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# Workflow Management Coalition

## Interface 1: Process Definition Interchange

### Q&A and Examples

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**Remark:**

*This document is intended to accompany the IF1 document. It is an intermediate working version, i.e. it includes the "Representative Business Example" chapters, but the "Questions and Answers" part is still under work.*

*This working version is not fully checked. However, to provide help in understanding the WPDL of the standard better the Working Group 1 decided to make this public in the version as-is.*

*Comments and Questions relating to this document should be submitted to the Working Group One mailing list or [kdkreplin@empirica.de](mailto:kdkreplin@empirica.de), Questions relating to the WPDL itself to [robert@metasoft.com](mailto:robert@metasoft.com).*

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## **1. Introduction**

This document complements the WfMC Process Definition Interchange documents: „Interface 1: Process Definition Interchange. Process Model. Document Number WfMC TC-1016-P" and „Interface 1: Process Definition Interchange. Organisational Model. Document Number WfMC TC-1016-O".

### **1.1. Purpose**

The purpose of the WfMC Process Definition Interchange documents is to describe a common interface for the exchange of workflow process definitions. This interface is based on a standardised language - the Workflow Process Definition Language, "WPDL" - which can be supported by vendors of workflow management products to allow the exchange and documentation of workflow process definitions.

This document illustrates the WPDL by providing Questions and Answers and Examples. Its distributed is intended only for explanation purposes, i.e. it is not a standard.

### **1.2. Audience**

The intended audience of this document includes all participants in the workflow industry. Comments should be addressed to the Workflow Management Coalition.

### **1.3. Overview**

This document contains three parts:

- a section with questions and answers explaining different features of the WPDL definition and providing small examples,
- a Representative Business Example and its WPDL formulation,
- further examples for features of the WPDL not contained in the Representative Business Example.

### **1.4. Conformance**

This document is not a specification to which conformance can be claimed, it is for illustrative purposes only.

A vendor can not claim conformance to any WfMC specification unless specifically authorised to make that claim by the WfMC. WfMC grants this permission only upon the verification of the particular vendor's implementation of the published specification, according to applicable test procedures defined by WfMC.

## **1.5. References**

The following documents are associated with this document and should be used as a reference.

- WfMC Glossary
- WfMC Reference Model
- WfMC WPD - Process Model

## 2. Process Diagrams: Elements

In this document the following notation for the graphical representation of Process diagrams is used:

The notation consists of four types of elements: Rectangles for Activities, Lines for Transitions that connect Activities, Triangles for Process Start and End and Dots on Lines for Conditions of Transitions. There are two equivalent sets of symbols, one for a horizontal notation (direction left to right) and one for a vertical notation (top to bottom). In this paragraph the former is described; the latter has a corresponding layout.

The Activities are built up from a "body" and an "envelope". The "body" is characterised by a letter inside the Activity box. The body kind is either a ROUTE, characterised by 'R', or has an Implementation Application (N), NO (N), or subflow ('W'). A subflow has a box divided into two parts, permitting specificatio of the Workflow Identifier for the subflow.

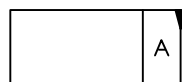
The "envelope" of an Activity characterises the Transition restrictions (SPLIT-JOIN and Inline Block). AND restrictions are characterised by a semi-circle, XOR restrictions by default (no additional symbol). A JOIN is left of the Activity box, a SPLIT right. SPLITs have additional notations, the XOR SPLIT has a triangle to symbolise the sequence of evaluation, the ANDOR SPLIT has in addition to the semi-circlea DOT besides it to denote the OTHERWISE. To minimise the required number of symbols the XOR SPLIT sequence triangle is also present in case it is only a simple Transition without SPLIT.

Examples:

1. ROUTE



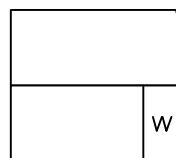
2. IMPLEMENTATION ACTIVITY,



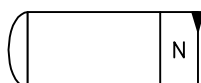
- NO,



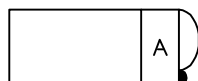
- WORKFLOW



3. AND JOIN and XOR SPLIT



4. XOR JOIN and AND SPLIT



5. Start of Process symbol



- End of Process symbol



Figure 2-1: Elements of SPLIT-JOIN Diagrams

### **3. Questions & Answers <under revision>**



## 4. Representative Business Example

### Preface

This section contains the methodology and results which will be used to verify that the standard being proposed for Interface 1 is in fact possible to implement.

The objective is to define a fictitious business case example containing most of the standard workflow entities and attributes (as defined in the Meta Model) for modelling a workflow process.

The Informal Description is provided in a form that is often employed by a user organisation. This especially means it does not fully use the terminology that normally is associated with a process-oriented description (e.g. Department names are used when a business process or function is referenced).

### 4.1. Informal Scenario Description

The FBN Sports Equipment Company, located in Luxembourg, manufactures a complete range of soccer, baseball, tennis and general athletic equipment. They only sell to European resellers, major sports outlets and North American Distributors. All sales are made by way of Purchase Orders.

The company has grown from a small organisation to the point where response to their customers is getting longer and longer. They have decided to employ a workflow management system in order to improve their business processes. In the existing environment all mail comes into the mail room and is then distributed as shown in Figure 4-1. Since the company receives 80% of its sales\_order activity by mail and FAX, it has been determined to have an image scanner in the mail room as one of the methods to enhance the workflow system.

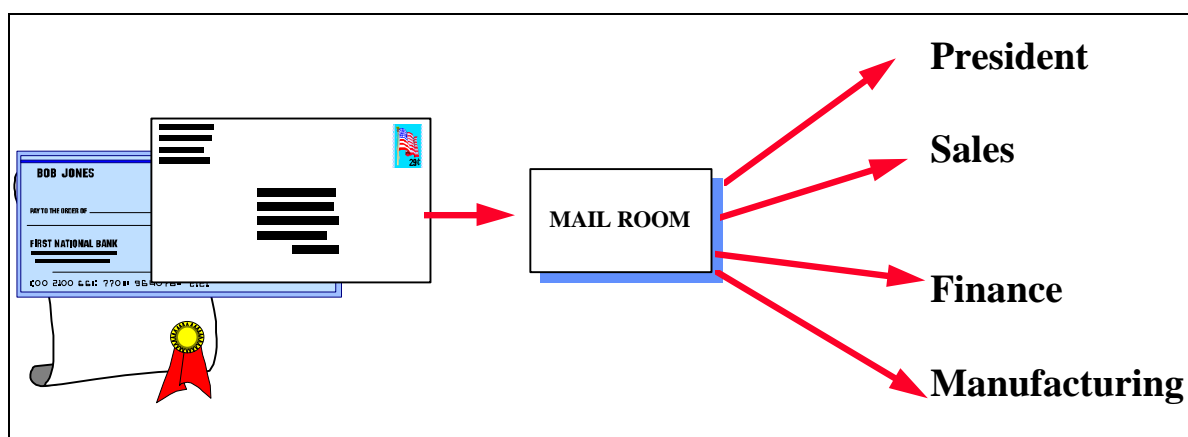


Figure 4-1: FBN Sports Equipment

### 4.1.1. New Business Process Rules

For this business case, we would like to build a representative model for streamlining the sales order entry and shipping process. The business case provides for workflow concepts which "flow" the work according to:

- parallel paths
- AND / OR routing conditions (SPLIT),
- AND / OR rendezvous linkages (JOIN)

Activities can have states such as:

- in process
- suspended
- resumeable
- completed

And, of course activities have roles or performers associated with them.

### 4.1.2. In The Mail Room:

The new business process involves giving a mandate to the mail room clerk to review all mail which will be scanned into the system and then to make decisions as to which routing process the mail documents should take. Only the mail to the President or marked "personal" will be sent directly and un-opened to the person.

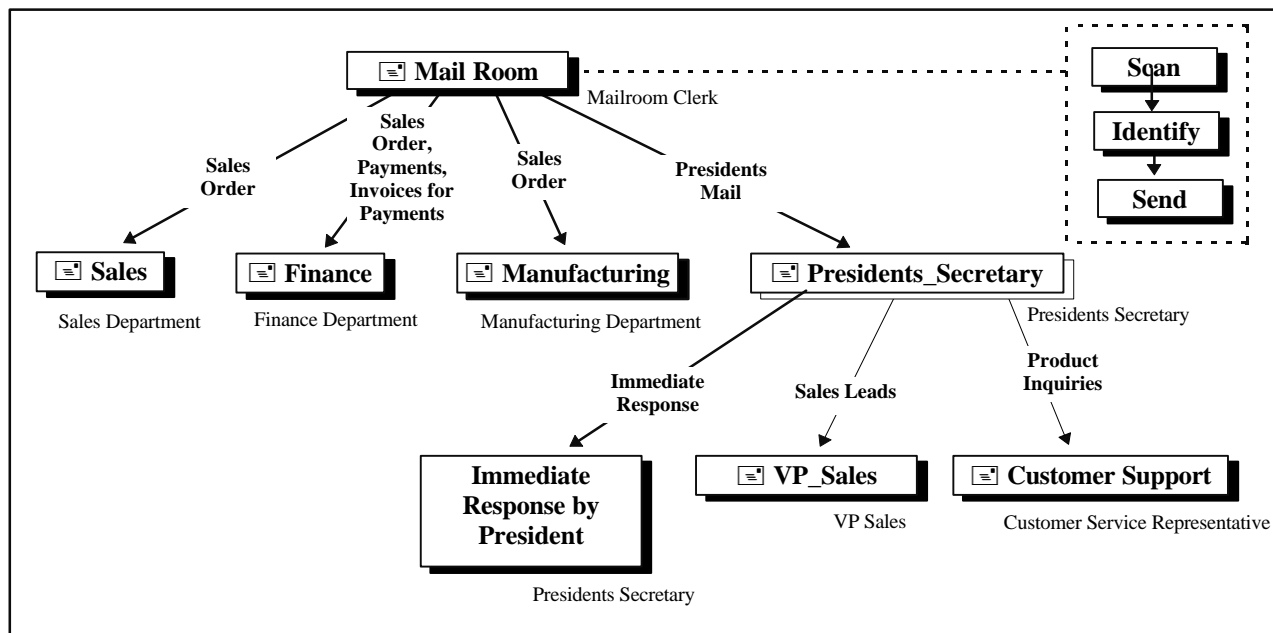


Figure 4-2: In the Mail Room

If the documents are a sales\_order:

## Interface 1: The Process Definition Interchange - Q&A and Examples

```
Then all documents go to Sales, Finance and Manufacturing in parallel;
If the documents are invoices for payment:
Then the documents go to Finance;
If the documents are addressed to the President:
Then the documents go directly to the Secretary;
    The Secretary sorts mail for immediate response by President
    Sales leads go to Vice President, Sales
    Product inquiries go to Customer Support
If the documents are payments (or payment notices):
Then the documents go to Finance;
```

### 4.1.3. At The Finance Department:

```
If the documents are for a sales_order:
Then check if sales_order is from an existing customer:
    If an existing customer
        Then Check Account Limits
            If Account Limits OK
                Then Release to Manufacturing;
            Else refer to next manager level;
                If sales_order approved:
                    Then Release to Manufacturing;
                Else decline sales_order;
                    Route to Sales Representative
                    Route to Manufacturing;
            End;
    If not an existing customer;
        Then request Credit_Check:
            If Credit_Check OK
                Then Release to Manufacturing
            Else decline sales_order
                Route to Sales Representative
                Route to Manufacturing;
        End;
```

The rules for Check Account Limit are as follows:

- . If the customer has a good payment record for sales\_orders which are within 20% of this sales\_order then the sales\_order can be accepted according to the limits of the signing authorities within the Finance Department.
- . If the sales\_order is greater by more than 20% of the normal sales\_order value, then a Credit Check can be requested or approval from the President. If the President approves, no Credit Check is performed. Or, the President can suspend approval until results from the Credit Check are returned to her for review.

Once a shipment has been completely shipped the Finance Department will issue an invoice to the customer. The FBN policy is to not invoice until the complete shipment has been made.

#### 4.1.4. At The Manufacturing Department:

In our business example, we have elected to send all sales\_order documents directly to Manufacturing - even before the sales\_orders have been "released". Our rationale here is to allow Manufacturing to determine:

- If there is sufficient stock in the inventory to ship immediately;
- If there is "work-in-process" which can meet the delivery schedule;
- What new materials will be needed to build out this order;
- What the partial shipment plan could be.

The new business process has been defined as follows;

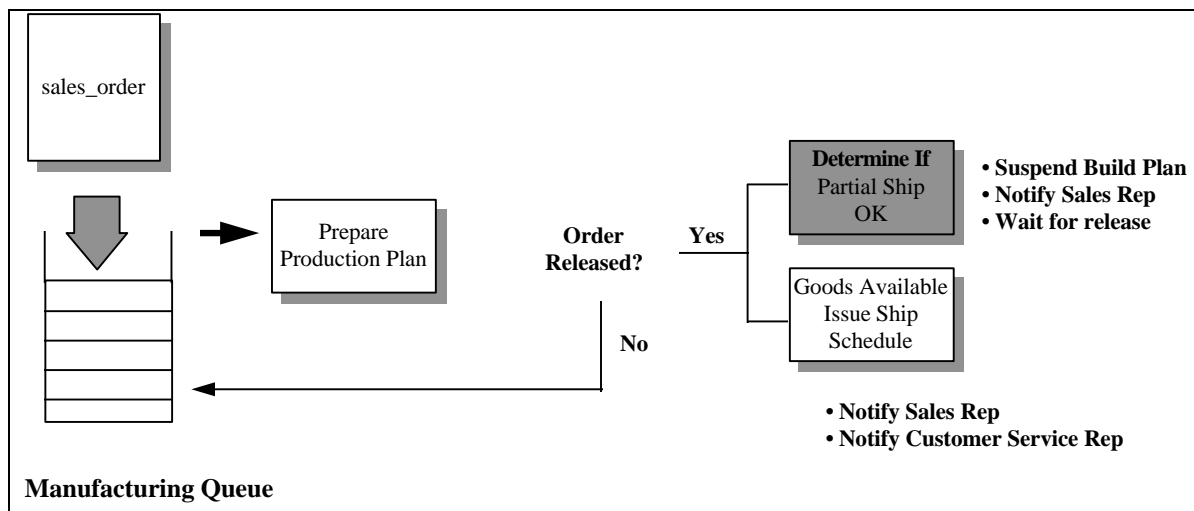


Figure 4-3: Schematic Definition of New Manufacturing Process

The new business process rules within Manufacturing will be as follows:

Determine the availability of stock or plan new production cycle.

If sales\_order is released and can be shipped:

- Then 1. prepare product order;
- 2. issue shipping instructions and prepare forms
- 3. notify sales, finance and customer service on ship date
- 4. adjust inventory levels.

If sales\_order is not released, place sales\_order into suspend mode.

If sales\_order is released but lack of product:

- Then notify sales representative of partial ship plan.
- Freeze parts and stock for 24 hours
- Suspend order for 24 hours

When the sales\_order is released and the partial shipment program has been approved by the customer, then Manufacturing will:

- Build and ship to the partial program;
- Notify Finance on shipping
- Expedite missing parts from suppliers
- Suspend the sales\_order until the parts arrive;
- Complete the sales\_order;
- Issue notification to Finance, Sales and Customer Service

#### 4.1.5. At The Sales Department:

In order to streamline the business and improve customer service, it has been decided to bring in a new position - Customer Service Representative. The objective of this new role will be to stay in touch with the customer:

- . during partial shipment periods, and
- . after the goods have been shipped to verify acceptance in good condition.

#### 4.1.6. Company Organisation

FBN is a small company with a President and three (3) departments; Sales, Finance and Manufacturing. The organisation is presented in Tables 5-3 and 5-4. There should be sufficient detail to determine the roles for each activity, a deputy (when required) and the specific name of an actor if needed.

In the definition of the business case, constraints have been defined which may be used as Workflow Process Relevant Data or Transition Conditions.

Position	Name	Roles
President	Adelle Dastler	1. Approves Purchase Orders over \$100,000 2. Release Sales Contracts over \$250,000
Sales Secretary	France Baroque	1. Schedules President's meetings 2. Arranges Travel 3. Deputy For Marketing Manager on Advertising 4. Prepares & Sends All Sales Quotations
Vice-President, Sales	Dick Meadows	1. Approves sales commission bonuses 2. Release Sales Contracts Less Than \$250,000 3. Approves travel expenses less than \$10,000 4. Can Approve Manufacturing Build Changes On Orders Greater Than \$250,000
Channel Manager	Mark Smith	1. Handles Advertising 2. Handles all USA Distributor Sales 3. Release All Distributor Sales Under \$250,000
Sales Manager	Jake Goodfellow	1. Deputy for Vice-President, Sales 2. Release Sales Contracts Less Than \$100,000 3. Approves travel expenses less than \$5,000 4. Can Approve Manufacturing Build Changes On Orders Less Than \$100,000 5. Handles All Other European Sales
Sales Representative	Patrick LaFleur	1. Deputy for Sales Manager

Position	Name	Roles
		<ul style="list-style-type: none"> <li>2. Release Sales Contracts Less Than \$50,000</li> <li>3. Can Approve Manufacturing Build Changes On Orders Less Than \$50,000</li> <li>4. Handles All Sales For UK &amp; France</li> </ul>
Sales Representative	Marlene Braun	<ul style="list-style-type: none"> <li>1. Release Sales Contracts Less Than \$50,000</li> <li>2. Can Approve Manufacturing Build Changes On Orders Less Than \$50,000</li> <li>3. Handles All Sales For Germany</li> </ul>
Customer Service Representative	Joy Winter	<ul style="list-style-type: none"> <li>1. Verifies Product Shipment Arrived &amp; OK</li> <li>2. Handles Direct Customer Inquiries</li> </ul>

*Table 4-1: FBN Organisation and Roles (part 1)*

Position	Name	Roles
Vice President, Manufacturing	John Hammer	<ul style="list-style-type: none"> <li>1. Manages Product Cost</li> <li>2. Expedites parts from suppliers</li> <li>3. Plans Production Schedule</li> </ul>
Manufacturing Secretary	Heidi Werner	<ul style="list-style-type: none"> <li>1. Prepares shipping &amp; customs forms</li> <li>2. Schedules transport</li> </ul>
Production Manager	Ralph Cramden	<ul style="list-style-type: none"> <li>1. Plans Production Schedule</li> <li>2. Expedites parts from suppliers</li> <li>3. Deputy for Vice President, Manufacturing</li> </ul>
Production Operator	Norman Bates	<ul style="list-style-type: none"> <li>1. Builds product line-A</li> <li>2. Packages all product shipments</li> <li>3. Prepares shipping &amp; customs forms</li> </ul>
Production Operator	Dave Bennie	<ul style="list-style-type: none"> <li>1. Builds product line-B</li> <li>2. Schedules transport</li> <li>3. Receives all returned goods</li> <li>4. Receives &amp; Stores all manufacturing materials</li> </ul>
Shipper	Theo Christensen	<ul style="list-style-type: none"> <li>1. Packages all product shipments</li> <li>2. Prepares shipping &amp; customs forms</li> <li>3. Schedules transport</li> <li>4. Receives all returned goods</li> <li>5. Receives &amp; Stores all manufacturing materials</li> </ul>

<b>Position</b>	<b>Name</b>	<b>Roles</b>
Purchasing Agent	Bob Cratchett	<ol style="list-style-type: none"> <li>1. Purchases all parts</li> <li>2. Expedites parts from suppliers</li> <li>3. Can approve escalation payments up to \$10,000</li> </ol>
Vice President, Finance	Rose Chutney	<ol style="list-style-type: none"> <li>1. OK's Credit Approval on New Distributor Accounts</li> <li>2. Approves all sales_orders less than \$250,000 +20%</li> </ol>
Finance Secretary	Elizabeth Blume	<ol style="list-style-type: none"> <li>1. Handles all Human Resource functions</li> <li>2. Prepares Purchase Orders</li> <li>3. Prepares Invoices</li> </ol>
Accountant	Anna Kopinski	<ol style="list-style-type: none"> <li>1. Performs Credit Checks</li> <li>2. OK's Credit Approval on New Reseller Accounts</li> <li>3. Approves Invoices for Mailing</li> <li>4. Deputy for Vice President, Finance</li> <li>5. Approves all sales_orders less than \$100,000 +20%</li> </ol>
Finance Clerk	Jim Samson	<ol style="list-style-type: none"> <li>1. Approves all sales_orders less than \$50,000 +20%</li> <li>2. Deposits customer payments</li> <li>3. Handles customer interface</li> <li>4. Deputy for Accountant</li> </ol>
Mail Room Clerk	Tim White	<ol style="list-style-type: none"> <li>1. Opens and distributes all mail</li> <li>2. Operates company FAX distribution</li> </ol>

*Table 4-2: FBN Organisation and Roles (part2)*

## 4.2. Representative Business Example in WPDL Notation

The WPDL formulation of the Representative Business Example takes into account that the original formulation is rather department oriented. The corresponding process definition can be handled in two ways,

- departmental-oriented processes as the original formulation,
- more process oriented, taking department relationships only into account at the performer level.

The two approaches relate to different type of process interworking (see IF4 document).

In the sequel examples for both approaches are outlined to some extent. For simplicity both approaches are combined in one Workflow Model which incorporates the common Workflow Participant, Application and Workflow Relevant Data definitions.

### 4.2.1. Workflow Model

*Remark: Elements listed in "// <insert ...>" have to be replaced by the corresponding chapters.*

```

MODEL                                     'Representative_Business_Example'

WPDL_VERSION                             "7.0 Beta"
VENDOR                                    "Vendor:Product:Release"
CREATED                                   1998-07-15
NAME                                       "Representative Business Example"
DESCRIPTION                               "WPDL-Notation of Representative Business Example"
AUTHOR                                    "WG/1B"
STATUS                                    UNDER_REVISION
EXTENDED_ATTRIBUTE                       'VENDOR_A_SPECIFIC' STRING
                                           "This is vendor A's attribute!"

// Workflow Participant List

PARTICIPANT                               'France_Baroque'
  NAME                                     "France Baroque"
  DESCRIPTION                              "President's Secretary"
  TYPE                                      HUMAN
END_PARTICIPANT

PARTICIPANT                               'Tim_White'
  NAME                                     "Tim White"
  DESCRIPTION                              "Mail Room Clerk"
  TYPE                                      HUMAN
END_PARTICIPANT

PARTICIPANT                               'Presidents_Secretary'
  NAME                                     "Presidents Secretary"
  DESCRIPTION                              "handles presidents mail"
  TYPE                                      ROLE
END_PARTICIPANT

PARTICIPANT                               'Mail_Room_Clerk'
  NAME                                     "Mail-Room Clerk"
  DESCRIPTION                              "handles incoming mail"
  TYPE                                      ROLE
END_PARTICIPANT

PARTICIPANT                               'VP_Sales'

```



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```

NAME                "VP Sales"
DESCRIPTION          "Vice president; handles sales leads"
TYPE                ROLE
END_PARTICIPANT

PARTICIPANT      'Sales_Department'
NAME                "Sales Department"
DESCRIPTION          "is involved in handling sales orders"
TYPE                ORGANISATIONAL_UNIT
END_PARTICIPANT

PARTICIPANT      'Manufacturing_Department'
NAME                "Manufacturing Department"
DESCRIPTION          "is involved in handling sales orders"
TYPE                ORGANISATIONAL_UNIT
END_PARTICIPANT

PARTICIPANT      'Finance_Department'
NAME                "Finance Department"
DESCRIPTION          "is involved in handling sales orders,
                    invoices for payments and payments"
TYPE                ORGANISATIONAL_UNIT
END_PARTICIPANT

PARTICIPANT      'Customer_Support'
NAME                "Customer Support"
DESCRIPTION          "handles product inquiries"
TYPE                ORGANISATIONAL_UNIT
END_PARTICIPANT

```

// <Workflow Application List>

```

APPLICATION      'scan_document'
NAME                "scan document"
TOOLNAME            "winscan.exe"
OUT_PARAMETERS      'scanned_document'
END_APPLICATION

APPLICATION      'identify_document'
NAME                "identify document"
IN_PARAMETERS        'scanned_document'
OUT_PARAMETERS      'document_type'
END_APPLICATION

APPLICATION      'send_document'
NAME                "send document"
TOOLNAME            "abcmail.exe"
IN_PARAMETERS        'scanned_document'
OUT_PARAMETERS      'document_type'
END_APPLICATION

APPLICATION      'handle_document'
NAME                "handle document"
IN_PARAMETERS        'scanned_document'
OUT_PARAMETERS      'document_type'
END_APPLICATION

```

// <Workflow Process Relevant Data List>

```

DATA             'document_type'
TYPE                STRING

```

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```
NAME "document type"  
DEFAULT_VALUE "Sales Order"  
END_DATA
```

```
DATA 'scanned_document'  
TYPE REFERENCE  
NAME "scanned document"  
END_DATA
```

```
// <insert Workflow "In the Mail Room">  
  
// <insert Workflow "At the Finance Department">  
  
// <insert Workflow "At the Manufacturing Department">  
  
// <insert Workflow "At the Sales Department">  
  
// <insert Workflow "Sales Order Processing">  
  
END_MODEL
```

## 4.2.2. Departmental Processes

### 4.2.2.1. In the Mailroom

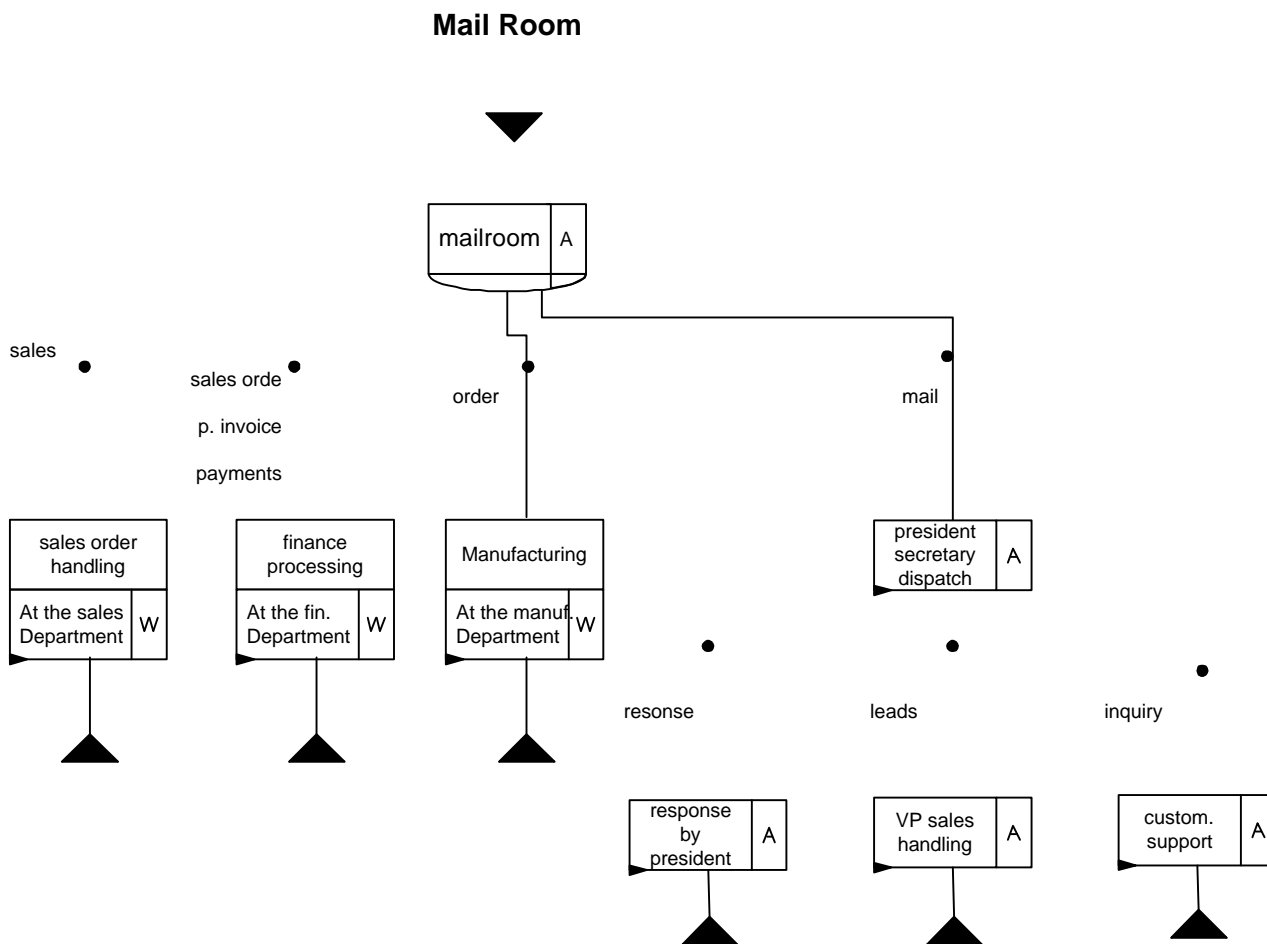


Figure 4-4: In the Mail Room

```

WORKFLOW                                'In_the_Mail_Room'
  CREATED                                1998-07-15
  NAME                                    "In the Mail Room"

  // <Activity List>

  ACTIVITY                                'MailRoom'
    NAME                                    "Mail Room"
    IMPLEMENTATION                          APPLICATIONS
      TOOL_LIST
        'scan_document '
        'identify_document '
        'send_document '
      DESCRIPTION "sequential execution"
      END_TOOL_LIST
    PERFORMER                              'Mail_Room_Clerk '
    SPLIT                                    AND
  END_ACTIVITY
    
```

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```
ACTIVITY          'Sales_Order_Handling'
NAME              "Sales Order Handling"
IMPLEMENTATION    WORKFLOW SYNCHR 'At_the_Sales_Department'
PERFORMER        'SALES_DEPARTMENT'
END_ACTIVITY

ACTIVITY          'Finance_Processing'
NAME              "Finance Processing"
IMPLEMENTATION    WORKFLOW SYNCHR 'At_the_Finance_Department'
PERFORMER        'Finance_Department'
END_ACTIVITY

ACTIVITY          'Manufacturing'
NAME              "Manufacturing"
IMPLEMENTATION    WORKFLOW SYNCHR 'At_the_SManufacturing_Department'
PERFORMER        'Manufacturing_Department'
END_ACTIVITY

ACTIVITY          'Presidents_Secretary_Dispatch'
NAME              "Presidents Secretary Dispatch"
IMPLEMENTATION    APPLICATIONS 'send_document'
PERFORMER        'Presidents_Secretary'
SPLIT            XOR 't_5' 't_6' 't_7'
END_ACTIVITY

ACTIVITY          'Immediate_Response_by_President'
NAME              "Immediate Response by President"
IMPLEMENTATION    APPLICATIONS 'handle_document'
PERFORMER        'Presidents_Secretary'
END_ACTIVITY

ACTIVITY          'VP_Sales_handling'
NAME              "VP Sales handling"
IMPLEMENTATION    APPLICATIONS 'handle_document'
PERFORMER        'VP_Sales'
END_ACTIVITY

ACTIVITY          'Customer_Support'
NAME              "Customer Support"
IMPLEMENTATION    APPLICATIONS 'handle_document'
PERFORMER        'Customer_Support'
END_ACTIVITY
```

// <Transition Information List>

```
TRANSITION        't_1'
FROM              'MailRoom'
TO                'Sales_Order_Handling'
CONDITION        'document_type'="Sales Order"
END_TRANSITION

TRANSITION        't_2'
FROM              'MailRoom'
TO                'Finance_payment_processing'
CONDITION        'document_type'="Sales Order" OR
                  'document_type'="invoices_for_payment" OR
                  'document_type'="payments"
END_TRANSITION

TRANSITION        't_3'
```

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```
FROM 'MailRoom'  
TO 'Manufacturing'  
CONDITION 'document_type'="Sales Order"  
END_TRANSITION  
  
TRANSITION 't_4'  
FROM 'MailRoom'  
TO 'Presidents_Secretary'  
CONDITION 'document_type'="Presidents Mail"  
END_TRANSITION  
  
TRANSITION 't_5'  
FROM 'Presidents_Secretary_Dispatch'  
TO 'Immediate_Response_by_President'  
CONDITION 'document_type'="Immediate Response"  
END_TRANSITION  
  
TRANSITION 't_6'  
FROM 'Presidents_Secretary_Dispatch'  
TO 'VP_Sales_handling'  
CONDITION 'document_type'="Sales leads"  
END_TRANSITION  
  
TRANSITION 't_7'  
FROM 'Presidents_Secretary_Dispatch'  
TO 'Customer_Support'  
CONDITION 'document_type'="Product_Inquiry"  
END_TRANSITION  
  
END_WORKFLOW
```

4.2.2.2. At the Finance Department

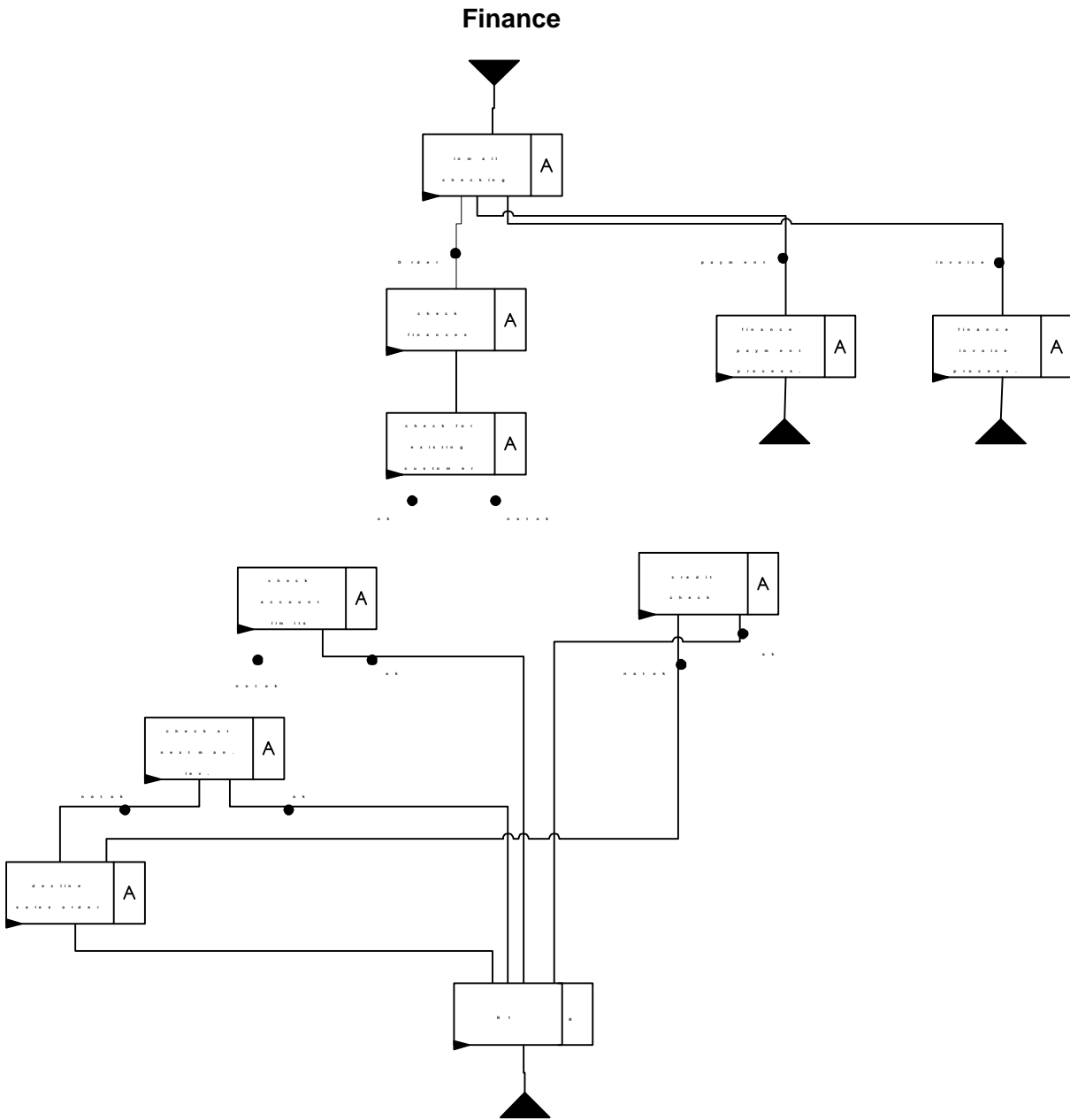


Figure 4-5: At the Finance Department

```

WORKFLOW                'At_the_Finance_Department'
  CREATED                1998-07-15
  NAME                   "At the Finance Department"

  // <Activity List>

  ACTIVITY              'Inmail_Checking'
    NAME                  "Inmail Checking"
    IMPLEMENTATION      NO
    PERFORMER           'Finance_Department'
    SPLIT                XOR 'T_1' 'T_2' 'T_3'
  END_ACTIVITY
    
```

## Interface 1: The Process Definition Interchange - Q&A and Examples



// <Transition Information List>

```
TRANSITION
  FROM          'Inmail_Checking'
                'Check_Finances'
                'document_type'="Sales Order"

END_TRANSITION

                't_3'

  FROM
  TO            'Finance_payment_processing'
                'document_type'="payments"

END_TRANSITION

                't_2'

  FROM
  TO            'l_Checking'
  CONDITION    'document_type'="invoices_for_payment"

TRANSITION
                't_4'
  TO            'Check_Finances'

END_TRANSITION

TRANSITION
  FROM          'Check
  TO            'Check_Account_Limit'
                'account_ok'=TRUE

END_TRANSITION

                't_6'

  FROM
  TO            'Credit_Check'

END_TRANSITION

TRANSITION
  FROM          'Check_Ac
  TO            'Check_at_next_magagement_level'

END_TRANSITION

TRANSITION
  FROM          'Check_Account_Limit'
                'R_1'
  CONDITION

END_TRANSITION

TRANSITION
  FROM          'Credit_Check'
                'Decline_Sales_Order'

END_TRANSITION

TRANSITION
  FROM          'Credit_Check'
                'R_1'
  CONDITION
```



## Interface 1: The Process Definition Interchange - Q&A and Examples

**END\_TRANSITION**

```
TRANSITION          't_11'  
  FROM              'Check_at_next_magagement_level'  
  TO                'Decline_Sales_Order'  
  OTHERWISE  
END_TRANSITION
```

```
TRANSITION          't_12'  
  FROM              'Check_at_next_magagement_level'  
  TO                'R_1'  
  CONDITION         'management_ok'=TRUE  
END_TRANSITION
```

```
TRANSITION          't_13'  
  FROM              'Decline_Sales_Order'  
  TO                'R_1'  
END_TRANSITION
```

// <Workflow Application List>

```
APPLICATION          'customer_check'  
  NAME              "customer check"  
  DESCRIPTION       "sets 'customer_ok'"  
END_APPLICATION
```

```
APPLICATION          'credit_check'  
  NAME              "credit check"  
  DESCRIPTION       "sets 'credit_ok'"  
END_APPLICATION
```

```
APPLICATION          'management_check'  
  NAME              "management check"  
  DESCRIPTION       "sets 'management_ok'"  
END_APPLICATION
```

```
APPLICATION          'account_check'  
  NAME              "account check"  
  DESCRIPTION       "sets 'account_ok'"  
END_APPLICATION
```

// <Workflow Process Relevant Data List>

```
DATA                'customer_ok'  
  NAME              "customer ok"  
  TYPE              BOOLEAN  
END_DATA
```

```
DATA                'credit_ok'  
  NAME              "credit ok"  
  TYPE              BOOLEAN  
END_DATA
```

```
DATA                'account_ok'  
  NAME              "account ok"  
  TYPE              BOOLEAN  
END_DATA
```

```
DATA                'management_ok'
```

Interface 1: The Process Definition Interchange - Q&A and Examples

NAME  
TYPE                                  BOOLEAN

**END\_WORKFLOW**

*At the Manufacturing Department*

description details are left as an exercise to the reader.

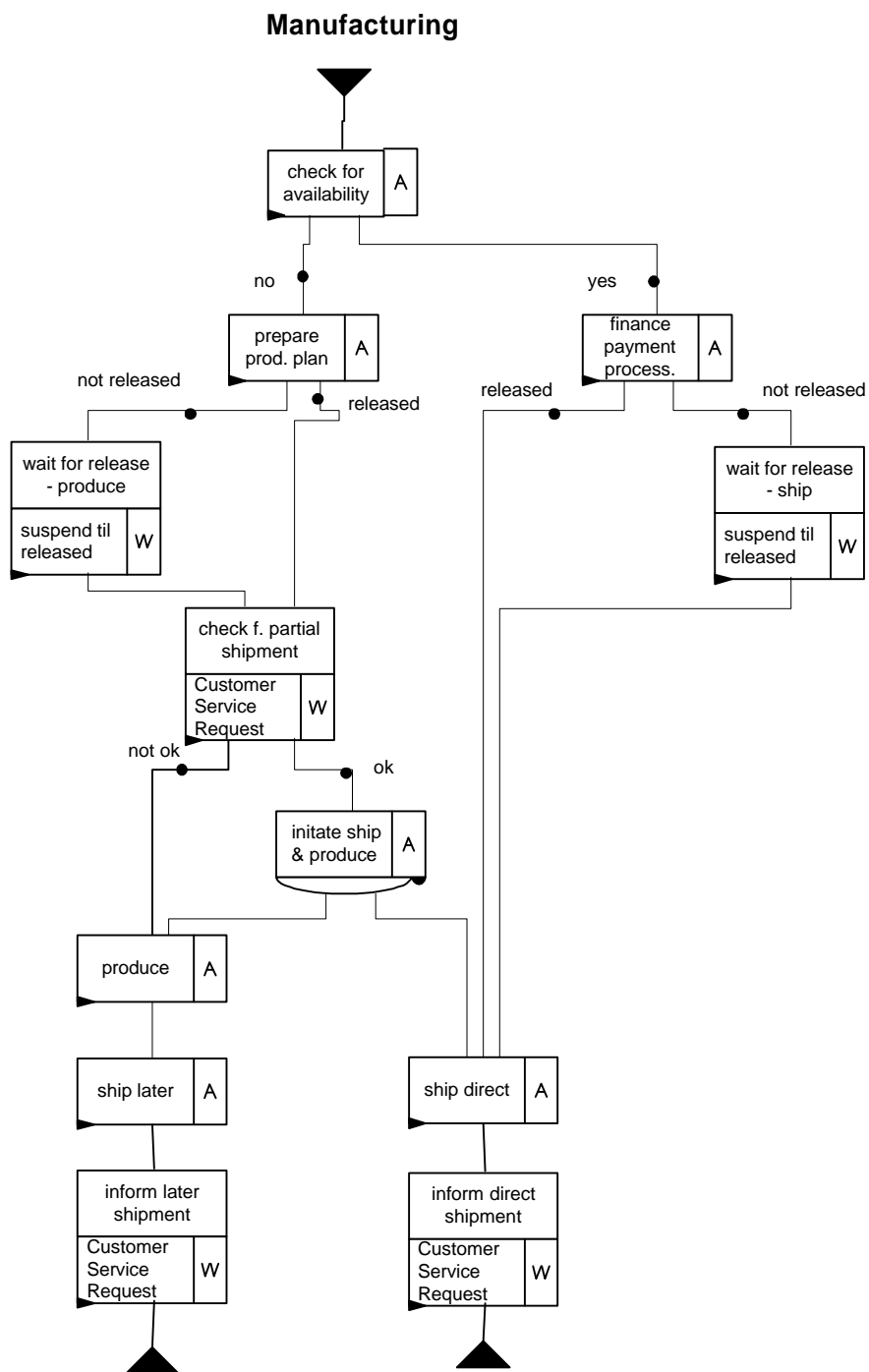


Figure -6

## Interface 1: The Process Definition Interchange - Q&A and Examples

NAME "At the Manufacturing Department"

// <Insert Activity List>

// <Insert Transition Information List>

**END\_WORKFLOW**

**WORKFLOW** 'Suspend\_until\_Release'

CREATED 1998-07-15

NAME "Suspend until Release"

DESCRIPTION "The workflow - after some delay  
- polls for release, using an automatic Activity"

// <Activity List>

// <Transition Information List>

**END\_WORKFLOW**

**4.2.2.4. At the Sales Department**

The business process definition for the sales department is split into two different processes, the general process (e.g. for processing new orders) which is not further defined in this section, and the Customer Service Request process.

**General sales processing**

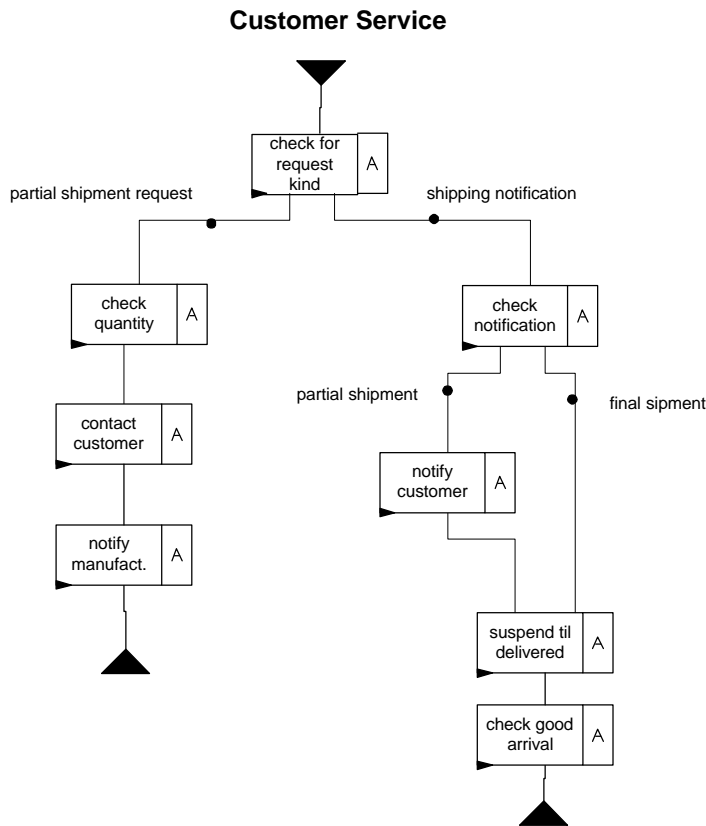
```

WORKFLOW                               'At_the_Sales_Department '
  CREATED                               1998-07-15
  NAME                                    "At the Sales Department"
  DESCRIPTION                            "Process for e.g. new orders -
                                           not further described here"

  // <Insert Activity List>
  // <Insert Transition Information List>

END_WORKFLOW
    
```

**Customer service processing**



*Figure 4-7: Customer Service Processing*

The WPDL description details are left as an exercise to the reader.

```

WORKFLOW                               'Customer_Service_Request '
  CREATED                               1998-07-15
    
```

## Interface 1: The Process Definition Interchange - Q&A and Examples

NAME "Customer Service Request"  
DESCRIPTION "Process handled by the Customer Service"

// <Insert Activity List>

// <Insert Transition Information List>

**END\_WORKFLOW**

### **4.2.3. Common Process for Sales-Order**

This paragraph gives a feeling for the WPDL formulation of a central cutout of the Representative Business Example in a common process.. However, it demonstrates only one possible solution. It represents the processing of a sales order, leaving out some details of the example but including all details relevant to synchronization, both within the manufacturing section and between manufacturing and finance. The process is also described in WPDL (again leaving out details).

This example is to demonstrate the possibility of describing processes that involve synchronization. It uses And-Joins to provide the synchronization, and end-of-activities to represent asynchronous events. In regards to the use of an activity and And-Join in this example to handle specification of a maximum-24-hour delay: notifying the customer is a real workflow activity that takes real time. The fact that it's restricted to a maximum of 24 hours is not that important, and is left to the activity implementation.

### Sales Order Processing

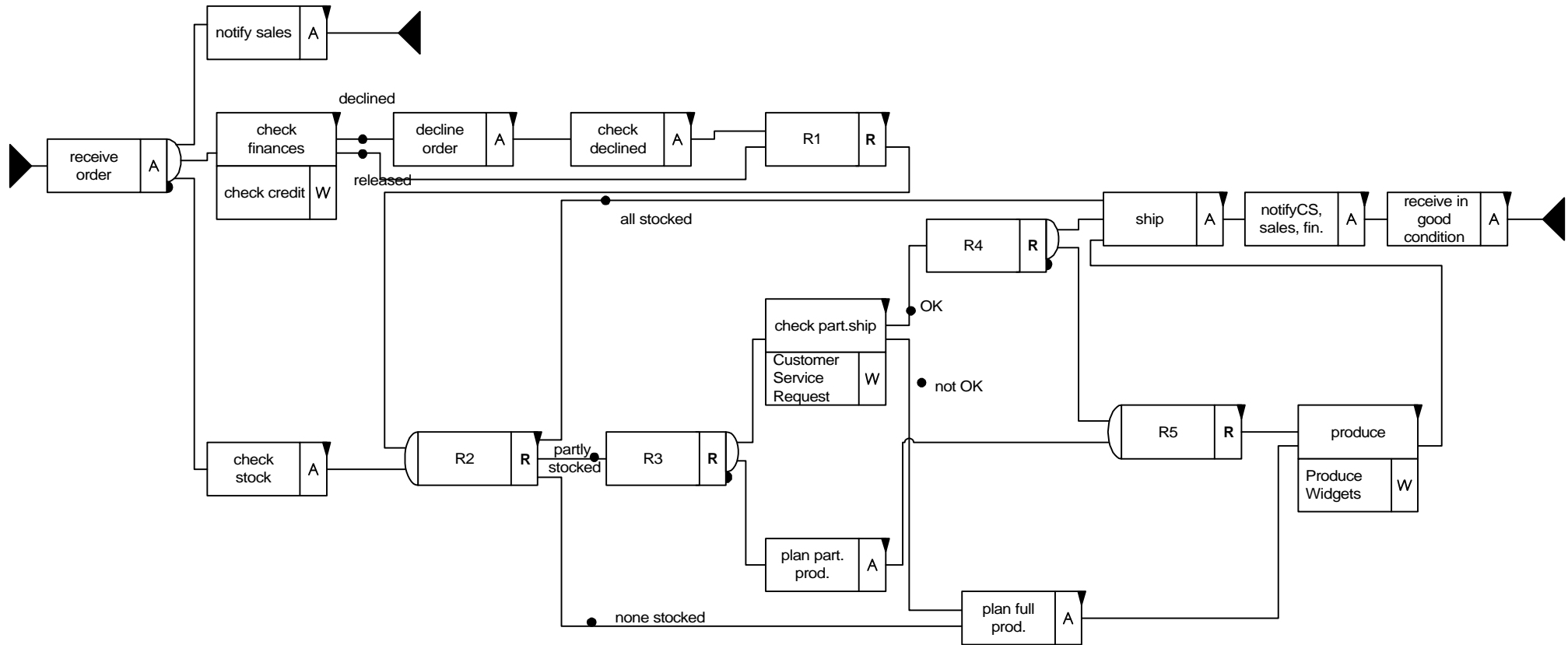


Figure 4-8: Sales Order Processing



In WPDL notation (for simplicity only subflow implementations of an Activity were taken into account, and the performers described in the previous chapters are omitted; also Definition of Workflow Relevant Data is omitted):

```
WORKFLOW          'SALES_ORDER_PROCESSING'
  CREATED         1998-07-15
  NAME           "Sales Order Processing "
```

```
// <Activity List>
```

```
ACTIVITY 'RECEIVE_ORDER'
  DESCRIPTION "In the mailroom.
             When sales order comes in, send copies to Sales, Finance, and Mfg."
  IMPLEMENTATION NO
  SPLIT AND
END_ACTIVITY

ACTIVITY 'NOTIFY_SALES'
  DESCRIPTION "Track sale, keep customer happy"
  IMPLEMENTATION NO
END_ACTIVITY

ACTIVITY 'CHECK_FINANCES'
  DESCRIPTION "Credit-checking process"
  IMPLEMENTATION WORKFLOW SYNCHR 'CHECK_CREDIT'
  SPLIT XOR 'T_5' 'T_4'
END_ACTIVITY

ACTIVITY 'CHECK_STOCK'
  DESCRIPTION "First step in manufacturing"
  IMPLEMENTATION NO
END_ACTIVITY

ACTIVITY 'DECLINE_ORDER'
  DESCRIPTION "Tell customer they haven't credit for order"
  IMPLEMENTATION NO
END_ACTIVITY

ACTIVITY 'CHECK_DECLINED'
  DESCRIPTION "Check the stock for declined"
  IMPLEMENTATION NO
END_ACTIVITY

ACTIVITY 'R1'
  ROUTE
  DESCRIPTION "Proceed as credit permits"
  JOIN XOR
END_ACTIVITY

ACTIVITY 'R2'
  DESCRIPTION "Wait for both stock to be checked and order released before
             shipping and production"
  ROUTE
  JOIN AND
  SPLIT XOR 'T_10' 'T_11' 'T_12'
END_ACTIVITY

ACTIVITY 'R3'
  DESCRIPTION "For partial shipments, check with customer and plan production in
             parallel"
  ROUTE
```

## Interface 1: The Process Definition Interchange - Q&A and Examples

```
SPLIT AND
END_ACTIVITY

ACTIVITY 'CHECK_PART_SHIP'
  DESCRIPTION "Ask customer if OK to partial-ship (24 hrs)"
  IMPLEMENTATION WORKFLOW SYNCHR 'Customer_Service_Request'
  SPLIT XOR 'T_15' 'T_16'
END_ACTIVITY

ACTIVITY 'PLAN_PART_PRODUCTION'
  DESCRIPTION "Make plan assuming OK to partial-ship"
  IMPLEMENTATION NO
END_ACTIVITY

ACTIVITY 'R4'
  DESCRIPTION "For partial shipments, partial shipment and production in parallel"
  ROUTE
  SPLIT AND
END_ACTIVITY

ACTIVITY 'R5'
  DESCRIPTION "For partial production, wait until check with customer"
  ROUTE
  JOIN AND
END_ACTIVITY

ACTIVITY 'PLAN_FULL_PRODUCTION'
  DESCRIPTION "Either out-of-stock condition or rejection of partial ship can
start full-order planning. Make plan to produce entire order"
  IMPLEMENTATION NO
  JOIN XOR
END_ACTIVITY

ACTIVITY 'PRODUCE'
  DESCRIPTION "Assemble parts, execute plan"
  IMPLEMENTATION WORKFLOW SYNCHR 'PRODUCE_WIDGETS'
  JOIN XOR
END_ACTIVITY

ACTIVITY 'SHIP'
  DESCRIPTION "Ship from stock or production"
  IMPLEMENTATION NO
  JOIN XOR
END_ACTIVITY

// In case of partial shipping the 'SHIP' Activity is executed twice.

ACTIVITY 'NOTIFY_SALES_ET_AL'
  DESCRIPTION "Notify Finance on shipping, Sales and CS on
order fulfilment"
  IMPLEMENTATION NO
END_ACTIVITY

ACTIVITY 'RECEIVED_IN_GOOD_CONDITION'
  DESCRIPTION "Notify Finance on shipping, Sales and CS on
order fulfilment"
  IMPLEMENTATION NO
END_ACTIVITY
```

// <Transition Information List>

```

TRANSITION 'T_1'
  FROM 'RECEIVE_ORDER'
  TO 'NOTIFY_SALES'
END_TRANSITION

TRANSITION 'T_2'
  FROM 'RECEIVE_ORDER'
  TO 'CHECK_FINANCES'
END_TRANSITION

TRANSITION 'T_3'
  FROM 'RECEIVE_ORDER'
  TO 'CHECK_STOCK'
END_TRANSITION

TRANSITION 'T_4'
  DESCRIPTION "Finance did OK the customer's credit"
  FROM 'CHECK_FINANCES'
  TO 'R1'
  OTHERWISE
END_TRANSITION

TRANSITION 'T_5'
  DESCRIPTION "Finance did not OK the customer's credit"
  FROM 'CHECK_FINANCES'
  TO 'DECLINE_ORDER'
  CONDITION CreditStatus = "NOT OK"
END_TRANSITION

TRANSITION 'T_6'
  FROM 'DECLINE_ORDER'
  TO 'CHECK_DECLINED'
END_TRANSITION

TRANSITION 'T_7'
  FROM 'CHECK_DECLINED'
  TO 'R1'
END_TRANSITION

TRANSITION 'T_8'
  DESCRIPTION "Sales order released, allow full or partial shipment to proceed"
  FROM 'R1'
  TO 'R2'
END_TRANSITION

TRANSITION 'T_9'
  FROM 'CHECK_STOCK'
  TO 'R2'
END_TRANSITION

TRANSITION 'T_10'
  DESCRIPTION "Ordered items all in stock"
  FROM 'R2'
  TO SHIP
  CONDITION StockedStatus = "All"
END_TRANSITION

TRANSITION 'T_11'
  DESCRIPTION "Ordered items partly in stock"
  FROM 'R2'
  TO 'R3'
  CONDITION StockedStatus = "Partial"
END_TRANSITION

```

```
TRANSITION 'T_12'  
  DESCRIPTION "Ordered items not in stock"  
  FROM 'R2'  
  TO 'PLAN_FULL_PRODUCTION'  
  OTHERWISE  
END_TRANSITION  
  
TRANSITION 'T_13'  
  DESCRIPTION "After wait for both stock to be checked and order released ask  
customer about partial ship"  
  FROM 'R3'  
  TO 'CHECK_PART_SHIP'  
END_TRANSITION  
  
TRANSITION 'T_14'  
  FROM 'R3'  
  TO 'PLAN_PART_PRODUCTION'  
END_TRANSITION  
  
TRANSITION 'T_15'  
  DESCRIPTION "Partial ship is approved"  
  FROM 'CHECK_PART_SHIP'  
  TO 'R4'  
  CONDITION PartialShipStatus = "OK"  
END_TRANSITION  
  
TRANSITION 'T_16'  
  DESCRIPTION "Partial ship is not approved"  
  FROM 'CHECK_PART_SHIP'  
  TO 'PLAN_FULL_PRODUCTION'  
  OTHERWISE  
END_TRANSITION  
  
TRANSITION 'T_17'  
  FROM 'PLAN_PART_PRODUCTION'  
  TO 'R5'  
END_TRANSITION  
  
TRANSITION 'T_18'  
  FROM 'PLAN_FULL_PRODUCTION'  
  TO 'PRODUCE'  
END_TRANSITION  
  
TRANSITION 'T_19'  
  FROM 'R4'  
  TO 'SHIP'  
END_TRANSITION  
  
TRANSITION 'T_20'  
  FROM 'R4'  
  TO 'R5'  
END_TRANSITION  
  
TRANSITION 'T_21'  
  FROM 'R5'  
  TO 'PRODUCE'  
END_TRANSITION  
  
TRANSITION 'T_22'  
  FROM 'PRODUCE'  
  TO 'SHIP'  
END_TRANSITION  
  
TRANSITION 'T_23'  
  DESCRIPTION "After shipping, always notify other departments"  
  FROM 'SHIP'
```

## Interface 1: The Process Definition Interchange - Q&A and Examples

TO 'NOTIFY\_FINANCE\_ET\_AL'  
**END\_TRANSITION**

**TRANSITION** 'T\_24'

DESCRIPTION "Customer Service is to be checking good receipt of partial and full shipping"

FROM 'NOTIFY\_FINANCE\_ET\_AL'  
TO 'RECEIVED\_IN\_GOOD\_CONDITION'  
**END\_TRANSITION**

**END\_WORKFLOW**

## 5. Further Examples

### 5.1. Subflow Example

The following example demonstrates the implementation of a refinement as an Inline Block. In addition the example demonstrates the use of Extended Attributes.

The "native" notation of the vendor who provided this example, although somewhat relating to WPD, differs especially in the formulation of the Activities. The example in the native description uses the vendor's notion of subflows to represent a refinement. In WPD for this feature the inline block notation is provided. Pre- and Post-Conditions in fact are a redundant listing of pre- and successor nodes in the flow.

#### 5.1.1. Description and native Flow Definition

##### 5.1.1.1. Cutout of top level process

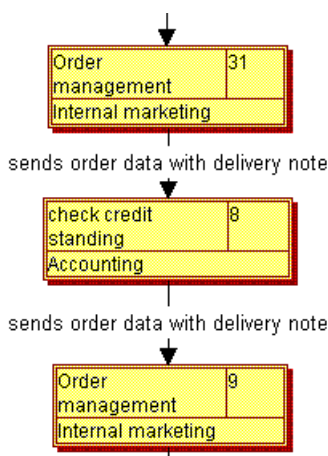


Figure 5-1: Sample Top-level Process

*Native notation describing this process:*

```

// ----- ACTIVITY
ACTIVITY "Order_management.9"
NAME "Order management.9"
DESCRIPTION ""
IMPLEMENTATION WORKFLOW "V_Order_management.9"
CHARACTERISTIC NORMAL
DOCUMENTATION ""
PRE_CONDITION "( check_credit_standing.8 )"
POST_CONDITION "( general_paper_work.11 )"
PARTICIPANT "Internal_marketing"
START_MODE MANUAL
FINISH_MODE MANUAL
WAITING_TIME 0
DURATION 3600
  
```

## Interface 1: The Process Definition Interchange - Q&A and Examples

```

COST                                0.00
EXTENDED_ATTRIBUTE                  X_POS                44.391972
EXTENDED_ATTRIBUTE                  Y_POS                62.630359
EXTENDED_ATTRIBUTE                  QUANTITY           0
END_ACTIVITY

ACTIVITY                            "check_credit_standing.8"
NAME                                "check credit standing.8"
DESCRIPTION                          " "
IMPLEMENTATION                       WORKFLOW          "V_check_credit_standing.8"
CHARACTERISTIC                       NORMAL
DOCUMENTATION                         " "
PRE_CONDITION                         "( Order_management.31 )"
POST_CONDITION                        "( Order_management.9 )"
PARTICIPANT                           "Accounting"
START_MODE                            MANUAL
FINISH_MODE                           MANUAL
WAITING_TIME                          0
DURATION                              3600
COST                                0.00
EXTENDED_ATTRIBUTE                  X_POS                41.676505
EXTENDED_ATTRIBUTE                  Y_POS                56.604867
EXTENDED_ATTRIBUTE                  QUANTITY           0
END_ACTIVITY

// ----- TRANSITION

TRANSITION
NAME                                " "
DESCRIPTION                          " "
FROM                                  "Order_management.31"
TO                                    "check_credit_standing.8"
EXTENDED_ATTRIBUTE                  TRANS_TYPE          INFO_TRANS
EXTENDED_ATTRIBUTE                  INFORMATION         "order_data"
EXTENDED_ATTRIBUTE                  VARIABLECOSTS      0.00
EXTENDED_ATTRIBUTE                  FIXEDCOSTS         0.00
EXTENDED_ATTRIBUTE                  TRANSPORTTIME      600
EXTENDED_ATTRIBUTE                  ITEMCOUNT          1
EXTENDED_ATTRIBUTE                  DESTINATIONCOUNT  1
END_TRANSITION

TRANSITION
NAME                                " "
DESCRIPTION                          " "
FROM                                  "check_credit_standing.8"
TO                                    "Order_management.9"
EXTENDED_ATTRIBUTE                  TRANS_TYPE          INFO_TRANS
EXTENDED_ATTRIBUTE                  INFORMATION         "order_data"
EXTENDED_ATTRIBUTE                  VARIABLECOSTS      0.00
EXTENDED_ATTRIBUTE                  FIXEDCOSTS         0.00
EXTENDED_ATTRIBUTE                  TRANSPORTTIME      600
EXTENDED_ATTRIBUTE                  ITEMCOUNT          1
EXTENDED_ATTRIBUTE                  DESTINATIONCOUNT  1
END_TRANSITION

```

### ***5.1.1.2. Refinement of the activity 'check credit standing'***

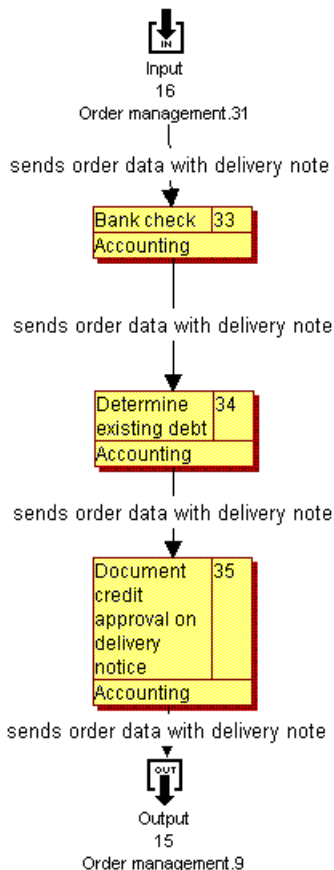


Figure 5-2: Refinement of the activity 'check credit standing'

**Native notation describing this refinement:**

```

// ===== Workflow
WORKFLOW          "V_check_credit_standing.8"
NAME              "V: check credit standing.8"
DESCRIPTION       " "

// ----- ACTIVITY
ACTIVITY          "Input.16"
NAME             "Input.16"
DESCRIPTION      " "
IMPLEMENTATION    ATOMIC
CHARACTERISTIC   BEGIN
DOCUMENTATION     " "
POST_CONDITION    "( Bank_check.33 )"
PRIORITY         0
DURATION         0
EXTENDED_ATTRIBUTE X_POS      96.629213
EXTENDED_ATTRIBUTE Y_POS      7.874016
EXTENDED_ATTRIBUTE BEGIN      0
EXTENDED_ATTRIBUTE END        0
EXTENDED_ATTRIBUTE JOBS       0
END_ACTIVITY

ACTIVITY          "Document_credit_approval_on_delivery_notice.35"
NAME             "Document credit approval on delivery notice.35"
DESCRIPTION       " "
  
```



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```

IMPLEMENTATION          ATOMIC
CHARACTERISTIC          NORMAL
DOCUMENTATION           " "
PRE_CONDITION           "( Determine_existing_debt.34 )"
POST_CONDITION           "( Output.15 )"
PARTICIPANT             "Accounting"
START_MODE              MANUAL
FINISH_MODE              MANUAL
WAITING_TIME            0
DURATION                90
COST                    0.00
EXTENDED_ATTRIBUTE     X_POS          99.625468
EXTENDED_ATTRIBUTE     Y_POS          75.590551
EXTENDED_ATTRIBUTE     QUANTITY       0
END_ACTIVITY

ACTIVITY                "Determine_existing_debt.34"
NAME                    "Determine existing debt.34"
DESCRIPTION             " "
IMPLEMENTATION          ATOMIC
CHARACTERISTIC          NORMAL
DOCUMENTATION           " "
PRE_CONDITION           "( Bank_check.33 )"
POST_CONDITION           "( Document_credit_approval_on_delivery_notice.35 )"
PARTICIPANT             "Accounting"
START_MODE              MANUAL
FINISH_MODE              MANUAL
WAITING_TIME            0
DURATION                450
COST                    0.00
EXTENDED_ATTRIBUTE     X_POS          100.000000
EXTENDED_ATTRIBUTE     Y_POS          55.118110
EXTENDED_ATTRIBUTE     QUANTITY       0
END_ACTIVITY

ACTIVITY                "Bank_check.33"
NAME                    "Bank check.33"
DESCRIPTION             " "
IMPLEMENTATION          ATOMIC
CHARACTERISTIC          NORMAL
DOCUMENTATION           " "
PRE_CONDITION           "( Input.16 )"
POST_CONDITION           "( Determine_existing_debt.34 )"
PARTICIPANT             "Accounting"
START_MODE              MANUAL
FINISH_MODE              MANUAL
WAITING_TIME            0
DURATION                1620
COST                    0.00
EXTENDED_ATTRIBUTE     X_POS          99.625468
EXTENDED_ATTRIBUTE     Y_POS          32.480315
EXTENDED_ATTRIBUTE     QUANTITY       0
END_ACTIVITY

ACTIVITY                "Output.15"
NAME                    "Output.15"
DESCRIPTION             " "
IMPLEMENTATION          ATOMIC
CHARACTERISTIC          END
DOCUMENTATION           " "
EXTENDED_ATTRIBUTE     X_POS          97.378277
EXTENDED_ATTRIBUTE     Y_POS          100.000000
END_ACTIVITY

```

// ----- TRANSITION  
TRANSITION

## Interface 1: The Process Definition Interchange - Q&A and Examples

```

NAME          " "
DESCRIPTION   " "
FROM          "Input.16"
TO           "Bank_check.33"
EXTENDED_ATTRIBUTE  TRANS_TYPE          INFO_TRANS
EXTENDED_ATTRIBUTE  INFORMATION         "order_data"
EXTENDED_ATTRIBUTE  VARIABLECOSTS      0.00
EXTENDED_ATTRIBUTE  FIXEDCOSTS         0.00
EXTENDED_ATTRIBUTE  TRANSPORTTIME      0
EXTENDED_ATTRIBUTE  ITEMCOUNT          1
EXTENDED_ATTRIBUTE  DESTINATIONCOUNT  1
END_TRANSITION

TRANSITION
NAME          " "
DESCRIPTION   " "
FROM          "Document_credit_approval_on_delivery_notice.35"
TO           "Output.15"
EXTENDED_ATTRIBUTE  TRANS_TYPE          INFO_TRANS
EXTENDED_ATTRIBUTE  INFORMATION         "order_data"
EXTENDED_ATTRIBUTE  VARIABLECOSTS      0.00
EXTENDED_ATTRIBUTE  FIXEDCOSTS         0.00
EXTENDED_ATTRIBUTE  TRANSPORTTIME      0
EXTENDED_ATTRIBUTE  ITEMCOUNT          1
EXTENDED_ATTRIBUTE  DESTINATIONCOUNT  1
END_TRANSITION

TRANSITION
NAME          " "
DESCRIPTION   " "
FROM          "Determine_existing_debt.34"
TO           "Document_credit_approval_on_delivery_notice.35"
EXTENDED_ATTRIBUTE  TRANS_TYPE          INFO_TRANS
EXTENDED_ATTRIBUTE  INFORMATION         "order_data"
EXTENDED_ATTRIBUTE  VARIABLECOSTS      0.00
EXTENDED_ATTRIBUTE  FIXEDCOSTS         0.00
EXTENDED_ATTRIBUTE  TRANSPORTTIME      3600
EXTENDED_ATTRIBUTE  ITEMCOUNT          1
EXTENDED_ATTRIBUTE  DESTINATIONCOUNT  1
END_TRANSITION

TRANSITION
NAME          " "
DESCRIPTION   " "
FROM          "Bank_check.33"
TO           "Determine_existing_debt.34"
EXTENDED_ATTRIBUTE  TRANS_TYPE          INFO_TRANS
EXTENDED_ATTRIBUTE  INFORMATION         "order_data"
EXTENDED_ATTRIBUTE  VARIABLECOSTS      0.00
EXTENDED_ATTRIBUTE  FIXEDCOSTS         0.00
EXTENDED_ATTRIBUTE  TRANSPORTTIME      3600
EXTENDED_ATTRIBUTE  ITEMCOUNT          1
EXTENDED_ATTRIBUTE  DESTINATIONCOUNT  1
END_TRANSITION

```

### 5.1.2. WPDL Description

```

// ===== Model
MODEL      'Inline_Block_Example'
  WPDL_VERSION  "7.0 Beta"
  VENDOR       "... "
  CREATED      1998-07-15
  NAME         "Inline Block Example"

```

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```

DESCRIPTION                " "

// ===== Workflow
WORKFLOW                    'Order management '
  NAME                      "Order management"
  DESCRIPTION                " "

// ----- ACTIVITY
ACTIVITY                    'Order_management.31'
  NAME                      "Order management.31"
  IMPLEMENTATION             NO
END_ACTIVITY

ACTIVITY                    'Order_management.9'
  NAME                      "Order management.9"
  DESCRIPTION                " "
  IMPLEMENTATION             NO
  PERFORMER                 'Internal_marketing'
  START_MODE                 MANUAL
  FINISH_MODE                MANUAL
  WAITING_TIME               0
  DURATION                   3600
  COST                       "0.00"
  DOCUMENTATION              " "
  INLINE_BLOCK_BEGIN        'V_Order_management.9'
  END_INLINE_BLOCK_BEGIN
  EXTENDED_ATTRIBUTE        'X_POS'          FLOAT          44.391972
  EXTENDED_ATTRIBUTE        'Y_POS'          FLOAT          62.630359
  EXTENDED_ATTRIBUTE        'QUANTITY'      INTEGER          0
END_ACTIVITY

ACTIVITY                    'general_paper_work.11'
  NAME                      "general paper work.11"
  IMPLEMENTATION             NO
  INLINE_BLOCK_END          'V_Order_management.9'
END_ACTIVITY

ACTIVITY                    'check_credit_standing.8'
  NAME                      "check credit standing.8"
  DESCRIPTION                " "
  IMPLEMENTATION             NO
  PERFORMER                 'Accounting'
  START_MODE                 MANUAL
  FINISH_MODE                MANUAL
  WAITING_TIME               0
  DURATION                   3600
  COST                       "0.00"
  DOCUMENTATION              " "
  INLINE_BLOCK_BEGIN        'V_check_credit_standing.8'
  END_INLINE_BLOCK_BEGIN
  EXTENDED_ATTRIBUTE        'X_POS'          FLOAT          41.676505
  EXTENDED_ATTRIBUTE        'Y_POS'          FLOAT          56.604867
  EXTENDED_ATTRIBUTE        'QUANTITY'      INTEGER          0
END_ACTIVITY

ACTIVITY                    'check_credit_standing_last'
  NAME                      "check credit standing_last"
  ROUTE
  INLINE_BLOCK_END          'V_check_credit_standing.8'
END_ACTIVITY

//      Inline Block 'V_check_credit_standing.8'

ACTIVITY                    'Input.16'
  NAME                      "Input.16"

```

Interface 1: The Process Definition Interchange - Q&A and Examples

```

DESCRIPTION                " "
IMPLEMENTATION              NO
PERFORMER                   'Somebody'           // added
PRIORITY                     0
DURATION                     0
DOCUMENTATION                " "
EXTENDED_ATTRIBUTE          'X_POS'             FLOAT           96.629213
EXTENDED_ATTRIBUTE          'Y_POS'             FLOAT           7.874016
EXTENDED_ATTRIBUTE          'BEGIN'            INTEGER          0
EXTENDED_ATTRIBUTE          'END'              INTEGER          0
EXTENDED_ATTRIBUTE          'JOBS'             INTEGER          0
END_ACTIVITY

ACTIVITY                     'Document_credit_approval_on_delivery_notice.35'
NAME                         "Document credit approval on delivery notice.35"
DESCRIPTION                  " "
IMPLEMENTATION              NO
PERFORMER                   'Accounting'
START_MODE                  MANUAL
FINISH_MODE                 MANUAL
WAITING_TIME                0
DURATION                    90
COST                        "0.00"
DOCUMENTATION                " "
EXTENDED_ATTRIBUTE          'X_POS'             FLOAT           99.625468
EXTENDED_ATTRIBUTE          'Y_POS'             FLOAT           75.590551
EXTENDED_ATTRIBUTE          'QUANTITY'         INTEGER          0
END_ACTIVITY

ACTIVITY                     'Determine_existing_debt.34'
NAME                         "Determine existing debt.34"
DESCRIPTION                  " "
IMPLEMENTATION              NO
PERFORMER                   'Accounting'
START_MODE                  MANUAL
FINISH_MODE                 MANUAL
WAITING_TIME                0
DURATION                    450
COST                        "0.00"
DOCUMENTATION                " "
EXTENDED_ATTRIBUTE          'X_POS'             FLOAT           100.000000
EXTENDED_ATTRIBUTE          'Y_POS'             FLOAT           55.118110
EXTENDED_ATTRIBUTE          'QUANTITY'         INTEGER          0
END_ACTIVITY

ACTIVITY                     'Bank_check.33'
NAME                         "Bank check.33"
DESCRIPTION                  " "
IMPLEMENTATION              NO
PERFORMER                   'Accounting'
START_MODE                  MANUAL
FINISH_MODE                 MANUAL
WAITING_TIME                0
DURATION                    1620
COST                        "0.00"
DOCUMENTATION                " "
EXTENDED_ATTRIBUTE          'X_POS'             FLOAT           99.625468
EXTENDED_ATTRIBUTE          'Y_POS'             FLOAT           32.480315
EXTENDED_ATTRIBUTE          'QUANTITY'         INTEGER          0
END_ACTIVITY

ACTIVITY                     'Output.15'
NAME                         "Output.15"
DESCRIPTION                  " "
IMPLEMENTATION              NO
PERFORMER                   'Automatic'           // added
DOCUMENTATION                " "

```

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```

EXTENDED_ATTRIBUTE      'X_POS'      FLOAT      97.378277
EXTENDED_ATTRIBUTE      'Y_POS'      FLOAT      100.000000
END_ACTIVITY

```

// **Inline Block 'V\_Order\_management.9'**

```

ACTIVITY                 'Order_management.9.body'
NAME                     "Order management.9.body"
DESCRIPTION              " "
IMPLEMENTATION           NO
PERFORMER                'Somebody'           // added
PRIORITY                 0
DURATION                 0
DOCUMENTATION            " "
EXTENDED_ATTRIBUTE      'X_POS'      FLOAT      96.629213
EXTENDED_ATTRIBUTE      'Y_POS'      FLOAT      7.874016
EXTENDED_ATTRIBUTE      'BEGIN'      INTEGER     0
EXTENDED_ATTRIBUTE      'END'        INTEGER     0
EXTENDED_ATTRIBUTE      'JOBS'       INTEGER     0
END_ACTIVITY

```

// ----- TRANSITION Information

```

TRANSITION               'Transition 1'
NAME                     " "
FROM                     'Order_management.31'
TO                       'check_credit_standing.8'
DESCRIPTION              " "
EXTENDED_ATTRIBUTE      'TRANS_TYPE'   STRING      "INFO_TRANS"
EXTENDED_ATTRIBUTE      'INFORMATION'   STRING      "order_data"
EXTENDED_ATTRIBUTE      'VARIABLECOSTS' FLOAT      0.00
EXTENDED_ATTRIBUTE      'FIXEDCOSTS'   FLOAT      0.00
EXTENDED_ATTRIBUTE      'TRANSPORTTIME' INTEGER     600
EXTENDED_ATTRIBUTE      'ITEMCOUNT'   INTEGER     1
EXTENDED_ATTRIBUTE      'DESTINATIONCOUNT' INTEGER    1
END_TRANSITION

```

```

TRANSITION               'Transition 2'
NAME                     " "
FROM                     'check_credit_standing_last'
TO                       'Order_management.9'
DESCRIPTION              " "
EXTENDED_ATTRIBUTE      'TRANS_TYPE'   STRING      "INFO_TRANS"
EXTENDED_ATTRIBUTE      'INFORMATION'   STRING      "order_data"
EXTENDED_ATTRIBUTE      'VARIABLECOSTS' FLOAT      0.00
EXTENDED_ATTRIBUTE      'FIXEDCOSTS'   FLOAT      0.00
EXTENDED_ATTRIBUTE      'TRANSPORTTIME' INTEGER     600
EXTENDED_ATTRIBUTE      'ITEMCOUNT'   INTEGER     1
EXTENDED_ATTRIBUTE      'DESTINATIONCOUNT' INTEGER    1
END_TRANSITION

```

// **Inline Blocks Connect**

```

TRANSITION               'Block_connect 1'
NAME                     " "
FROM                     'Order_management.9'
TO                       'Order_management.9.body'
DESCRIPTION              "Connection Begin"
EXTENDED_ATTRIBUTE      'TRANS_TYPE'   STRING      "INFO_TRANS"
EXTENDED_ATTRIBUTE      'INFORMATION'   STRING      " "
EXTENDED_ATTRIBUTE      'VARIABLECOSTS' FLOAT      0.00
EXTENDED_ATTRIBUTE      'FIXEDCOSTS'   FLOAT      0.00
EXTENDED_ATTRIBUTE      'TRANSPORTTIME' INTEGER     0
EXTENDED_ATTRIBUTE      'ITEMCOUNT'   INTEGER     1

```

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```

EXTENDED_ATTRIBUTE      'DESTINATIONCOUNT' INTEGER      1
END_TRANSITION

TRANSITION              'Block_connect 2'
NAME                    " "
FROM                    'Order_management.9.body'
TO                      'general_paper_work.11'
DESCRIPTION             "Connection End"
EXTENDED_ATTRIBUTE      'TRANS_TYPE'      STRING        "INFO_TRANS"
EXTENDED_ATTRIBUTE      'INFORMATION'     STRING        " "
EXTENDED_ATTRIBUTE      'VARIABLECOSTS'   FLOAT          0.00
EXTENDED_ATTRIBUTE      'FIXEDCOSTS'     FLOAT          0.00
EXTENDED_ATTRIBUTE      'TRANSPORTTIME'   INTEGER        0
EXTENDED_ATTRIBUTE      'ITEMCOUNT'     INTEGER        1
EXTENDED_ATTRIBUTE      'DESTINATIONCOUNT' INTEGER      1
END_TRANSITION

TRANSITION              'Block_connect 3'
NAME                    " "
FROM                    'check_credit_standing.8'
TO                      'Input.16'
DESCRIPTION             "Connection Begin"
EXTENDED_ATTRIBUTE      'TRANS_TYPE'     STRING        "INFO_TRANS"
EXTENDED_ATTRIBUTE      'INFORMATION'     STRING        " "
EXTENDED_ATTRIBUTE      'VARIABLECOSTS'   FLOAT          0.00
EXTENDED_ATTRIBUTE      'FIXEDCOSTS'     FLOAT          0.00
EXTENDED_ATTRIBUTE      'TRANSPORTTIME'   INTEGER        0
EXTENDED_ATTRIBUTE      'ITEMCOUNT'     INTEGER        1
EXTENDED_ATTRIBUTE      'DESTINATIONCOUNT' INTEGER      1
END_TRANSITION

TRANSITION              'Block_connect 4'
NAME                    " "
FROM                    'Output.15'
TO                      'check_credit_standing_last'
DESCRIPTION             "Connection End"
EXTENDED_ATTRIBUTE      'TRANS_TYPE'     STRING        "INFO_TRANS"
EXTENDED_ATTRIBUTE      'INFORMATION'     STRING        " "
EXTENDED_ATTRIBUTE      'VARIABLECOSTS'   FLOAT          0.00
EXTENDED_ATTRIBUTE      'FIXEDCOSTS'     FLOAT          0.00
EXTENDED_ATTRIBUTE      'TRANSPORTTIME'   INTEGER        0
EXTENDED_ATTRIBUTE      'ITEMCOUNT'     INTEGER        1
EXTENDED_ATTRIBUTE      'DESTINATIONCOUNT' INTEGER      1
END_TRANSITION

//                      Inline Block 'V_check_credit_standing.8'

TRANSITION              'Transition 3'
NAME                    " "
FROM                    'Input.16'
TO                      'Bank_check.33'
DESCRIPTION             " "
EXTENDED_ATTRIBUTE      'TRANS_TYPE'     STRING        "INFO_TRANS"
EXTENDED_ATTRIBUTE      'INFORMATION'     STRING        "order_data"
EXTENDED_ATTRIBUTE      'VARIABLECOSTS'   FLOAT          0.00
EXTENDED_ATTRIBUTE      'FIXEDCOSTS'     FLOAT          0.00
EXTENDED_ATTRIBUTE      'TRANSPORTTIME'   INTEGER        0
EXTENDED_ATTRIBUTE      'ITEMCOUNT'     INTEGER        1
EXTENDED_ATTRIBUTE      'DESTINATIONCOUNT' INTEGER      1
END_TRANSITION

TRANSITION              'Transition 4'
NAME                    " "
FROM                    'Document_credit_approval_on_delivery_notice.35'
TO                      'Output.15'
DESCRIPTION             " "

```

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```

EXTENDED_ATTRIBUTE      'TRANS_TYPE'          STRING          "INFO_TRANS"
EXTENDED_ATTRIBUTE      'INFORMATION'          STRING          "order_data"
EXTENDED_ATTRIBUTE      'VARIABLECOSTS'        FLOAT           0.00
EXTENDED_ATTRIBUTE      'FIXEDCOSTS'           FLOAT           0.00
EXTENDED_ATTRIBUTE      'TRANSPORTTIME'        INTEGER         0
EXTENDED_ATTRIBUTE      'ITEMCOUNT'           INTEGER         1
EXTENDED_ATTRIBUTE      'DESTINATIONCOUNT'    INTEGER         1
END_TRANSITION

TRANSITION               'Transition 5'
  NAME                   " "
  FROM                   'Determine_existing_debt.34'
  TO                     'Document_credit_approval_on_delivery_notice.35'
  DESCRIPTION            " "
  EXTENDED_ATTRIBUTE      'TRANS_TYPE'          STRING          "INFO_TRANS"
  EXTENDED_ATTRIBUTE      'INFORMATION'          STRING          "order_data"
  EXTENDED_ATTRIBUTE      'VARIABLECOSTS'        FLOAT           0.00
  EXTENDED_ATTRIBUTE      'FIXEDCOSTS'           FLOAT           0.00
  EXTENDED_ATTRIBUTE      'TRANSPORTTIME'        INTEGER         3600
  EXTENDED_ATTRIBUTE      'ITEMCOUNT'           INTEGER         1
  EXTENDED_ATTRIBUTE      'DESTINATIONCOUNT'    INTEGER         1
END_TRANSITION

TRANSITION               'Transition 6'
  NAME                   " "
  FROM                   'Bank_check.33'
  TO                     'Determine_existing_debt.34'
  DESCRIPTION            " "
  EXTENDED_ATTRIBUTE      'TRANS_TYPE'          STRING          "INFO_TRANS"
  EXTENDED_ATTRIBUTE      'INFORMATION'          STRING          "order_data"
  EXTENDED_ATTRIBUTE      'VARIABLECOSTS'        FLOAT           0.00
  EXTENDED_ATTRIBUTE      'FIXEDCOSTS'           FLOAT           0.00
  EXTENDED_ATTRIBUTE      'TRANSPORTTIME'        INTEGER         3600
  EXTENDED_ATTRIBUTE      'ITEMCOUNT'           INTEGER         1
  EXTENDED_ATTRIBUTE      'DESTINATIONCOUNT'    INTEGER         1
END_TRANSITION

END_WORKFLOW

END_MODEL

```

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