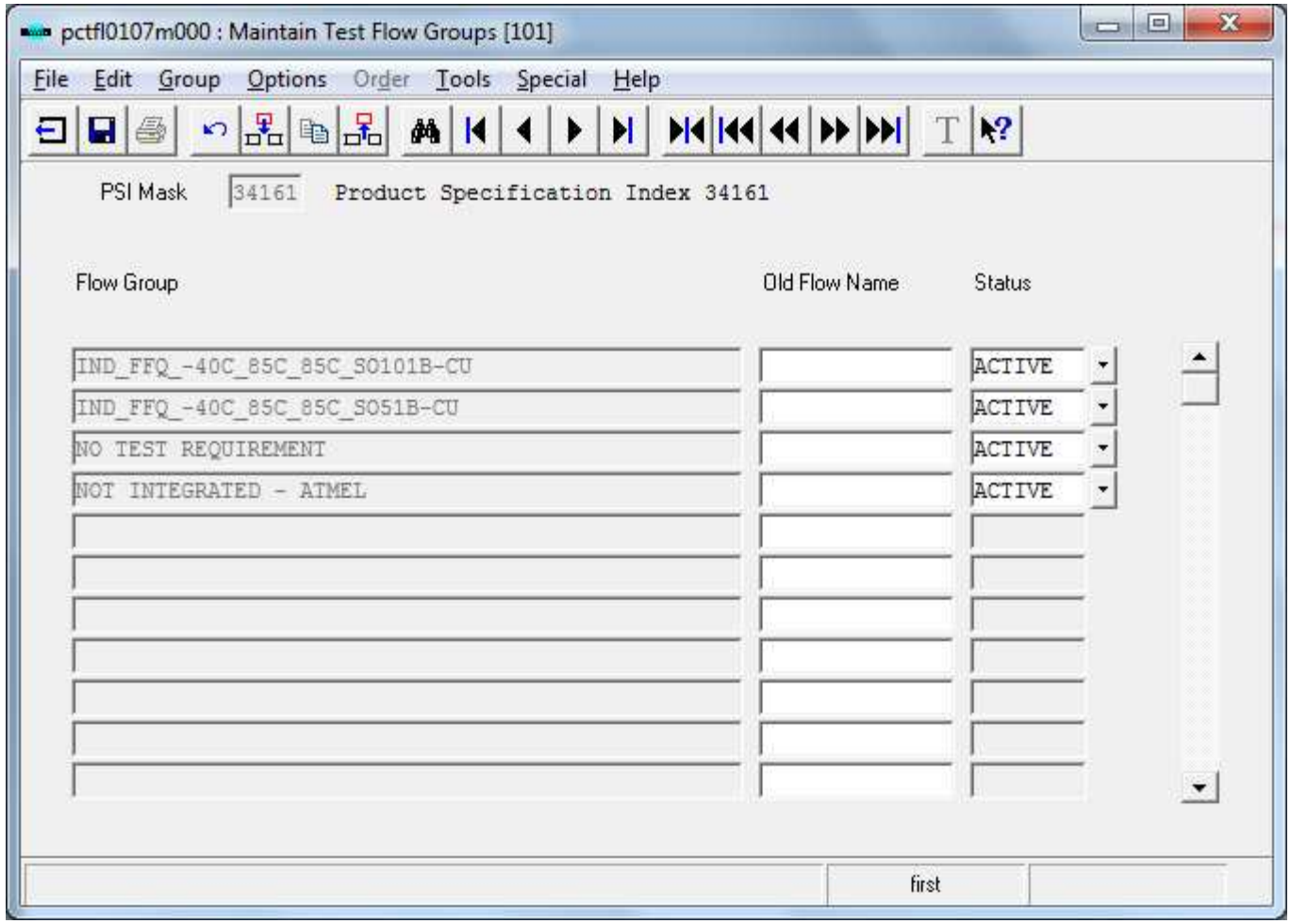
Create Test Flow Group Name - 7



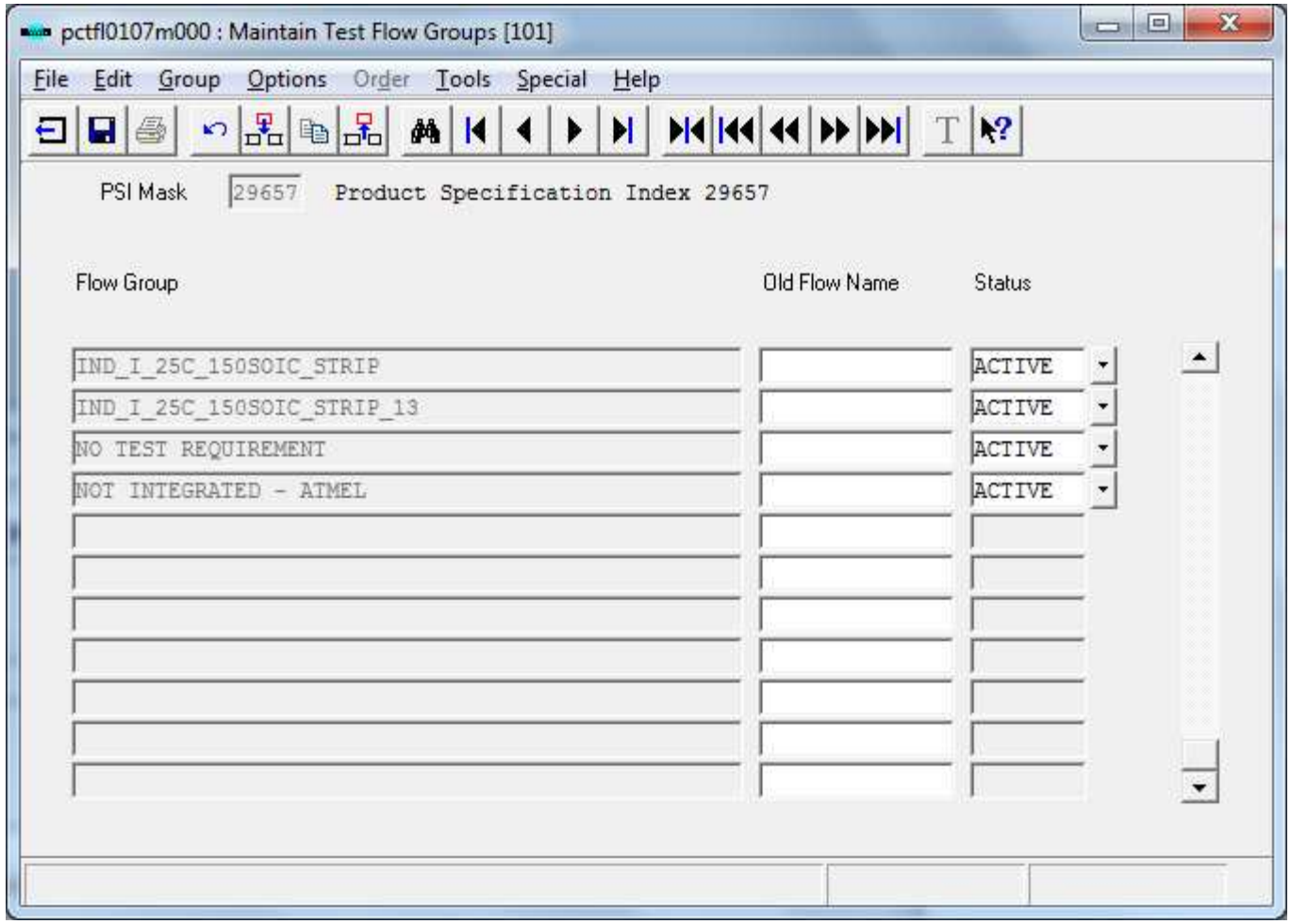
Create Test Flow Group Name - 8



Create Test Flow Group Name - 9



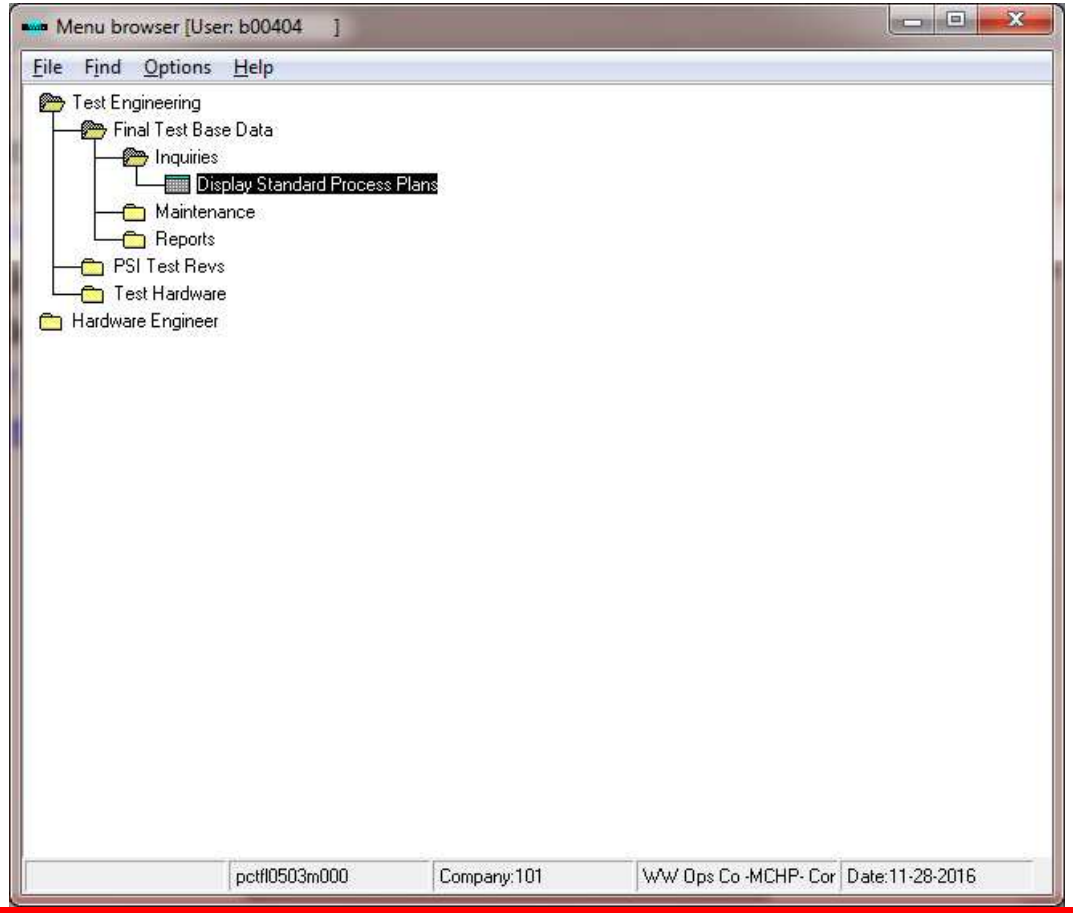
Create Test Flow Group Name - 10



Process Plans - 1

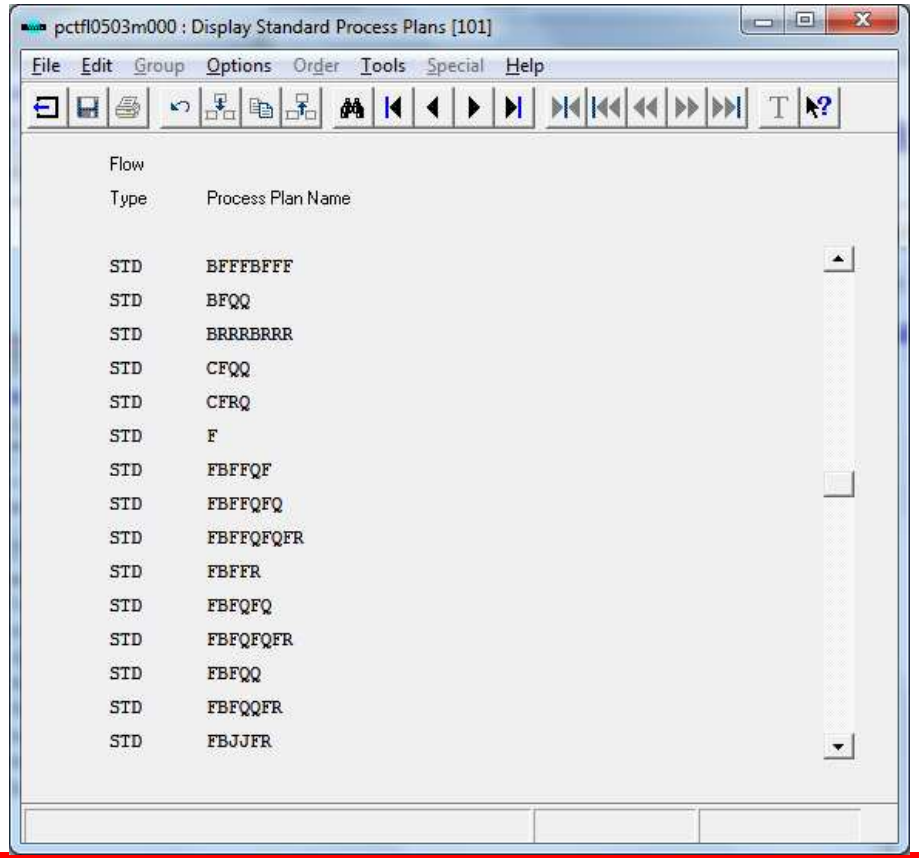
To see all available STD/REL/RSN Process Plans :

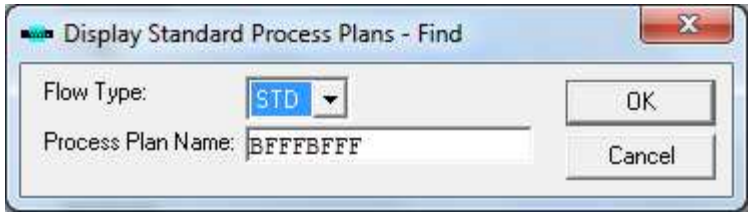
- Under “Test Engineering”, Double clicks “Final Test Base Data”
- Double clicks “Inquires” & “Display Standard Process Plans”.



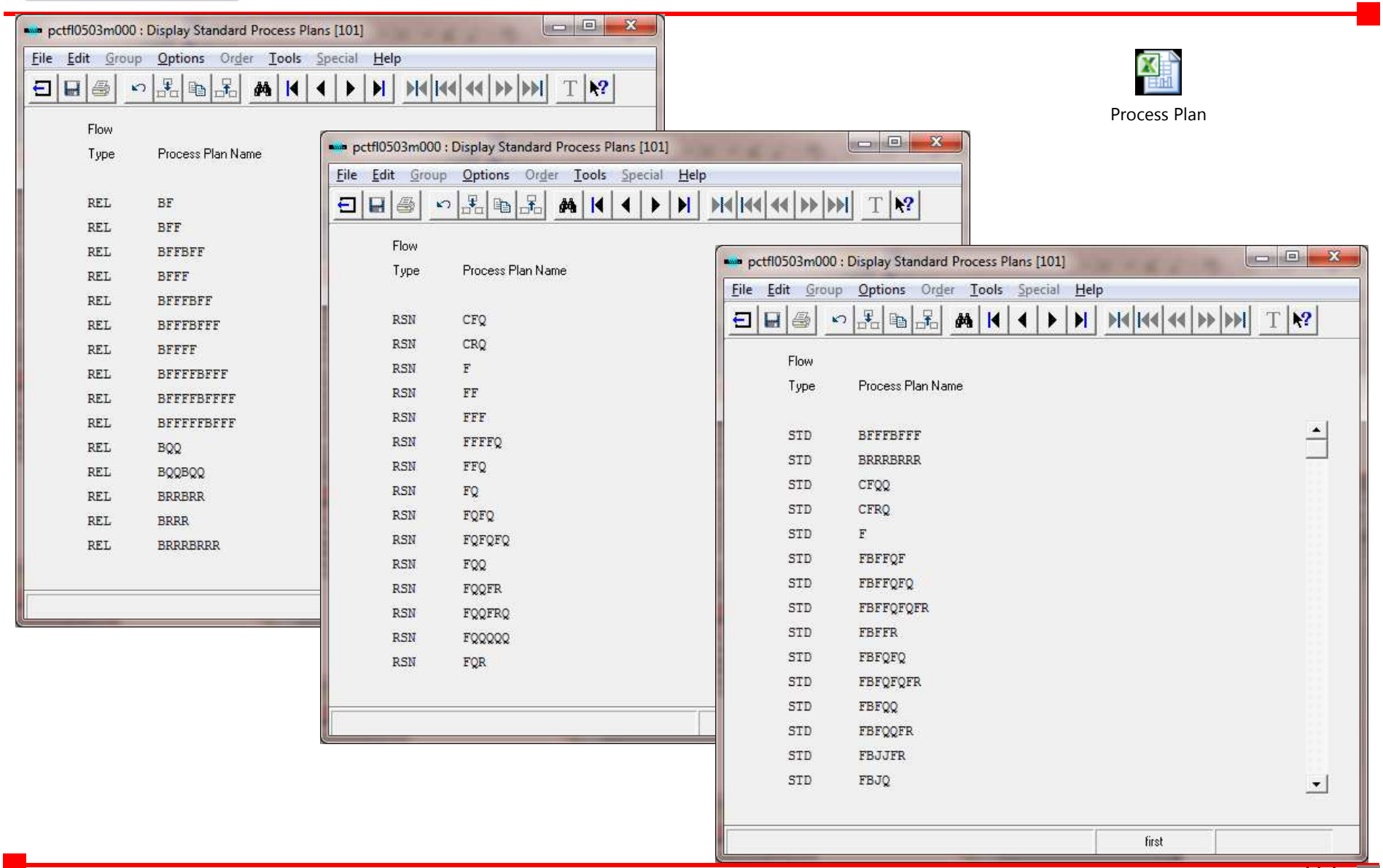
Process Plans - 2

- **Click Find button, input Flow Type & Process Plan you require.**
- **If you can't find the Process Plan you needed, please contact Surasak Chairattanarom - B00717 (MThai IS).**





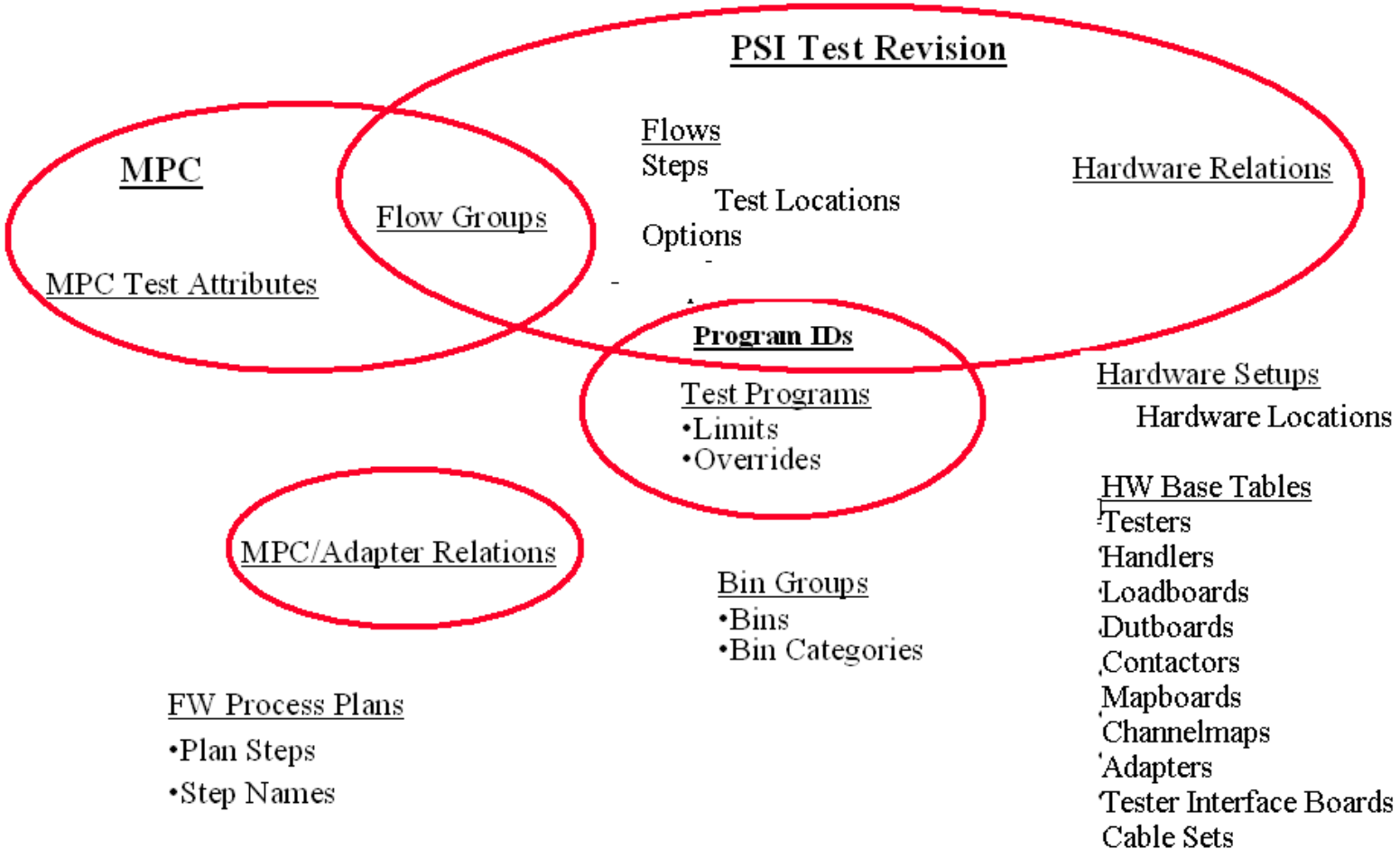
Process Plans - 3



Process Plan

Create PSI Test Revision - 1

- **PSI Test Revision is the place to create relationship among Hardware Setups, Test Flows and Program IDs.**



Create PSI Test Revision - 2

- **PSI Test Revision data will be shown at FLOW STEPS, FLOW DESC, Hardware Setups, Temperature, Programming Type on Test Setup Sheet.**

SPECIAL TEST SETUP OPTIONS -- MPC: LEAD1TT4X030 FLOW#: 245849 REV: AD VER: 0

MPC: LEAD1TT4X030	LOT:-	CAT PART NUMBER:	PIC18F46K20T-I/PT030
		WAFER LOT 1:	-
		WAFER LOT 2:	
		DUE DATE:	
		LEAD/CONFIG:	44/44TQFP_10 (T4X)

FLOW STEPS:	FS1@IN25C, IS1@85C, QC1@IN-40, FT1@IN25C, RT1@IN25C		
FLOW DESC:	J750 STRIP INDUSTRIAL QTP X20LF		
PSI REV:	M	TRACECODE:	
PSI TEST REV:	LEAD1 Rev. AD Ver. 0	MASK CALL REV:	-
SDP PROD ID:		CP ON CHECKSUM:	0339
SDP CUST ID:		CP OFF CHECKSUM:	AA8C
SDP MPC:		QCODE:	
TEMP CN NO.:	1701736	COMMENTS: Change hardware id of 44L QFN 8x8	
TEST LOCATION.:	MTAI,		
MULTI-STEP TEST PROGRAM.:	NO		

CP ON :

CP OFF :

QCODE :

Create PSI Test Revision - 3

- **PSI Test Revision data will be shown at FLOW STEPS, FLOW DESC, Hardware Setups, Temperature, Programming Type on Test Setup Sheet.**

2) Hardware Setups for 44/44TQFP_10 (T4X)

	SETUP ID	HANDLR. CHANNELMAP	LOADBOARD ADAPTER	CONTACTOR TESTER INTERFACE BOARD	DUTBOARD CABLE SET	MAPBOARD H/W LOCATION
☐	44	CAS x3dlc44tqfp_128p	14-A3100	14-A1961		MTAI,
☐	45	CAS x4dlc44tqfp_256p	14-A3100	14-A1961		MTAI,
☐	63	SCH x20mct44tqfp	14-A4254	14-A2834		MTAI,

Create PSI Test Revision - 4

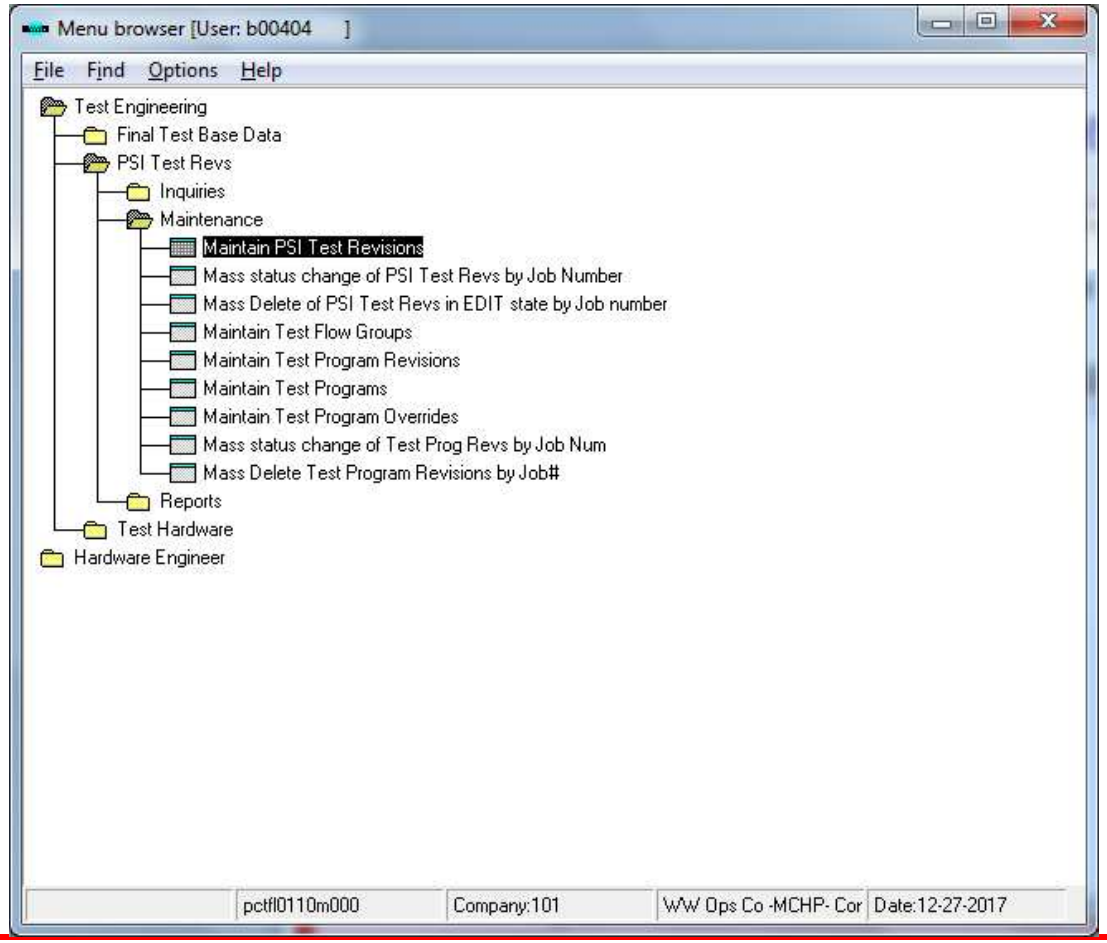
- **PSI Test Revision data will be shown at FLOW STEPS, FLOW DESC, Hardware Setups, Temperature, Programming Type on Test Setup Sheet.**

☐ ID: 114137 Rev: AX Ver: 0 Status: ACT

		Verified
Main Source:	LEAR0_FT_A48e.xls	☐
Checksum:	16540E2	☐
Executable Name:	ft-qtp-std	☐
Part Number:	18F46K20	☐
Temperature:	IN25C	☐
Programming Type:	QTP	☐
Bins:	2-PASS, 3-PA, 4-FU, 5-O/S	☐
Hardware Limits:		☐
Correl. Process Code:		☐
Correlation Good Bin:	0	☐
OS Version		☐
Special Instructions:		☐
CN Number:	1700910	
Comments:		

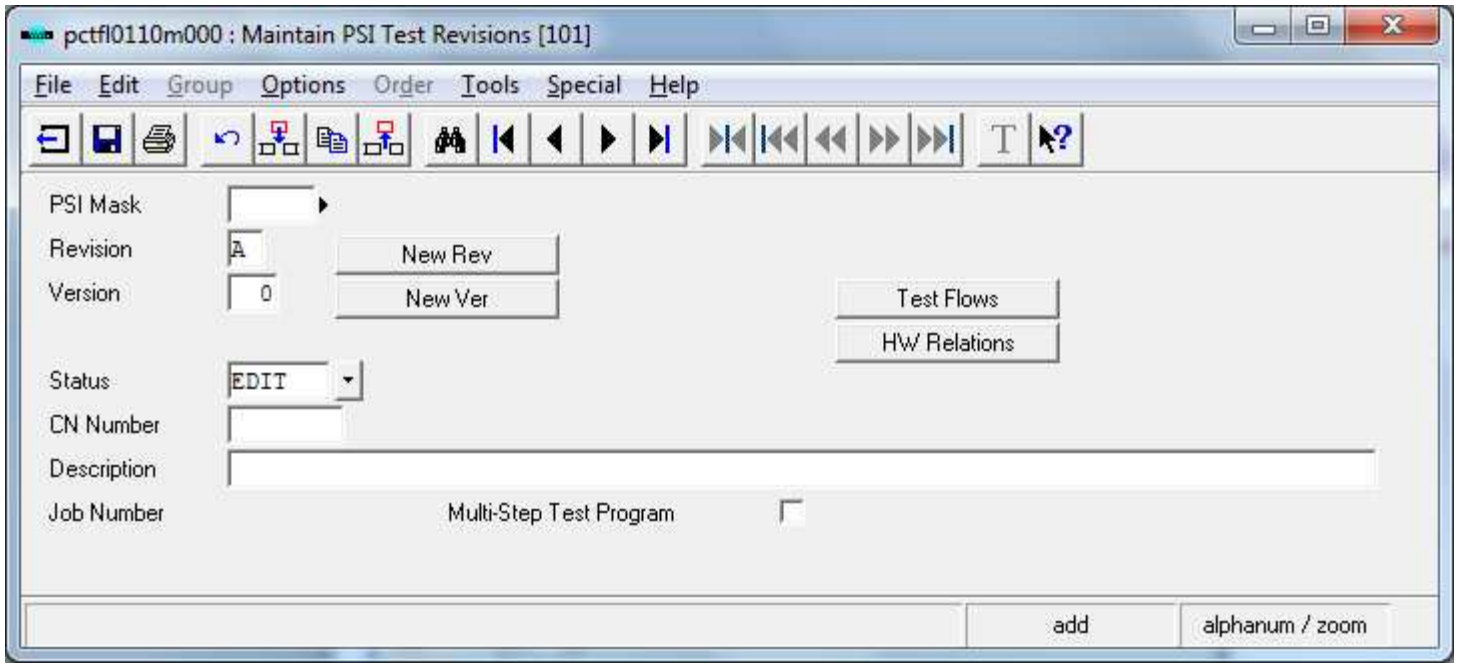
Create PSI Test Revision - 5

- **Under “Test Engineering”, Double clicks “PSI Test Revs”.**
- **Double clicks “Maintenance” then Double clicks “Maintain PSI Test Revisions”.**



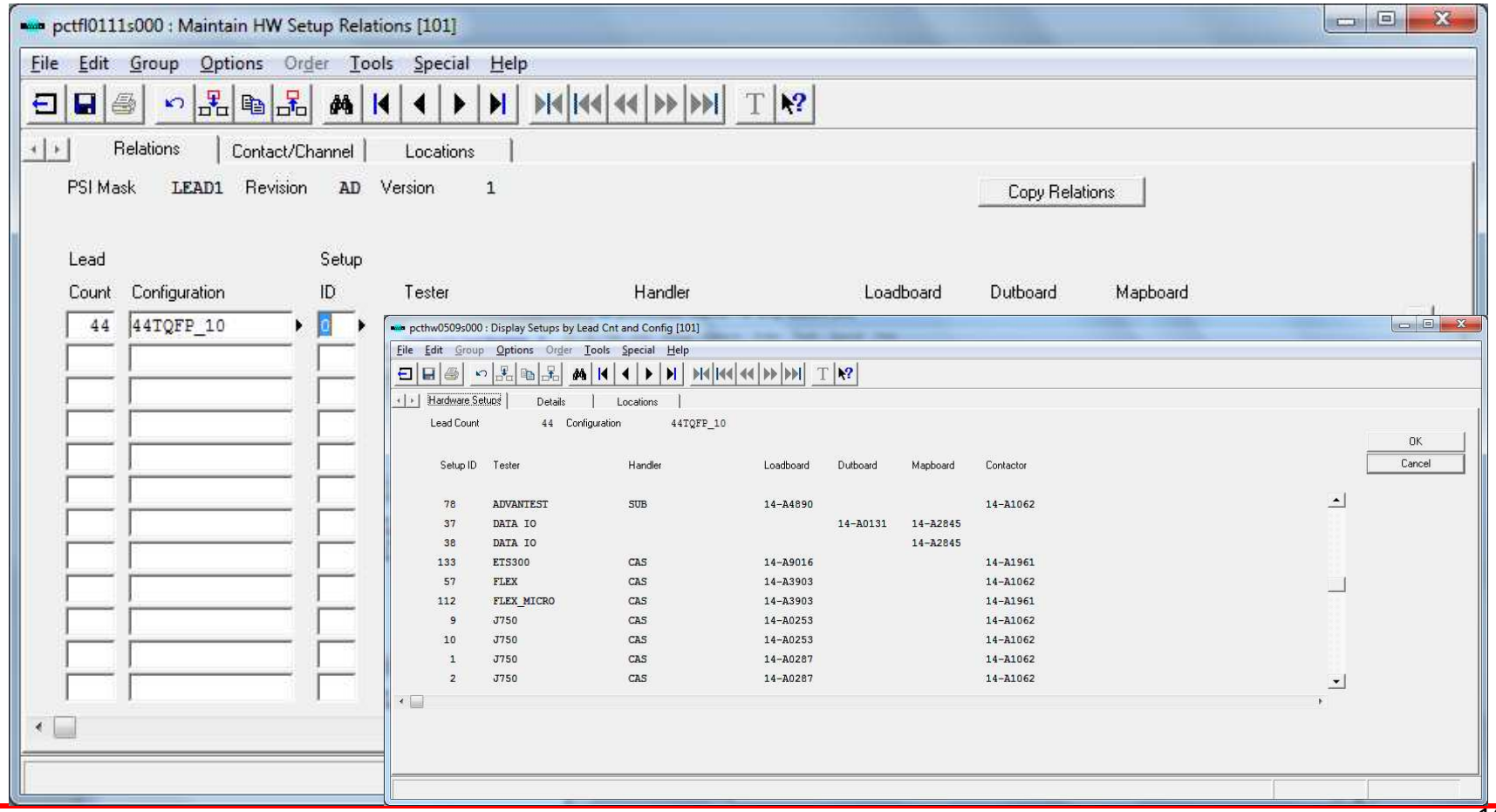
Create PSI Test Revision - 6

- For initial release, need to add new Mask in PDC.
- Click Insert button, input Mask number.
- Input Description.
- Click Save button.



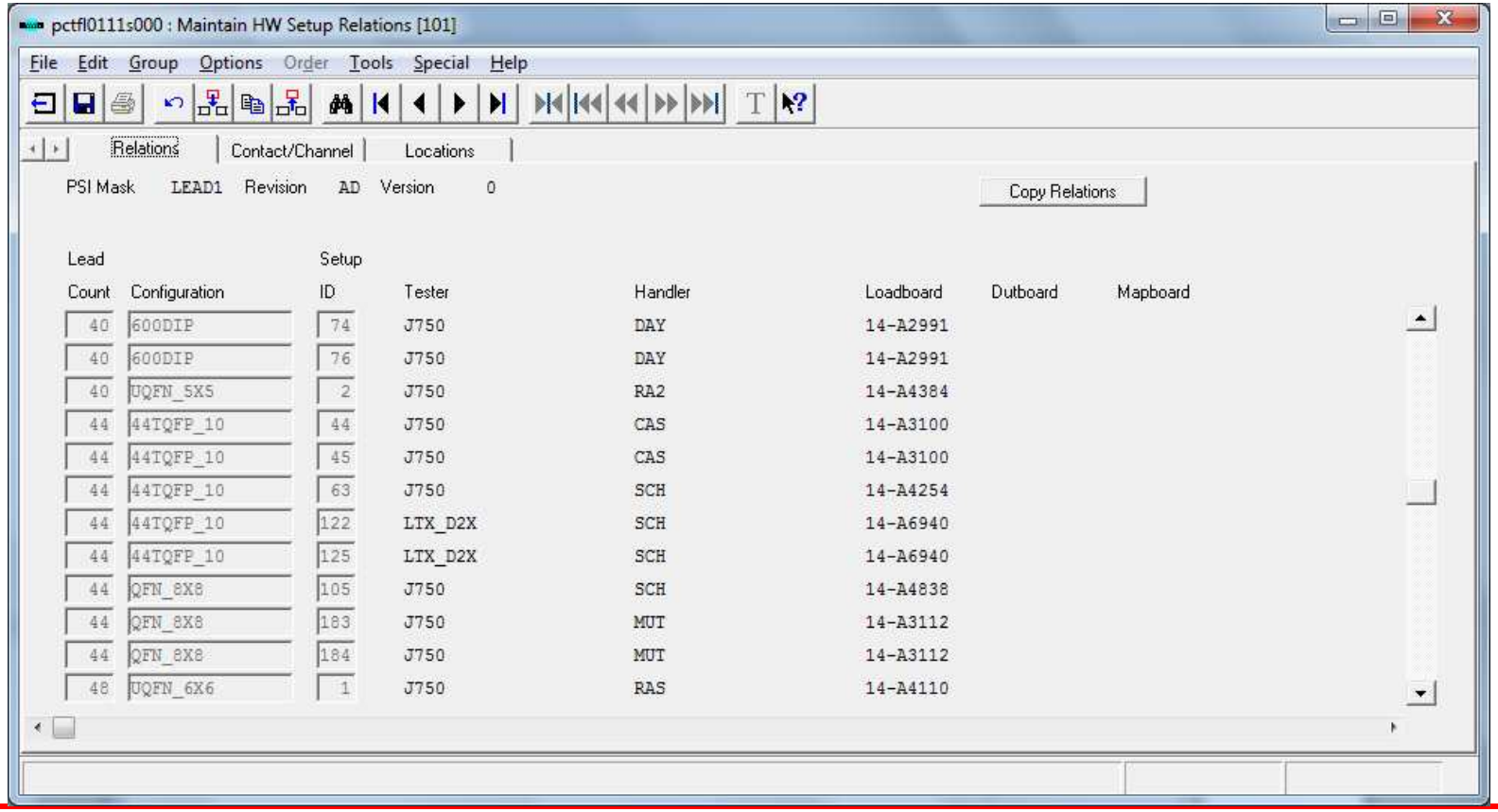
Create PSI Test Revision - 7

- **Click HW Relations button to add Hardware Setup.**
- **Click Insert button, Input Lead Count, Select Configuration (Package), Select Hardware Setup.**



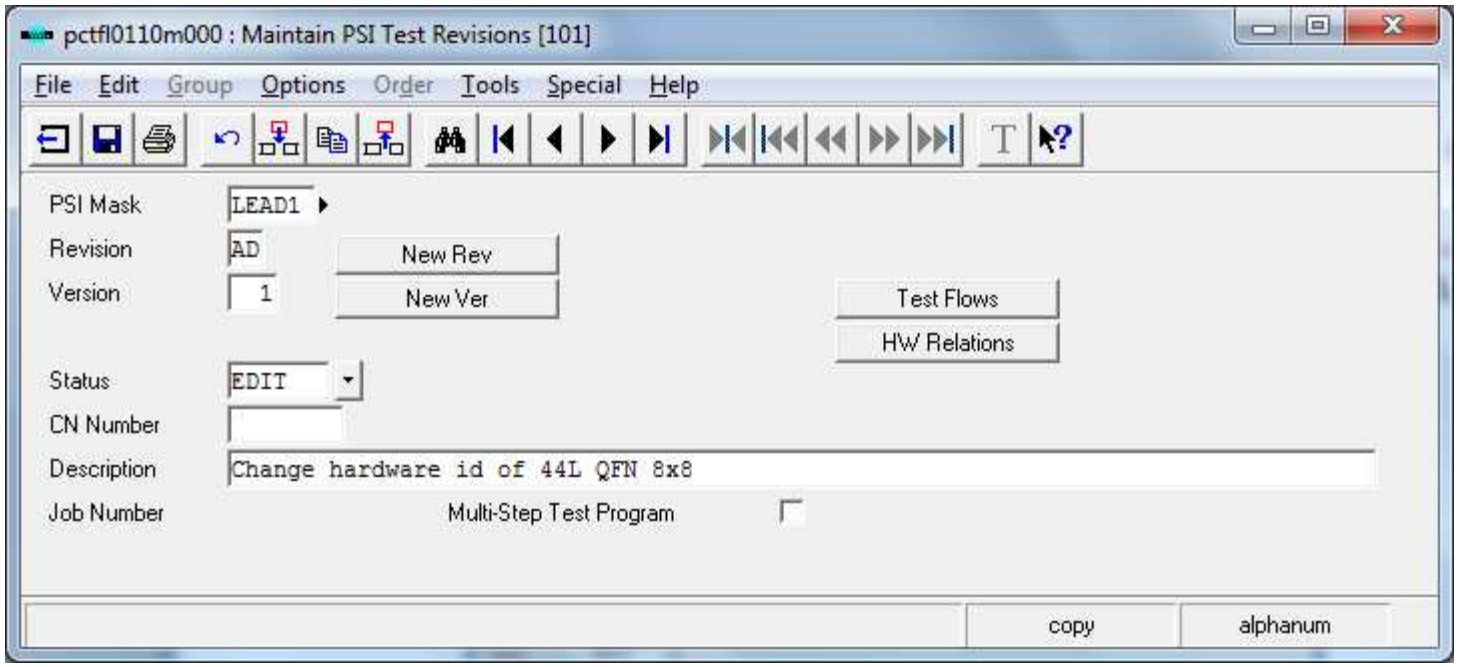
Create PSI Test Revision - 8

- **Add the next Hardware Setup.**
- **Click Save & Exit button after finished adding all Hardware Setups you needed (need to have at least 1 Setup per Package Type).**



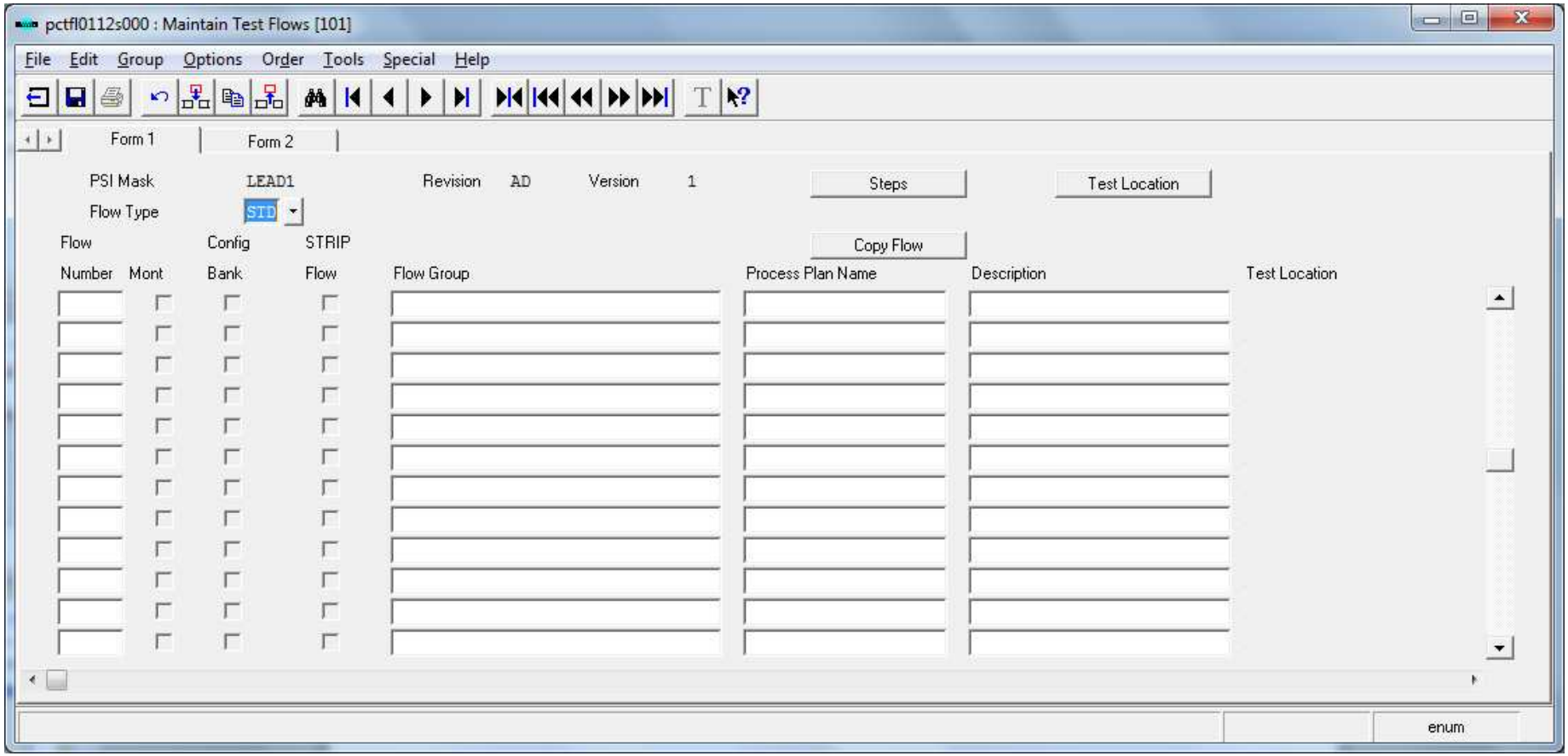
Create PSI Test Revision - 9

- **Click Test Flows button to start adding Test Flow Group.**



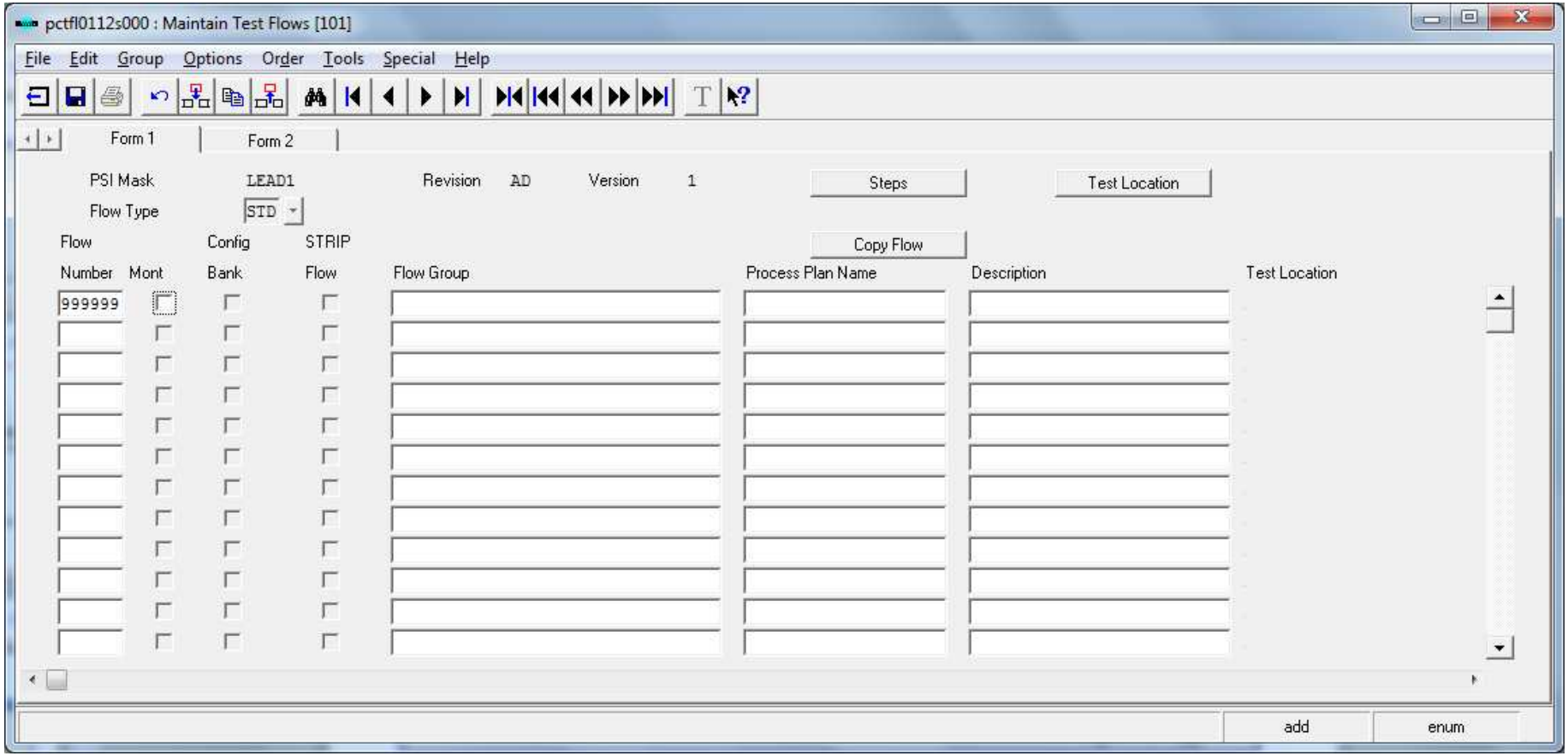
Create PSI Test Revision - 10

- Click Bowtie button then select Flow Type.
- The default Flow Type is “STD” (Standard Production Flow).



Create PSI Test Revision - 11

- **Click Insert button, “999999” will be shown at Flow Number field of the line you are working on.**
- **Press Tab key to move cursor to the next field.**



Create PSI Test Revision - 12

- **Flags :**

  Mont : "Monitor" – Tick on special flow

  [Ex : - QC Test on every 15 lots

  (STD Flow : FQ , Mont Flow : FQQQ)

  - Keep the previous test flow for the lot in pipeline]

  Note : Assembly loader can't see this flow when issues the AI (Assembly Instruction).

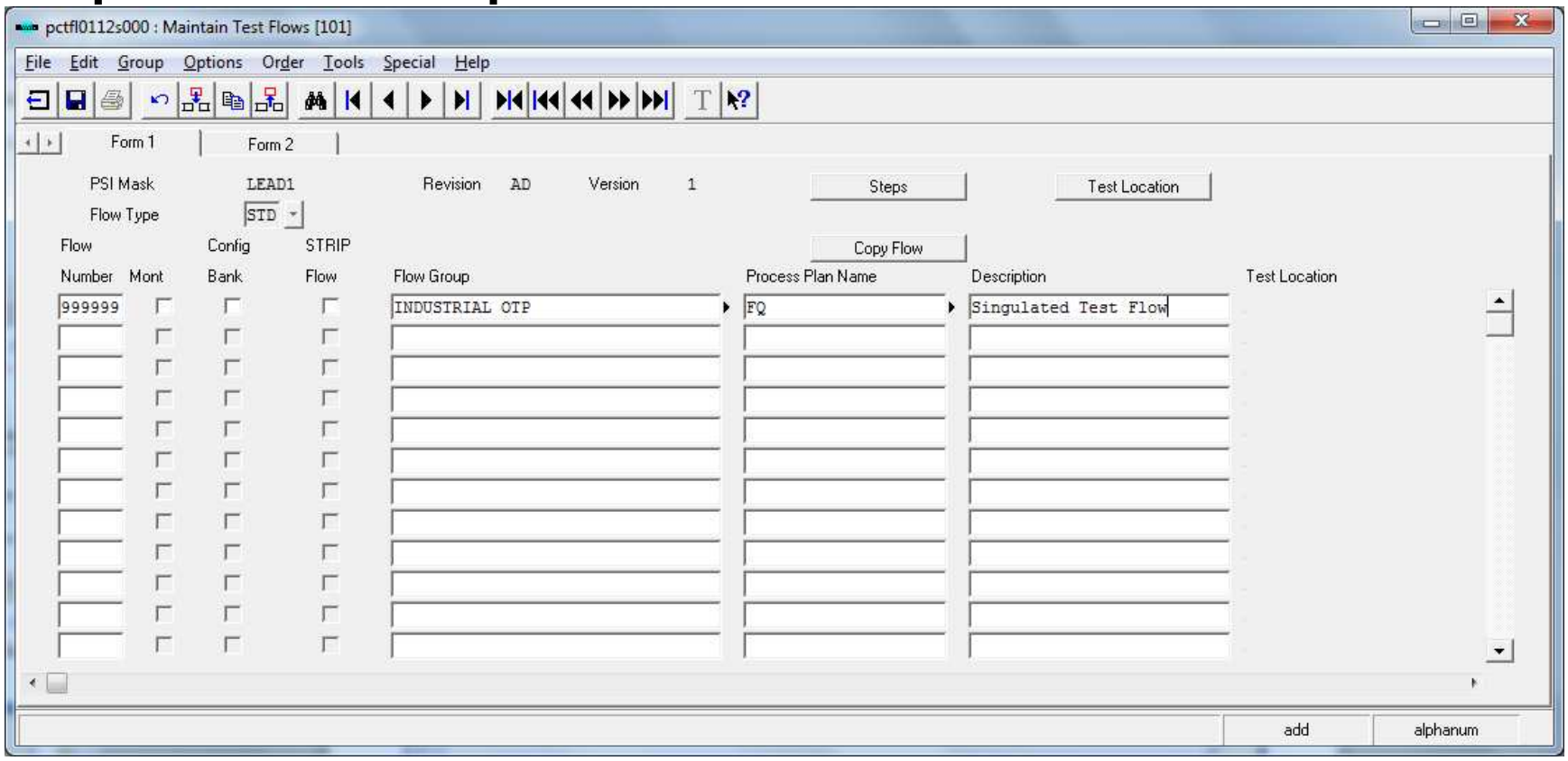
  Config Bank : Tick when Test Flow is shared across many configurations of the product.

  (For Micrel – TCG (MEMS) products)

  STRIP Flow : Tick when there is at least 1 Strip Test Step in the Test Flow

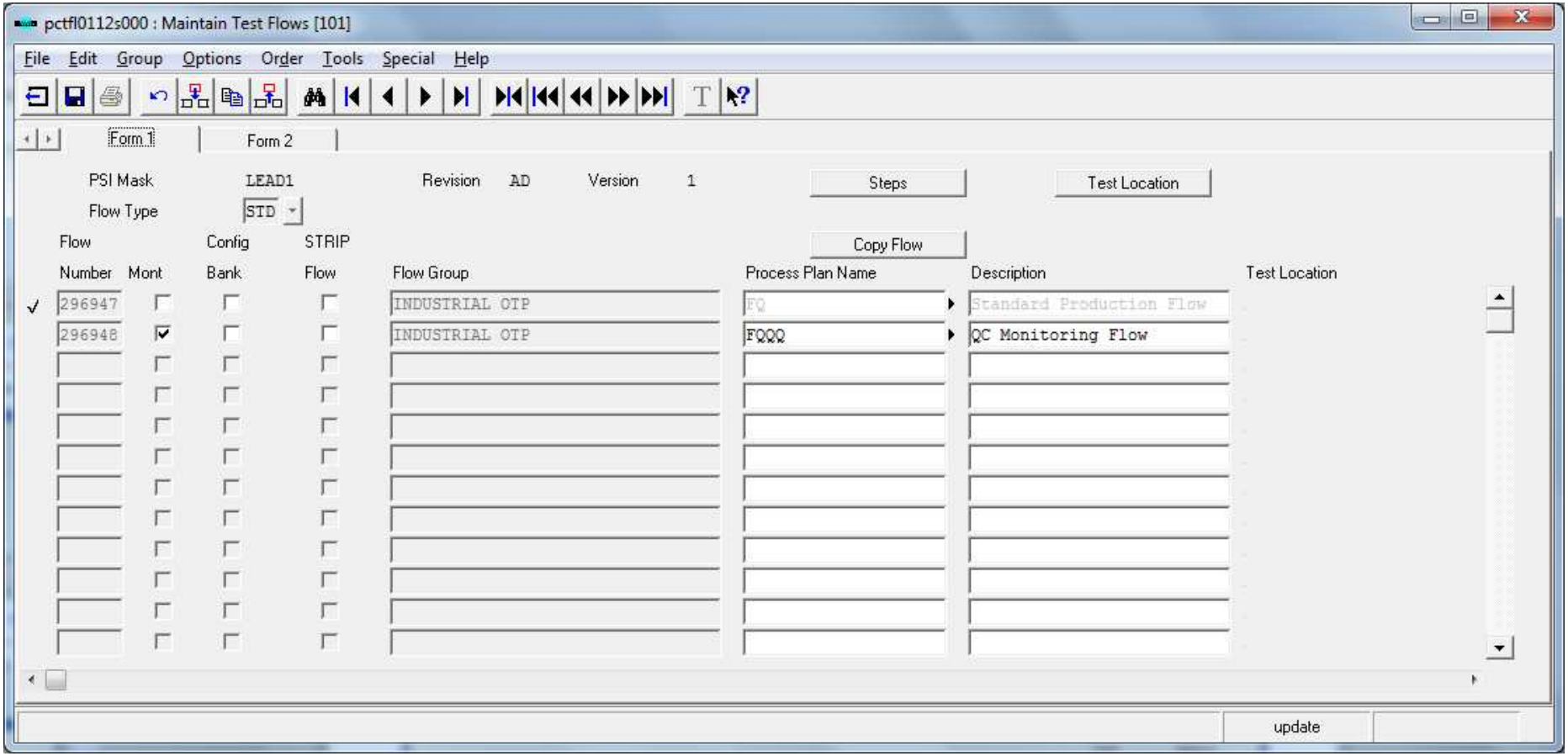
Create PSI Test Revision - 13

- Select Flow Group name from the list of Flow Group names you created previously.
- Input Process Plan Name (Test Flow).
- Input Flow Description.



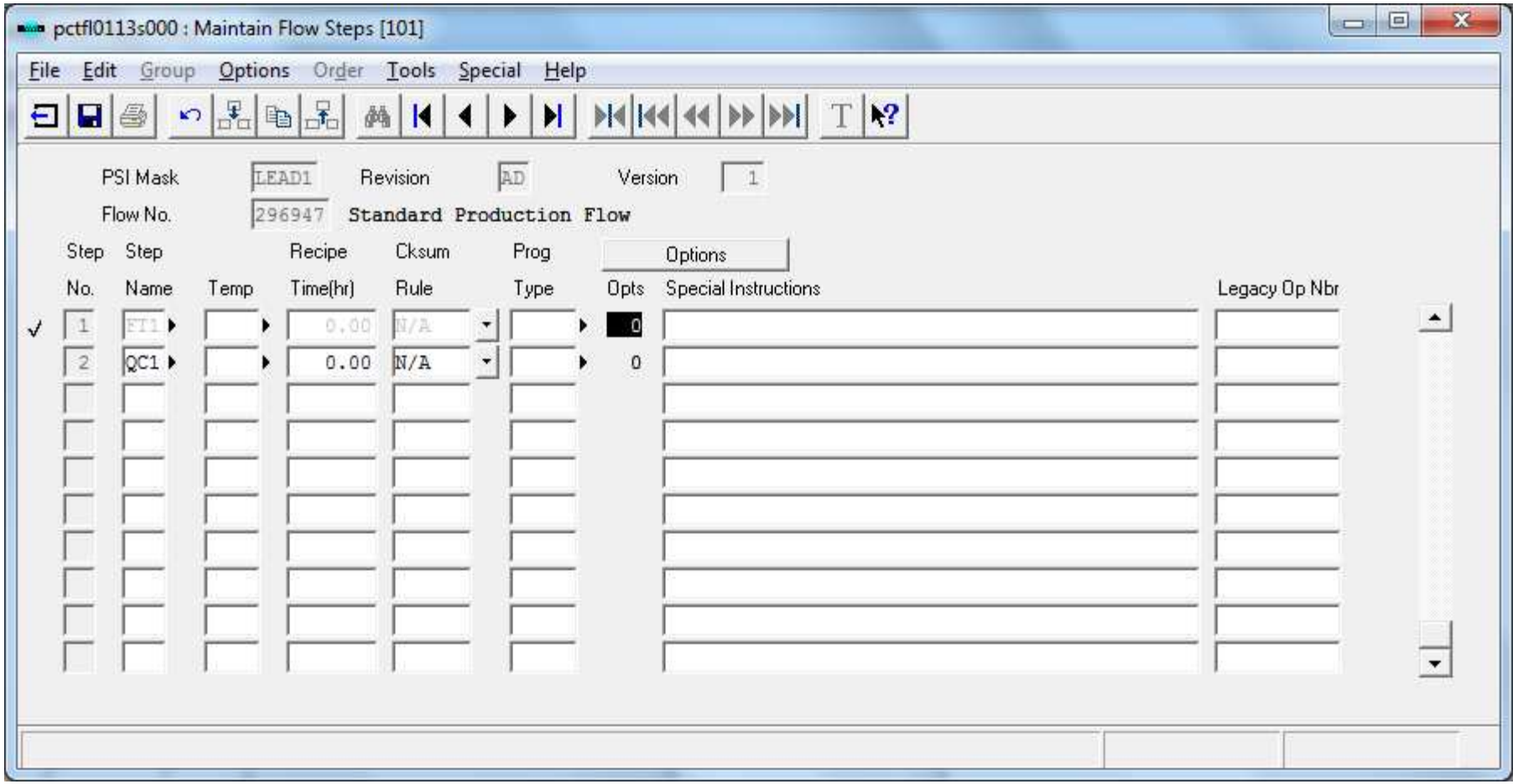
Create PSI Test Revision - 14

- **Press Tab key to add the 2nd Flow Group, ….**
- **After finish adding all Test Flow Groups, select one test flow then click Steps.**



Create PSI Test Revision - 15

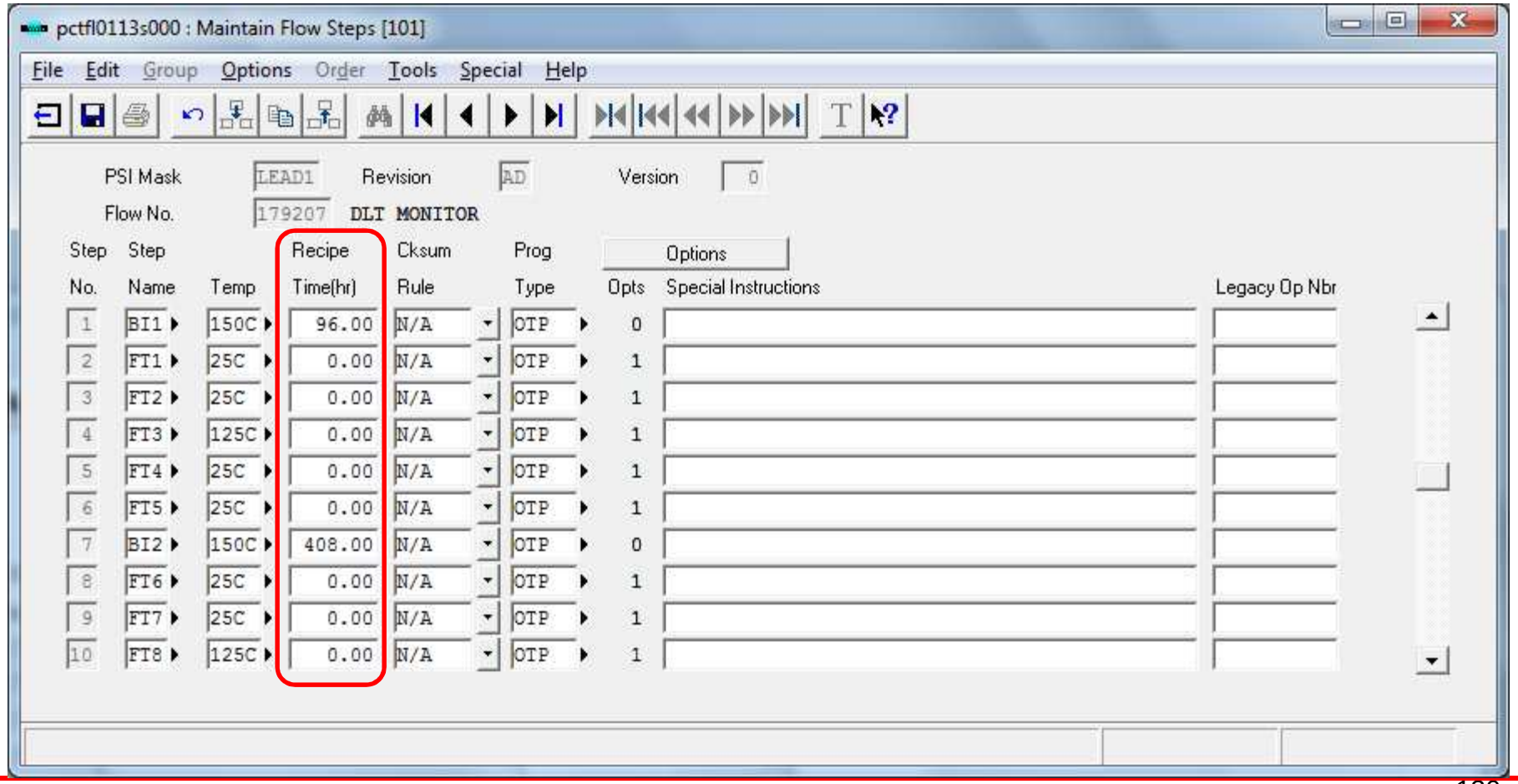
- **Select Test Temperature for each Test Step.**



Create PSI Test Revision - 16

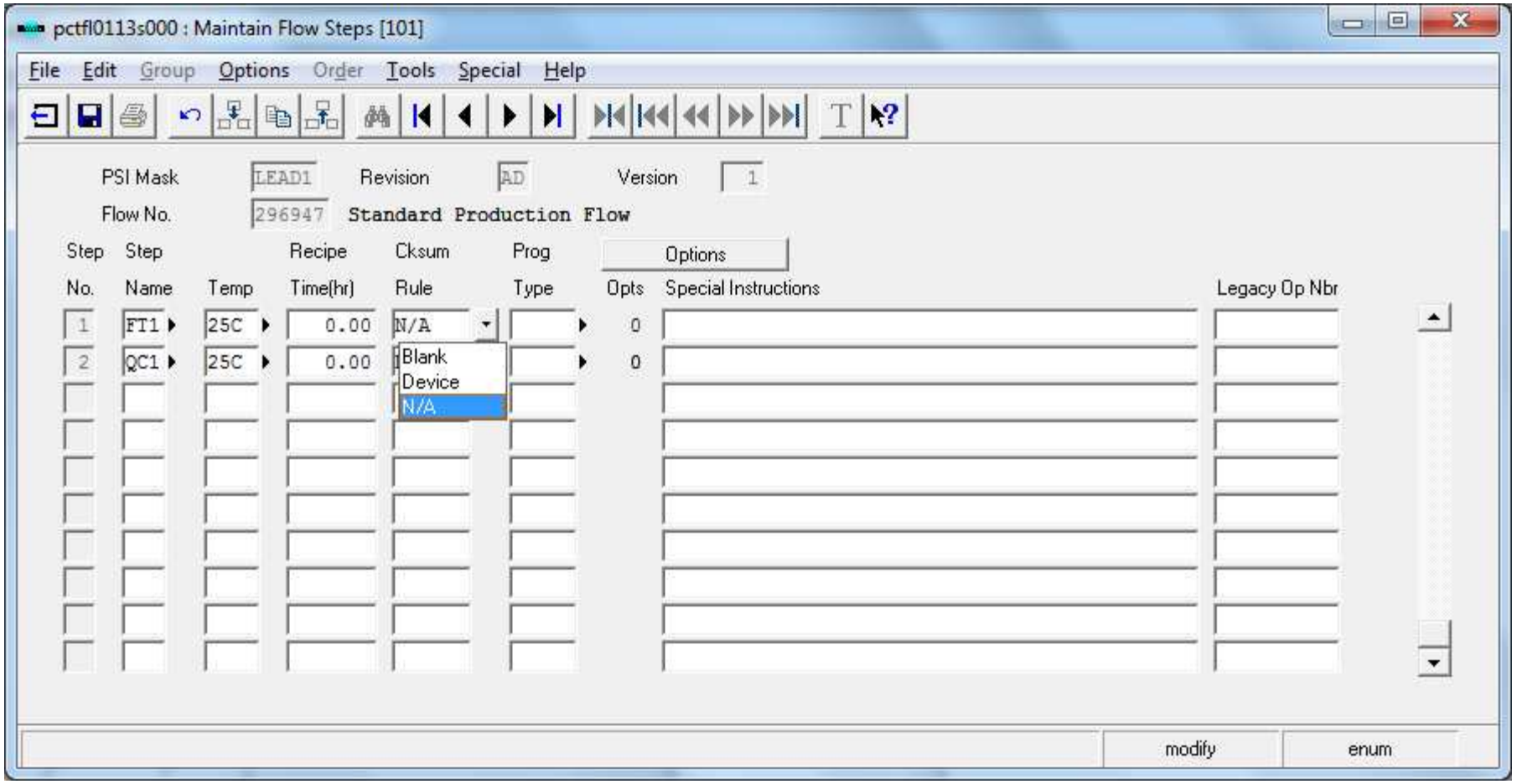
- **Recipe Time (hr) – Required for Burn-In, Endurance and Retention Bake steps. Not allowed on the other steps.**

  The default value is 0.00.



Create PSI Test Revision - 17

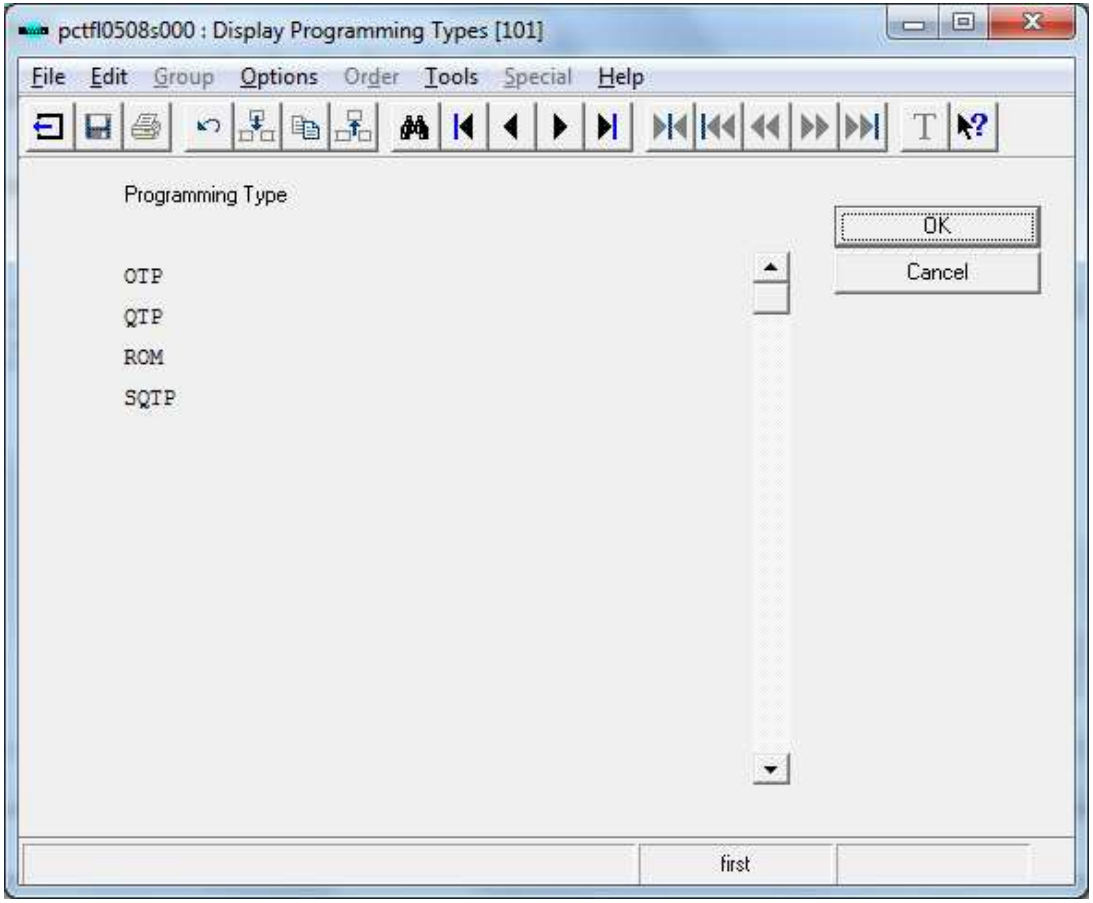
- **Cksum Rule (Device Checksum Rule) is the part to control which device checksum value (N/A, Blank, Device) will be shown on Test Traveler at that Test Step.**



Create PSI Test Revision - 18

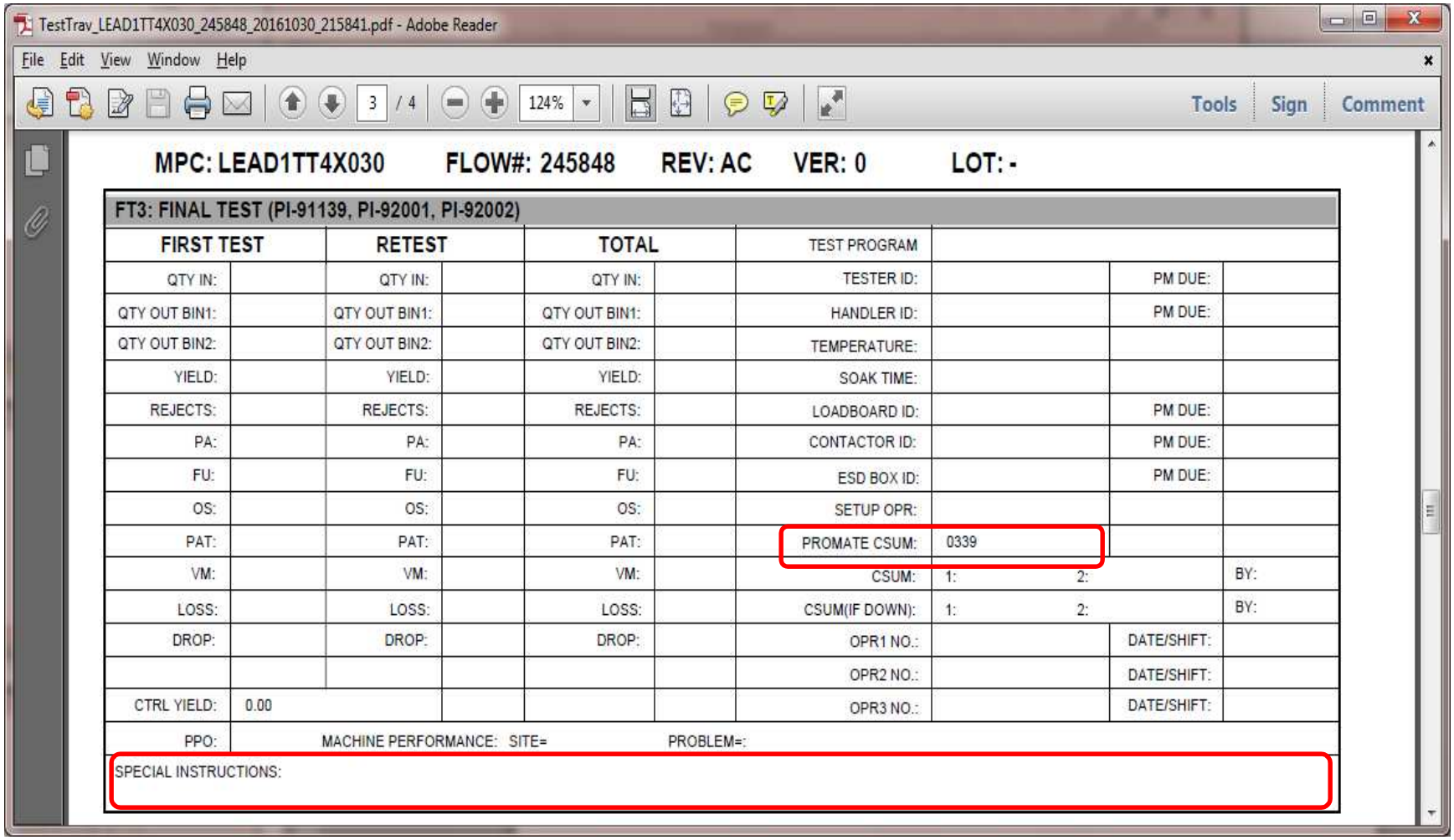
- **Prog Type (Programming Type) is the part that will be shown on Test Setup Sheet at each test step.**

  There are 5 options : Blank (default), ROM, OTP, QTP, SQTP.



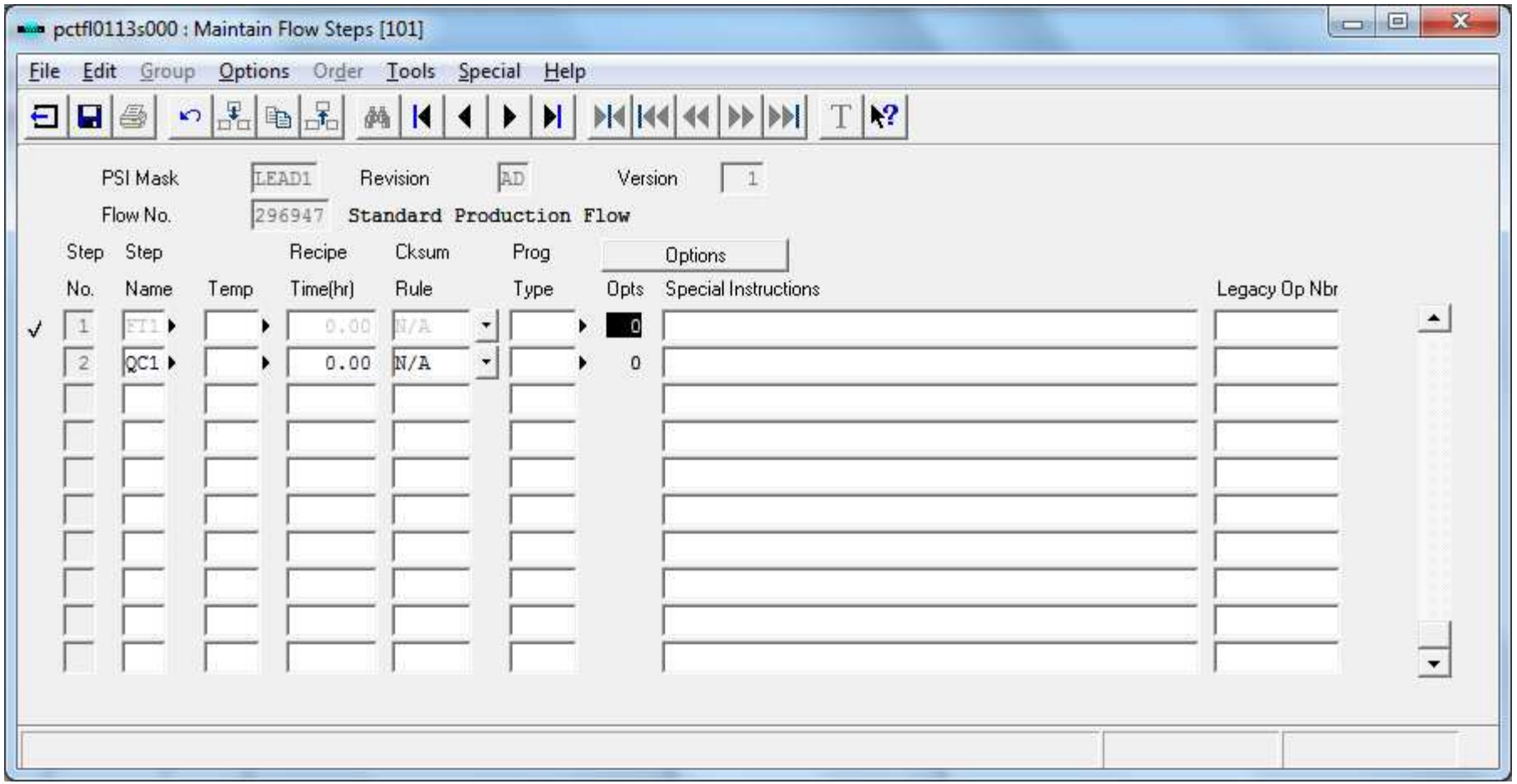
Create PSI Test Revision - 19

- **We can put Special Instructions for each test step but it will be shown on Test Traveler only.**



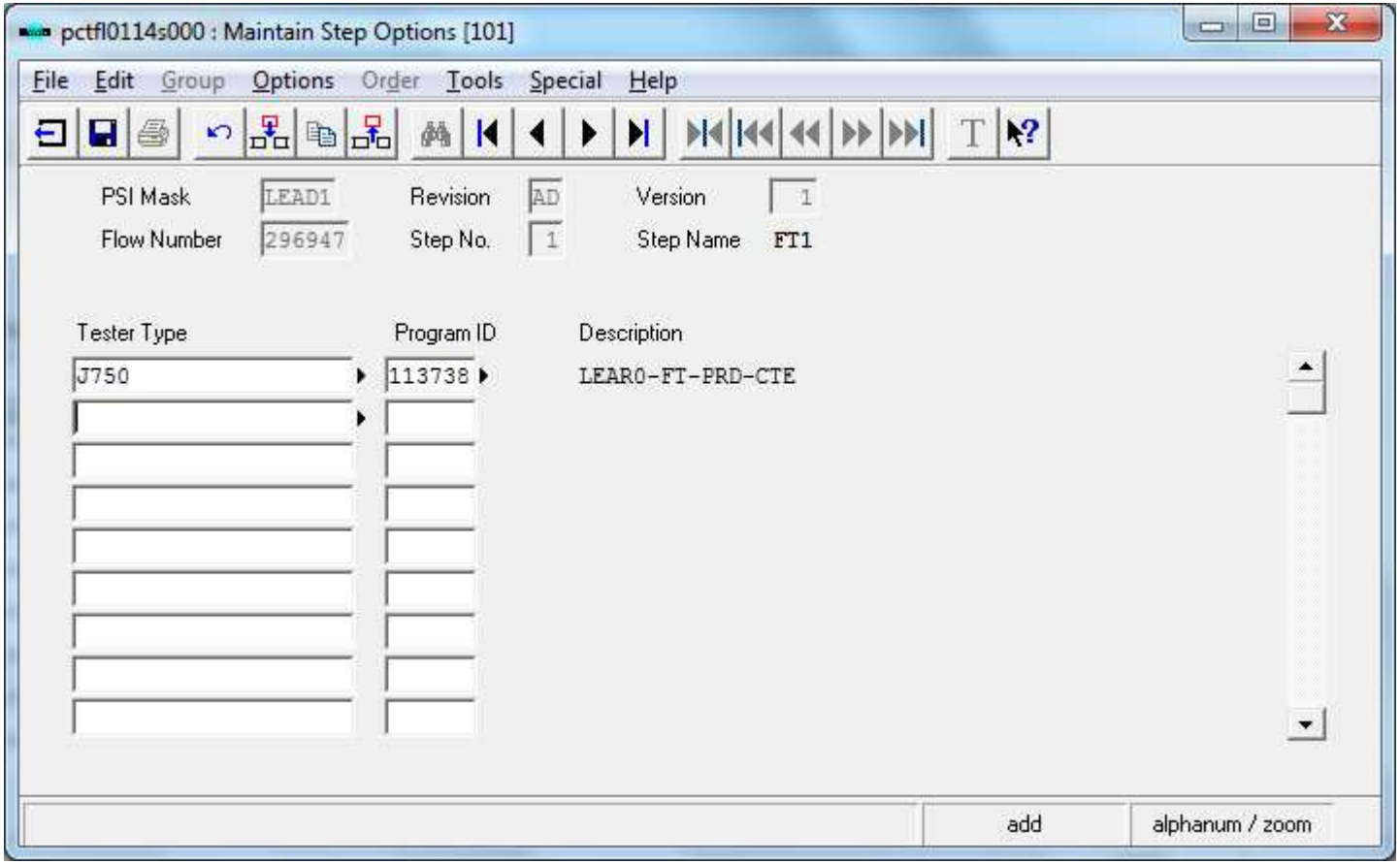
Create PSI Test Revision - 20

- **Input Legacy Op Nbr if any (For Atmel Products)**
- **Select Test Step then click Options button.**



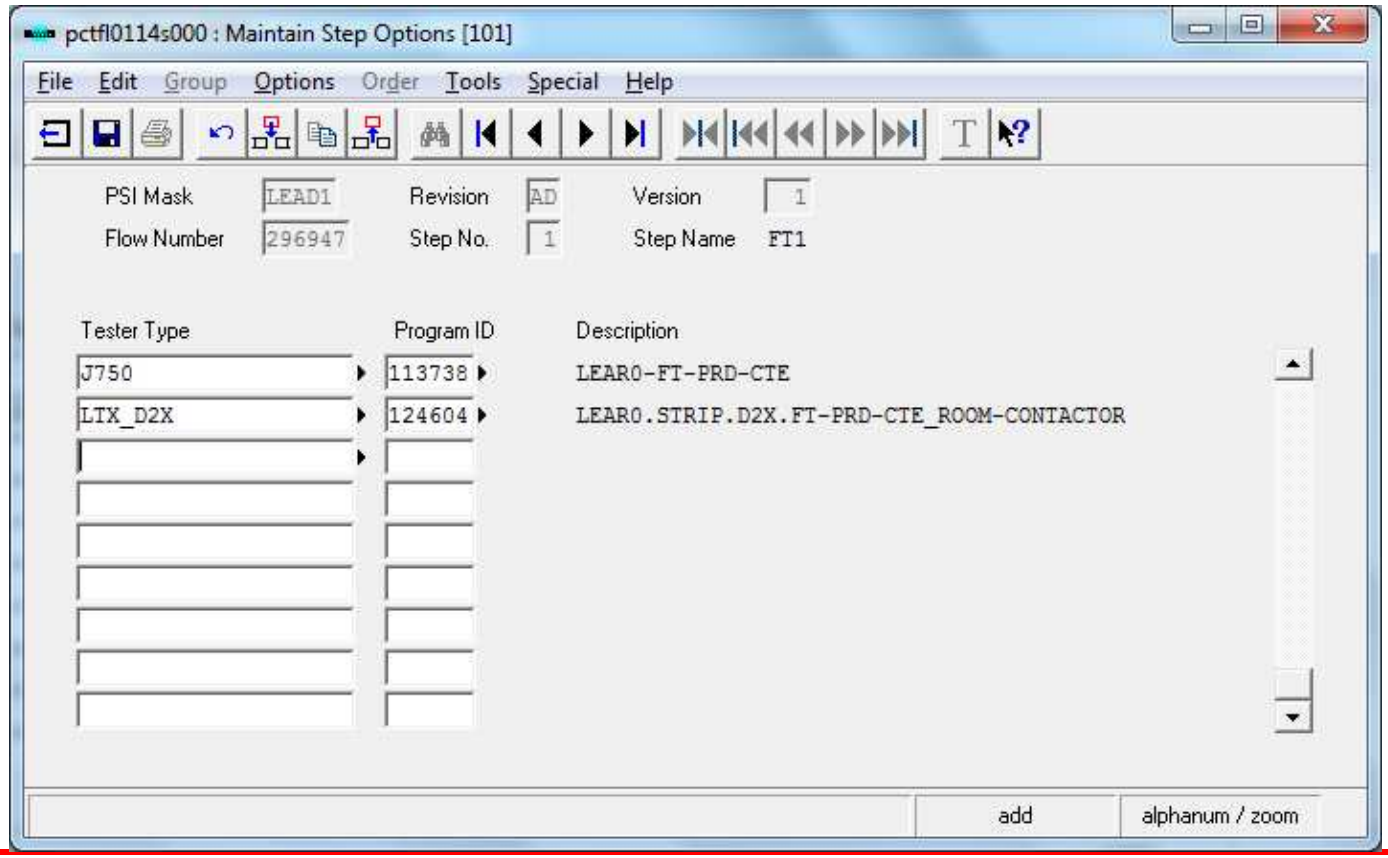
Create PSI Test Revision - 21

- Click Insert button. Select Tester Type, input Program ID.
- If you did not input Program ID description previously, it will be very hard to tell if you selected the right Program ID.



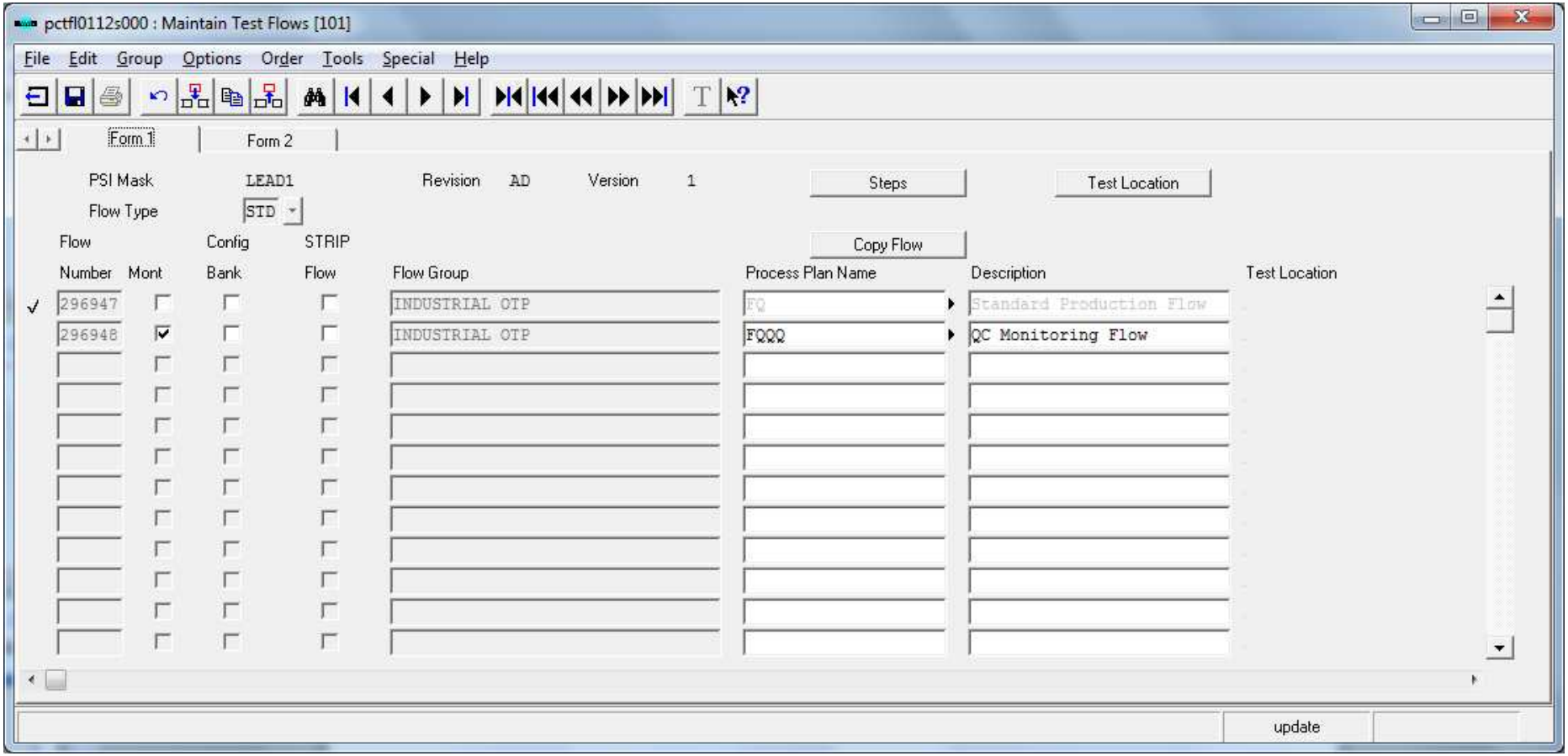
Create PSI Test Revision - 22

- If we can test the part on >1 Tester Types, input another Tester Type and Program ID.
- Click Save & Exit button.
- Assign Test Options for the remaining steps.



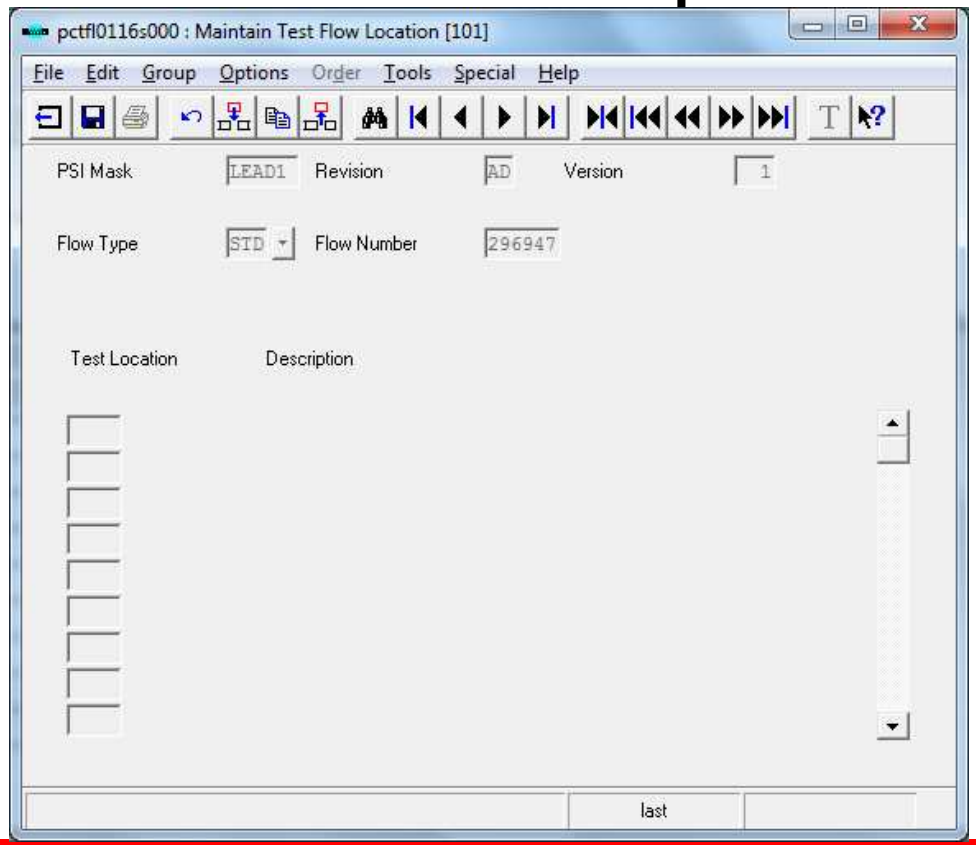
Create PSI Test Revision - 23

- **Select Test Flow then click Test Location button.**



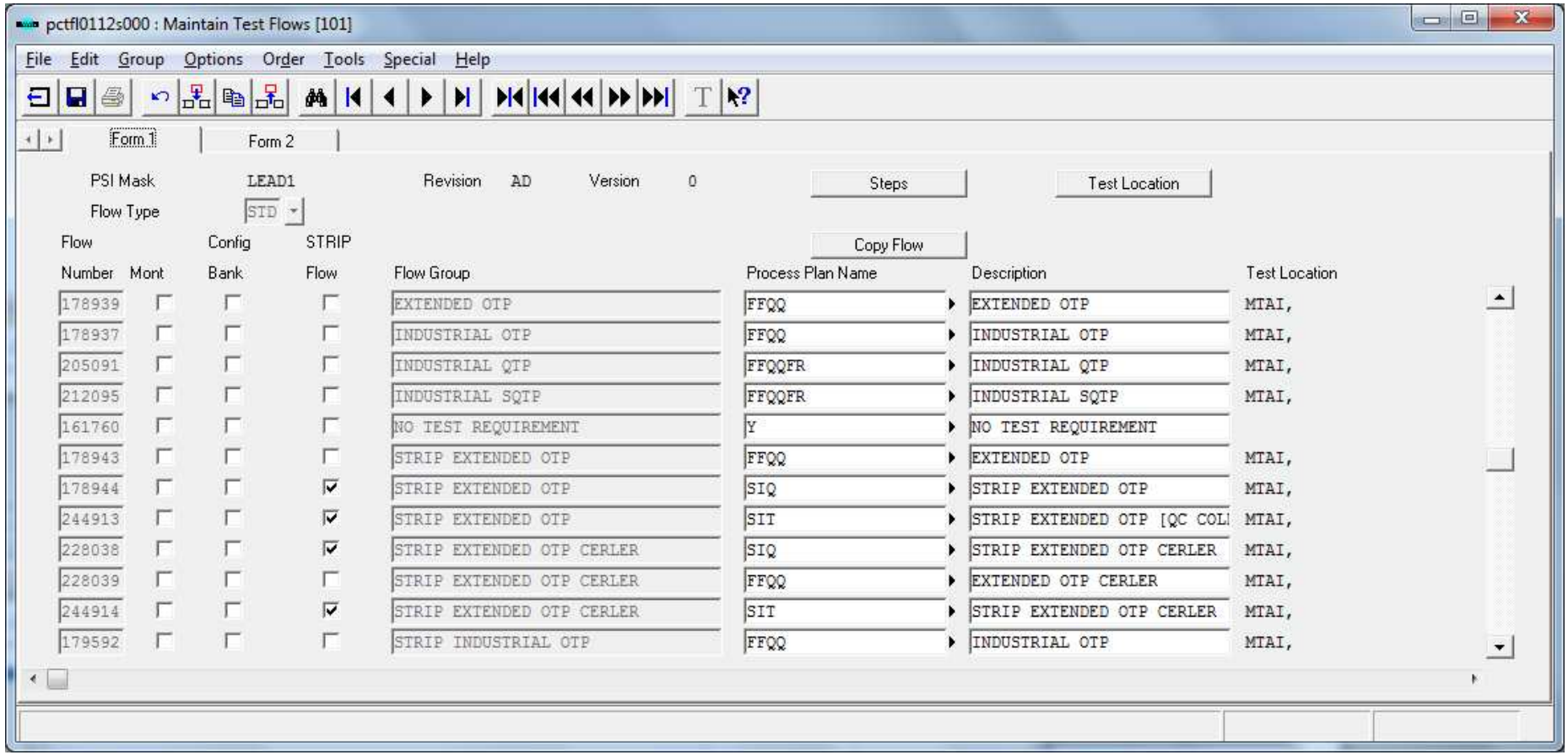
Create PSI Test Revision - 24

- Click insert to add Test Location button.
- Can put > 1 Test Locations.
- Add Test Location for the rest of test flows.
- Click Save & Exit button after completed.



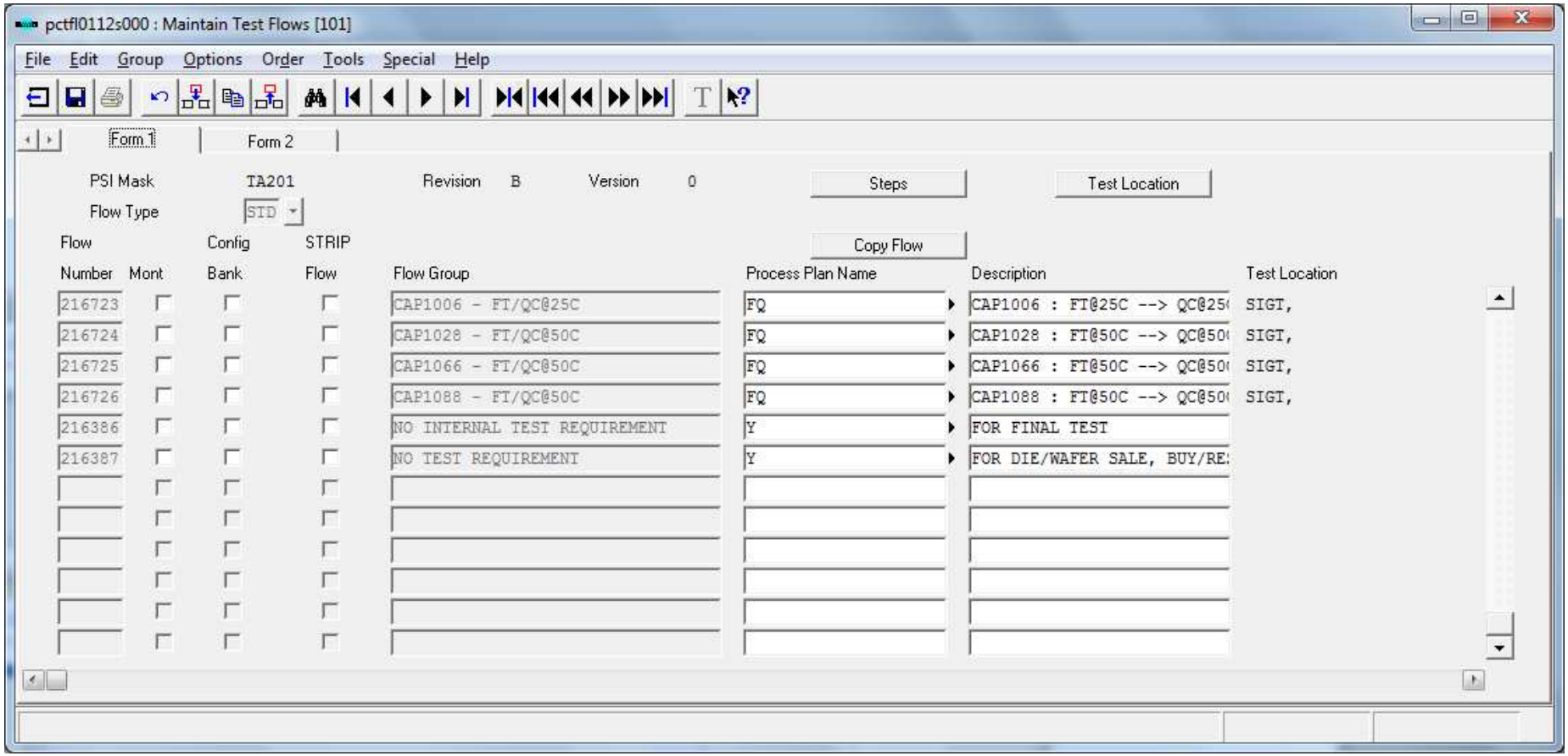
Create PSI Test Revision - 25

- **Example : LEAD1 (MCU) Test Flow Groups.**



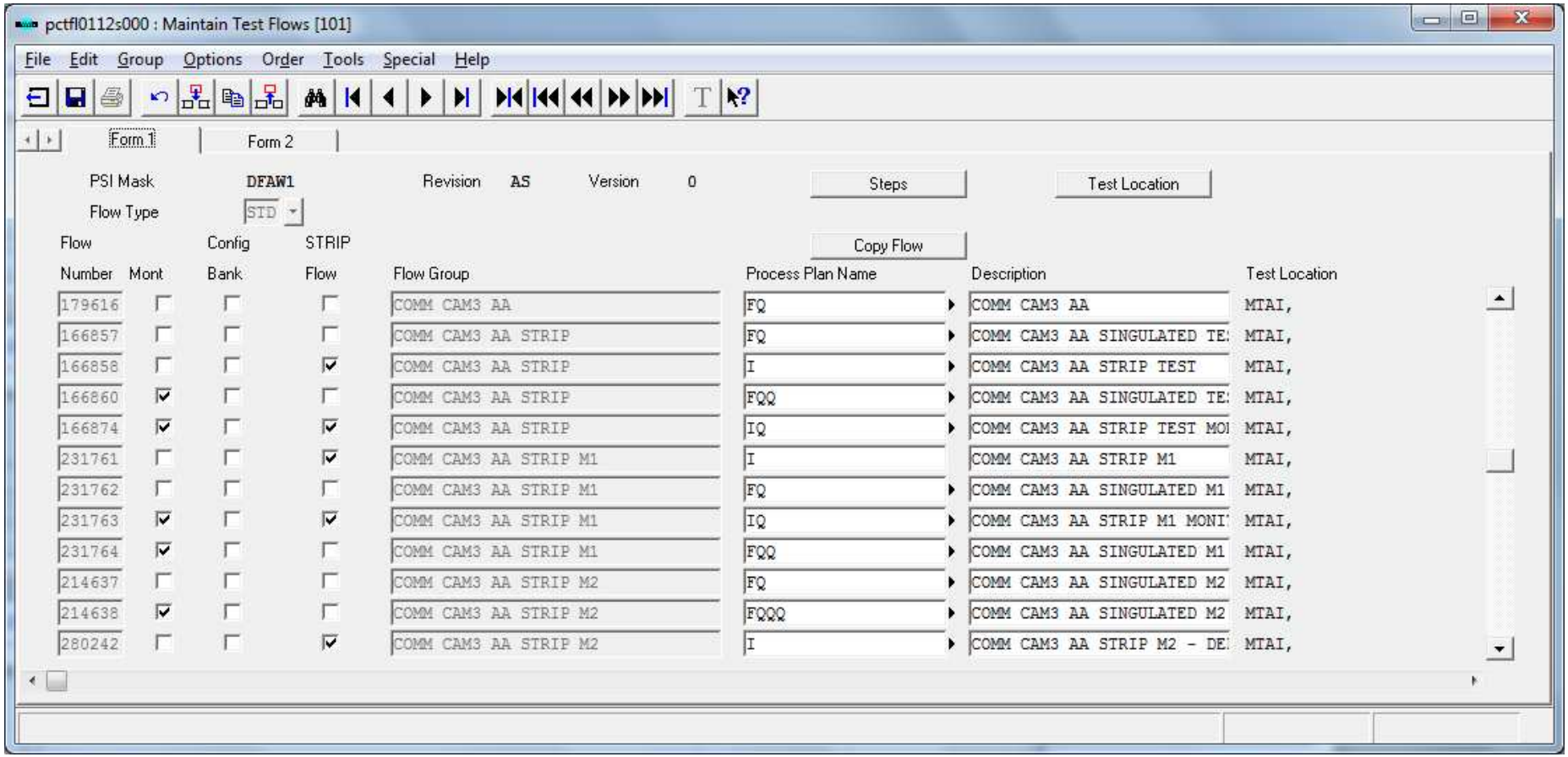
Create PSI Test Revision - 26

- **Example : TA201 (HMID) Test Flow Groups.**



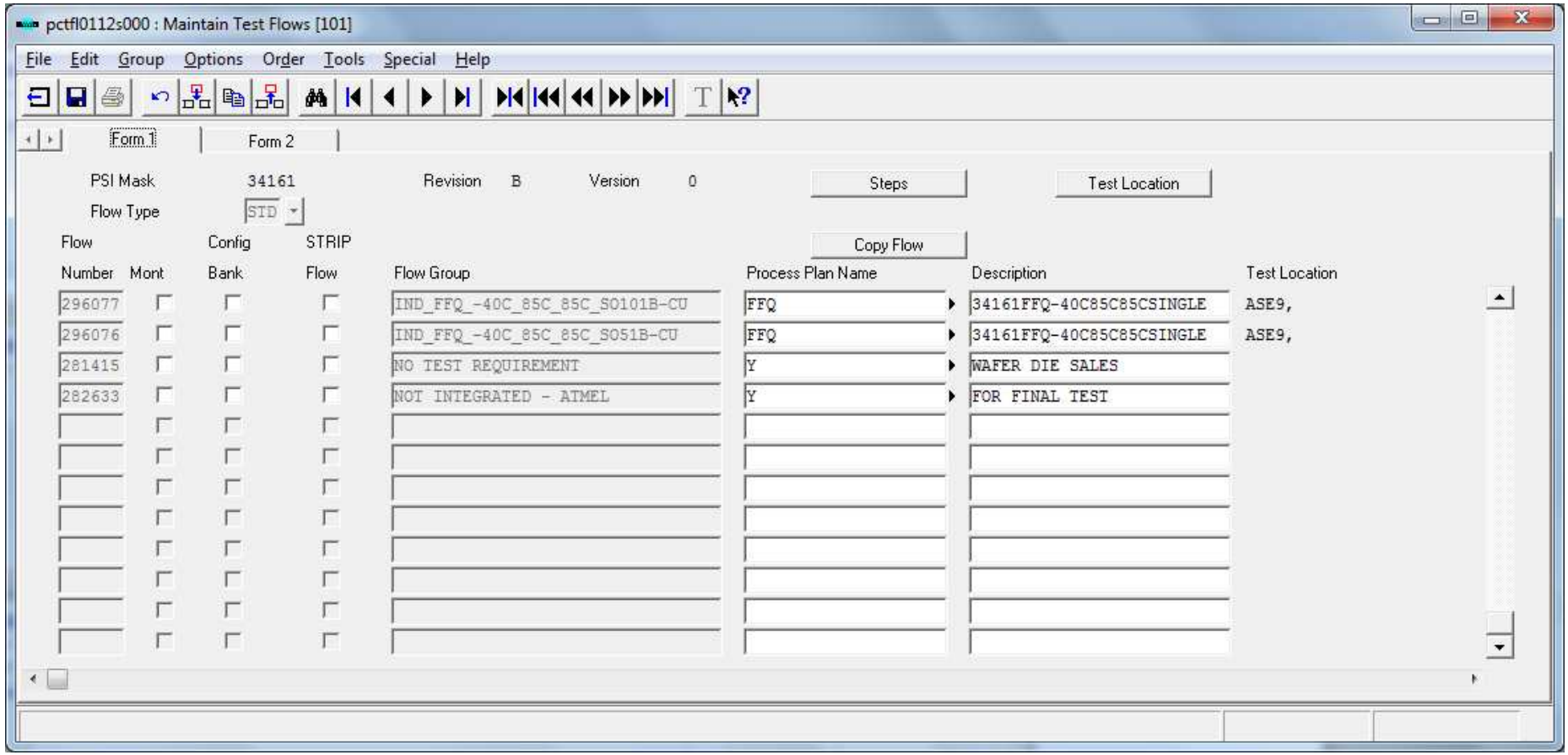
Create PSI Test Revision - 27

- **Example : DFAW1 (Memory) Test Flow Groups.**



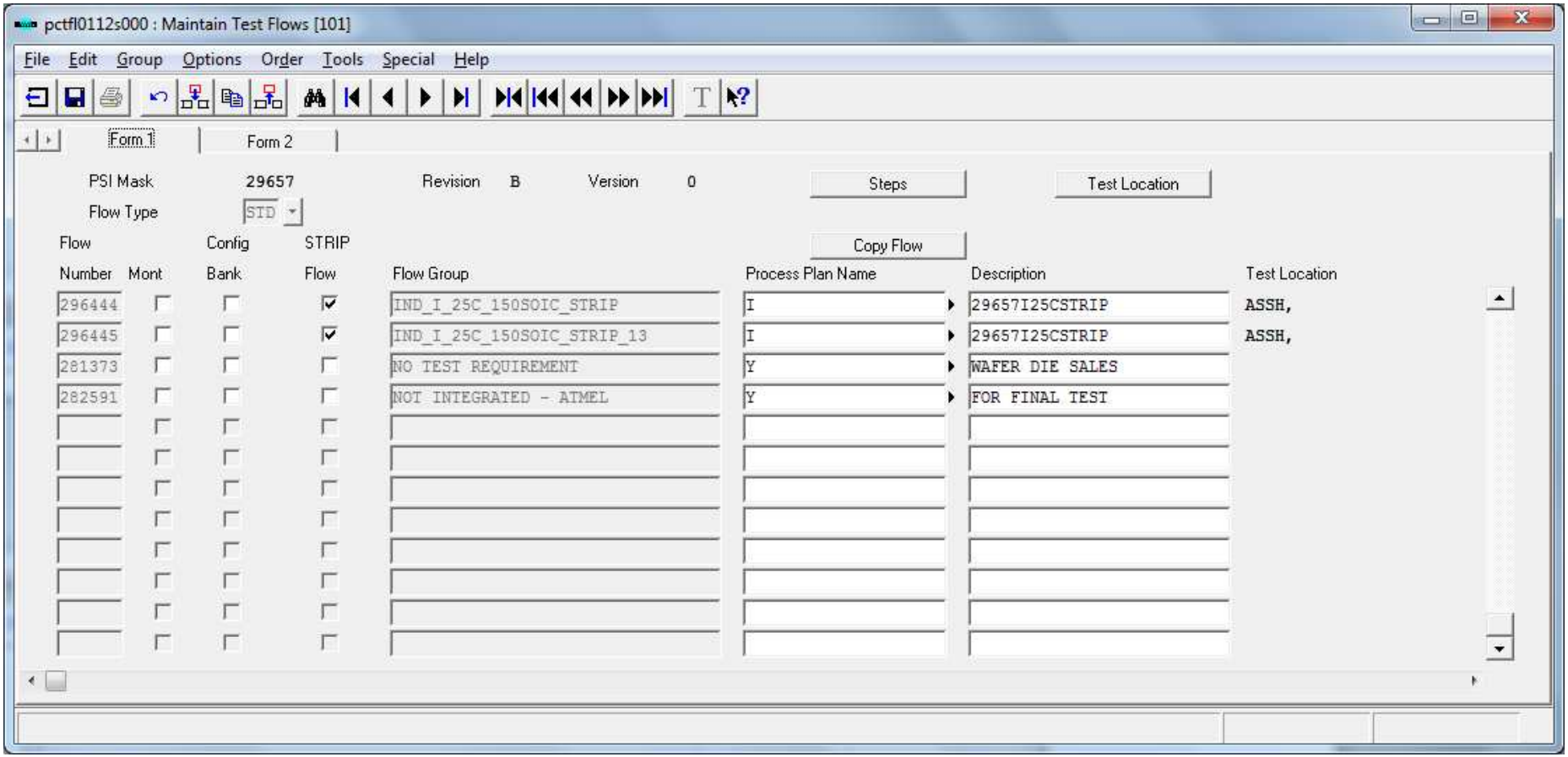
Create PSI Test Revision - 28

- **Example : 34161 (MPU32) Test Flow Groups.**



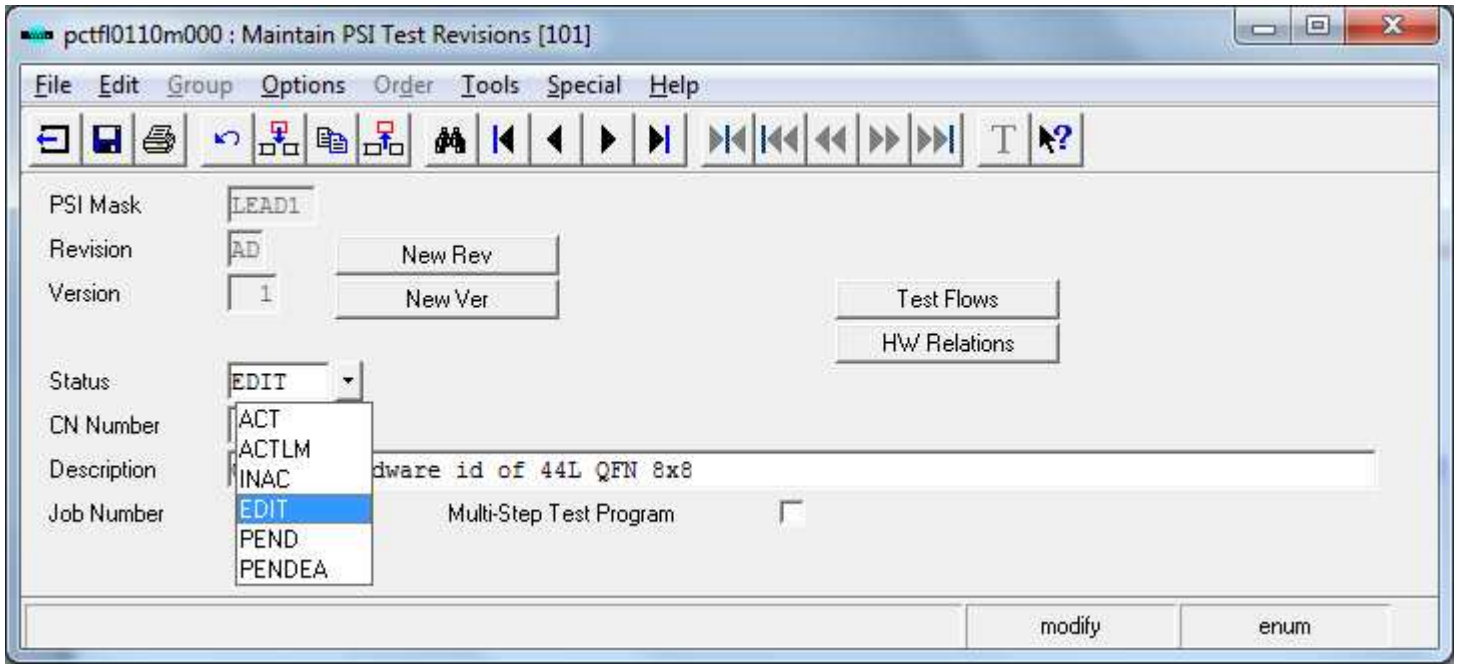
Create PSI Test Revision - 29

- **Example : 29657 (SCBU) Test Flow Groups.**



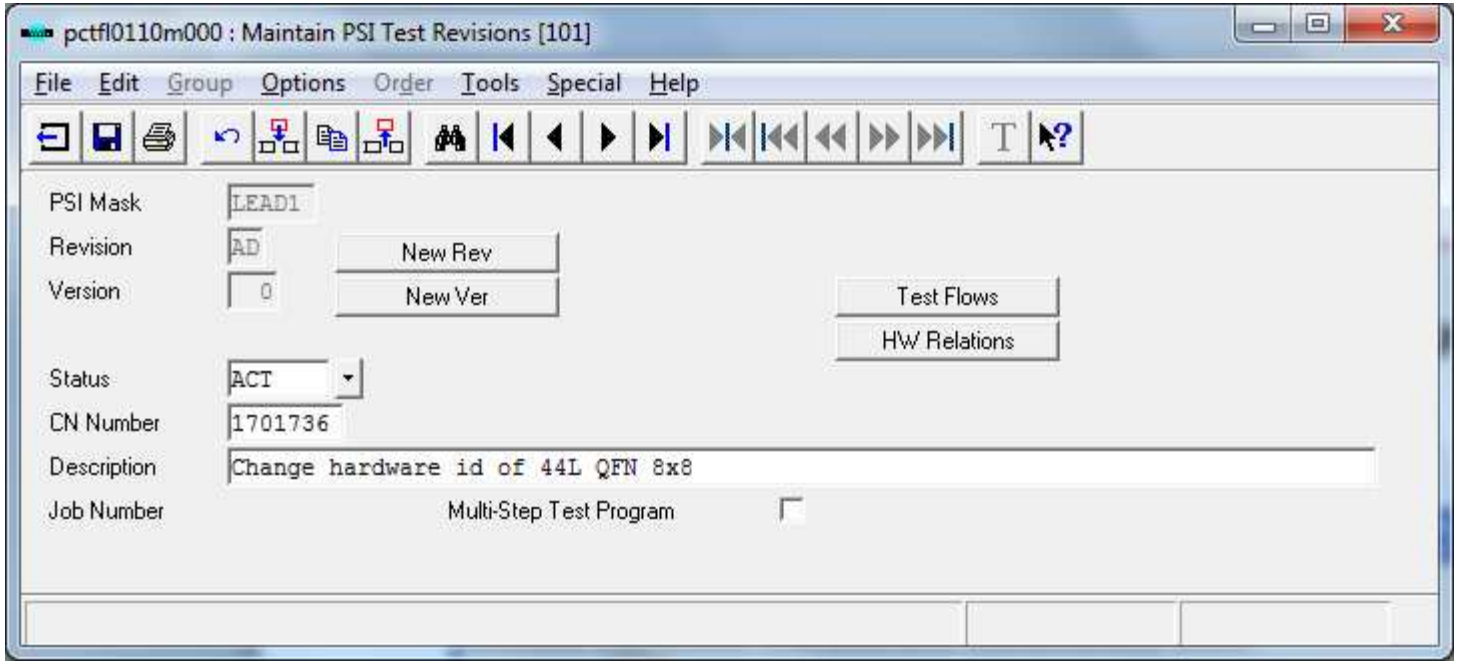
Create PSI Test Revision - 30

- Click “Save” button.
- Change PSI Test Revision Status from EDIT to PEND then click “Save” button.
- If there is missing/incomplete data, the system will not allow to change the status from EDIT to PEND.



Create PSI Test Revision - 31

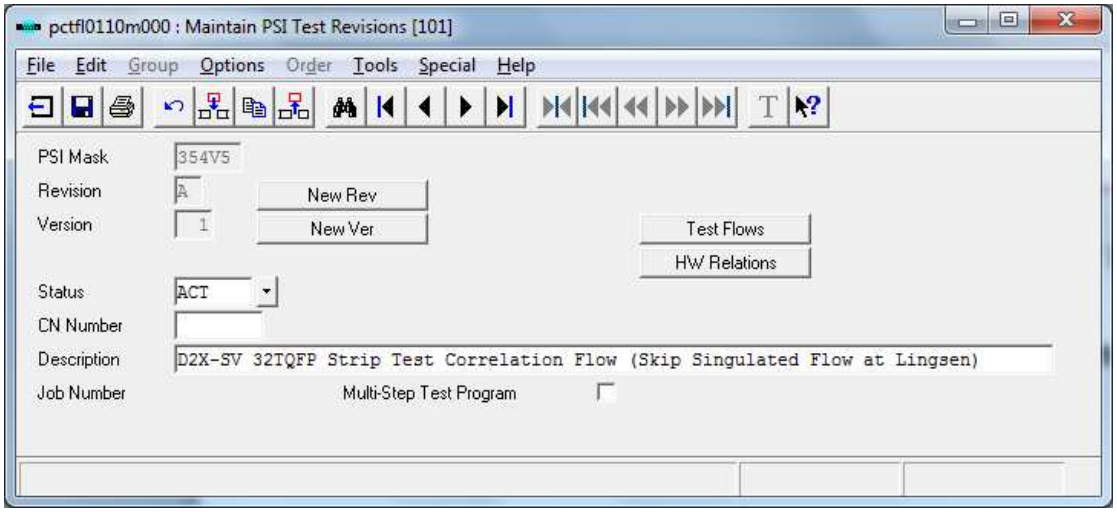
- After the CN to release PSI Test Revision has been approved, MThai Document Control team will put CN Number and change Status from PEND to ACT.



- When you need to release/revise the new Test Flow/Test Hardware to production, click “New Rev” button.
- Update Description then update Test Flows/HW Relations.

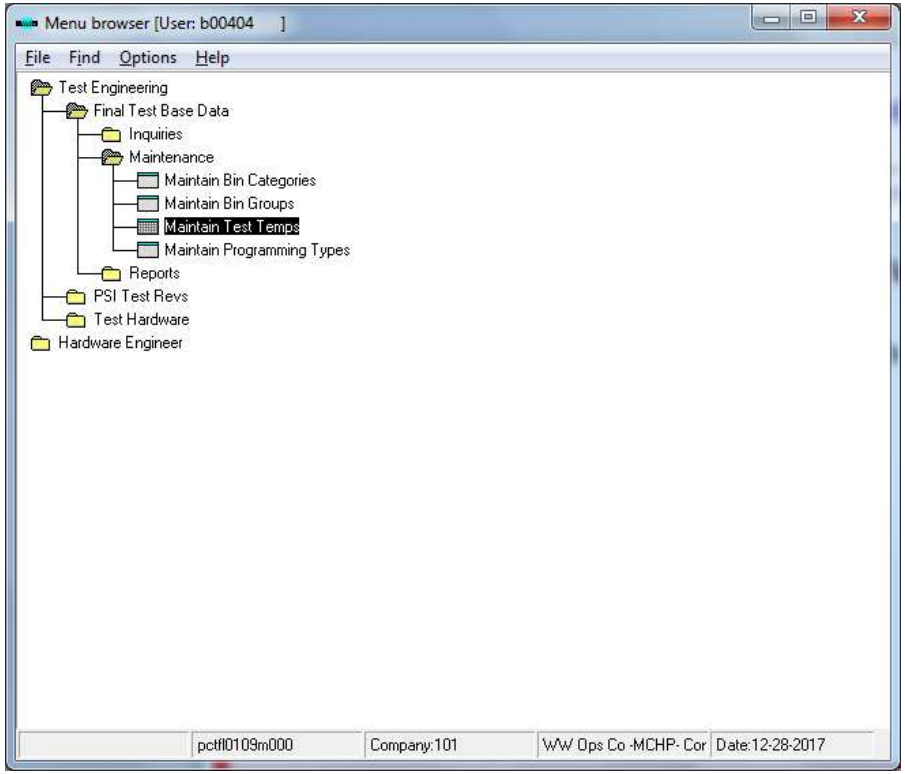
Create PSI Test Revision - 32

- When you need to create engineering Test Flow for correlation lot, data collection, etc. Click “New Ver” button.
- Update Description then click “Test Flows” button.
- Delete all Flow Groups that you don’t use them from every Flow Type.
- Press “Shift” key and select all Flow Groups.
- Click “Delete” button.
- Start adding engineering flow.



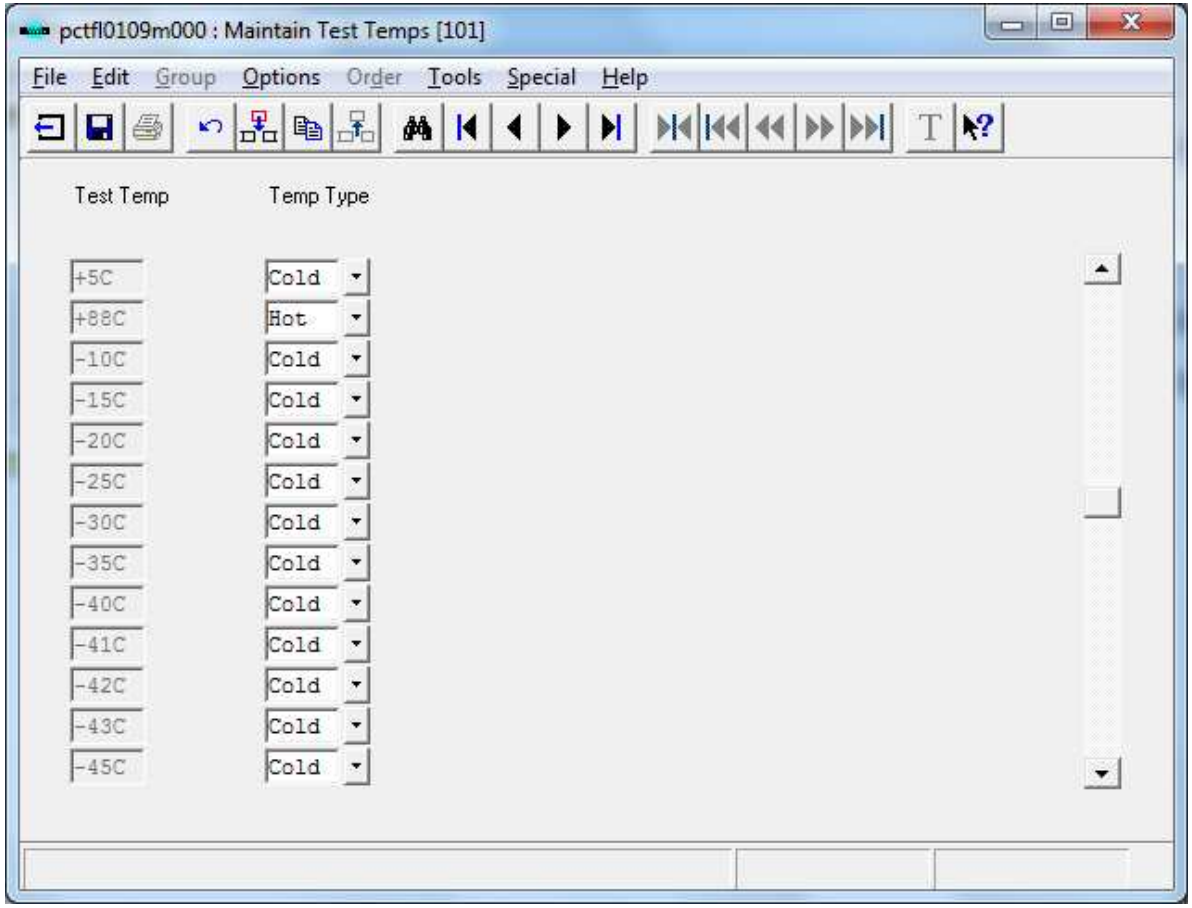
Add New Test Temperature - 1

- **In case, you need Test Temperature that does not exist in PDC, Here is the procedure to add it.**
- **Under “Test Engineering”, Double clicks “Final Test Base Data”.**
- **Double clicks “Maintenance” then “Maintain Test Temps”.**



Add New Test Temperature - 2

- Click insert button.
- Add new Test Temperature and select Temperature Type.
- Click Save & Exit button after finish adding it.



Tool for Reviewing PDC Data

- After finish creation relationship among Hardware Setups, Test Flows, Program IDs at PSI Test Revision, you can print out the reports to review.
- If find any error, you can go back to correct it.

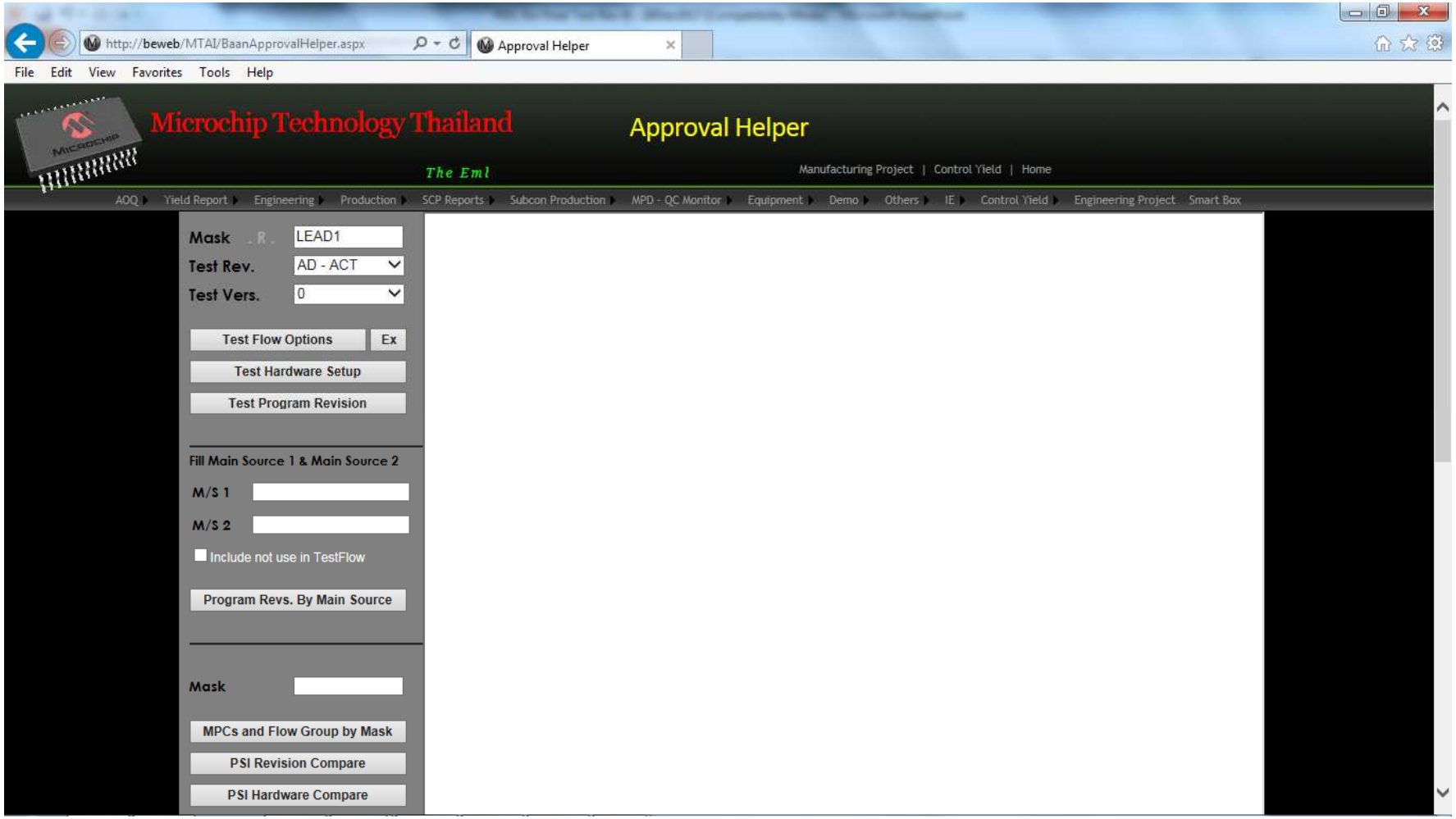
  (Need to change Status from PEND to EDIT before make any change.)
- We also print out these reports to attach to the Test Change Notice (eCN).

- The tool is called "Approval Helper".

  http://beweb/MTAI/BaanApprovalHelper.aspx

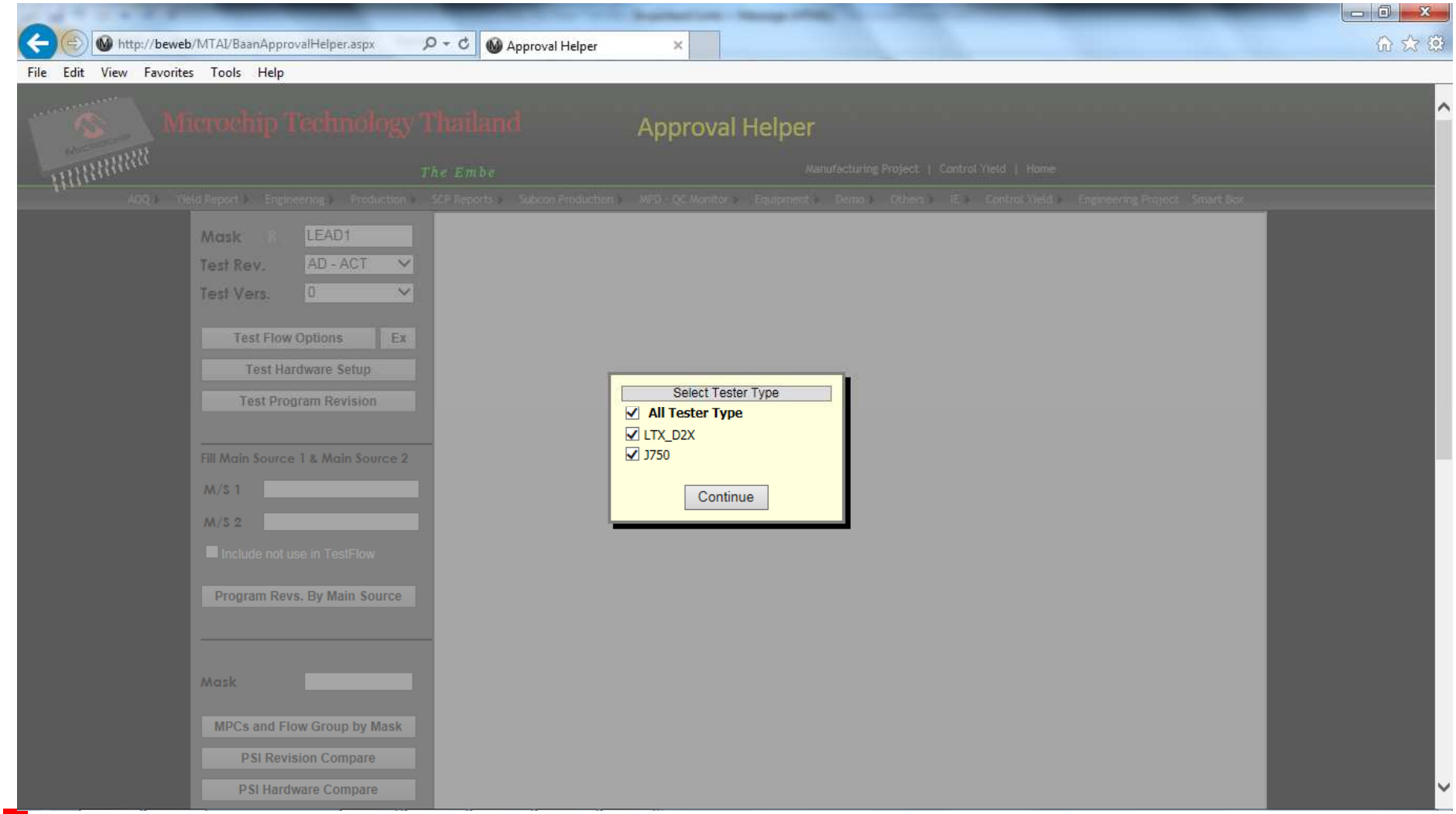
Print out the list of Program IDs - 1

- **Input Mask number, select Test Rev. and Test Vers. then click Test Program Revision button.**



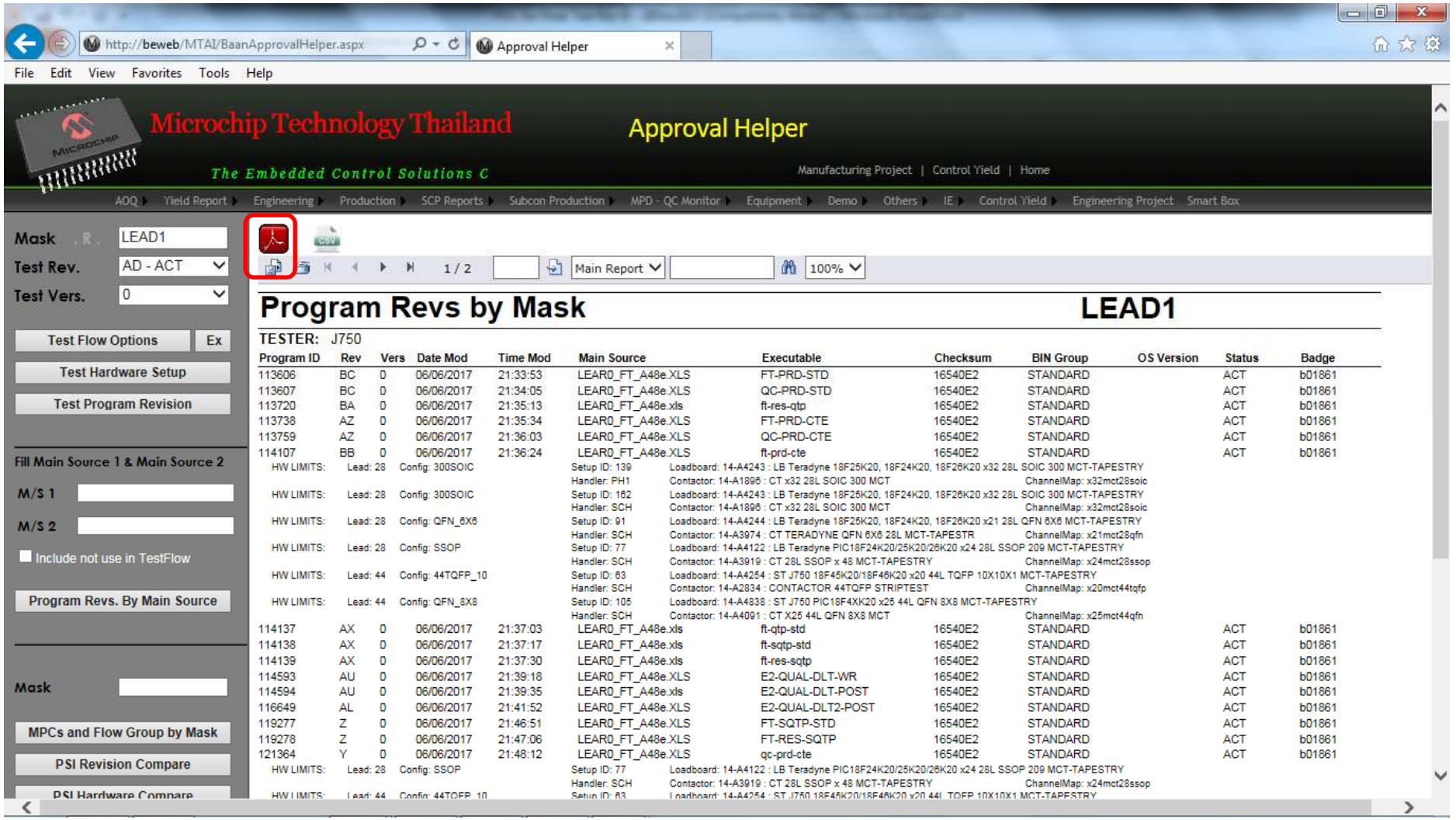
Print out the list of Program IDs - 2

- **Select the Tester Type(s) (If there is >1 Tester Types).**



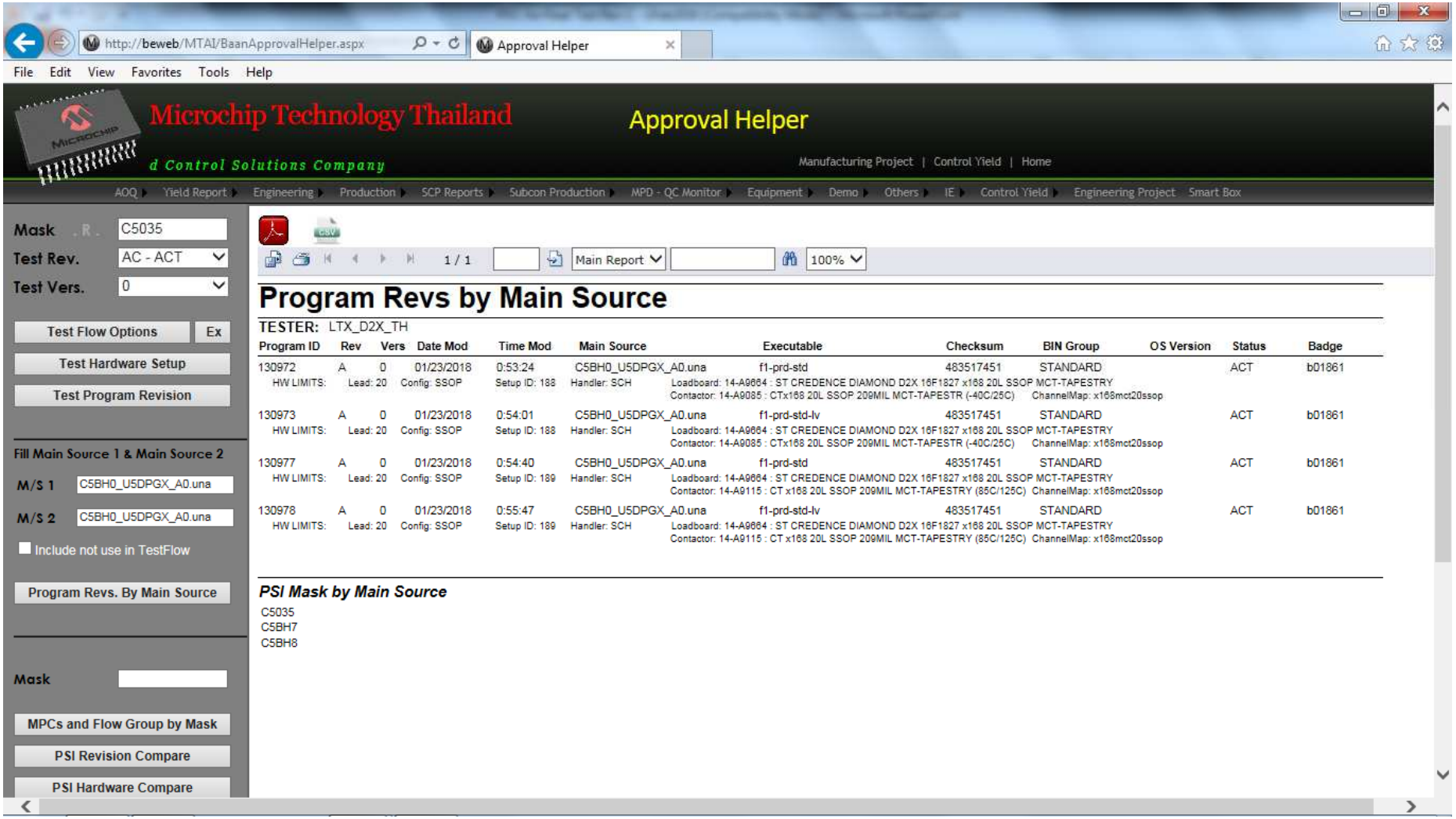
Print out the list of Program IDs - 3

- You can save the report in pdf, Word, Excel file to review.



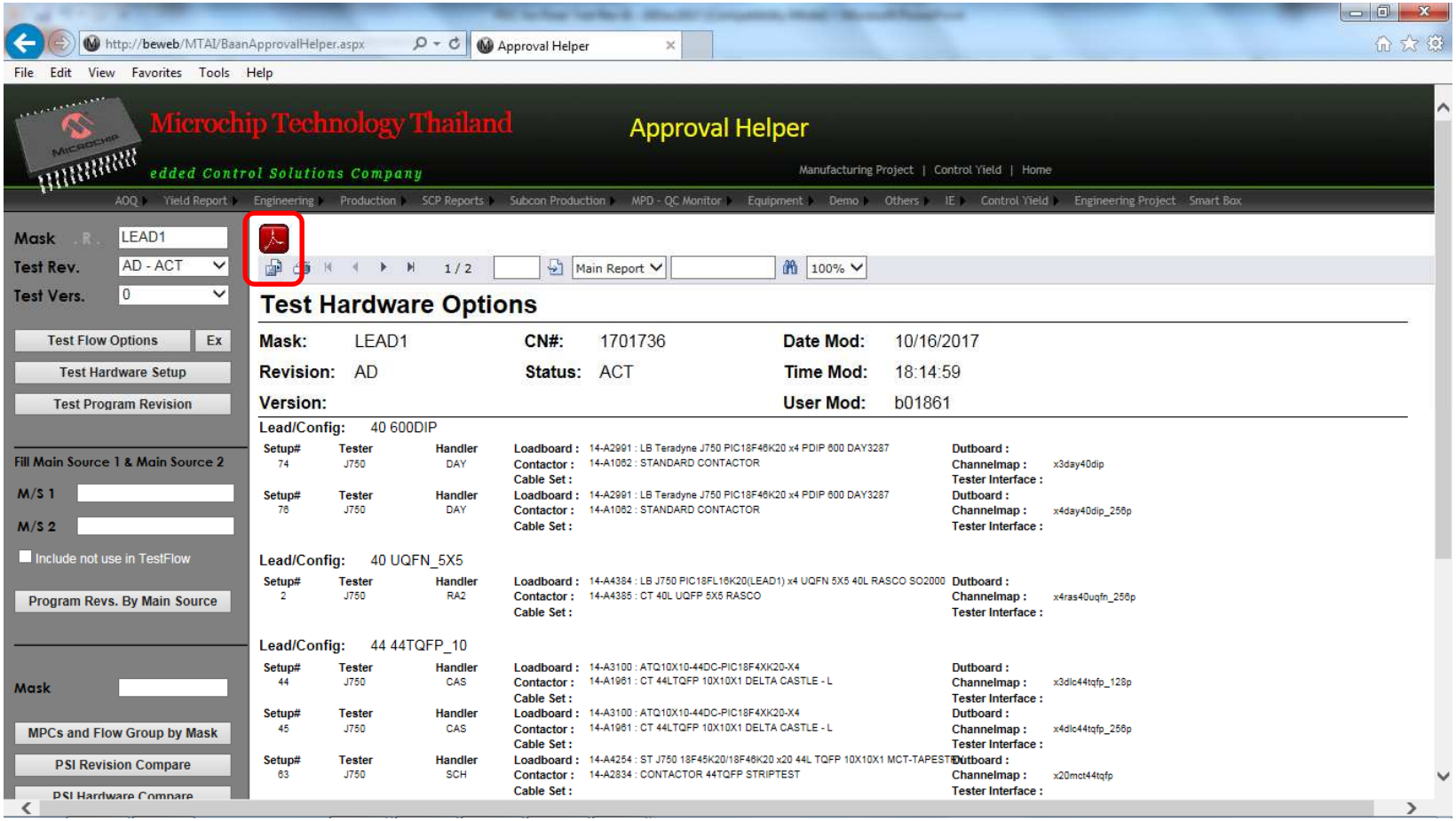
Print out the list of Program IDs - 4

- **In case that TP supports >1 Masks.**



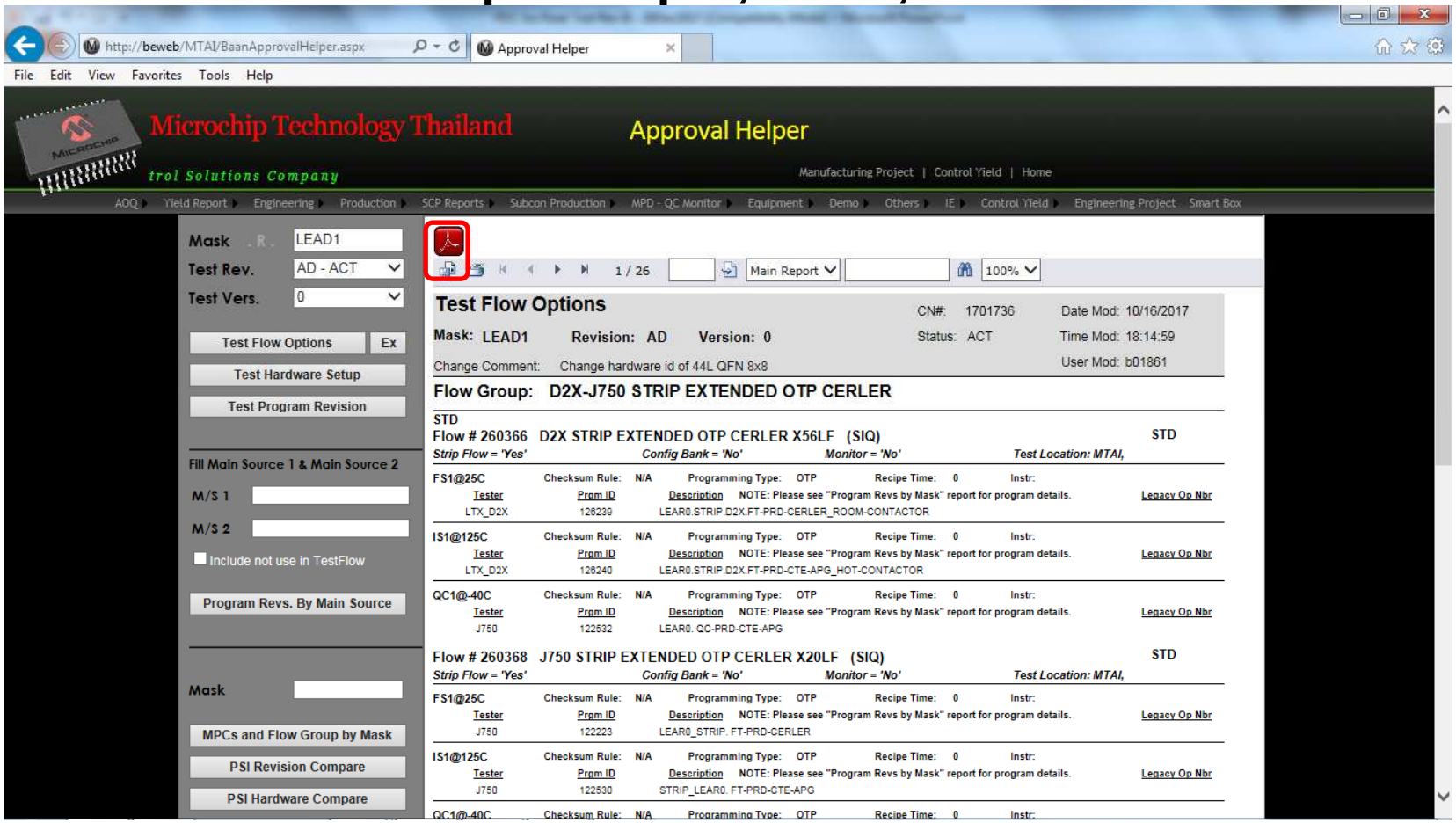
Print out the list of HW Setup IDs

- Input Mask number, select Test Rev. and Test Vers. then click Test Hardware Setup button.
- You can save the report in pdf, Word, Excel file to review.



Print out Test Flow Options

- Input Mask number, select Test Rev. and Test Vers. then click Test Flow Options button.
- You can save the report in pdf, Word, Excel file to review.



Assign Test Flow Group to the MPC -- 1

- After Test Flow Groups have been activated in PDC, need to request Engineering Planner to issue CN to assign Test Flow Group to each MPC.
- Each MPC can be linked to only one Test Flow Group.

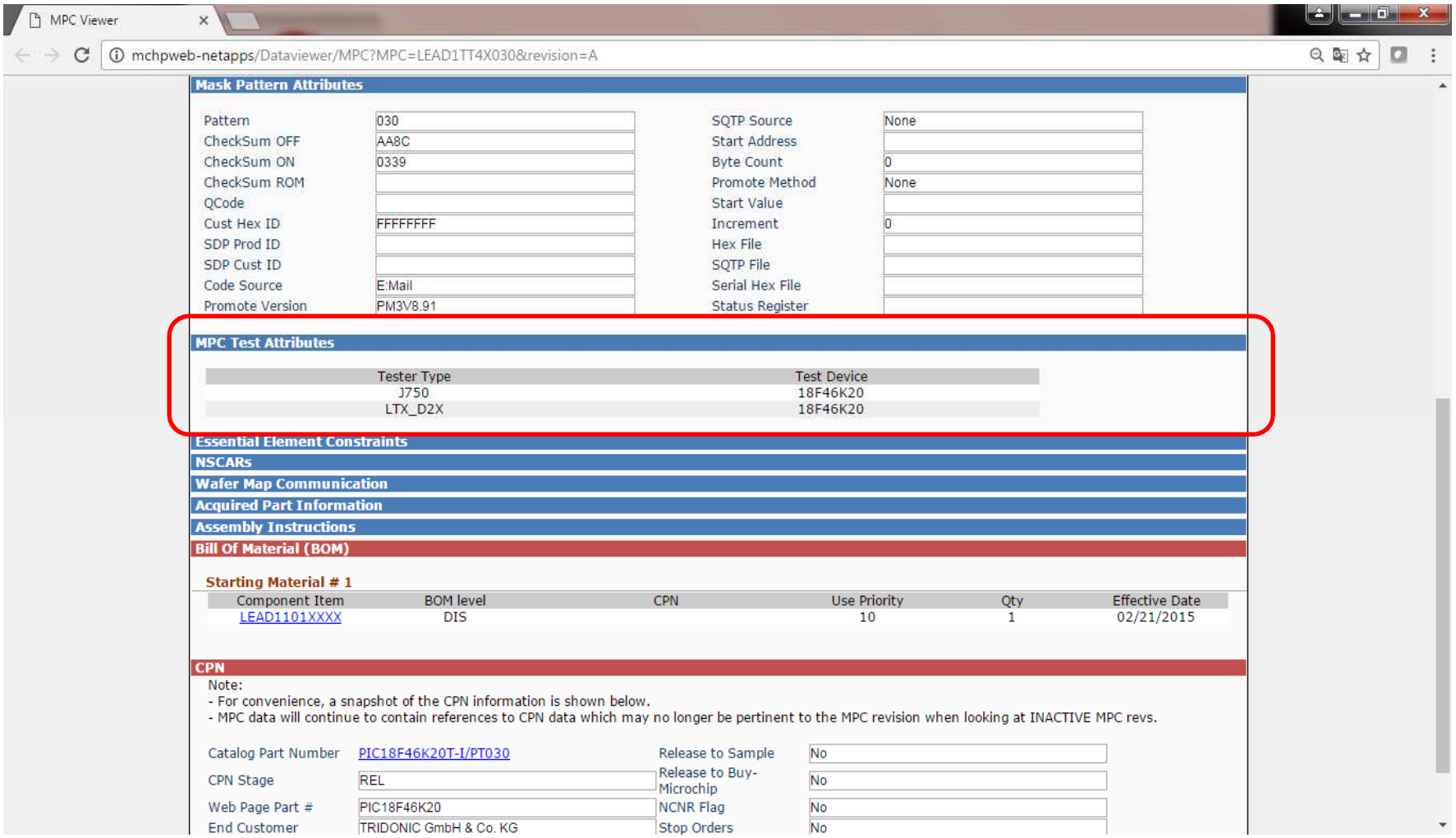
MPC	Catalog Part Number	Flow_Group	Tester Type	Tester Device	Pattern	Restr Lvl	Rev	Stage	Qcode	Device Checksum	Blank Checksum	CP ON	CP OFF
LEAD14T4XC03	PIC18F46K20-E/PTC03	D2X-J750 STRIP EXTENDED OTP CERLER	LTX_D2X	18F46K20	OTP	CUSTOM	F	REL		0362	0362		
LEAD14T4XC03	PIC18F46K20-E/PTC03	D2X-J750 STRIP EXTENDED OTP CERLER	J750	18F46K20	OTP	CUSTOM	F	REL		0362	0362		
LEAD17T4XB04	PIC18F46K20-I/PT	D2X-J750 STRIP INDUSTRIAL OTP	J750	18F46K20	OTP	STANDARD	E	REL		0362	0362		
LEAD17T4XB04	PIC18F46K20-I/PT	D2X-J750 STRIP INDUSTRIAL OTP	LTX_D2X	18F46K20	OTP	STANDARD	E	REL		0362	0362		
LEAD17T4X022	PIC18F46K20-I/PT022	D2X-J750 STRIP INDUSTRIAL QTP	J750	18F46K20	QTP	CUSTOM	D	REL		0371	362	0371	F8F4
LEAD17T4X022	PIC18F46K20-I/PT022	D2X-J750 STRIP INDUSTRIAL QTP	LTX_D2X	18F46K20	QTP	CUSTOM	D	REL		0371	362	0371	F8F4
LEAD14S2XB04	PIC18F46K20-E/P	EXTENDED OTP	J750	18F46K20	OTP	STANDARD	C	REL		0362	0362		
LEAD17S2XB04	PIC18F46K20-I/P	INDUSTRIAL OTP	J750	18F46K20	OTP	STANDARD	C	REL		0362	0362		
LEAD14T4XB04	PIC18F46K20-E/PT	STRIP EXTENDED OTP	J750	18F46K20	OTP	STANDARD	D	REL		0362	0362		
LEAD17T3XV01	PIC18F46K20-I/MLV01	UTAC 44QFN STRIP INDUSTRIAL OTP	J750	18F46K20	OTP	QS9000	D	REL		0362	0362		

Assign Test Flow Group to the MPC -- 2

MPC	Catalog Part Number	Flow_Group	Tester Type	Tester Device	Pattern	Restr Lvl	Rev	Stage	Qcode	Device Checksum	Blank Checksum	CP ON	CP OFF
XG4017RKXABC	LAN8720AI-CP	LAN7820-OCTAL-FT/QC 100C	LTX_D10	LAN8720	N/A	CUSTOM	N	REL		N/A	N/A		
XG401SRKXA0C	LAN8720A-CP-TR	LAN7820-OCTAL-FT/QC 100C	LTX_D10	LAN8720	N/A	CUSTOM	L	PHAS		N/A	N/A		
XG4011RNXAB0	LAN8710A-EZK	LAN8710-FT/QC 100C	LTX_D10	LAN8710	N/A	CUSTOM	S	REL		N/A	N/A		
XG401SS8XA0C	LAN8710A-EZK-TR	LAN8710-FT/QC 100C	EX_DIGITAL	8710BS4QE3CCSTTR	N/A	CUSTOM	F	REL		N/A	N/A		
XG4017J3XABC	LAN8720AI-CP-ABC	STRIP LAN8720-FT/QC 85C	LTX_D2X	LAN8720A	N/A	CUSTOM	L	REL		N/A	N/A		
XG4017J3XABC	LAN8720AI-CP-ABC	STRIP LAN8720-FT/QC 85C	LTX_D10	LAN8720A	N/A	CUSTOM	L	REL		N/A	N/A		
MPC	Catalog Part Number	Flow_Group	Tester Type	Tester Device	Pattern	Restr Lvl	Rev	Stage	Qcode	Device Checksum	Blank Checksum	CP ON	CP OFF
DFAX71A3XC00	24VL024H/MS	COMM CAM3 VL	NEXTEST_PT	24VL024H	N/A	STANDARD	A	REL		N/A	N/A		
DFAX7SC5XC00	24VL024HT/ST	COMM CAM3 VL AO	NEXTEST_PT	24VL024H	N/A	STANDARD	C	REL		N/A	N/A		
DFAX74A3XA00	24LC024H-E/MS	E-TEMP E1 LC	NEXTEST_PT	24LC024H	N/A	STANDARD	A	REL		N/A	N/A		
DFAX74C5XA00	24LC024H-E/ST	E-TEMP E3 LC	NEXTEST_PT	24LC024H	N/A	STANDARD	A	REL		N/A	N/A		
DFAX74C2XF00	24AA025E48-E/SN	E-TEMP EAM3 AA EUI48	NEXTEST_PT	24AA025E48	N/A	STANDARD	B	REL		N/A	N/A		
DFAX7YC8XF00	24AA025E48T-E/OT	E-TEMP EAM3 AA EUI48 AO	NEXTEST_PT	24AA025E48_SOT23	N/A	STANDARD	B	REL		N/A	N/A		
DFAX74C2XG00	24AA025E64-E/SN	E-TEMP EAM3 AA EUI64	NEXTEST_PT	24AA025E64	N/A	STANDARD	B	REL		N/A	N/A		
DFAX7YC8XG00	24AA025E64T-E/OT	E-TEMP EAM3 AA EUI64 AO	NEXTEST_PT	24AA025E64_SOT23	N/A	STANDARD	B	REL		N/A	N/A		
DFAX7Y5QXA00	24LC024HT-E/MNY	E-TEMP EAM3 LC STRIP M1 AO	NEXTEST_PT	24LC024H	N/A	STANDARD	E	REL		N/A	N/A		
DFAX77A3XB00	24AA024H-I/MS	IND IAM3 AA	NEXTEST_PT	24AA024H	N/A	STANDARD	A	REL		N/A	N/A		
DFAX77C2XD00	24AA025E48-I/SN	IND IAM3 AA EUI48	NEXTEST_PT	24AA025E48	OTP	STANDARD	B	REL		N/A	N/A		
DFAX7TC8XD00	24AA025E48T-I/OT	IND IAM3 AA EUI48 AO	NEXTEST_PT	24AA025E48_SOT23	OTP	STANDARD	C	REL		N/A	N/A		
DFAX77C2XG00	24AA025E64-I/SN	IND IAM3 AA EUI64	NEXTEST_PT	24AA025E64	OTP	STANDARD	A	REL		N/A	N/A		
DFAX7TC8XG00	24AA025E64T-I/OT	IND IAM3 AA EUI64 AO	NEXTEST_PT	24AA025E64_SOT23	OTP	STANDARD	A	REL		N/A	N/A		
DFAX77C2XB00	24AA024H-I/SN	IND IAM3 AA STRIP M1	NEXTEST_PT	24AA024H	N/A	STANDARD	E	REL		N/A	N/A		
DFAX77C2XB00	24AA024H-I/SN	IND IAM3 AA STRIP M1	NEXTEST_SSV	24AA024H	N/A	STANDARD	E	REL		N/A	N/A		
DFAX77C5XB00	24AA024H-I/ST	IND IAM3 AA STRIP M1 AO	NEXTEST_SSV2	24AA024H	N/A	STANDARD	E	REL		N/A	N/A		
DFAX77C5XB00	24AA024H-I/ST	IND IAM3 AA STRIP M1 AO	NEXTEST_PT	24AA024H	N/A	STANDARD	E	REL		N/A	N/A		
DFAX77C2XH00	24AA025UID-I/SN	IND IAM3 AA UID	NEXTEST_PT	24AA025UID	OTP	STANDARD	A	REL		N/A	N/A		
DFAX7TC8XH00	24AA025UIDT-I/OT	IND IAM3 AA UID AO	NEXTEST_PT	24AA025UID_SOT23	OTP	STANDARD	A	REL		N/A	N/A		
DFAX77A3XA00	24LC024H-I/MS	IND IAM3 LC	NEXTEST_PT	24LC024H	N/A	STANDARD	A	REL		N/A	N/A		
DFAX77C2XA00	24LC024H-I/SN	IND IAM3 LC STRIP M1	NEXTEST_PT	24LC024H	N/A	STANDARD	C	REL		N/A	N/A		
DFAX77C2XA00	24LC024H-I/SN	IND IAM3 LC STRIP M1	NEXTEST_SSV	24LC024H	N/A	STANDARD	C	REL		N/A	N/A		
DFAX77C5XA00	24LC024H-I/ST	IND IAM3 LC STRIP M1 AO	NEXTEST_SSV2	24LC024H	N/A	STANDARD	E	REL		N/A	N/A		
DFAX77C5XA00	24LC024H-I/ST	IND IAM3 LC STRIP M1 AO	NEXTEST_PT	24LC024H	N/A	STANDARD	E	REL		N/A	N/A		
DFAX7TC5XC00	24VL024HT-I/ST		NEXTEST_PT	24VL024H	N/A	STANDARD	02	NREL		N/A	N/A		

MPC Test Attributes - 1

- **Use Tester Device as one of Test Program Options in order to reduce the number of Test Flow Groups.**



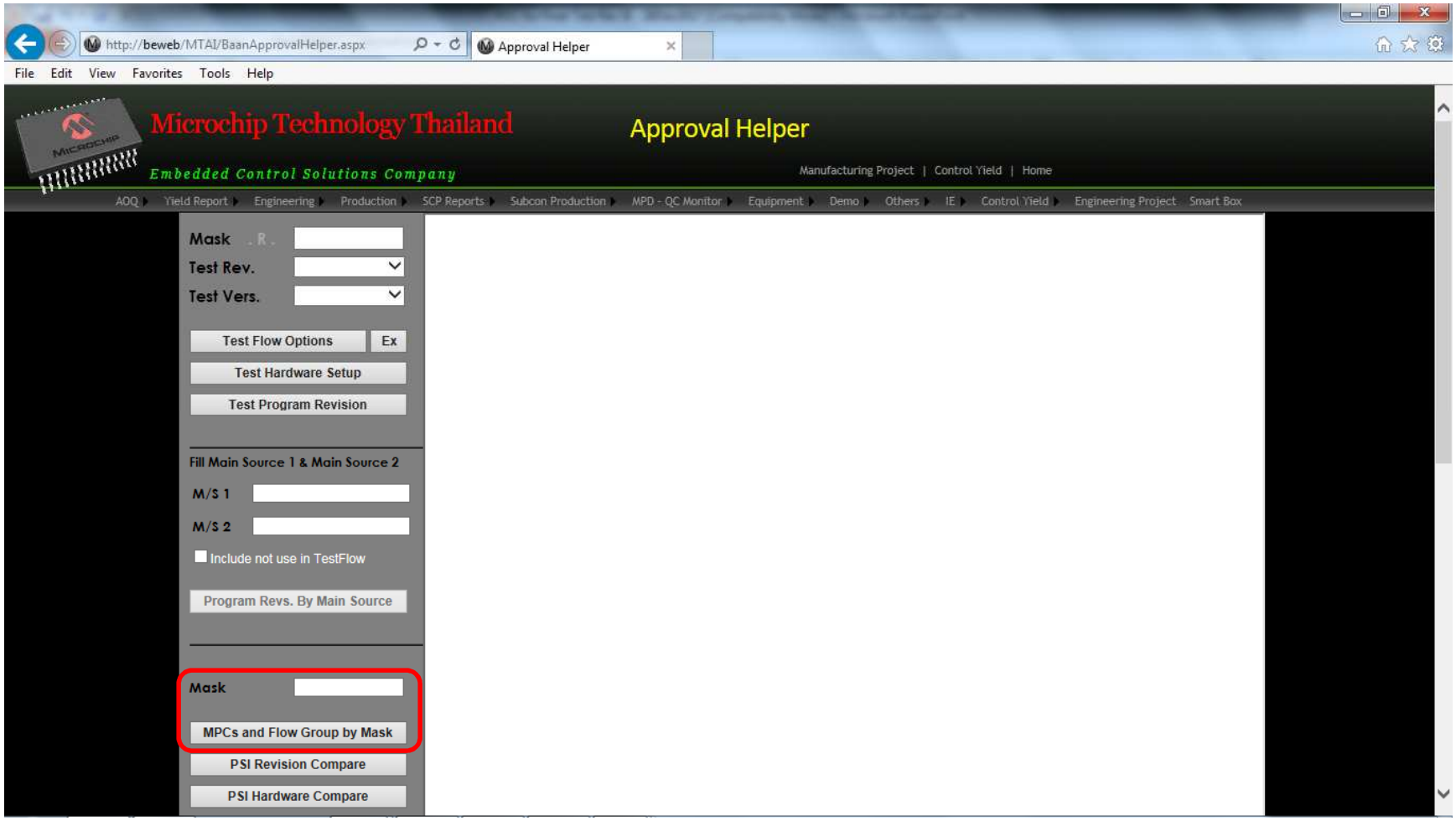
MPC Test Attributes - 2

☐ ID: 114137 Rev: AX Ver: 0 Status: ACT

		Verified
Main Source:	LEAR0_FT_A48e.xls	☐
Checksum:	16540E2	☐
Executable Name:	ft-qtp-std	☐
Part Number:	18F46K20	☐
Temperature:	IN25C	☐
Programming Type:	QTP	☐
Bins:	2-PASS, 3-PA, 4-FU, 5-O/S	☐
Hardware Limits:		☐
Correl. Process Code:		☐
Correlation Good Bin:	0	☐
OS Version		☐
Special Instructions:		☐
CN Number:	1700910	
Comments:		

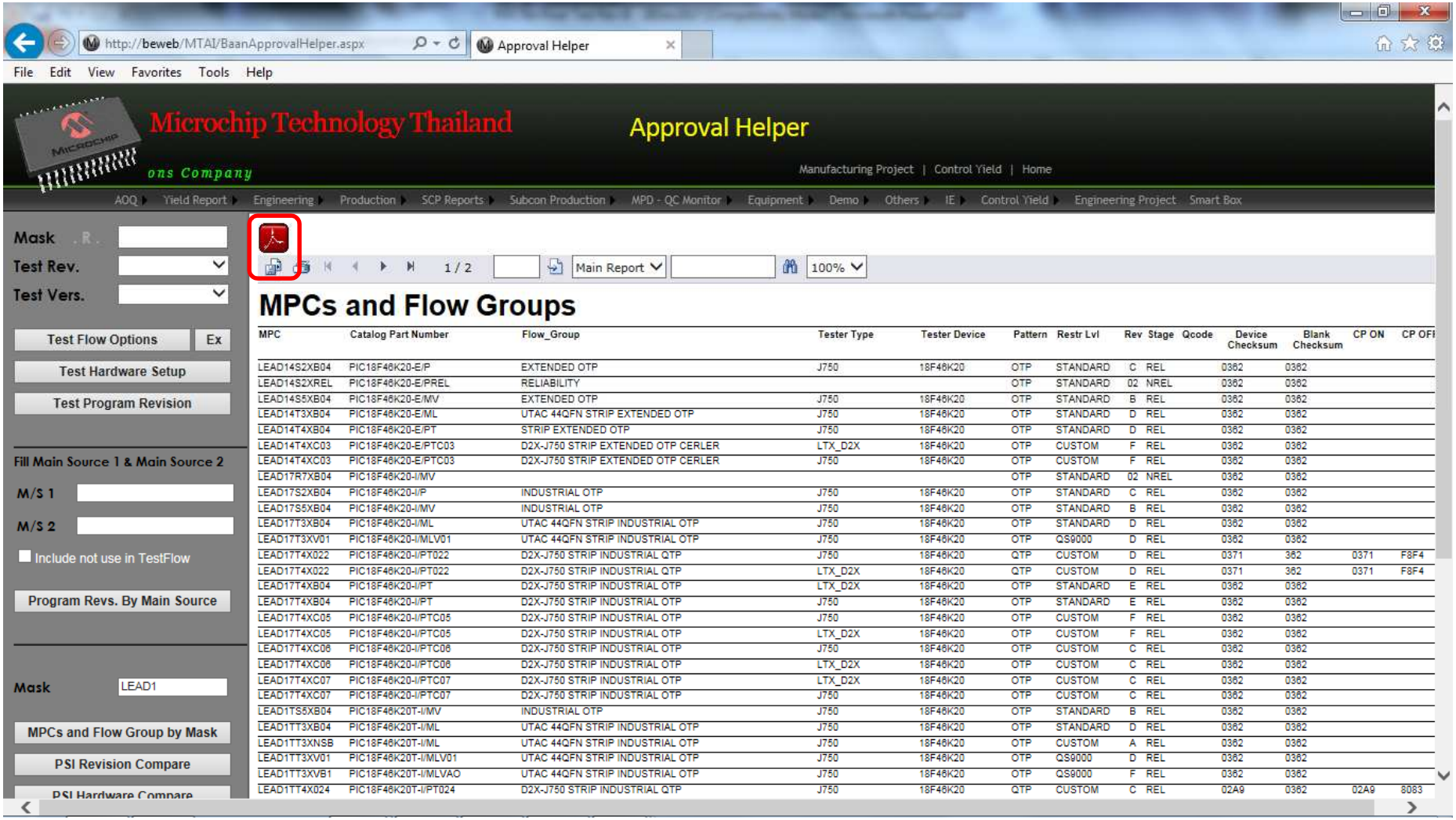
Print out the list of MPCs - 1

- Go to Approval Helper web.
- Input Mask number then click “MPCs and Flow Group by Mask”.



Print out the list of MPCs - 2

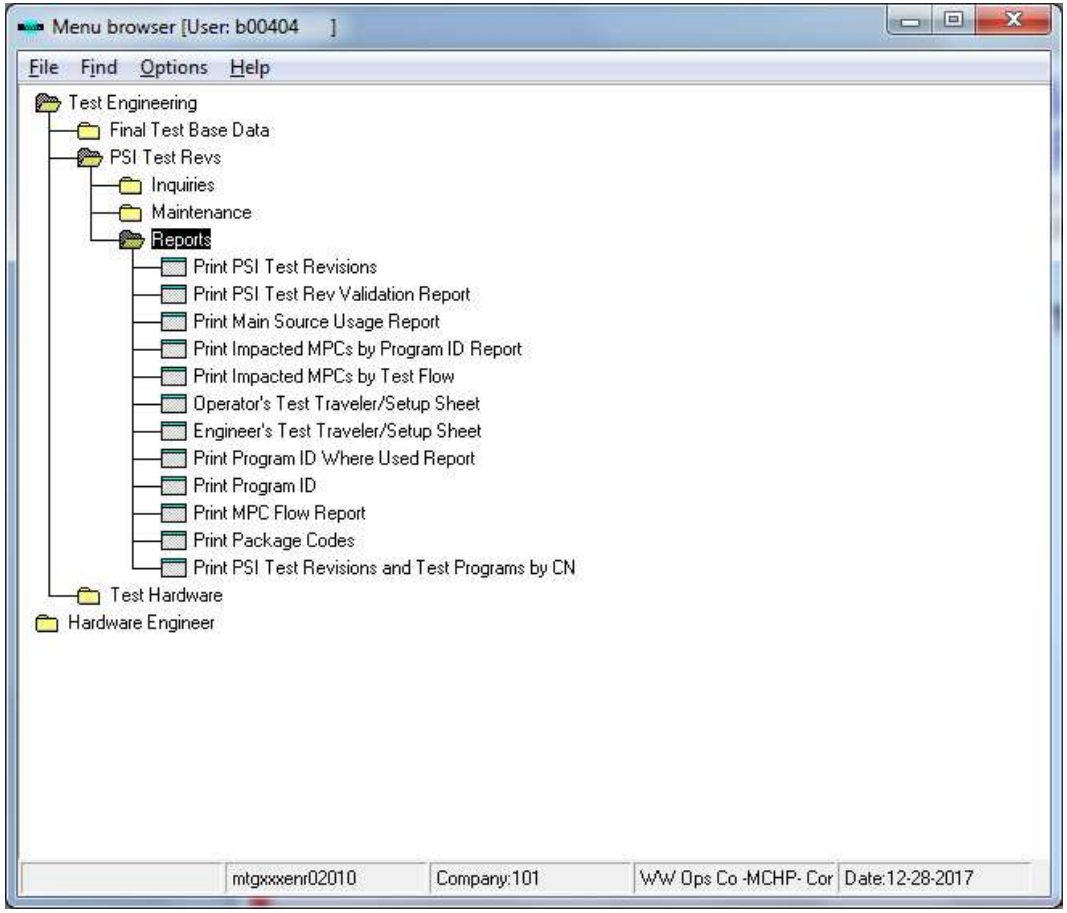
- You can export the report to Excel, Word, pdf file.



MPC	Catalog Part Number	Flow_Group	Tester Type	Tester Device	Pattern	Restr Lvl	Rev	Stage	Qcode	Device Checksum	Blank Checksum	CP ON	CP OFI
LEAD14S2XB04	PIC18F46K20-E/P	EXTENDED OTP	J750	18F46K20	OTP	STANDARD	C	REL		0362	0362		
LEAD14S2XREL	PIC18F46K20-E/PREL	RELIABILITY			OTP	STANDARD	02	NREL		0362	0362		
LEAD14S5XB04	PIC18F46K20-E/MV	EXTENDED OTP	J750	18F46K20	OTP	STANDARD	B	REL		0362	0362		
LEAD14T3XB04	PIC18F46K20-E/ML	UTAC 44QFN STRIP EXTENDED OTP	J750	18F46K20	OTP	STANDARD	D	REL		0362	0362		
LEAD14T4XB04	PIC18F46K20-E/PT	STRIP EXTENDED OTP	J750	18F46K20	OTP	STANDARD	D	REL		0362	0362		
LEAD14T4XC03	PIC18F46K20-E/PTC03	D2X-J750 STRIP EXTENDED OTP CERLER	LTX_D2X	18F46K20	OTP	CUSTOM	F	REL		0362	0362		
LEAD14T4XC03	PIC18F46K20-E/PTC03	D2X-J750 STRIP EXTENDED OTP CERLER	J750	18F46K20	OTP	CUSTOM	F	REL		0362	0362		
LEAD17R7XB04	PIC18F46K20-I/MV				OTP	STANDARD	02	NREL		0362	0362		
LEAD17S2XB04	PIC18F46K20-I/P	INDUSTRIAL OTP	J750	18F46K20	OTP	STANDARD	C	REL		0362	0362		
LEAD17S5XB04	PIC18F46K20-I/MV	INDUSTRIAL OTP	J750	18F46K20	OTP	STANDARD	B	REL		0362	0362		
LEAD17T3XB04	PIC18F46K20-I/ML	UTAC 44QFN STRIP INDUSTRIAL OTP	J750	18F46K20	OTP	STANDARD	D	REL		0362	0362		
LEAD17T3XV01	PIC18F46K20-I/MLV01	UTAC 44QFN STRIP INDUSTRIAL OTP	J750	18F46K20	OTP	QS9000	D	REL		0362	0362		
LEAD17T4X022	PIC18F46K20-I/PT022	D2X-J750 STRIP INDUSTRIAL QTP	J750	18F46K20	QTP	CUSTOM	D	REL		0371	362	0371	F8F4
LEAD17T4X022	PIC18F46K20-I/PT022	D2X-J750 STRIP INDUSTRIAL QTP	LTX_D2X	18F46K20	QTP	CUSTOM	D	REL		0371	362	0371	F8F4
LEAD17T4XB04	PIC18F46K20-I/PT	D2X-J750 STRIP INDUSTRIAL OTP	LTX_D2X	18F46K20	OTP	STANDARD	E	REL		0362	0362		
LEAD17T4XB04	PIC18F46K20-I/PT	D2X-J750 STRIP INDUSTRIAL OTP	J750	18F46K20	OTP	STANDARD	E	REL		0362	0362		
LEAD17T4XC05	PIC18F46K20-I/PTC05	D2X-J750 STRIP INDUSTRIAL OTP	J750	18F46K20	OTP	CUSTOM	F	REL		0362	0362		
LEAD17T4XC05	PIC18F46K20-I/PTC05	D2X-J750 STRIP INDUSTRIAL OTP	LTX_D2X	18F46K20	OTP	CUSTOM	F	REL		0362	0362		
LEAD17T4XC06	PIC18F46K20-I/PTC06	D2X-J750 STRIP INDUSTRIAL OTP	J750	18F46K20	OTP	CUSTOM	C	REL		0362	0362		
LEAD17T4XC06	PIC18F46K20-I/PTC06	D2X-J750 STRIP INDUSTRIAL OTP	LTX_D2X	18F46K20	OTP	CUSTOM	C	REL		0362	0362		
LEAD17T4XC07	PIC18F46K20-I/PTC07	D2X-J750 STRIP INDUSTRIAL OTP	LTX_D2X	18F46K20	OTP	CUSTOM	C	REL		0362	0362		
LEAD17T4XC07	PIC18F46K20-I/PTC07	D2X-J750 STRIP INDUSTRIAL OTP	J750	18F46K20	OTP	CUSTOM	C	REL		0362	0362		
LEAD1TS5XB04	PIC18F46K20T-I/MV	INDUSTRIAL OTP	J750	18F46K20	OTP	STANDARD	B	REL		0362	0362		
LEAD1TT3XB04	PIC18F46K20T-I/ML	UTAC 44QFN STRIP INDUSTRIAL OTP	J750	18F46K20	OTP	STANDARD	D	REL		0362	0362		
LEAD1TT3XNSB	PIC18F46K20T-I/ML	UTAC 44QFN STRIP INDUSTRIAL OTP	J750	18F46K20	OTP	CUSTOM	A	REL		0362	0362		
LEAD1TT3XV01	PIC18F46K20T-I/MLV01	UTAC 44QFN STRIP INDUSTRIAL OTP	J750	18F46K20	OTP	QS9000	D	REL		0362	0362		
LEAD1TT3XVB1	PIC18F46K20T-I/MLVAO	UTAC 44QFN STRIP INDUSTRIAL OTP	J750	18F46K20	OTP	QS9000	F	REL		0362	0362		
LEAD1TT4X024	PIC18F46K20T-I/PT024	D2X-J750 STRIP INDUSTRIAL QTP	J750	18F46K20	QTP	CUSTOM	C	REL		02A9	0362	02A9	8083

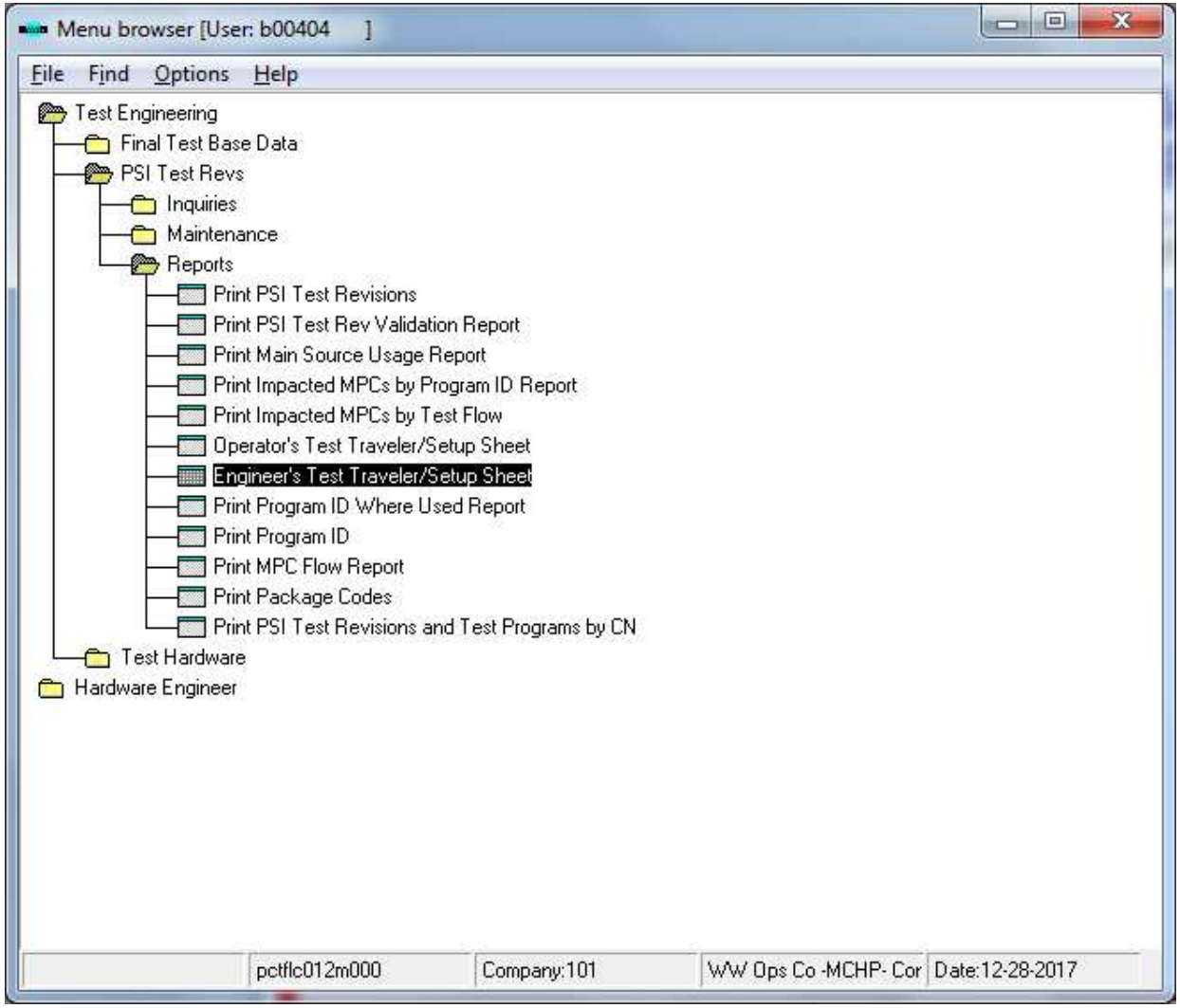
Print out Test Traveler / Setup Sheet from Baan PDC - 1

- Able to print out Test Traveler/Setup Sheet after Test Flow Group has been assigned to the MPC.
- Under Test Engineering, Double clicks PSI Test Revs, Double clicks Reports.



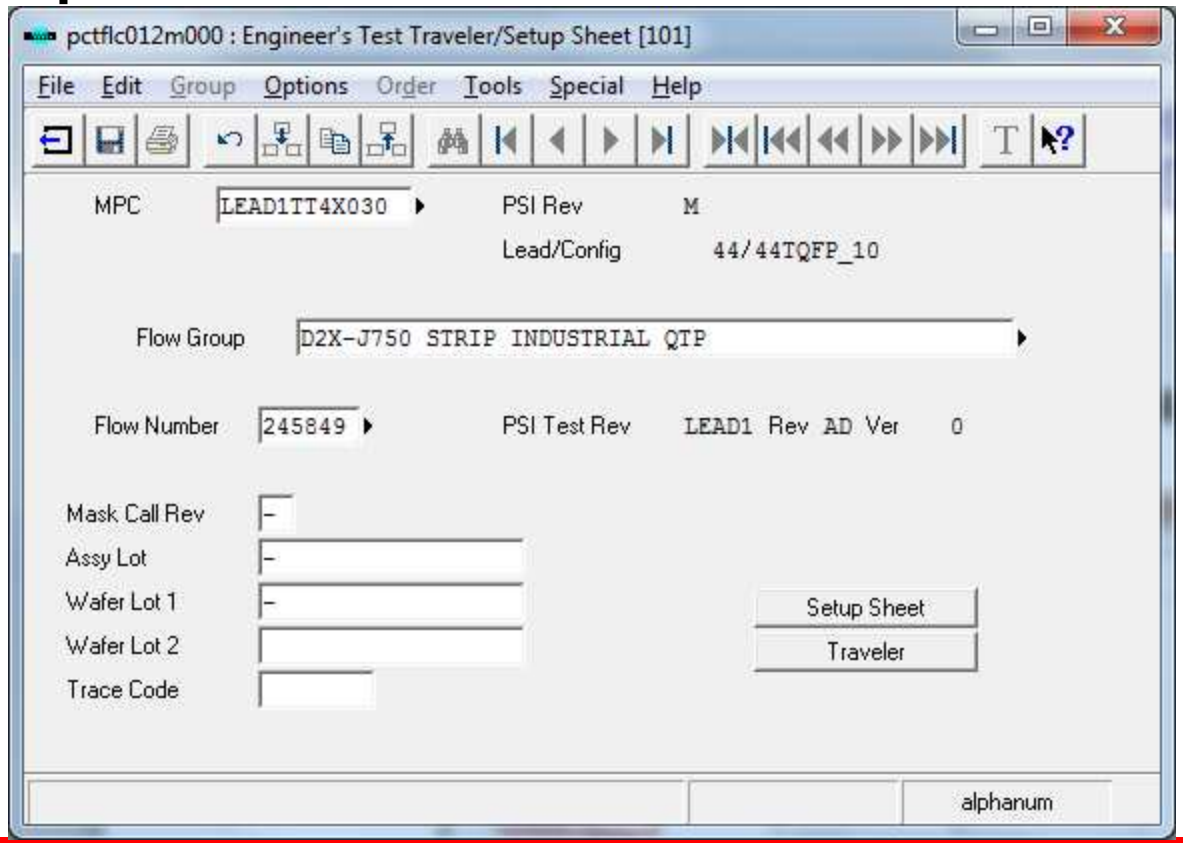
Print out Test Traveler / Setup Sheet from Baan PDC - 2

- **Double clicks at Engineer's Test Traveler/Setup Sheet.**



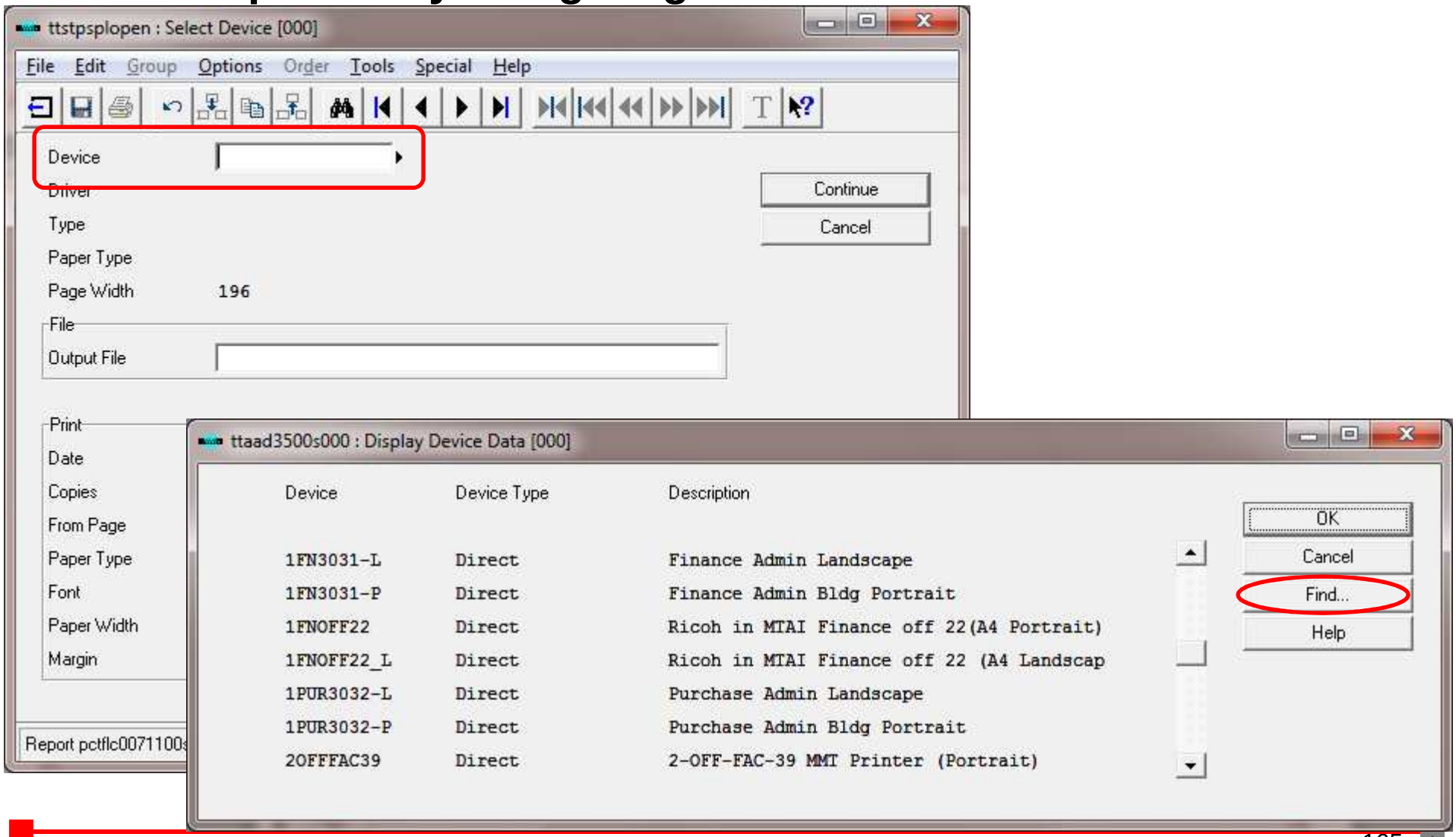
Print out Test Traveler / Setup Sheet from Baan PDC - 3

- Input MPC then press Tab key.
- Select Test Flow.
- Put “-” at Mask Call Rev, Assy Lot no and Wafer Lot 1.
- Click Setup Sheet button.



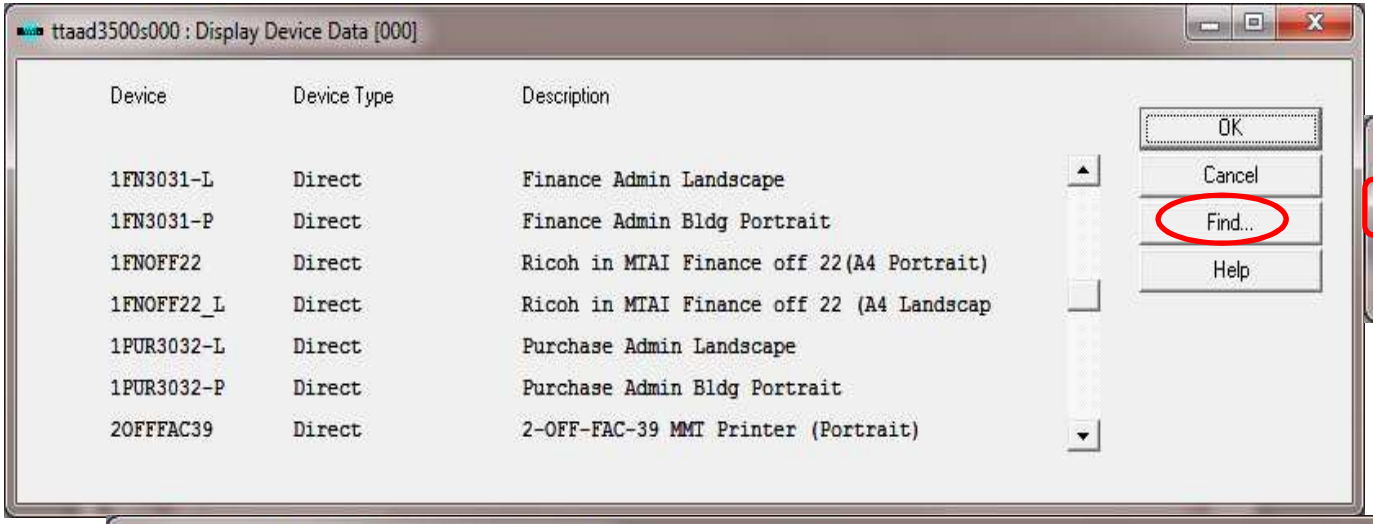
Print out Test Traveler / Setup Sheet from Baan PDC - 4

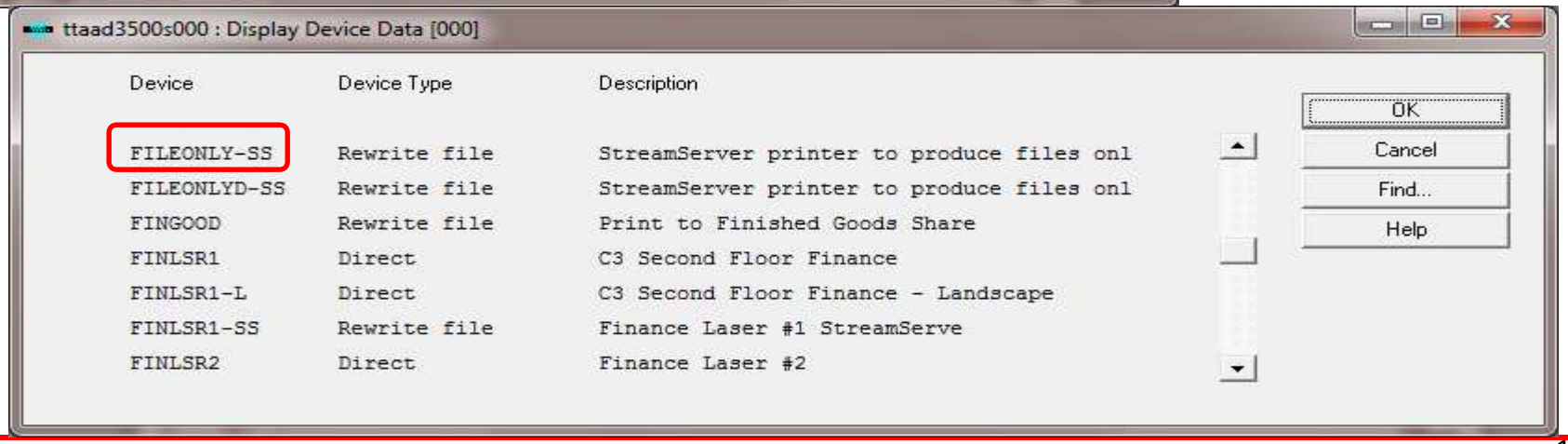
- **Select printer by using magnifier at Device.**



Print out Test Traveler / Setup Sheet from Baan PDC - 5

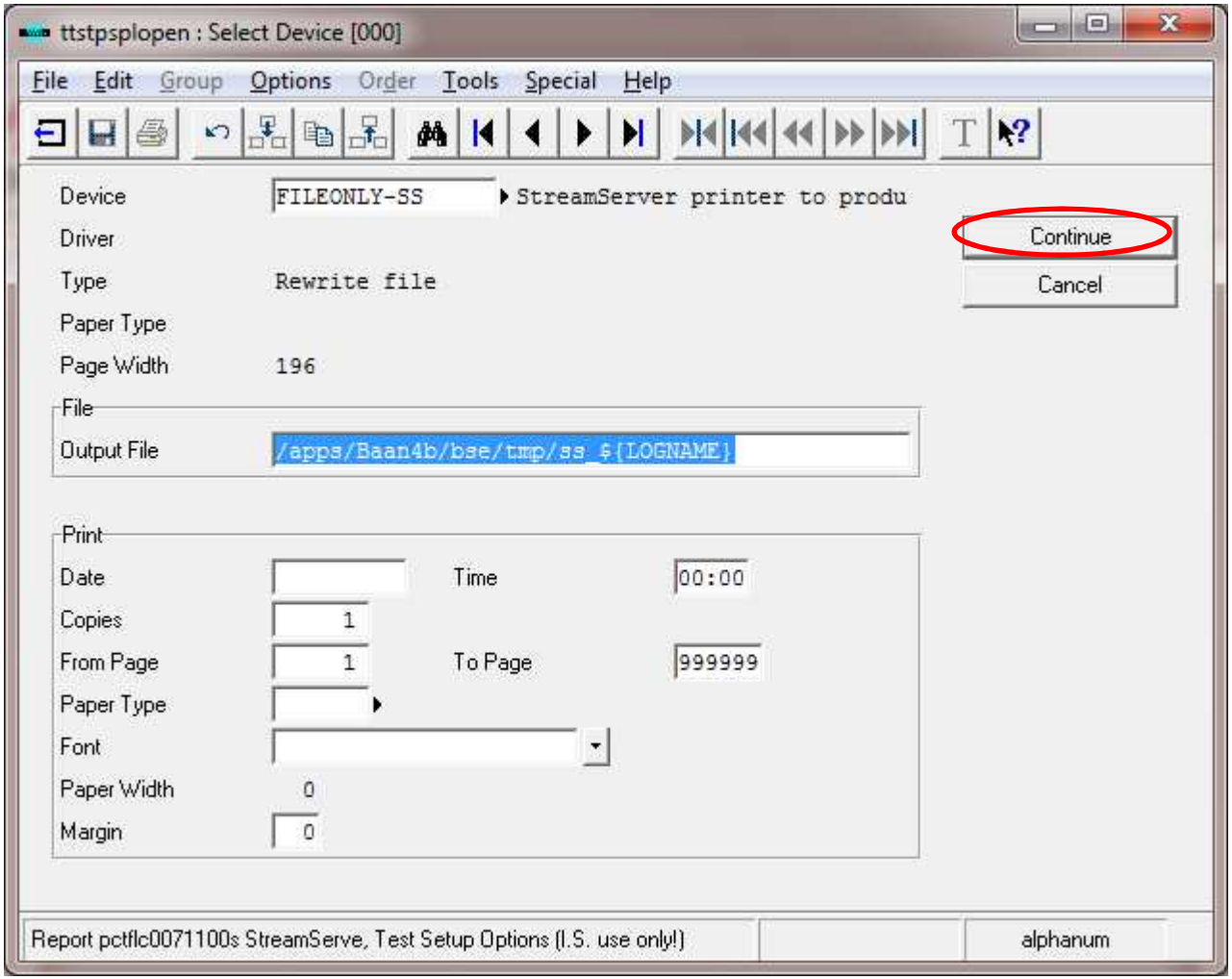
- Click Find. At Device, input “FILE” then click OK.
- Select FILEONLY-SS Device and click OK.





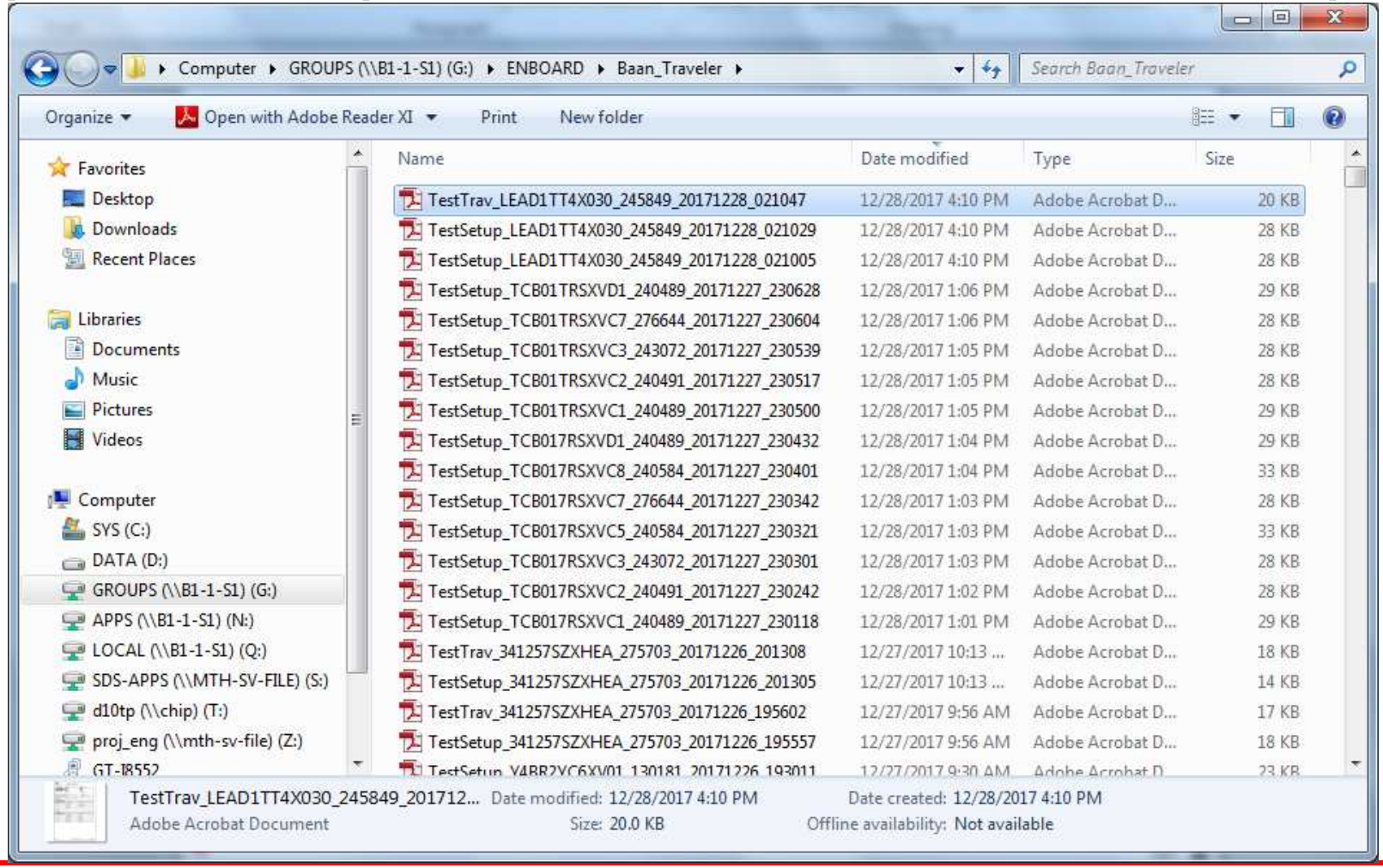
Print out Test Traveler / Setup Sheet from Baan PDC - 6

- **Click Continue button.**



Print out Test Traveler / Setup Sheet from Baan PDC - 7

- **Get pdf file from G:\ENBOARD\Baan_Traveler share drive. (\\B1-1-s1\Groups\ENBOARD\Baan_Traveler share drive)**



Print out Test Traveler / Setup Sheet from Baan PDC - 8

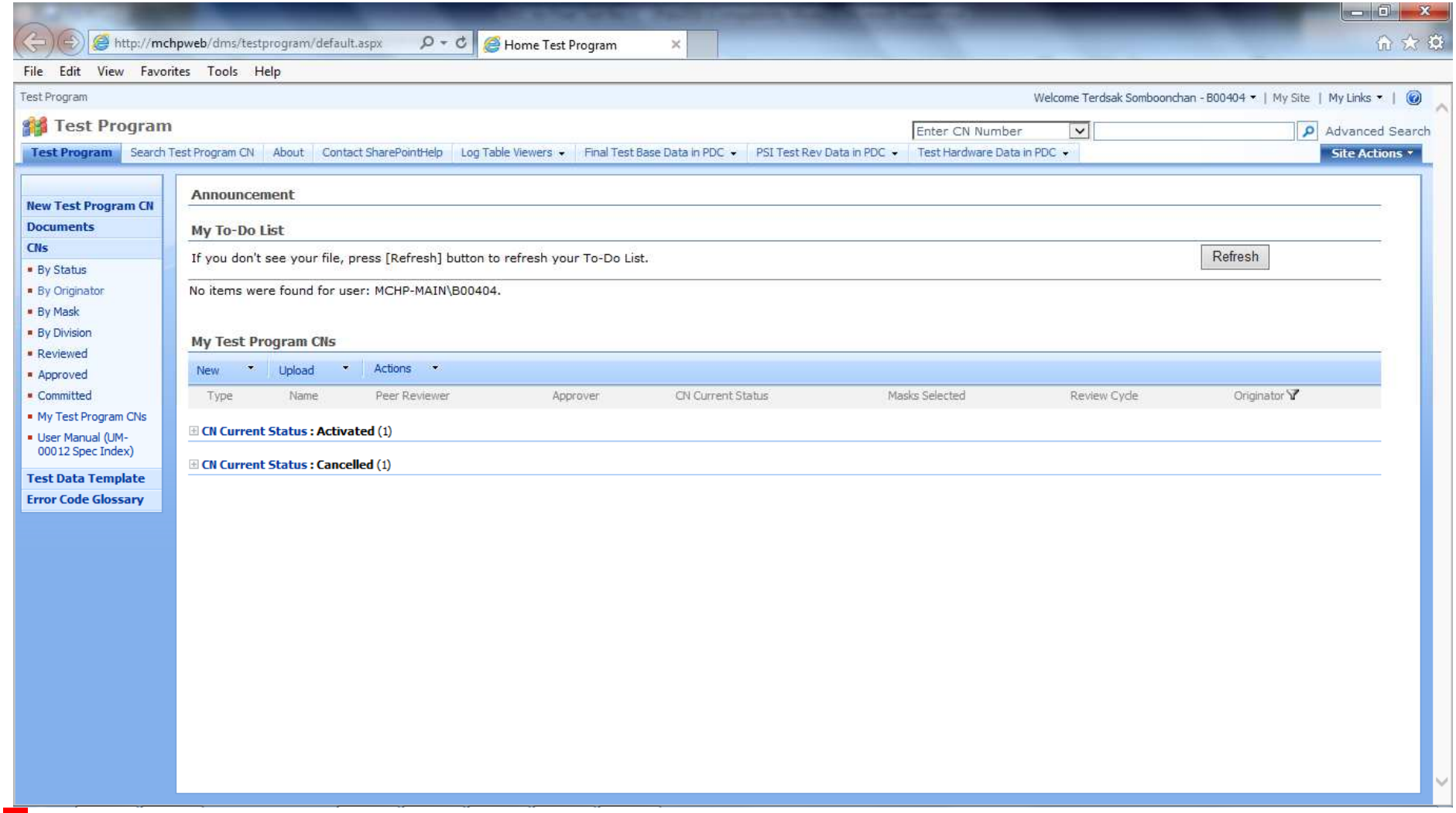
- **Note : For subcontractor testing, you can send him Test Setup Sheet as a reference test specification.**
- **If you need Test Traveler, click Traveler button.**

Setup Sheet

Traveler

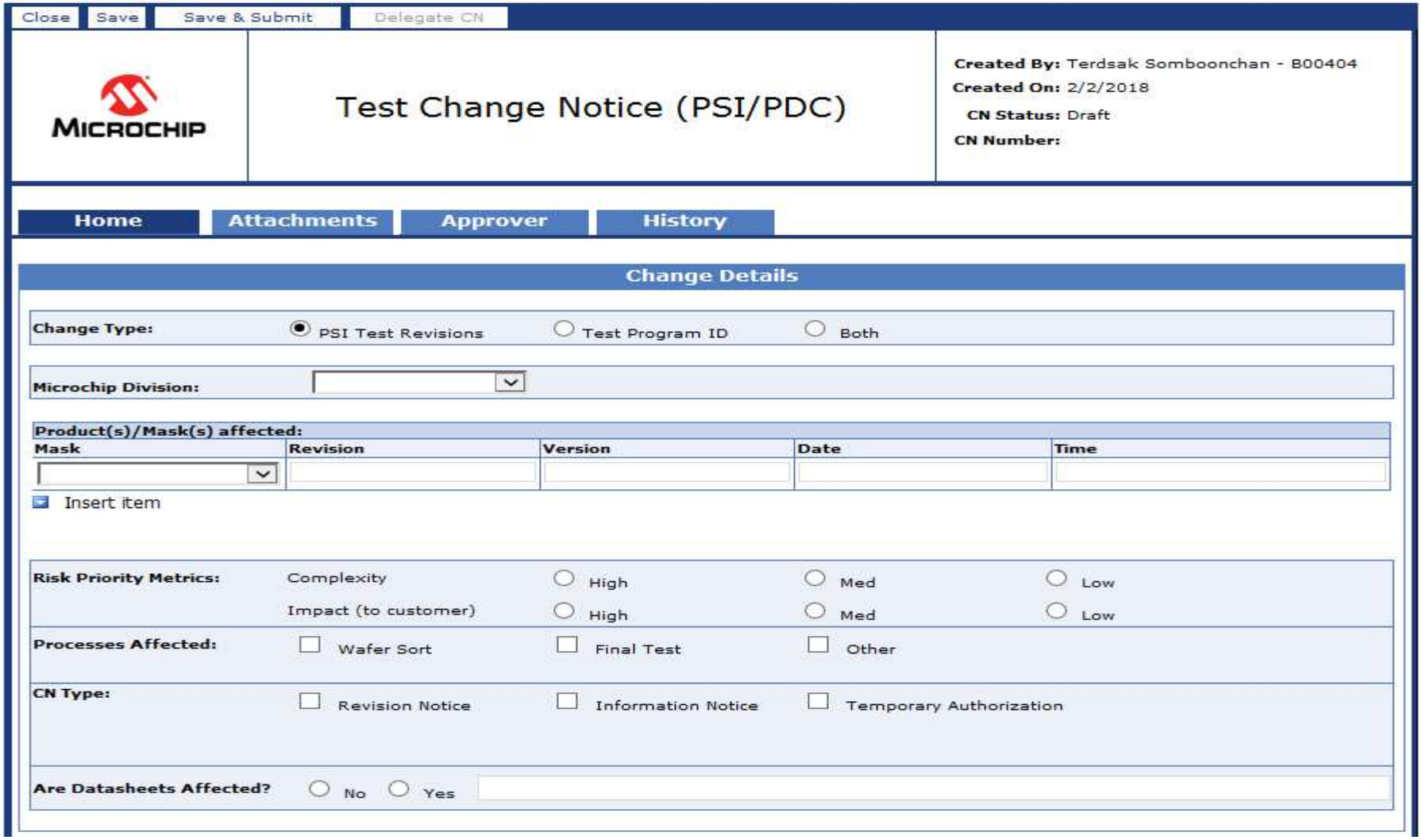
PSI/Test Program eCN - 1

- **PSI/Test Program CN :** http://mchpweb/dms/testprogram/default.aspx



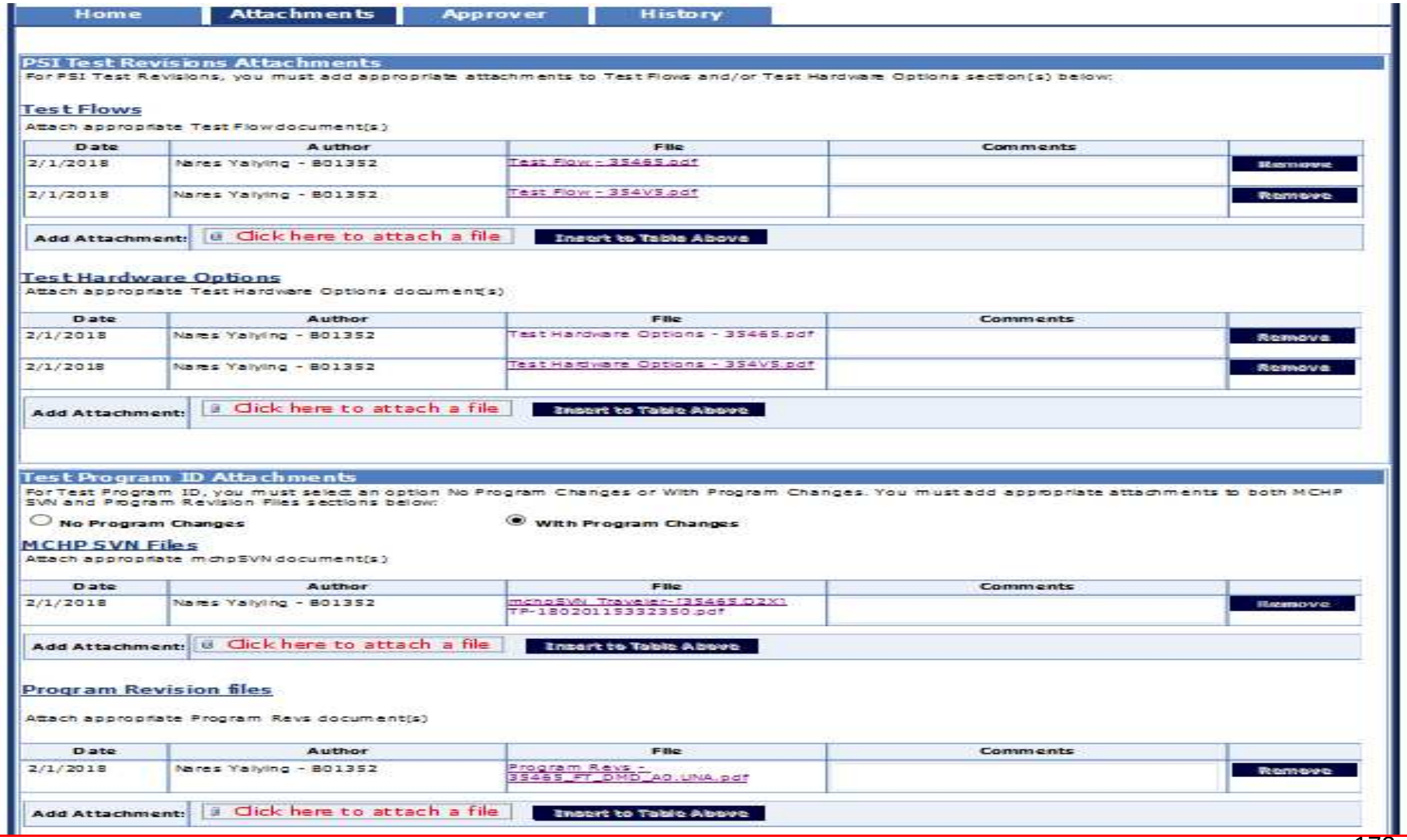
PSI/Test Program eCN - 2

- 3 Change Types



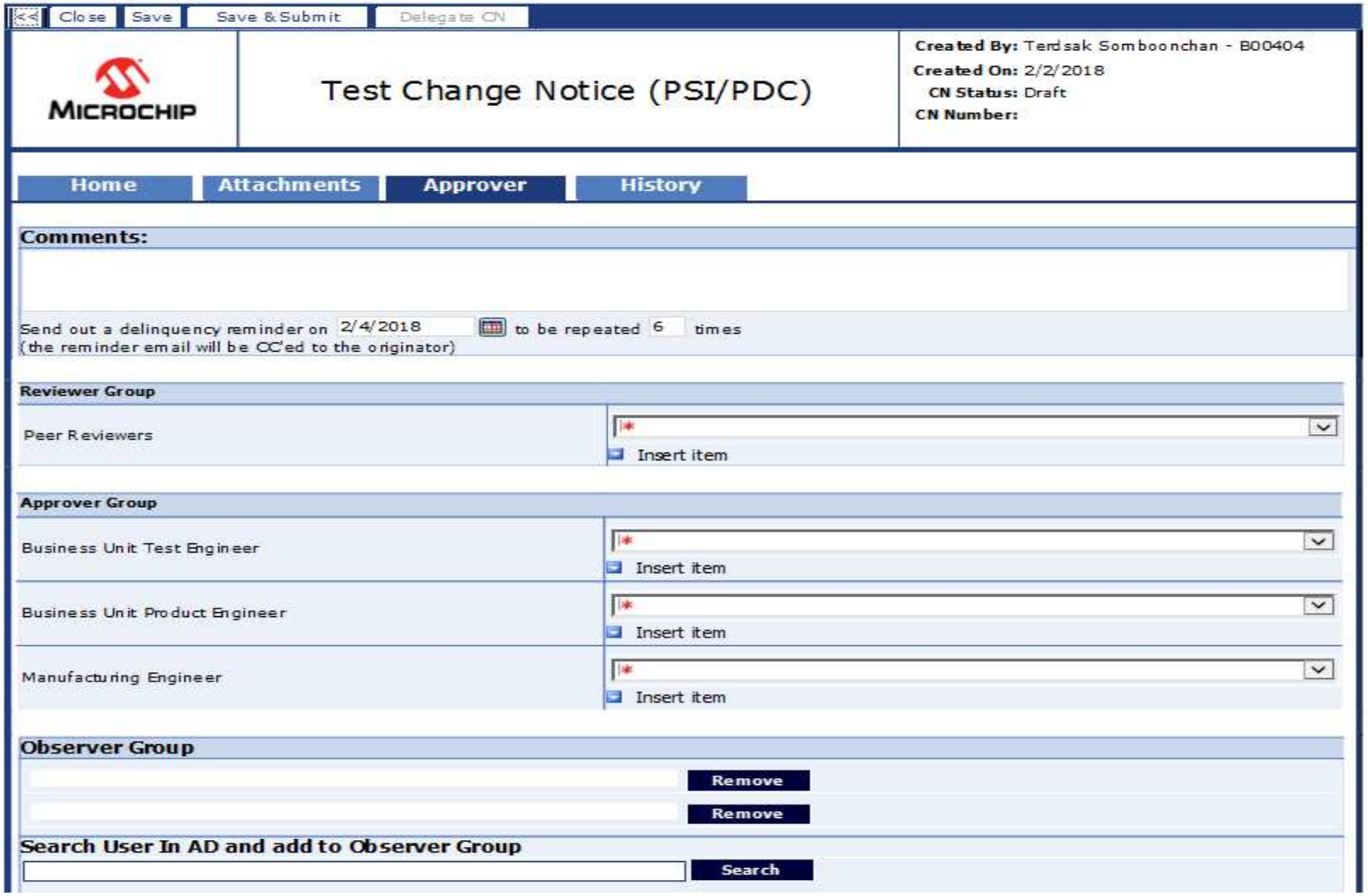
PSI/Test Program eCN - 3

- **Attachments**



PSI/Test Program eCN - 4

- **Reviewer/Approver – Contact DocControlHELP to add name.**



PSI/Test Program eCN - 5

- **Test Program Verification and Peer Review Checklist :**

  FRM-41043-001


FRM-41043-001


FRM-41043-001 - Example

- **Action :**
  - **NA - Not Applicable. Does not apply to this verification. No action was taken for this verification.**
  - **NV - Not Verified. This section applies to the change being made, but a verification of this section was not done.**
  - **RV - Reviewed and actions taken**

- **SPI-41043-003 - Test Verification, Review, and Release Procedure**
- **SPI-41043-004 - Test Program Release Criteria-Procedures**

Appendix – Baan Notes

- Press “Tab” button to move the cursor to the next field.
- See the list of options by moving mouse to the triangle sign. Click mouse when it changes to magnifier.
- Can open several windows as needed.
- When update PSI Test Revision, always start from production active version (Version : 0).
- Document Control Team always verify if PDC Time Stamp matches the time stamp in eCN.

  After submitted eCN, DO NOT make any change on PDC otherwise DCC will reject your eCN.

Appendix - Acronyms & Terms

- **ROM** : Read Only Memory
  Program customer code during wafer fabrication
  (Very old Product only)
- **OTP** : One-Time-Programmable
  No customer code / Blank memory
  (EPROM / EEPROM / FLASH)
  No memory
  Default for Strip Test Product Configuration
- **QTP** : Quick-Turnaround-Production
  Program customer code during Final Test
- **SQTP** : Serialized Quick Turnaround Production
  Program customer code with serialized number during Final Test

Appendix – Links

- **MCHPWEB :** http://microchipweb/
- **DMS :** http://microchipweb/pages/dms/Document%20Management%20System/toolsandresources
- **Specification Index :** http://mchpweb/dms/specindex/default.aspx
- **MPC Lookup :** http://mchpweb-pps/dms/pdcn/Pages/MPC%20Lookup.aspx
- **Hardware Database System :** http://hwdb/MainPage.aspx
- **Hardware Specification (14-Axxxxx) :** http://mchpweb/dms/specindex/Pages/SpecDatabaseSearch.aspx?linkCat=NUMERIC
- **PDC Approval Helper :** http://beweb/MTAI/BaanApprovalHelper.aspx
- **PSI/Test Program CN :** http://mchpweb/dms/testprogram/default.aspx
- **Tool to find lot information in MES :** http://mth-vm-shareweb/Mtaiisdev/dataservices_lotproperties.aspx?lotid=MTAI183702430.000
- **Tool to find MES lot# from YYWWNNN trace code :** http://t04ftsrv/cgi-bin/mes/mtaiTraceCode.pl?TC=17494TS&B1=Fetch
- **Acronyms and Terms :** http://microchipweb/search/acronyms
- **Application Request (iTURF) :** http://mchpweb/corporate/UserRequestForm/default.aspx