

05/11/2011

### **Table of Contents**

Overview:	
Development Scope:	2
List and Search Page:	4
Details Page:	6
Search Popups:	
Workflow Pages:	
Preview Pages:	
Home Page:	22
Business Workflow Diagram:	23



05/11/2011

#### Overview:

All new parts and changing parts built at UGN need an approval process, called the Request for Development (RFD). Several departments are involved with this approval. In addition, team members work together to categorize and identify these parts. These consist of raw materials purchased from vendors, semi-finished good built at one UGN Facility and used at another UGN Facility, formulas for how parts are processed, and finished goods sold to customers.

This RFD module replaces, enhances, and combines the previous Request for Quote (RFQ) and Request for Change (RFC) modules. In addition, team members will be able to track when parts go into service, or become end of life. There is even an option for pure research, in which no BPCS information would be assigned.

#### **Development Scope:**

- Timing Rules:
  - For the Business Process Type of "Customer Driven Change (RFQ)"
    - Quality Engineering and Purchasing wait for the Customer to approve the change before
      proceeding (Business Awarded). This will happen only on new parts, whereas current
      parts will continue directly to the Quality Engineer once approved by the previous levels.
  - For the Business Process Type of "UGN Driven Change (RFC)" (days over lap)
    - The RFD must be completed overall in 12 working days.
    - The Packaging section must be completed in 7 working days.
    - The Process section must be completed in 7 working days.
    - The Product Development section must be completed in 3 working days
    - The Costing section must be completed in 5 working days.
    - The Quality Engineering section must be completed in 2 working days.
    - The Purchasing section must be completed in 2 working days.
    - Tooling and Capital Timing must be completed in 7 working days.

#### Required Changes:

- To provide more confidential security, team member signatures will not be used in the documents. Instead, a cursive font with the date and time approved will be shown.
- Crystal Reports (exported as PDF documents) will be used instead of Microsoft Excel for printpreviews.
- Team members who need to following changes based on Make or all changes in general can be added to a subscription called "RFD CC." Notifications will be sent to the team members as RFDs are created and completed, but not in between.
- Approval Routing will be run with some parallel levels and some tiered levels.
- There will be a status for each section as well as the RFD as a whole.
- No email attachments will be allowed. Instead supporting documents can be uploaded to a common folder. These uploaded documents as well as the preview of the RFD can be referenced via hyperlinks that can be included in the email notifications. Other links win the email will be to DMS Drawings, Cost Sheets, and ECI numbers, if they exist.



05/11/2011

#### • Routing Rules:

- Product Development, Costing, and Quality Engineering will be required for Customer Driven Changes and UGN Driven Changes. All other departments will be optional, INITIALLY. The Business Awarded button is only needed for new parts, not changing parts.
- Continuous Line and Material Size changes do NOT require Capital, Process, or Tooling approval (Dampers, Melsheet, Fleece, and PSA)
- Costing will be part of Approval Routing Level 1 for UGN Driven Changes (RFC), Going into Service, End of Life, Engineering Research Only, and Other, but be part of Approval Routing Level 2 for Customer Driven Changes (RFQ).
- If an initiating team member sees the need for only a cost sheet, then it can be checked and only the Costing

Business Type	Part (Designation) Type	Packaging		approval R Finance / Plant Controller	equired  Process	Capital	Tooling	Costing	QE	Purchasing
Customer Driven Change (RFQ)	Finished Good, Service, or Semi- Finished Good	optional	x	Special criteria	Special criteria	Special criteria	Special criteria	x	After Business Awarded for new parts. Required immediately after costing for current parts.	After Business Awarded for new parts. Required immediately after costing for current parts.
UGN Driven Change (RFC)	Any	optional	X	N/A	Special criteria	Special criteria	Special criteria	X	· x	optional
Going Into Service	Any	optional	Optional	optional	optional	optional	optional	X	optional	optional
End of Life	Any	optional	Optional	optional	optional	optional	optional	X	optional	optional
Engineering Research Only	Any	optional	optional	optional	optional	optional	optional	optional	optional	optional
Other	Any	optional	optional	optional	optional	optional	optional	optional	optional	optional



05/11/2011

#### List and Search Page:

- Search based on the following criteria
  - RFD No, Description, Drawing No., Customer Part No., Design Level, BPCS Part No., Part Name, Overall Status, Initiator, Approver Status, Approver, Role, Account Manager, Business Process Type, Designation Type, Priority, Customer, UGN Facility, Program, Commodity, Product Technology, Sub-Family, Vendor, Purchased Good, Cost Sheet ID, ECI No., CapEx Project No., P.O. No., and Due Date
  - RFDs in this system as well as RFQ and RFC documents from the old system can be searched on this page. When selecting an RFD, the data entry page will be shown. When selecting an RFQ or RFC from the old system, a PDF print-preview will be shown.
  - A list of results will be shown
    - Overall RFD Status
    - Each Approval Status will be shown in a small table below the overall status
    - The Description will be shown on a small line below the RFD No.
    - RFD No.
    - Previous RFD (if exists)
    - Drawing No. (if exists) Top Level Drawing Number or First Child Drawing Number
    - BPCS Part No. (if exists) First F.G. Part Number or First Child Part Number
    - Customer Part No. (if exists) There can be only one
    - Part Name (BPCS Part Name, Drawing Name, or Customer Part Name)
    - Preview button
    - History button
  - The background colors for the status are as follows
    - Fuchsia

      Open
    - Yellow In Process (one section can be in process for the overall status to be in process)
    - White Approved or N/A (all sections must be complete for overall status to be complete)
    - Blue On Hold
    - Agua Tasked to another team member
    - Gray Void
    - Red Rejected (if one section is rejected, the overall status is rejected)



05/11/2011

### Request For Development - List and Search

Partial Searches can be	completed	by placing % before	or after text.							
Review existing data or pres	Add to e	nter a new RFD.								
	RFD No:						Drawing No:	:		
Custome	er Part No:						Design Level:			
BPC	S Part No:						Part Name:			
Over	rall Status:	~					Initiator:		~	
Approv	ver Status:	~					Approver		~	
	Role:		~			Acc	count Manager:	:	~	
Business Proc	cess Type:			~			RFD Desc			
Advanced Search										
☐ Include Archive Data (WAI	RNING: CHECI	KING THIS WILL ADD CO	NSIDERABLE TIME	TO WAIT FOR F	RESULTS.)					
Designation Type:		~				Prior	ity:	~		
Customer:	:				~					
UGN Facility:	:	~								
Program:	:			~						
Commodity:	:		~							
Product Technology:		~								
SubFamily:										
Vendor:				~						
Purchased Good:			•	•						
Cost Sheet ID:						ECII				
CapEx Project No.: Due Date						PO N Last Updated				
(Begin Range):						(End Rang				
				Search	Reset					
Status Colors		Open In-Pr	ocess	On-Hold	Rejecte	d Tasket		Approved or N/A		Void
Approval Roles Pack = Pac	ckaging PC =	Plant Controller/Finance	Proc = Process	PD = Product D	evelopment Tig :	= Tooling   CAP = Capi	tal CO = Costing	QE = Quality Engir	eering Pur	= Purchasing
Overall RED No.	Prev. RFI	) DrawingNo	BPCS Part	No (	Cust. PartNo		Name		Preview	History
Status					65459AA1	DEADENER-CT				
Approved 200066  Pack PC Proc PD Tig CO C	DE D.	0706-00003-1(00		USU	100403AA I	DEADENER-CI	K FLK PAN			
Pack PC Proc PD Tig CO C	2E Pur	DESCRIPTION: new	and improved							
<u>Void</u> <u>200065</u>										Ø
Pack PC Proc PD Tig CO C	2E Pur	DESCRIPTION: new	process							
Rejected 200064									Ø	
Pack PC Proc PD Tig CO C	DE Pur	DESCRIPTION: char	ige tool						_	
<u>Approved</u> 200063		0501-00002-1(07	)	050	065459AA1	DEADENER-CT	R FLR PAN		Ø	
Pack PC Proc PD Tig CO C	QE Pur	DESCRIPTION: char	ige vendors							



05/11/2011

#### **Details Page:**

RFD Detail page

- Top Section
  - RFD No. (auto generated/view only)
  - Overall Status of RFD (updated as approvals are changed)
  - Completion Date if exists
  - Preview Button
  - Business Awarded Button (for RFQ Process only)
  - Copy Button
    - Radio Buttons indicate if the RFD should be duplicated "AS IT" or if the "new" part information should become "current" part information in the copied RFD.
  - Void Button
  - Help Links for various roles

#### Request For Development (RFD) Detail

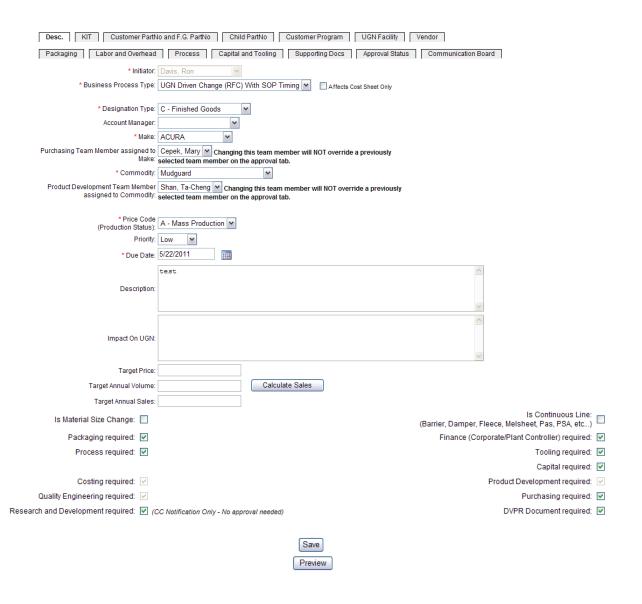
RFD No: 200142



- Many Tabs Exist (Description, Kit, Customer PartNo and Finished Good PartNo, Child PartNo, Customer Program, UGN Facility, Vendor, Packaging, Labor and Overhead, Process, Capital and Tooling, Supporting Documents, Approval Status, and Communication Board)
  - Description Tab
    - The initiators can be Account Managers, Plant Champions, or other Team Members with proper authority (such as Approvers)
    - The initiators can enter as many known details as possible. As the RFD is approved by various departments, more information will be updated.
    - The following fields are required by the initiator at a minimum:
      - Initiator Team Member (default to current user)
      - o Business Process Type
      - Designation Type
      - Price Code
      - o Due Date (if RFC, then 12 days from creation)
      - o Description
      - Based upon the selections of Business Process Type and Designation Type, certain fields and sections will be visible or updatable.
      - Based on the "Designation Type"
        - For Finished Goods, a Customer PartNo is required.



- For Raw Materials, a Current BPCS PartNo or New BPCS Part Name is required.
- At least one Customer/Program
- At least one UGN Facility
- Based upon the Business Process Type, certain approval routing sequences will occur. See the chart above.
- Depending upon the Customer chosen the Account Manager would be selected
- Depending upon the Make, a Purchasing Team Member will be chosen
- Depending upon the Commodity, the Product Development Team Member will be chosen





- KIT Tab
  - In order to group finished goods into a "kit" part, they can be organized on this tab.



Kit BPCS Part No	Rev		Finished Good BPCS Part No	Rev		
04716903		CHRYSLER NS MINI-VAN	04716765	01	CHRYSLER NS MINI-VAN	<b>F</b>
04716903	01	CHRYSLER NS MINI-VAN	04716902	01	CHRYSLER NS MINI-VAN	<b>3</b> 0
and			ůñ.			<b>9</b>



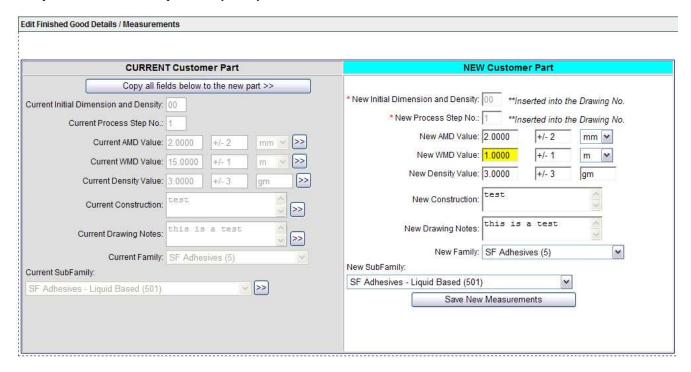
- Customer Part Number and Finished Good Part Number Tab
  - This tab is shown when the Designation Type is "Finished Good" (F.G.)
  - This tab will be invisible when only child parts (NON-Finished Goods) are the designation type.
  - When the designation type is finished good, then child parts are allowed to be added in the "Child Part Number" tab, which will be discussed later.
  - Based on the DMS Drawing No of the "Current Customer Part Number", the measurements of the lower section will be automatically populated.
  - Multiple F.G. BPCS Part Numbers can be assigned to a single Customer Part Number. This will be done by the Quality Engineer.
  - Details from the Current Drawing can be copied to details for a new drawing.
  - The Product Development Team member can choose to generate a new drawing or assign an existing drawing.
  - The Customer Part Number, Design Level, Customer Drawing Number, Customer Part Name, DMS Drawing Number, Commodity, and Product Technology (for all current and new items) can be assigned by the Initiator or any approver as it is known.
  - Certain values may be general enough to apply to all Finished Goods and can thus be
    assigned simply to the Customer Part Number. Other instances may require separate
    Cost Sheets, ECI Numbers, Cap Ex Project Numbers, and PO Numbers per finished
    good. It is up to the team members to decide.
  - The Cost Sheet ID would be entered by the Costing Team member. The creators of the Cost Sheets will have an option in the Costing Module to pull information from the RFD.
  - The ECI Number would be entered by the Quality Engineer. This can be done by manually typing the ECINo or using a search popup. On the search popup, there will also be the ability to create a new ECI based on the RFD information.
  - The CapEx Project Number would be entered by the Tooling Team Member, if exists.
  - The PO Number would be entered by the Purchasing Team Member, if exists.







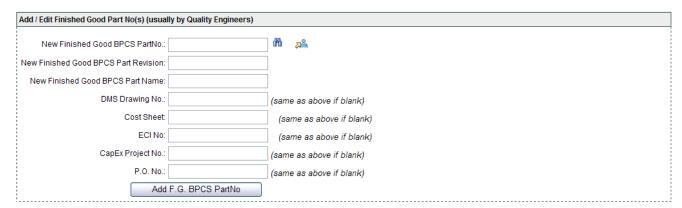
05/11/2011



Below is the list of Current BPCS Finished Good Part No(s) based on CURRENT Customer Part No above.



AT LEASET ONE Finished Good BPCS Part No(s) MUST BE ASSIGNED in order for the RFD to be closed. However, team members still may submit this for approval without prior knowledge of what the new part numbers should be.



Below is the list of New BPCS Finished Good Part No(s) based on NEW Customer Part No above (See also Docushare SOP Document: QA 166)

New F.G. BPCS PartNo	New Rev.	Name	Drawing No.	Cost Sheet	ECI No.	CapEx Project No.	P.O. No.	Edit / Delete F.G. BPCS Part Info
04716902	0	CHRYSLER NS MINI-VAN						<b>3</b> 🗓

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05/11/2011

 ECI Search and Create Popup for Quality Engineers only, can be used for the Customer Part or for the Child Parts.

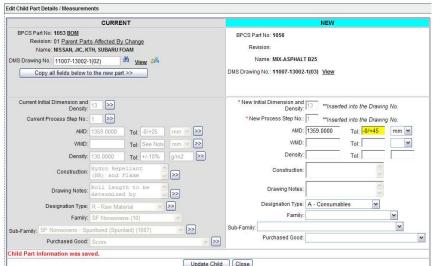




05/11/2011

- Child Part Number Tab
  - When the Designation Type for the whole RFD is NOT a finished good, the part must be a "child" part of some kind (Raw Material, Formula, Semi-Finished Good, etc..),
  - The part using this child part may or may not be referenced in the RFD
  - Also, when the Designation Type for the whole RFD is a Finished Good, there may be a need to change or add child parts.
  - For each child part, there could be unique Cost Sheets, External RFQ Numbers, ECI Numbers, DMS Drawings, and P.O. Numbers.
  - Again, the list of child parts can be built by any team member.
  - If needed a unique Cost Sheet, ECI Number, and PO Number can be added by the specific approver.
  - The detailed measurements can be added by any team member. Changes will be highlighted in yellow when comparing to a current DMS drawing.
  - Team members can view the existing BOM of a child part or what parent parts are affected.
  - The Product Development team member can choose to create a new drawing or use an existing one.





For the RFC Business process type, AT LEASET ONE Child BPCS Part No(s) MUST BE ASSIGNED in order for the RFD to be closed after all approvals have been completed. However, team members still may submit this for seproval without open knowledge of what the new part numbers should be. This approves can determine what the new numbers should be.

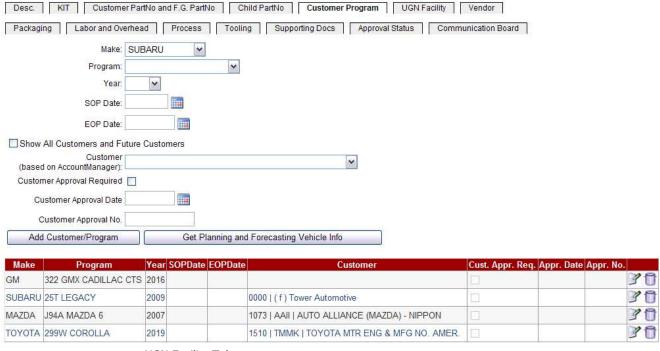
List of BPCS Child Part No(s) based on Docusiness CSP Document. QA 167

Current BPCS Part No.	Rev.	New BPCS Part No.	Rev.	Name	New Drawing No.	Cost Sheet ID	External RFQ No	ECI No.	No.	Edit / Delete (Identifiers Shown Above) (Details Shown Below)
1053	01	1056		MIX-ASPHALT B25	11007-13002-1 (03)					7 0
F748-19 1.5~2.9	01			BENTELER & amp; TOYOTA FOAM						<b>7</b> 0



05/11/2011

- Customer Program Tab
  - The SOP and EOP dates can be pulled from the Planning & Forecasting Module if the Program, CABBV, SoldTo, and Finished Good BPCS Part Number have an EXACT match.
  - Multiple Customers and Program combinations are allowed.



- UGN Facility Tab
  - Multiple UGN Facilities and / or department combinations are allowed.
  - Departments are optional



Vendor Tab

Multiple Vendors are allowed.

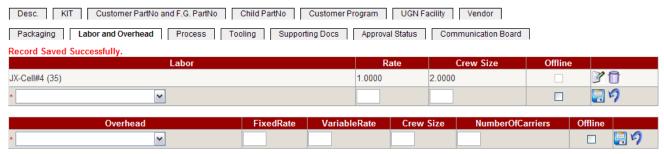




- Packaging Tab
  - Some piece of information is required for each part.



- Labor and Overhead
  - There must be at least some kind of labor for Customer Parts
  - Updated only by Finance Team Members

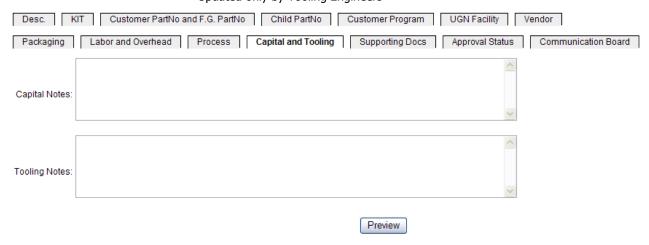


- Process
  - A text box is available to enter instructions or notes
  - · Updated only by Process Engineers





- Capital and Tooling
  - A text box is available to enter instructions or notes for capital.
  - A text box is available to enter instructions or notes for tooling.
  - Updated only by Tooling Engineers

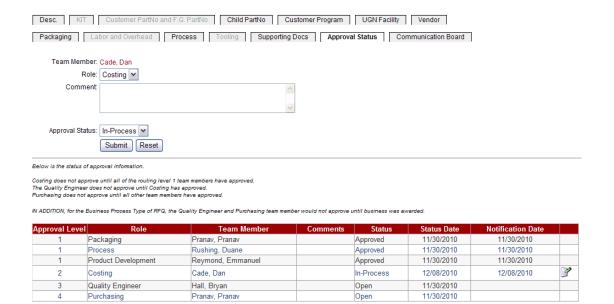


- Supporting Documents Tab
  - Multiple types of files UNDER 3 MB can be uploaded: PDF,DOC,XLS,JPEG,TIF, and PPT.
  - References to Shared Network files can be saved. These files will NOT be uploaded to the system, but can be found on the network folders somewhere. An example of this would be a customer drawing.





- Approval Status Tab
  - Approvers will be shown based on what is checked on the description tab.
  - Approvals and notifications will be simultaneous for Routing Level 1 instead of sequential. Then each routing level will be sequential.
  - Once all required sections are complete, the RFD will be complete.
  - If one section is rejected, the entire RFD is rejected.
  - Approvers will update their status on this page: Approve, Reject, On Hold, etc..
  - Approvers can change who they should be directed to instead or approve for others of the same role as backups.
  - Rejections require a comment.
  - The Initiator will be notified of any rejection and resubmit the RFD.
  - Approval Roles
    - Finance/Plant Controller (Based on Per Facility)
    - o Packaging, Process, Tooling, Capital, Costing, Quality Engineering
    - o Product Development (Default Based on Commodity)
      - "../Workflow/Team\_Member\_Commodity\_Accounts.aspx"
    - Purchasing (Default based on Family and / or Make)
      - "../Workflow/Team\_Member\_Family.aspx"
      - "../Workflow/Team\_Member\_Make.aspx"
  - Columns
    - Approval (Routing) Level
    - o Role
    - o Team Member
    - Comments
    - o Status
    - o Status Date
    - o Edit / Update Buttons to change approvers list





05/11/2011

- Communication Board
  - Team Member can ask or respond to questions from other team members about this RFD.



#### **Search Popups:**

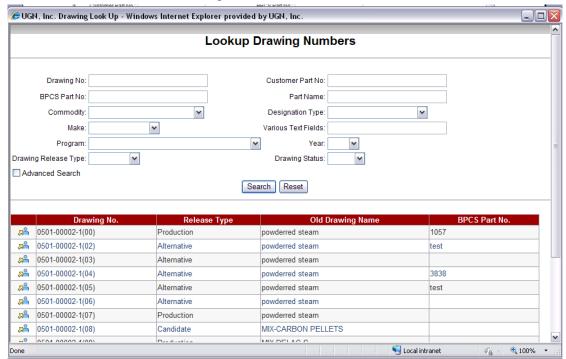
Customer Part Number Search



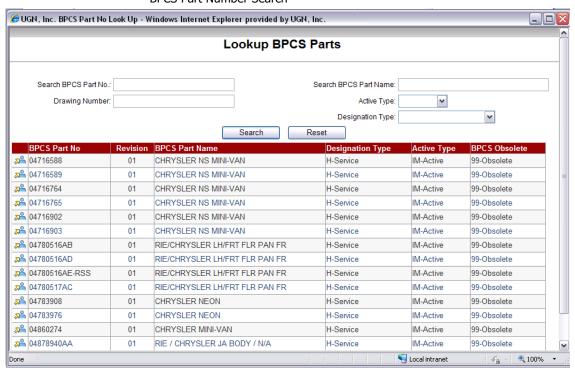


05/11/2011

DMS Drawing Number Search



BPCS Part Number Search



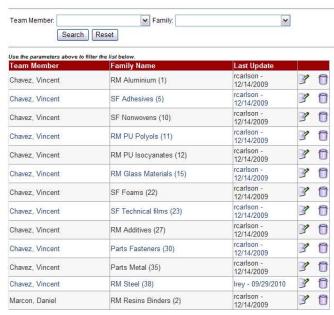


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#### **Workflow Pages:**

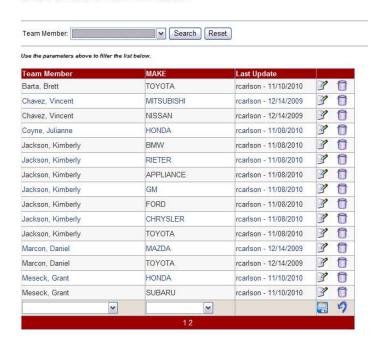
 Team Member Family Accounts – find the Raw Material Family for each Team Member in the Purchasing Department

#### **Team Member Family Accounts**



Team Member Make Accounts – find the Make for each Team Member in any Department

#### **Team Member Make Accounts**





05/11/2011

#### **Preview Pages:**

- Preview RFDs
- Old RFQs RFCs can also be previewed and will have original look and feel.





Kit BPCS Part No 04716903 04716903	<u>.</u>	<u>Rev.</u> 01		ER NS MINI-VAN ER NS MINI-VAN	F.G. BPCS Part No. 04716765 04716902	<u>Rev.</u> 01 01	Name CHRYSLER NS MINI-VAN CHRYSLER NS MINI-VAN
ToolingNotes							
Child Part Identifi		MIX-ASPHAL					<u>Cost Sheet</u>
	_	BPCS Part No.	Rev.	<u>Name</u>		Drawing No.	External RFQ No
Current	1053		01	NISSAN, JIC, KTH, SI	JBARU FOAM	11007-13002-	1(02)
<u>New</u>	1056			MIX-ASPHALT B25		11007-13002-	1(03) <u>ECI No</u>
							<u>P.O. No.</u>
Approvers		Costin				Commer	ate
Open		Cade,	_			Comme	IIS.
		Proces				Commer	nts:
In-Process			ig, Duane				
In-Process			ot Developn ond, Emman			Commer	ts:
In-Process		Purcha		uei		Commer	nts:
Open			, Pranav				
			y Engineer			Commer	nts:
Open		Hall, B	-			Common	ato:
In-Process			do, John			Commer	IIS.
		Packa				Commer	nts:
In-Process			, Pranav				
		Toolin				Commer	nts:
In-Process		Koch,	Joseph				



05/11/2011

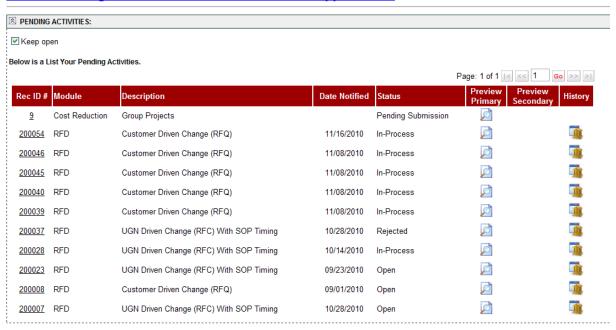
#### **Home Page:**

- Links in the list of the UGN Database Home page show which RFD's have pending tasks for current user.
- Users no longer need to depend solely upon email notifications and searches to understand pending tasks or recent tasks. Instead, they will know them as soon as they open the home page.

#### Welcome to the UGN Database

For the New UGN Database Applications, please make your selection to the left.

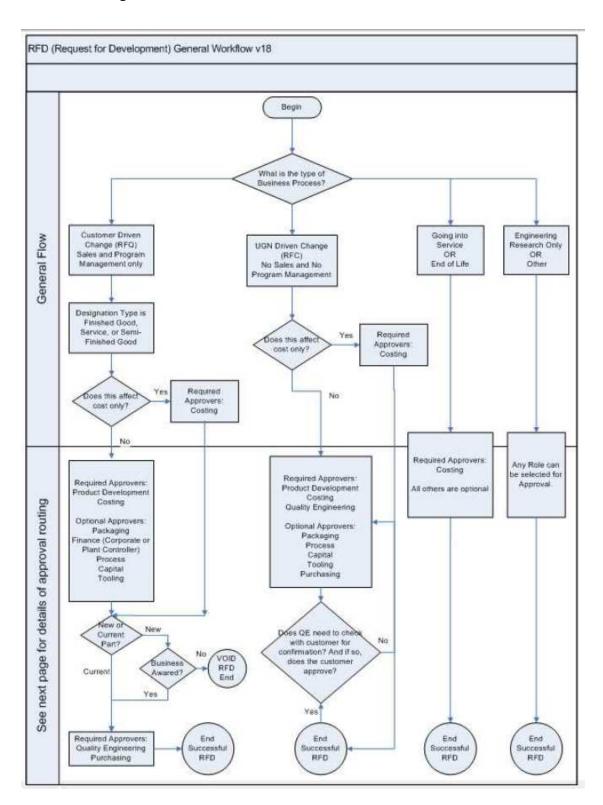
#### Click here to Sign On to the Classic UGN Database Applications.





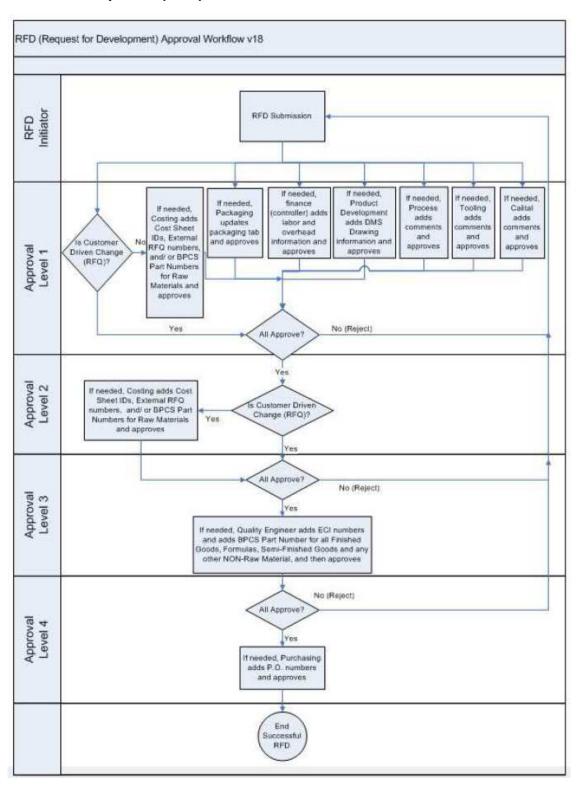
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#### **Business Workflow Diagram:**





05/11/2011



Prepared by: Roderick Carlson