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Prototype Process and Revenue Recovery

Visteon Product Development Staff, VTC-AP
Revenue Recovery: $289,000 on D219 Prototypes

Jonathan R. Hobgood

Problem Definition

Problem Statement:

- Prototypes are being ordered by Ford and these orders are sent directly into the plant prototype shops. Plants send the parts to the customer, but rarely is there followup to determine if the customer is paying the correct amount for the prototypes.

CTQ:

- Correct prices for prototypes must be negotiated with the customer prior to shipment.

Defect Definition:

- Lost revenue from the customer due to incorrect or missing price information.

Project Objective:

- Cross-functional team to deploy and improved process.

Current/Goal/Stretch Goal:

- Current status: 28.2% of D219 prototypes with incorrect or no price
- Goal: 100% improvement
- Stretch Goal: 125% improvement

Benefits:

- Recovered $289,00 on D219 prototypes that were unpriced or incorrectly priced.
- Information about roles and responsibilities and process issues understood by team members.

Progress to Date:

- Closed project January 31, 2002.

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Cross-Functional Team

Acamovic, Andja
Acker, D. P. (Daniel)
Andrade, R.A. (Ron)
Bailey, D. R. (Don)
Barretta, L. M. (Luann)
Barron, T. J. (Tim)
Benkaza, N. (Nouredine)
Biddle, K. B. (Kevin)
Born, K. J. (Kristin)
Bratschi, T. M. (Terry)
Bridges, G. F. (Francis)
Budd, C. E. (Christine)
Cook, Matthew (M.A.)
Cooper, D. G. (David)
Cristiano, J. J. (Jim)
Crossman, J. C. (John)
Dasbach, S. J. (Steve)
Davis, S. C. (Steve)
Ericson, Ken
Erne, J. (Julie)
Eswaran, R. V. (Raman)
Fecker, A. G. (Tony)
Fisher, Phil (P.H.)
Flynn, P. A. (Patty)
Frisbie, Ronald A. (Ron)
Glaeser, C. M. (Colette)
Godfroy, T. J. (Thomas)
Green, R. O. (Ryan)
Gupta, R. K. (Raj)
Hajal, T. M. (Tania)
Hargreaves, G. . (Gregory)
Henderson, S. B. (Sandy)
Hobgood, Jon
Jones, J. P. (Jeff)
Jones, R. C. (Raymond)
Joshi, S. R. (Samir)
Khan, S. T. (Salomi)
Klein, M. J. (Martin)
Kochersperger, Sarah
Koskinen, S. J. (Susan)
Kostun, P. (Patrick)
Kruse, W. H. (Bill)
Kullman, Deborah
Langley, C. S. (Scott)
Lehmann, L. (Lance)
Lundberg, A. D. (Alan)
Mackool, S. M. (Sam)
Majors, D. L. (David)
Marsh, R. O. (Richard)
Marshall, R. B. (Robert)
Martin, D. F. (David)
Mazurek, L. M. (Laura)
McGuinness, K. . (Kevin)
Michener, S. . (Stan)
Mulrooney, P. J. (Patrick)
Nahass, Matt (M.M.)
O'Neill, M. S. (Michael)
O'Neill, T. . (Tracy)
Olevnik, S. R. (Stephen)
Orth, R. D. (Richard)
Ortner, W. C. (Bill)
Pennington, B. D. (Bryan)
Perry, N. C. (Christopher)
Plymale, K. W. (Kevin)
Potts, B. J. (Bonnie)
Radkoski, P. (Paul)
Rogers, G. S. (Greg)
Sadrack, Angela (A.S.)
Sager, K. M. (Kristin)
Seros, N. M. (Noreen)
Skorupski, R. D. (Rob)
Small, Corey (C.P.)
Stokes, Robert (R.L.);
Study, A. L. (Alan)
Tygesen, T. A. (Tricia)
Warren, D. E. (Douglas)
Welch, D. P. (Dick)
Williams, J. R. (Jeff)
Workman, C. (Chris)

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Measure Phase

D219 Prototype parts. Analysis of price that customer was going to pay Visteon revealed $289,000 of revenue that Visteon should be realizing but was not going to collect.

Part Number	Prefix	Base	Suffix	RFQ Price	Customer Price System	Notes	Estimated Actual Price	Lost Revenue
3L3F-9D370-AA	3L3F	9D370	AA	Don't have	0.25000			0.00
3L3F-9D370-AA	3L3F	9D370	AA	Don't have	0.25000			
4F93-16E144-A1	4F93	16E144	A1			PO AB6RF		0.00
4F93-16E144-A1X	4F93	16E144	A1X			No production PO issued		0.00
4F93-16E144-A1X	4F93	16E144	A1X			No production PO issued		0.00
4F93-16E144-A1X	4F93	16E144	A1X			No production PO issued		0.00
4F93-16E144-A1X	4F93	16E144	A1X			No production PO issued		0.00
4F93-17408-B1	4F93	17408	B1			No production PO issued		0.00
4F93-17B613-B1	4F93	17B613	B1		16.06000	No production PO issued		
4F93-17B613-B2	4F93	17B613	B2		0.00000		16.06	915.42
4F93-17B613-B2	4F93	17B613	B2		0.00000		16.06	915.42
4F93-17B613-B2	4F93	17B613	B2		0.00000		16.06	915.42
4F93-17K605-A1	4F93	17K605	A1		50.00000	Prototype Order		
4F93-18663-A1	4F93	18663	A1		140.00000	Prototype Order		
4F93-18663-A1	4F93	18663	A1		140.00000	Prototype Order		
4F93-18663-A1	4F93	18663	A1		140.00000	Prototype Order		
4F93-18663-A2	4F93	18663	A2		0.00000	No production PO issued	140.00	7,980.00
4F93-18663-A2	4F93	18663	A2		0.00000	No production PO issued	140.00	7,980.00
4F93-18696-A1	4F93	18696	A1		1.00000	Prototype Order	140.00	7,980.00
4F93-18696-A2	4F93	18696	A2		0.00000	No production PO issued	140.00	7,980.00
4F93-18C464-A1	4F93	18C464	A1		100.00000	Prototype Order		
4F93-19959-A1X	4F93	19959	A1X		1.00000	Prototype Order		0.00
4F93-19959-A1X	4F93	19959	A1X		1.00000	Prototype Order		0.00
4F93-19959-A1X	4F93	19959	A1X		1.00000	Prototype Order		0.00
4F93-19A834-A1	4F93	19A834	A1		280.00000	Prototype Order		0.00
4F93-19C958-A1X	4F93	19C958	A1X		0.00000	No production PO issued		0.00
4F93-19D629-A1	4F93	19D629	A1		SRCNG ONLY			0.00
4F93-19D850-A1	4F93	19D850	A1		280.00000	Prototype Order		
4F93-19D850-A1	4F93	19D850	A1		280.00000	Prototype Order		

28% of parts had incorrect low price or no price!

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Analysis Phase

- Map current and ideal process flow, inputs and outputs generated by the team.
- Developed roles and responsibilities matrix.
- Developed a list of principles, recommended actions, and revised Visteon Prototype Procedure.
- Identify all areas of revenue loss and narrow scope of project to highest value add areas.

Roles and Responsibilities Matrix

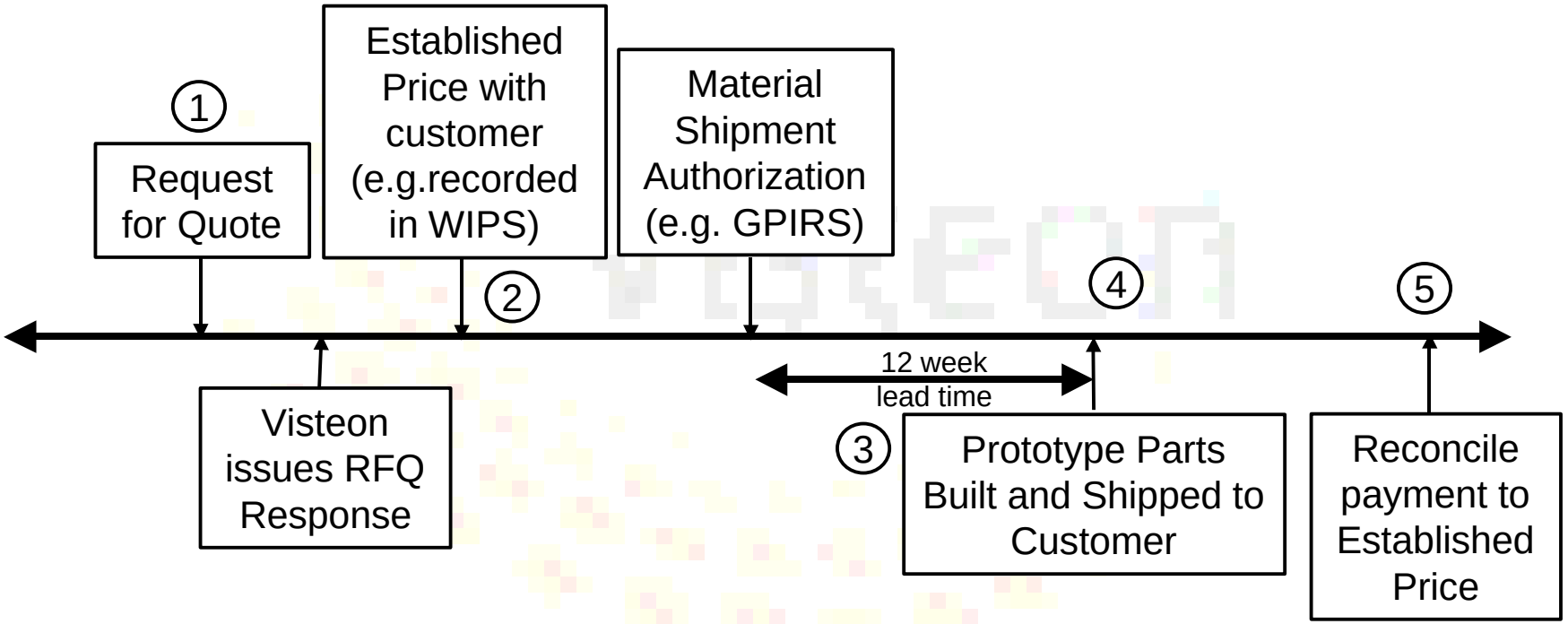
steon-wide Prototype Process

les and Responsibility Matrix

R=Responsible (the "doer") A=Accountable ("the buck stops here") C=Consulted (prior to the decision) I=Informed (after the decision)

Task	Prod Dev. Eng.	Purchasing Prototype Buyer	Program or Commodity Buyer	Program Manager	Accoun t Mgr	Financ e	Cust omer	BOM MGT	Plant MP&L	Mfg	Virtu al Supp lier	Prototype Builder
For Ford OEM: Receive Ford GPIRS order (note that this authorizes the prototype builder to start building prototypes)	I							R	A/R			I
For Ford OEM: Place GPIRS order in prototype database								R	A/R			
For Ford OEM: Inputs GPIRS DDL Delivery Promise Date								R	A/R			
Obtains RFQ from customer				I	A/R	I	R					
Develops timing plan for prototypes	C	C		A/R			I	C				C
Insures purchase orders are obtained within proper timing				A/R								
Informs Account Manager when any request for pricing or material is received	R			R	A/R							R
Determines pricing for prototypes	C			A	C	R						C
Captures commercial issues, terms and conditions of the RFQ	C			C	A/R	C	C					C
Responds to customer with RFQ response					A/R	I						
Obtains Purchase Order from Customer (Account managers need to be on GPIRS distribution)	I			I	A/R	I	R	I				I
For Non-Ford OEM: Receives Request for Quote and Purchase Order with required information for Visteon: RFQ -Ship to address -Bill to address -Quanitity of prototypes required -Part number ordered -Engineering release level/date PO: -Piece pri					A/R		R					
Capture and record the established price with the customer for prototypes					A/R							

Areas of Lost Prototype Revenue



1. RFQ response is not issued, does not include prototype tooling, or is otherwise incomplete / late.
2. Customer inputs improper established price in order to issue Material Shipment Authorization (e.g. production price or $1.00).
3. Sufficient lead time not given so premium labor and shipment costs are incurred and never captured.
4. Prototypes sent to a location that does not formally receive parts so no record of receipt and thus no payment.
5. Data is not collected to facilitate reconciling of payment to established price throughout Visteon.

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The team estimates:

- Approximately 30% of Chassis parts are priced lower when payments are received by the Ford customer than the established price.

- For 3rd/4th quarter 2000, 94% of Sheldon Road Air Handling prototype parts were priced lower when payments were received from the Ford customer, or no payment was received.

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Improve Phase

- **Problem:** Basically, the customer orders protoype parts from the plants, but the commercial negotiation on the prototype price has not been completed. Account managers were not even aware that the parts had been ordered!
- **Solution:** Capture all GPIRS orders from the customer centrally and distribute the information to all functional areas (CBU, Sales, Proto Shops, Finance) to do their job properly. Focusing on area 2!
- **Pilot:** This was done on the D219 program for one major vehicle build in the measurement phase.

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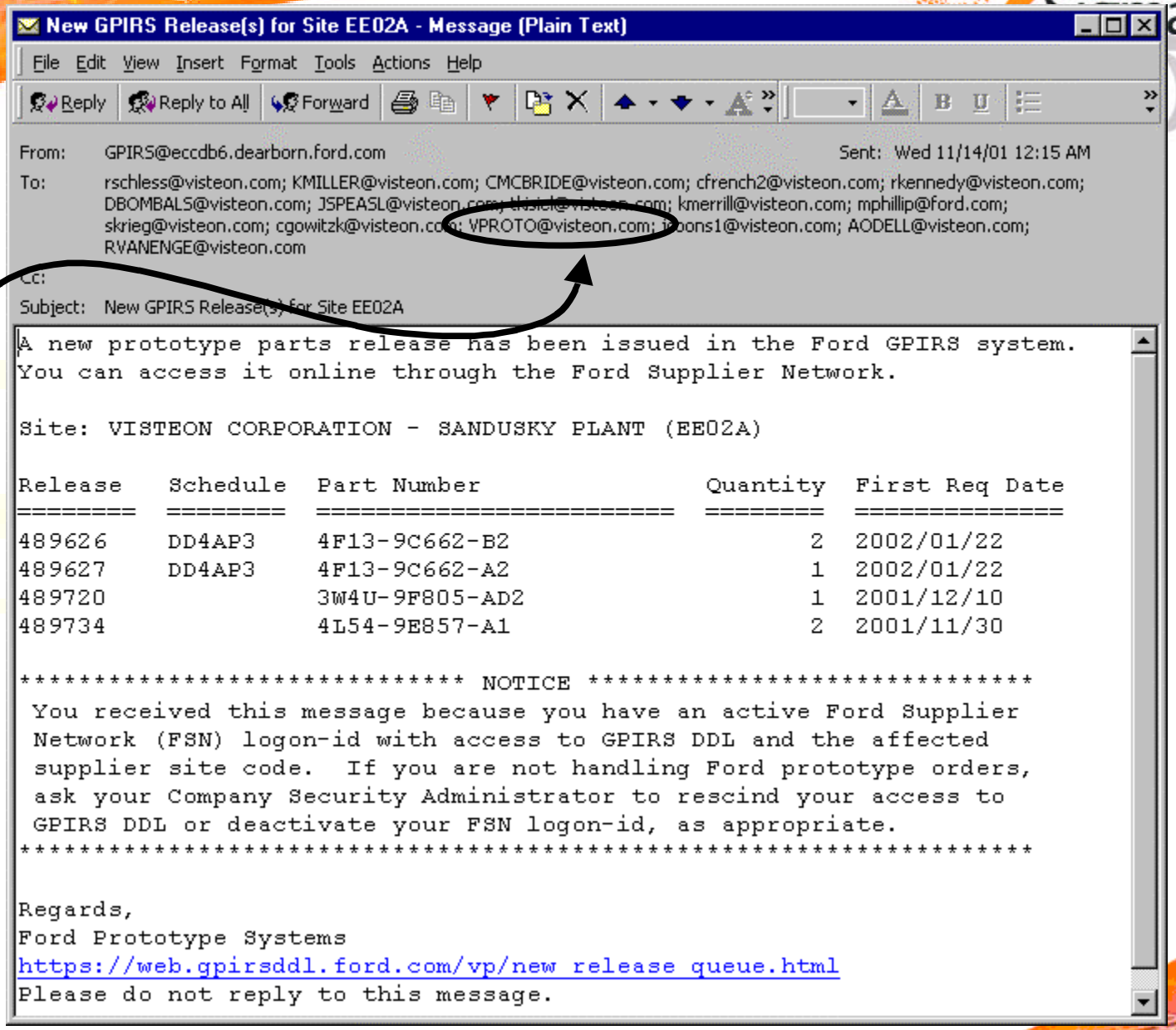
All GPIRS Orders are currently being emailed to VPROTO.



New GPIRS Release(s) for Site EE02A - Message (Plain Text)

File Edit View Insert Format Tools Actions Help

Reply | Reply to All | Forward

From: GPIRS@eccdb6.dearborn.ford.com Sent: Wed 11/14/01 12:15 AM

To: rschless@visteon.com; KMILLER@visteon.com; CMCBRIDE@visteon.com; cfrench2@visteon.com; rkennedy@visteon.com; DBOMBALS@visteon.com; JSPEASL@visteon.com; kmerrill@visteon.com; mphillip@ford.com; skrieg@visteon.com; cgowitzk@visteon.com; VPROTO@visteon.com; AODELL@visteon.com; RVANENGE@visteon.com

Cc:

Subject: New GPIRS Release(s) for Site EE02A

A new prototype parts release has been issued in the Ford GPIRS system.
You can access it online through the Ford Supplier Network.

Site: VISTEON CORPORATION - SANDUSKY PLANT (EE02A)

Release	Schedule	Part Number	Quantity	First Req Date
489626	DD4AP3	4F13-9C662-B2	2	2002/01/22
489627	DD4AP3	4F13-9C662-A2	1	2002/01/22
489720		3W4U-9F805-AD2	1	2001/12/10
489734		4L54-9E857-A1	2	2001/11/30

********** NOTICE **********
You received this message because you have an active Ford Supplier Network (FSN) logon-id with access to GPIRS DDL and the affected supplier site code. If you are not handling Ford prototype orders, ask your Company Security Administrator to rescind your access to GPIRS DDL or deactivate your FSN logon-id, as appropriate.
****

Regards,
Ford Prototype Systems
https://web.gpirsddl.ford.com/vp/new_release_queue.html
Please do not reply to this message.

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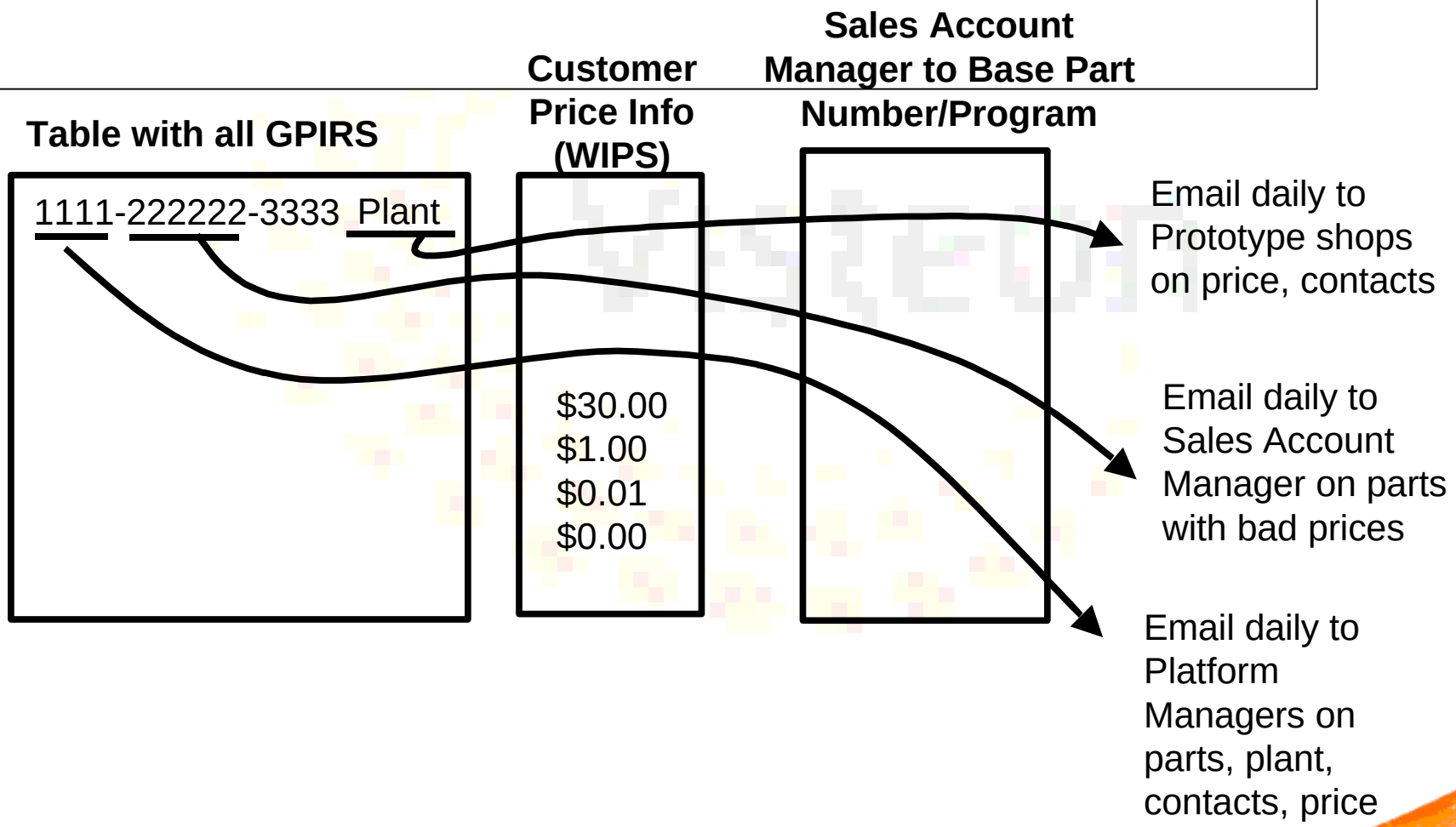
Prototype Process Proposal



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Email to Platform Managers

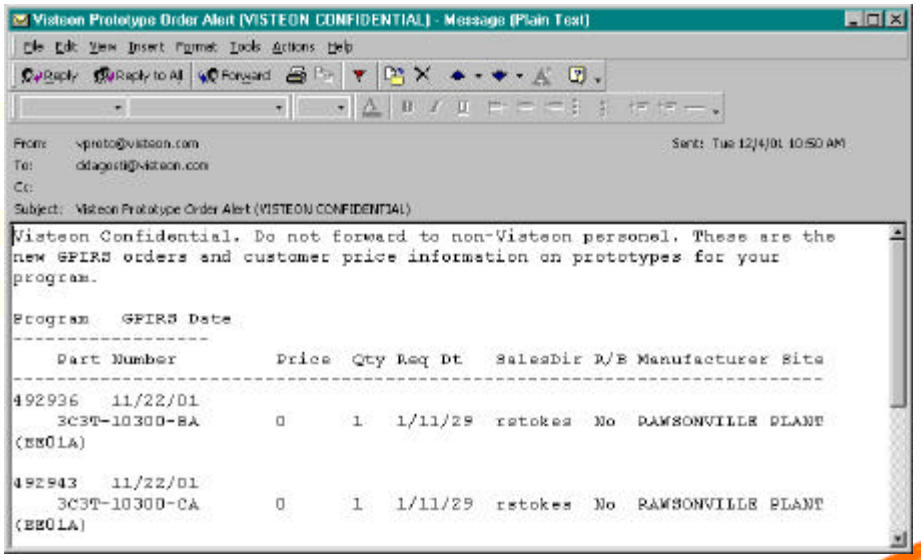
To: Platform Manager

From: vproto

Subject: Visteon Prototype Order Alert (VISTEON CONFIDENTIAL)

Visteon Confidential. Do not forward to non-Visteon personnel. These are the new GPIRS orders and customer price information on prototypes for your program.

- Program
- GPIRS Order Date (sent date)
- Part Number
- Customer Database Price
- Quantity
- Required Date
- Sales Account Manager
- Manufacturing Site
- Red Border (yes/n)



Email to Sales Account Managers

To: Sales Account Manager (currently Director)

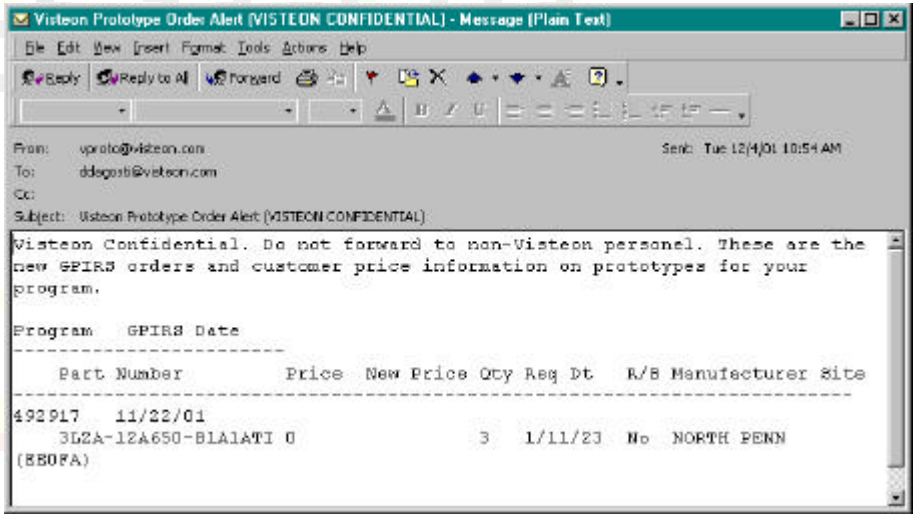
From: vproto

Subject: Visteon Prototype Order Alert (VISTEON CONFIDENTIAL)

Visteon Confidential. Do not forward to non-Visteon personnel. These are the new GPIRS orders and customer price information on prototypes for your program.

Each row has this info

- Program
- GPIRS Order Date (sent date)
- Part Number
- Customer Database Price
- Quantity
- Required Date
- Manufacturing Site
- Red Border (yes/no – low priority)
- Corrected Price (blank)



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Email to Prototype Manufacturer Site

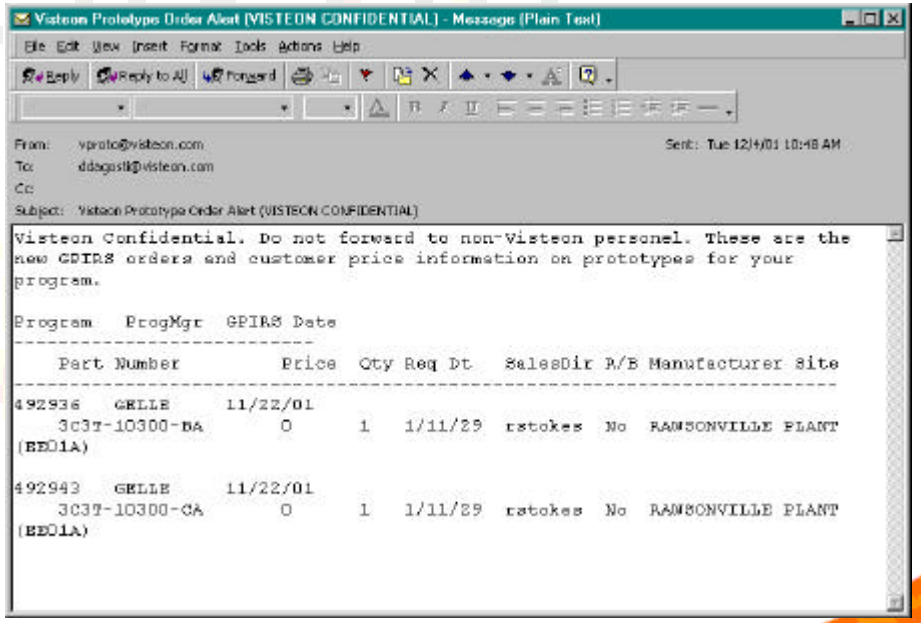
To: Prototype Manufacturing Site

From: vproto

Subject: Visteon Prototype Order Alert (VISTEON CONFIDENTIAL)

Visteon Confidential. Do not forward to non-Visteon personnel. These are the new GPIRS orders and customer price information on prototypes for your program.

- Program
- GPIRS Order Date (sent date)
- Part Number
- Customer Database Price
- Quantity
- Required Date
- Manufacturing Site
- Sales Account Manager
- Program Manager
- Red Border (yes/no)



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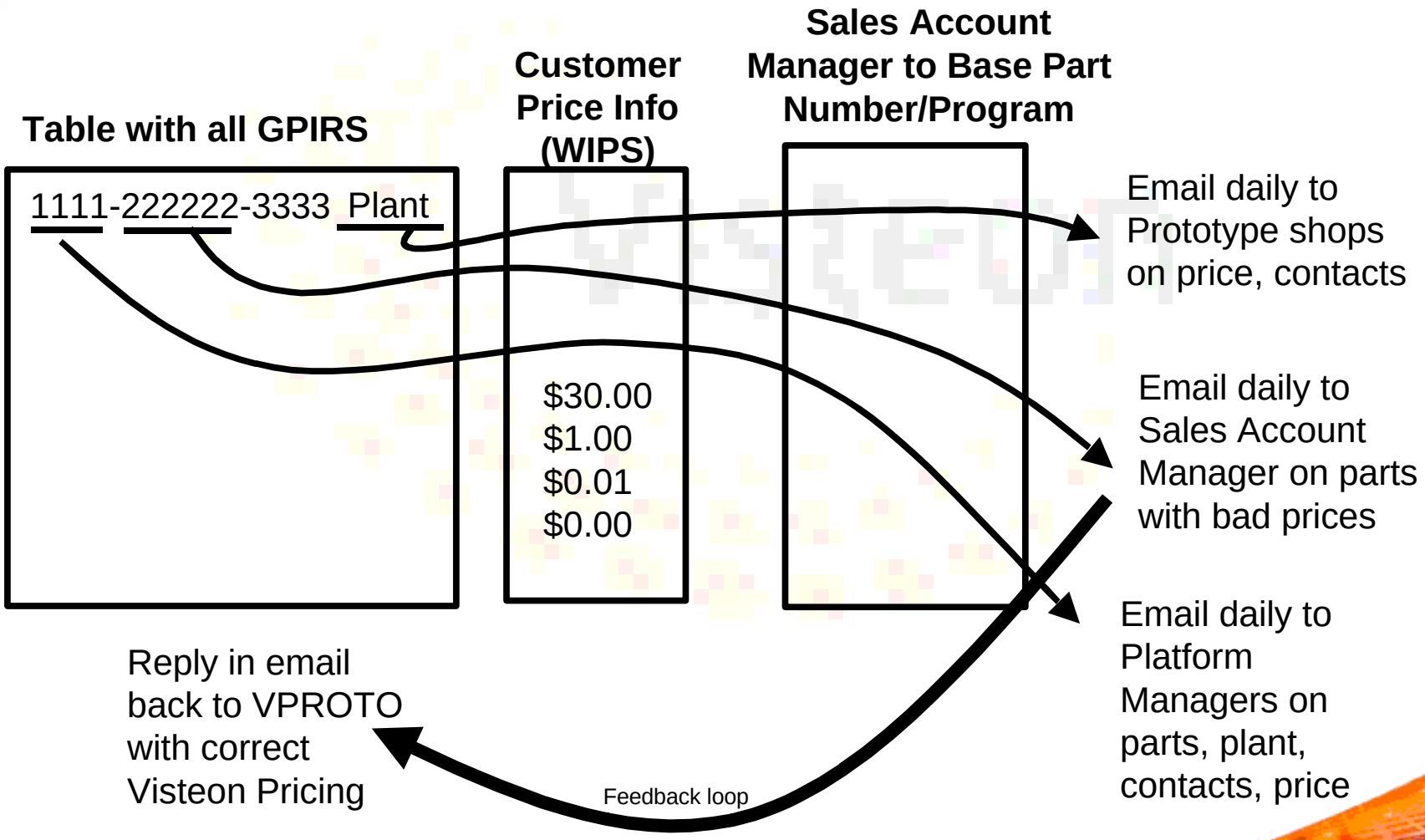
Prototype Process Proposal



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Note: PD Controller (Kevin Biddle) gets a report from database monthly.

Control Phase

- Emails are going out weekly as of January 2002.
- Customer pricing information is not contained in email at this time, but may in the future.
- People have the right information to do get the correct price. They know which Sales Account Manager is responsible for what parts and the Account Managers know what parts are being ordered by the customer.

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Sales Account Managers are already using this information to confirm prices with Ford Buyers prior to the plant shipping the prototype parts!

From: Nahass, Matt (M.M.) [mailto:mnahass@visteon.com]
Sent: Tuesday, January 29, 2002 2:11 PM
To: Joe Clough (J.E.) (E-mail)
Cc: Nahass, Matt (M.M.); Koskinen, Susan (S.J.)
Subject: GPIRS Release - Price Confirmations

Joe,

The parts below are slated to ship per GPIRS releases received at Indy. I've listed the ATP & price I quoted. Can you confirm that you are carrying the appropriate price? We have not received the associated P.O.s.

5C34-3A674-DSX	$480		ATP TK4256	Oct 1, 2001
YC3C-3504-BA	$1000		?? what do you show	
YC3C-3504-BAEXP	$2,500		ATP TM3708	Oct 1, 2001
3C34-3C529-AC	$1,109,25	ATP TN4315	Nov 28, 2001	
3C34-3C529-BC	$1,015.80	ATP TE8212	Nov 28, 2001	

Please advise.

Thanks,

Matt M.Z. Nahass
Account Manager
Visteon Chassis Systems - Steering
Ph: 313-755-0975
Fx: 313-755-4945
Cell: 313-407-7930
Email: mnahass@visteon.com

Example. Actual Email.

Responsibility for the process and database has been transferred to Doug Warren, Dave D'Agostino, and Scott Rogers.

Other Best Practices

- Six Sigma Project led by Steve Olevnik in Axle product area capturing prototype tooling from Ford.
- Sales database reconciling Ford GPIRs order to WIPS established prices for Chassis products led by Sarah Kochersperger.
- Ford GPIRS and outside sales order tracking system in Chassis/Climate Control led by Steve Dasbach (known as Swadabase)

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Visteon-wide Prototype Procedure
VP 06-022

See Word Document

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General Principles

- Whenever possible the production supplier should be the prototype supplier.
- Commodity buyers should negotiate prototype terms up front.
- Engineering should never quotes prototypes, just recommend sourcing.
- If a customer changes the prototype requirements mid build (different part number, etc.) then the RFQ process should start all over.
- If any part of a production end item is modified for any reason, it cannot be shipped as a production part.
- Component suppliers must notify Visteon if they cannot ship parts that meet the Material Requirement Date.
- Assume prototypes are sent collect unless Sales negotiates otherwise.
- Ideal: Do not ship prototypes without a Purchase Order (not just Material Release Authorization (e.g. GPIRS order). NOTE: This requires more effort in the sales activity!
- Organization that delivers the prototypes must insure that the customer properly receives them so payment will be made.

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Next Steps & Potential Projects

- All GPIRS orders should go to Sales Managers or analysts instead of directly to plants. This will insure that Sales determines price prior to authorizing plants to build the products. Care must be taken to insure an immediate response or prototype deliveries will be late!
- Pricing matrix to speed RFQ response and account managers to understand reasonable prices.
- Prototype sourcing strategy should be completed and negotiated up front with suppliers.
- Enterprise system to track prototype orders (with informaiton including PO, price, etc.) so all can see status of information real-time and prototype shops would examine website to insure correct price prior to shipment.
- Develop procedure and organization to support “System Buy” prototypes and production in current BOM systems.
- Roles and responsibilities in prototype process must continue to be driven through education and procedure deployment.

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