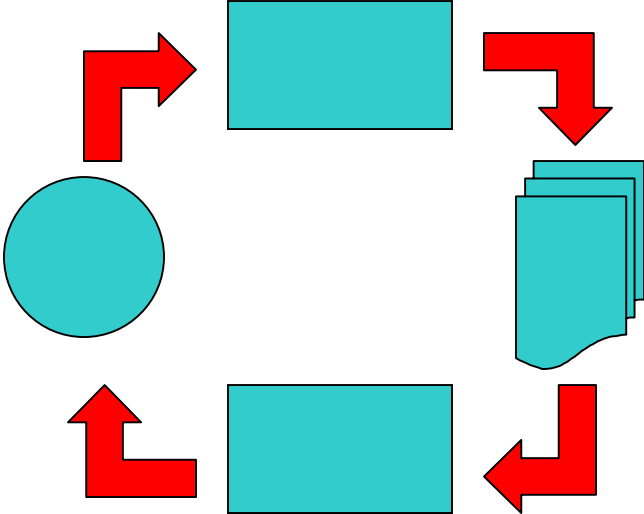


**Systems & Procedures**



**National Centre for Photo and Picture Framing Technology**  
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## **1 Introduction**

National Center for Photo and Picture Framing Technology is a Common Facility Center or CFC set up by EPCH at UPEC Complex, Mandi Samiti Road, Saharanpur. The CFC is set up to do job work for the Photo framing industry in Saharanpur and has the requisite machinery and equipments to produce / do the following:

- Four side moulding and rebating.
- Rectangular and shaped picture frames.
- Turned components like table lamps, candle stands.
- Mitre cutting & jointing.
- Manufacture of Frame back / tie.
- Hinge fixing on frame back / tie.
- Inserting pins and hangers.

All required raw material for the job work would be supplied by the customer to the CFC. CFC will supply MDF, consumables and hardware that are required for the job.

## **2 Systems Proposal**

For the proper functioning of the Common Facility Centre, it is essential that we adopt a suitable system that will assist operating personnel in carrying out the policies and plans of the center. These procedures will also establish the ground rules for the day-to-day activities of the center. Further it will also ensure efficient conversion of inputs into desired outputs to the customer while meeting other organizational objectives of effectiveness, efficiency and adaptability. The three important objectives form the system would be:

- Effectiveness
- Customer satisfaction
- Efficiency.

The meaning of 'efficiency' or 'productive' utilization of resources is clear. Whether an organization is in the private sector or in the public sector, is a 'manufacturing' or a 'service' organization, or a 'profit-making' or a 'non-profit' organization, the productive or optimal utilization of resource inputs is always the primary desired

objective. However effectiveness has more dimensions to it. It involves optimality in the fulfillment of multiple objectives, with a possible prioritization within the objectives. Not only the CFC has to satisfy the so-called target customers but also the people working within. Further the system has to not only be profitable and efficient but must necessarily satisfy many more customers in the larger perspective. The effectiveness has to be again viewed in terms of short term as well as long-term objectives because what may seem now like an effective solution may not be all that effective in the future. In fact the effectiveness of the system may depend not only upon a multi-objectives satisfaction but also on its flexibility or adaptability to changed situations in the future so that it continues to fulfill the desired objectives set while designing the system.

Further the system must be simple to adopt and should assist in accomplishing each task satisfactorily with minimum of time, effort, and paperwork.

It is proposed that a formal system is followed for doing the job work at the CFC. This will help in knowing the productivity of the unit, the bottlenecks, the machine hours, cost analysis, etc. Also based on this it will be possible to generate meaningful Reports.

Further some basic records like machine log, materials stock register, machine service history, bin cards etc should also be maintained.

### **3 Proposed System**

The proposed system for ease of understanding is discussed under two headings.

- Production management system
- Information Management system

### **4 Production Management system**

On receipt of the customer's material at the center a customer Job Order Card is opened. The customer Job order card will document the following on receipt of material at the CFC.

- i. Material receipt / inspection report
- ii. Details of job to be done

- iii. Estimate of cost
- iv. Estimated delivery time

The job card will have to be signed by the CFC person opening the job card and also the customer / representative bringing in the material.

All the material that is received is marked by job card no – the number may either tagged to the material or a sticker with the number is stuck to the material.

Based on the Job Order Card individual Machine Job Cards are prepared and the work is scheduled on various machines.

On completion of the job work it is then again marked, kept aside and the customer is informed. A job completion report is prepared and given to billing for raising the invoice. At the time of delivery an invoice is prepared and after receiving the payment the material is delivered to the customer's representative. Before delivery an acknowledgement is taken from the customer / representative to acknowledge having received all the material in good condition and the job is done to his satisfaction.

#### 4.1.1 Flow Charts

#### 4.1.2 Flow Charts

#### 4.1.3 Flow Charts

#### 4.1.4 Flow Charts

#### 4.1.5 Flow Charts

#### 4.1.6 Steps involved:

1. Receive material at CFC
2. Open a Customer Job order Card
3. Inspect the material received and prepare the inspection report
4. Mention the quantity of the material that has been received.
5. Estimate and enter the value of the job.
6. Estimate and enter the delivery date.
7. Take acknowledgement from the customer / representative on the job card
8. Schedule the job on various machines.

9. Prepare individual machine job card separate for each machine.
10. Complete the various machining jobs.
11. Do the final inspection.
12. Prepare the Job Completion Report.
13. Calculate the actual billing amount.
14. Intimate customer that material is ready for dispatch.
15. Customer checks and signs the Job Completion Report.
16. Prepare the invoice.
17. Collect payment
18. Deliver material

#### 4.1.7 Formats used

1. Job order card
2. Job completion report
3. Machine job card
4. Invoice

#### **Customer Job Card:**

On receipt of the customer's material at the center a customer Job order Card is opened. The job card number can be just a running serial number but must be unique. It may be a good idea to prefix JO to denote job order. It is observed that normally when the raw material is received from the customer it does not accompany any delivery note. So the job card itself will act as an acknowledgement for the material received from the customer and also as his formal order on the center for carrying out the job. The job card will document the following:

1. Material receipt / inspection report
2. Details of job to be done
3. Estimate of cost
4. Estimated delivery time

The job card will have to be signed by the CFC person opening the job card and also the customer / representative bringing in the material. On the basis of the job card individual machine order card is prepared and also for issue of materials for production. Reference of the job card is mentioned in the BIN Card as and when material is issued for production.

Sample entry of a Job order card is shown in the next page.

<b>National Centre for Photo and Picture Framing Technology</b> UPEC Complex, Mandi Samiti Road, Saharanpur -247001								
<b>JOB ORDER CARD</b>								
Customer .....					No. Date:			
					Ref. No.	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 33%;">DC</th> <th style="width: 33%;">Dwg</th> <th style="width: 33%;">Job Spec</th> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </table>	DC	Dwg
DC	Dwg	Job Spec						
<b>Materials Received</b>								
SI No.	Material description	Qty Recd	Inspection Remarks	Job Description	Rate	Amount		
<b>Total Estimated Amount</b>								
<b>Card Opened by:</b>			<b>Estimated Delivery:</b>					
<b>Material Inspected by:</b>			<b>Customer's Signature:</b>					
<b>Estimated by:</b>								
<b>Customer's Instruction</b>								
I hereby authorize the job work based on the above estimate.						(Customer's signature)		
<b>For CFC use:</b>								
Supervisor:			Inspected by:					
Job Completion Report No:			Date:					
Details of consumables used:								

### **Machine Job card:**

On the basis of the Job order card individual machine job card is prepared. This card authorizes the operator to do the job work on the machine and also contains necessary details of the job to be done. The entries in the machine job card includes the following:

1. Machine job card no
2. Date of issue
3. Who has authorized the job
4. Details of the job
5. On which machine
6. The operator
7. How long has it taken to do the job
8. What was the machine down time

The Machine job card no can be just a running serial number but it has to be unique. The number can be prefixed with MO to indicate machine order.

A Sample entry of a Machine Job card is shown in the next page.



**National Centre for Photo and Picture Framing Technology**  
 UPEC Complex, Mandi Samiti Road, Saharanpur -247001

**Sl.no:**

**MACHINE JOB CARD**

**Order Ref: JO - 001**

**Date: 20/06/04**

*Machine:*

*Operator: Haseen*

<b>Sl.no</b>	<b>Job description</b>	<b>Quantity</b>
1	<i>Mitre cutting for frame size 8' * 6'</i>	<b>150</b>
2	<i>Mitre cutting for frame size 7' * 5'</i>	<b>160</b>

**Inspection Remarks:** *Checked found Ok* **Finished job recd:** *Danesh*  
**Inspected by:** *Haseen*

	<b>From</b>	<b>To</b>	<b>Time Taken</b>
<b>Setting Time</b>	<i>9.05am, 20/06/04</i>	<i>9.15am, 20/06/04</i>	<i>10 Minutes</i>
<b>Processing Time</b>	<i>9.15am, 20/06/04</i>	<i>12.15pm, 20/06/04</i>	<i>3 hours</i>

**Supervisor: MA**

## **Job completion report**

Once the job work is complete then a job completion report has to be prepared. This will document the following:

1. Finished job inspection by CFC personnel.
2. Finished job inspection by Customer representative
3. Actual measurements of jobs done.
4. Details for invoice

A sample entry of the Job completion report is illustrated in the next page.

## **Invoice**

The present format of invoice that is being used is fine and it can be continued to use.

**National Centre for Photo and Picture Framing Technology**  
UPEC Complex, Mandi Samiti Road, Saharanpur -247001

**JOB ORDER CARD**

No. *JO - 001*

Date: *20/06/04*

<b>Customer:</b> <i>Seema Wood Carving Industries</i> Eid Gah Road, Saharanpur	<b>Date:</b>	<b>DC</b>	<b>Dwg</b>	<b>Job Spec</b>

**Materials Received**

SI No.	Material description	Qty Recd	Inspection Remarks	Job Description	Rate	Amount
1	<i>2 ¼" * ¾" * 3'</i>	<i>250 pcs</i>	<i>OK</i>	<i>Mitre cutting and Joining. 8" * 6" = 150 nos, 7" * 5" = 160 nos</i>	Rs.5.5	Rs.1705
2	<i>2 ¼" * ¾" * 41"</i>	<i>50 pcs</i>	<i>Ok</i>			

**Total Estimated Amount**

Rs.1705

<b>Card Opened by:</b> <i>MA</i>	<b>Estimated Delivery:</b> <i>22/06/04</i>
<b>Material Inspected by:</b> <i>MA</i>	<b>Estimated by:</b> <i>MA</i>

**Customer's Instruction :** *3 pins to be used per joint*

I hereby authorize the job work based on the above estimate.

*Sd/-*

(Customer's signature)

**For CFC use:**

Supervisor: *MA*

Inspected by: *Danesh*

Job Completion Report No: *JC - 001*

Date: *21/06/04*

Details of consumables used:

12 mm V pins : *3720 pcs*

Fevicol : *1 ½ kg*

## **5 Information Management system**

Basic records like machine log, materials stock register, machine service history, bin cards etc may be maintained. These records are useful to keep track of important information and also will help in generating useful reports. The list of records that needs to be maintained and the reports that can be generated is listed below.

1. Material inwards register
2. Bin card
3. Machine service log
4. Stock statement
5. Monthly Report
6. Materials requisition

Specimen formats for the above are included in the annexure.

### **5.1.1 Material Inwards Register**

Material inwards register is a very important document. When any material is received at the Common Facility Center it has to be first recorded in the materials inward register. The entries in this register are in the order of receipt of the material by date.

The register must document the following:

1. Date of receipt.
2. What is received?
3. How much was received
4. How much was accepted
5. Value of the material received
6. From where – supplier's name
7. On what document – document no and date
8. Who has received?

Sample entries in the goods inward register would be as below:

Sl. no	Date	Inv No/ Date	Supplier	Item	Qty rec ed	Qty Acce pt	Val ue	Sign
40	19/06/04	2353 dt 14/06/04	Lion International	12 mm V nails	3000 pcs	500 pcs	Rs. 690	}
				8 mm V nails	6000 pcs	6000 pcs	Rs1 380	
41	20/06/04	193 dt 20/06/04	Star boards	Fevicol	5 Kgs	5 kgs	Rs. 520	MA

**Note :** The serial no is basically the reference no for the material inward receipt and can be just a running serial number.

The materials inward register will be the basis for invoice payment so accuracy is very essential.

### **5.1.2 Bin Card**

For all material that goes into production like MDF, V pins, hinges, flexi pins, adhesive etc that goes into production should have a Bin Card separately for each item. Bin Card is used to maintain the inventory record for each of the item. The bin card will have in a chronological order the details of receipt and issues of an item and also the balance available at any given point of time. The Bin Card also helps control physical issuance of materials in a manner that provides effective service for the production operation and at the same time protects against unauthorized withdrawals. Further it also helps in reducing the occurrence of shortage. Every time material is issued the balance available is also maintained.

The entries in the Bin Card is made in the order of occurrence of receipts and issues and must register the following:

1. If it is a material receipt
  - a. Date of Receipt
  - b. Suppliers name
  - c. Supplier's invoice no and date
  - d. Quantity received
  - e. Unit rate
2. If it is material issue
  - a. Date of issue
  - b. Job order reference
  - c. Quantity issued

### 3. Balance available

Sample entries in the goods inward register would be as below:

12 mm V Nails				Unit of measurement: Pcs Rol: 5000			
Date	Invoice no / date	Supplier	Qty Recd	Qty Issued	Unit Rate	Balance	Sign
	Job order no / date	Customer					
01/04/04		<i>Opening balance</i>			0.23	10000	<i>Sd</i>
19/06/04	2353 dt 14/06/04	<i>Lion International</i>	3000		0.23	13000	<i>Sd</i>
21/06/04	121 dt 19/06/04	<i>Imran Sait</i>		350		12650	<i>Sd</i>

**Note:** It is recommended periodic physical stocks be taken and the entries in the bin card be reconciled. Appropriate noting should be made if there is a large discrepancy and it has to be ratified by the unit in charge.

### 5.1.3 Machine Service Log

The machine service log can be maintained as a register devoting one page for each machine. The main objective of maintaining this register is to keep track of the service history of each machine. Further it also helps in keeping track of the maintenance cost for individual machines.

The details that are to be entered in the register for each machine are:

1. Machine name
2. Machine serial no
3. Machine received date
4. Landed cost of the Machine
5. Commissioning date
6. Commissioned by

Further every time a service or maintenance job is done on the machine the service details as below should be entered date wise in the order of occurrence.

1. Date of service
2. Details of service done
3. Engineer
4. Expense incurred
5. Spares used
6. Remarks

Sample entry in the Machine log register will be as below:



## Machine Log Register (one page for each machine)

**Machine Name:** *Copy Turning lathe*

**Machine serial**

**no:** *12-23456*

*Tormadex, Meteor 1200*

**Received date:** *13/12/2003*

**Machine landed cost:**

*Rs.8,45,000*

**Commissioning date:** *20/02/04*

**Commissioned by:**

*T.M Ramesh*

<b>Service details</b>					
<b>Date</b>	<b>Details of service</b>	<b>Engineer</b>	<b>Expense</b>	<b>Spares used</b>	<b>Remarks</b>
<i>5/04/04</i>	<i>General inspection done after the machine has run for 500 hours</i>	<i>T.M.Ramesh</i>	<i>Nil</i>	<i>Nil</i>	<i>Everything found normal</i>

### 5.1.4 Stock statement

Stock statement is an important report, which is used for inventory control. The report indicates the stock of various materials in stock under various heads like – consumables, Hardware, MDF, Frame back and Ties, Spares, Non-moving items etc

The report can be generated as on any particular date. However it is suggested that this report be generated at least once every month. The report will help in knowing what is the value of inventory that is being held, taking decisions like what is to be ordered and how much? etc.. Also if from the report an item is found to be in stock for more than a specified period decisions can be taken as to what need to be done for disposal of surplus, non moving items.

The details in the stock statement includes:

1. Date
2. Item name
3. Quantity available
4. Value

Further the items will be also grouped under various heads like:

1. MDF
2. Hardware
3. Consumables
4. Finished material – Frame back and tie.
5. Non moving / surplus items

Format of stock statement report is illustrated in annexure.

### 5.1.5 Monthly report.

A monthly report will help in getting to know at a glance what is happening at the center and how it is progressing. The report should summarise the following for a particular month:

1. Value of orders received : Rs.
2. Value of Jobs completed : Rs
3. Value of jobs carried forward : Rs.
4. Total billing : Rs
5. Payments received : Rs
6. Receivables : Rs.
7. Purchases : Rs
8. Total expenses : Rs

Sample format for the monthly report is shown in the annexure.

## 5.2 Purchase Bills passing

For all material that is received in the CFC entry has to be made in the Inward materials register. Ideally a Goods Received note has to be also prepared, copy of which has to accompany the invoice for authorizing the payment. This can however be simplified by using the supplier's invoice itself as a goods received note. A rubber stamp can be used, which can be stamped at the back of the invoice. The details that has to be recorded on each of the bill / invoice would be:

1. Goods received date.
2. Materials inward register serial no:
3. Quantity received
4. Quantity accepted

## 5. Signature

Bills for material received should be authorized for payment only if it has been entered in the inward Materials register and is accompanied by the goods received note or the back of the invoice is stamped by the materials in charge with entries of the receipt as mentioned above.

Even in case of cash purchase though the payment is made in advance the bills will be considered valid only after it has been entered in the inward materials register and the back of the bill has the appropriate noting.

## **6 Concluding Note**

The system proposed has been designed taking into consideration the present needs as well as envisaged future needs. However it is advisable to periodically review the system as and when required and make necessary additions amendments etc.

Also adequate care has also been taken to make the proposal simple and easy to understand. However if there is any point that is not clear to the reader or needs further elaboration the same can be made at that time. Further the system is simple to adopt and does not require any elaborate implementation procedure.

**National Centre for Photo and Picture Framing Technology**  
 UPEC Complex, Mandi Samiti Road, Saharanpur -247001

**JOB ORDER CARD**

**No.**  
**Date:**

<b>Customer</b> .....	<b>Ref. No.</b>	<b>DC</b>	<b>Dwg</b>	<b>Job Spec</b>
		<b>Date:</b>		

**Materials Received**

<b>Sl No.</b>	<b>Material description</b>	<b>Qty Recd</b>	<b>Inspection Remarks</b>	<b>Job Description</b>	<b>Rate</b>	<b>Amount</b>

**National Centre for Photo and Picture Framing Technology**  
UPEC Complex, Mandi Samiti Road, Saharanpur -247001

**Sl.no:**

**MACHINE JOB CARD**

**Order Ref:**

**Date:**

**Machine:**

**Operator:**

<b>Sl.no</b>	<b>Job description</b>	<b>Quantity</b>

**Inspection Remarks:**

**Finished job ready:**

**National Centre for Photo and Picture Framing Technology**  
UPEC Complex, Mandi Samiti Road, Saharanpur -247001

**Sl.no:**

**MACHINE JOB CARD**

**Order Ref:**  
**Machine:**

**Date:**  
**Operator:**

<b>Sl.no</b>	<b>Job description</b>	<b>Quantity</b>

**Inspection Remarks:** \_\_\_\_\_ **Finished job recd:** \_\_\_\_\_  
**Inspected by:** \_\_\_\_\_

	<b>From</b>	<b>To</b>	<b>Time Taken</b>
<b>Setting Time</b>			
<b>Processing Time</b>			

**National Centre for Photo and Picture Framing Technology**  
UPEC Complex, Mandi Samiti Road, Saharanpur -247001

**JOB COMPLETION REPORT**

**Customer:**

**Sl.no:**

**Job card ref:**

**Date:**





## Materials Inward Register

Date	Inv No/ Date	Supplier	Item	Qty received	Qty Accepted	Value	Signature

--	--	--	--	--	--	--	--

**Bin Card / Materials Register (one page for each item)**

**Material description  
measurement:**

**Unit of**

**Re order level:**

Date	Inv No/ Date	Supplier	Qty received	Qty issued	Unit rate	Balance	Signature
	Job card No	Customer					

--	--	--	--	--	--	--	--

**Applicable tax:**

**Machine Log Register (one page for each machine)**

**Machine Name:**

**Machine serial no:**

**Received date:**

**Machine landed cost:**

**Commissioning date:**

**Commissioned by:**

<b>Service details</b>					
<b>Date</b>	<b>Details of service</b>	<b>Engineer</b>	<b>Expense</b>	<b>Spares used</b>	<b>Remarks</b>



	<b>MDF</b>		
	<b>Hardwares and consumable</b>		
	<b>Finished Back and Tie</b>		
	<b>Items not used for more than 3 months</b>		

**Prepared by:**

**Date:**

**National Centre for Photo and Picture Framing Technology**  
UPEC Complex, Mandi Samiti Road, Saharanpur -247001

To EPCH, Delhi

Kind attn :

**Monthly report for the month of:**

9. Value of orders received :  
Rs.
10. Value of Jobs completed  
: Rs
11. Value of jobs carried forward :  
Rs.
12. Total billing : Rs
13. Payments received :  
Rs
14. Receivables : Rs.
15. Purchases :  
Rs
16. Total expenses :  
Rs

**Prepared by:**

**Date:**