International Labour Organization

Issuing bundles

Cutting room operations

Factory Improvement Toolset

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Factory Improvement Toolset

The Factory Improvement Toolset (FIT) is an innovative self-facilitated, activity-based learning approach designed by the International Labour Organization (ILO) to create more decent and sustainable employment. FIT supports manufacturers in global supply chains to improve productivity, competitiveness and working conditions by upgrading production systems and factory practices.

FIT has been developed to be a sustainable, time- and cost-efficient option for supporting factories to enhance productivity through improved business practices and working conditions. FIT focuses on areas of production improvement and actions to be taken specific to each participating factory. It can be utilized as stand-alone learning tools or to complement other training programmes.

With each module lasting no more than 2.5 hours, FIT enables factories to train personnel, whilst minimizing interference with production realities. The easy-to-use methodology makes it possible to rapidly scale the implementation to reach a large cohort of trainees across multiple production facilities.

Working in small groups, participants review real-life situations and engage in discussions to determine improvements to be made in factory without an external trainer or specialist. This self-facilitated, activity-based and highly participatory learning approach positions participants as both student and teacher and makes the toolset self-tailored to the needs and interests of each group.

About this module

This FIT module on Issuing bundles is a training for garment manufacturers to improve cutting room operations. Participants will work on receiving requisitions, issuing, and recording issued quantities. This module takes about 2.5 hours to complete.

Upon completion of the training, participants should have:

- Discussed and improved their issuing system, including for recording issued quantities.
- Learnt to use bundle issuing and requisition slips to issue bundles.

The **Factory Improvement Toolset** of the **International Labour Organization (ILO)** are developed and provided by the ILO's **Enterprises Department**.

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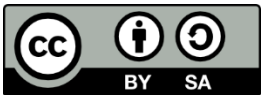


Guidelines for successfully using the training tool

Read out-loud

The FIT tool is designed for participants to take turns reading the instructions in the modules out loud to the group. At least one member of the group should be selected in the beginning of the session to take this responsibility.

Work as a group

Always work in groups of 5-7 during a FIT session. The programme will not be successful if participants work independently or do not collaborate with each other.

Be active

Encourage everyone in the group to actively contribute to the discussion. Ensure that no group member dominates the discussion or does not participate at all.

Monitor the time

Select one member of the group to monitor the time for each activity and remind the group when it is time to move to the next exercise.

Complete the action plan

Complete the action plan at the end of the session. This will help ensure that FIT results in improvements in the factory. Review the plan a while after the session to make sure that actions in the plan has been completed accordingly.

Icons

A set of icons is used throughout the modules to provide easy to recognize reference points for different tasks within each session and activity.

Read out loud

One member of the group should read out loud to the rest of group.

Knowledge link

Knowledge and skills are linked to other FIT learning resources and support.

Time allotted

Indicates how much time each sessions and activity should take.

Supplies needed

Indicates that supplies may be necessary to complete the session.

Begin step-by-step instructions

Indicates that the step-by-step instructions for an activity are beginning.

Think about it

Indicates additional information for the participants to think about.

Measuring your performance

Measuring operational efficiency is a key aspect of running a productive factory. The box(es) below guides you in understanding which measurement indicator(s) can be used to measure and evaluate the performance of your factory in relation to the topics covered by the FIT cutting room series.

Indicator 1	**Re-cuts (%)**
Definition	The proportion of fabric used for re-cuts for each order (the amount of fabric used for re-cuts compared to the total amount of fabric used for the order).
Purpose	To understand how much of the fabric was used for re-cuts, to better assess quality and begin to identify how to improve quality in the cutting room.
Calculation	(# meters of fabric used for re-cuts / total # meters of fabric used for this order including re-cuts) x 100% This should also be calculated separately for re-cuts due to cutting defects and re-cuts due to other defects.
Frequency	Calculate for each cut order, then do a monthly average of all cut orders.
Responsible	Cutting room manager / Quality inspector

Indicator 2	**Fabric utilization (%)**
Definition	The proportion of total spread fabric that is actually used for garments. It is calculated for each cut (for each marker). The higher the most efficient.
Purpose	To understand how efficient your marker planning and cutting operations are, how much fabric gets wasted, and to begin to identify how to improve marker efficiency and reduce fabric waste.
Calculation	(Marker area used for garments in *sqm* / total fabric area in *sqm*) x 100% Marker area used for garments = Fabric (in sqm) actually used for garments Total fabric area = The total amount of fabric spread on the cutting table for a cut = Fabric length (mts) x Fabric width (mts)
Frequency	Calculate for each marker, then do a monthly average of all markers.
Responsible	Cutting room manager / Senior marker maker

Session 1

Business case study

Goals

Preparing you for the type of discussions you will have with other group members throughout the learning module and understanding the benefits of being exposed to different perspectives.

Understanding better why having a good issuing system is important in the factory.

Session 1

Overview

One member should read the full session out loud to the rest of group

15 minutes

Learning manual, pens, markers and poster paper

A business case study presents a real-life situation for learners to reflect on and discuss with other group members. By discussing the case, students learn from others' ideas and perspectives, and develop an understanding of the topic at hand within the workplace.

One group member reads the case study out loud

The whole group discusses the case study

Everyone develops a deeper understanding of the topic

Activities

Activity

1

15 minutes

Case study review and respond

The case study below presents a situation that could happen in real life.

Instructions:

1) As a group, listen to one member read the case study below while following along in your learning module.

Ritthy is a new cutting room manager at the HS garment factory. He notices that there is no proper system in place to issue bundles to the sewing lines. Sewing line workers just walk in and ask for bundles or pick them off the storage trolleys themselves. It is impossible to keep track of how many bundles go where. This makes it hard for the cutting room to know exactly how many bundles have been issued and how many are left to be issued in order to complete the order. Also, the wrong bundles get issued, or bundles get misplaced, lost or damaged. This creates order delays and waste, as sometimes pieces even need to be re-cut as the sewing room has not reached its targets.

Ritthy decides to make some changes. Together with the sewing manager, he introduces “bundle requisition and issue notes”, which are used by the sewing lines to request bundles. Workers are trained to use these to prepare and pick up issued bundles. Ritthy also creates a log book called the cutting issues register, in which he records how many bundles of which style, size and colours are issued to the sewing lines.

Thanks to these changes, the sewing and the cutting departments can work together better. This avoids issuing mistakes, waste of fabric, and delays due to re-cutting or confusion. Orders are ready on time, and buyers are satisfied.

2) Together, discuss Ritthy’s situation by answering the three questions in table 1 on the next page.

Table 1. Questions about Ritthy's situation
1. What problems has Ritthy identified? What impact do these problems have on the factory and its workers?
2. What does Ritthy do or change in order to solve these problems?
3. What are the results of Ritthy's solutions for the factory and its workers?

This page has been intentionally left blank and can be used for note taking.

Session 2

Learning about the topic

Goals

Discussing and improving your complete bundle issuing process.

Discussing good practices for issuing bundles efficiently and systematically.

Learning how to use bundle requisition and issue notes to issue bundles.

Learning how to record issued quantities appropriately in a cutting issues register.

Session 2

Overview

One member should read the full session out loud to the rest of group

100 minutes

Learning manual, pens, and markers

This training module aims to help you improve the way your cutting room operates by focusing on bundle issuing. Issuing bundles is the process of moving bundled cut parts to the sewing department for assembling. Issuing bundles on time and with precision is important to make sure that sewing can be completed on time, and that production runs smoothly and orders are shipped on time. Throughout this module, you will go through the three steps below.

Receiving bundle requisitions

→ **Issuing** bundles

→ **Recording** issued quantities

Throughout the activities, you will work on these three steps by (1) learning how to use bundle requisition and issue notes to issue bundles, (2) discussing best issuing practices, and (3) thinking about how to record issued quantities systematically and precisely.

Activities

Activity
2a

20 minutes

Issuing bundles

Issuing bundles is the process of moving bundled cut parts to the sewing department for assembling. In this activity, you will discuss your bundle issuing system and think about how you can improve it.

Instructions:

1) Together, discuss the five questions in table 2 below.

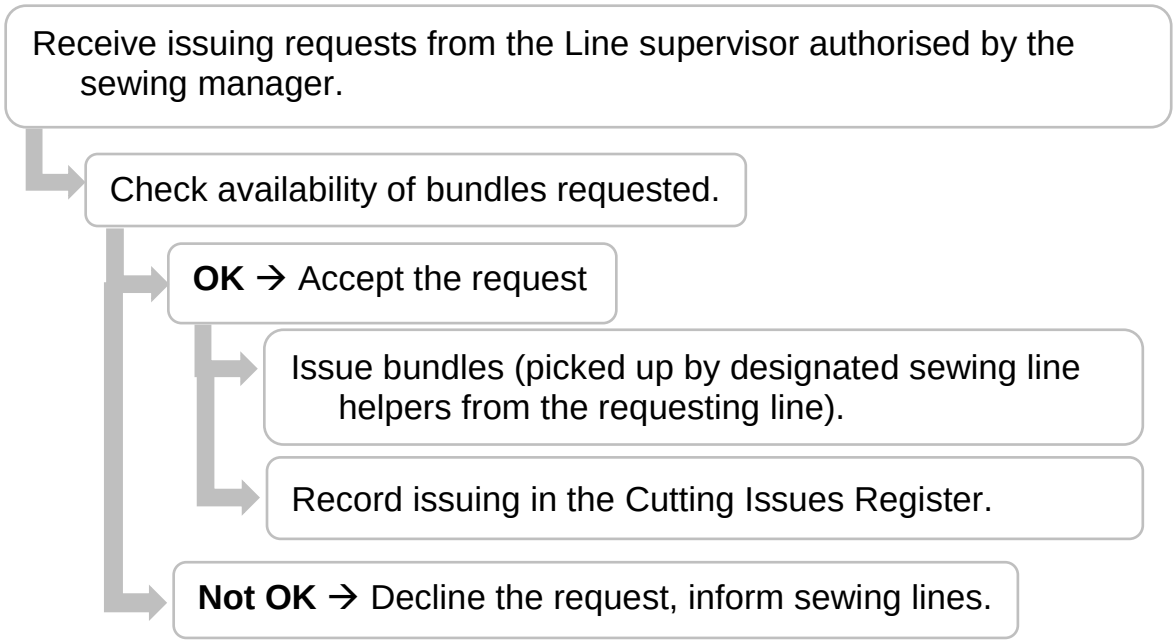
2) Have a participant read aloud the list of steps involved in bundle issuing in table 3. Then, individually, draw or write down all the steps of your own bundle issuing process in the space provided.

3) Together, discuss your bundle issuing process: Is there anything that you already know you could do to improve it?

Table 2. Issuing bundles

What?	Is there any standardized bundle issuing system in place in your factory?
Who?	Who is responsible for or involved in bundle requesting / issuing?
When?	When are bundles issued?
How?	What documents do you use to issue bundles?
Why?	Why is it important to have a good, consistent system to issue bundles to the sewing lines?

Table 3. Bundle issuing process



Draw or write down your bundle issuing process below.

Activity

2b

25 minutes

Receiving requisitions

The first step of issuing is when you **receive issuing requisitions** from the sewing lines. Requisitions are made and processed using “Bundle Requisition and Issue Notes (BRIN)”. In this activity, you will discuss how to fill in and use BRIN to issue bundles.

Instructions:

1) Together, look at the example of a BRIN with the explanations in table 4, and make sure everyone understands.

2) Have a participant read aloud the scenario in table 5. Then, together fill in the BRIN in table 4 (shaded cells). The first example has been filled in to guide you.

3) Together, read through the steps for processing a requisition in table 6, and put them in the right order by putting a number from 1 to 9 in the right column. Solutions are at the bottom of the page.

Table 4. BRIN (CIS)

BRINs go through 2 different departments, who each fill in different parts:

- **Sewing department** → Serial No., Date, Order#, Line#, Style#, Size, Colour, Quantity required in pieces, “Requested by”, “Authorized by”, “Received by”.
- **Cutting room** → Quantity issued (pieces and bundles), Cut components, Bundle tag #, “Prepared by”, “Approved by”, “Issued by”.

BRIN

Serial No.: 8392	**Date:** February 9, 2019	**Order #:** 5467	**Line#:** 2

Style#	**Size**	**Colour**	**Cut component(s)**	**Quantity Required** (pieces)	**Quantity issued**		**Bundle tag #**
					Pieces	Bundles	
F8821	S	White		103			
			Total				

Requested by: *Line supervisor*	**Prepared by:** *Cutting room helper*	**Issued by:** *Cutting clerk*
Authorized by: *Sewing manager*	**Approved by:** *Cutting manager*	**Received by:** *Line helper*

Table 5. Using BRINs for requisitions
Scenario: On February 9, the line supervisor Sophorn fills in BRIN #8392 for order #5467, to request the following quantities (pieces) for sewing line 2: • 103 pieces for style F8821, colour White, size S. *[Example]* • 200 pieces for style F8821, colour White, size M. • 106 pieces for style F8821, colour White, size L. • 102 pieces for style F8821, colour Red, size XS. • 205 pieces for style F8821, colour Red, size S.

Table 6. Processing requisitions	
Steps	**#**
The line supervisor fills in a BRIN (original) to request a certain amount of pieces as per line plan and sends it to the cutting room.	
The cutting clerk fills in the relevant rows in the original BRIN.	
A designated sewing line helper picks up (receives) the bundles using the carbonized copy, and delivers them to the right sewing line.	
A cutting room Clerk records the quantities issued in the Cutting Issue Register using the original note.	
Designated cutting room helpers prepare the bundles for issuing using the original note.	
The sewing manager authorizes the requisition based on the sewing plan.	
If quantities are available, the cutting manager signs the note and authorizes issuing.	
The carbonized copy is sent to the requesting sewing line for bundle pickup and record-keeping.	
The cutting room receives filled-in bundle requisition and issue note (original and carbon paper both).	

Solutions: 1, 6, 8, 9, 4, 2, 5, 7, 3.

Activity

2c

25 minutes

Issuing bundles

After a requisition has been approved, the bundles can be **prepared for issuing** by cutting room workers, authorized by the cutting room manager, and picked up by designated sewing line helpers. In this activity, you will discuss best practices in issuing bundles.

Instructions:

1) As a group, read through the list of good issuing practices in table 7, and put a ✓ in the column on the right if you do it in your factory.

2) Together, look at the BRIN in table 8, with the information filled-in from activity 2b. Did you get the same answers?

3) Have a participant read aloud the scenario in table 9. Then, together fill in the BRIN in table 8 (shaded cells). The first example has been filled in to guide you. Solutions are at the bottom of the page.

Table 7. Issuing bundles

Good practices	✓
1. There is a set timetable for the sewing floor to submit requisitions. For example, by 10am every day.	
2. There is a set timetable for designated sewing line helpers to pick up issued bundles. For example, from 2 to 3pm every day.	
3. Bundles cannot be issued or picked up without a BRIN being approved first.	
4. Only cutting room workers assigned to this task can remove bundles from storage (designated, labelled bundle racks) and prepare them for pick-up.	
5. Cutting room workers are trained in reading a BRIN and using them to prepare materials for pick-up.	
6. Bundles are picked up by the sewing line helpers by presenting the approved BRIN.	
7. Sewing line helpers compare the pick-up content with the information on the BRIN before transferring them to the sewing lines.	
8. The transfer of bundles always takes place in a specific area to keep the cutting room orderly and avoid mixing the bundles with other materials.	

Table 8. BRIN

Serial No.: 8392			**Date:** February 9, 2019	**Order #:** 5467		**Line#:** 2
Style#	**Size**	**Colour**	**Cut component(s)**	**Quantity Required** (pieces)	**Quantity issued**		**Bundle tag #**
					Pieces	Bundles	
F8821	S	White		103	103	10	1~10
F8821	M	White		200			
F8821	L	White		106			
F8821	XS	Red		102			
F8821	S	Red		205			
			Total	716			

Requested by: *Line supervisor*	**Prepared by:** *Cutting room helper*	**Issued by:** *Cutting clerk*
Authorized by: *Sewing manager*	**Approved by:** *Cutting manager*	**Received by:** *Line helper*

Table 9. Using BRIN for issues

Scenario:

On February 9, cutting room clerk Ritthy fills inBRIN #8392 for order #5467, sewing line 2, after the following quantities have been issued. For this style (F8821), the cut component is 2 front, 1 back, 1 pocket, 2 sleeves, 2 collars.

- Bundles #1 to 10 (9 bundles of 10 pieces and 1 bundle of 13 pieces, so 103 pieces), colour White, size S are issued. *[Example]*
- Bundles #11 to 30 (20 bundles of 10 pieces), colour White, size M are issued.
- Bundles #31 ro 41 (10 bundles of 10 pieces and 1 bundles of 6 pieces), colour White, size L are issued.
- Bundles #42 to 51 (9 bundles of 10 pieces and 1 bundle of 12 pieces), colour Red, size XS are issued.
- Bundles #52 to 72 (20 bundles of 10 pieces and 1 bundle of 5 pieces), colour Red, size S are issued.

Bundles are prepared for issuing by cutting room worker Amit. The requisition is then authorized and the BRIN signed by cutting manager Ritthy. Lastly, the carbon copy is sent to sewing line 2 and used by sewing line feeder Maria to pick up the bundles.

Solutions (horizontally): 2nd line → 200 pieces, 20 bundles, 11~30 ; 3rd line → 106 pieces, 11 bundles, 31~41 ; 4th lines → 102 pieces, 10 bundles, 42~51 ; 5th line → 205 pieces, 21 bundles, 52~72 ; Total → 716 pieces, 72 bundles, 1~72.

Activity

2d

30 minutes

Recording issued quantities

After issuing requests have been approved and bundles picked up, all issued quantities should be recorded in the Cutting Issues Register. The **cutting issues register (CIR)** records the colour and size wise issue to each line for a particular order / style #. In this activity, you will discuss the importance of recording issued quantities, and how to do it.

Instructions:

1) Together, discuss:

- How do you usually record issued quantities?
- Why is it important to always record issued quantities?

2) Together, look at the cutting issues register (CIR) for set bundle system in table 10, and make sure everyone understands. An example is provided for piece bundles at the end of this activity.

3) Have a participant read aloud the scenario in table 11. Then, together, fill in the cutting issues register in table 10 (shaded cells). The first example has been filled-in to guide you.

4) Together, discuss the six questions in table 12. Solutions are provided at the bottom of the page.

Table 10. Cutting issues register (set bundle system)

Order#	5467	**Buyer**	QAL Co.
Style#	F8821	**Sewing line**	2
Order quantity	1,750	**Colour**	White

Cutting issued:

Date	Issue slip#	Sizes						Total		Balance
		XS	S	M	L	XL	2XL	Total	Cum.	
09/02	8392		100	200	100			400	400	1,400
10/02	8394									
11/02	8395									
12/02	8399									
13/02	8401									
Total										

A **cutting issues register** is a logbook which helps you track when each cut piece is issued to which sewing line, for each style, colour, and size. Use a separate page for each style, and update records daily.

The cutting colour-size ratio should be indicated in the Cutting Balance Sheet (CBS). To learn more about CBS, ask for the "Cutting fabric" module.

Table 11. Scenario

Scenario: Cutting room Clerk Sophal fills in the cutting issues register for style#F8821 in colour White, order#5467 for buyer QAL Co., issued to sewing line 2. Order quantity is 1,750 garments. Sophal's factory uses the set bundle system. Each bundle contains 10 pieces (10 garments).

- February 9, 400 pieces were issued: 100S, 200M, 100L. The balance is 1,800 – 400 = 1,400 pieces.
- February 10, 200 pieces were issued: 100XS, 100XL. So, the cumulative total is 200 + 400 = 600 pieces issued.
- February 11, 400 pieces were issued: 100S, 200M, 100L.
- February 12, the following bundles were issued: 30M, 10L.
- February 13, the following bundles were issued: 20S, 10M, 10L.

Table 12. Practice questions

1. What is the cumulative total number of pieces issued for this style order by February 11? By February 12?
2. How many pieces were issued on February 12? On February 13?
3. What is the total quantity (cumulative) of bundles issued by February 13?
4. Order quantity was 1,750 garments. Was there extra cut (so, extra issued) for this order?
5. What is the total issued for size S? For size M?
6. Was the cut order completed and issued to the sewing lines by February 13?

Solutions: **1.** Feb11: 1,000; Feb12: 1,400; **2.** Feb12: 400; Feb13: 400; **3.** 1,800 bundles; **4.** Yes, there are 50 extra pieces; **5.** S: 400; M: 800; **6.** Yes.

Do you use the piece bundle (similar cut parts) bundled together or set bundle (all cut parts for x garments bundled together) in your factory? If you use the **piece bundle system**, below is an example of CIR that can be used.

For your reference:

CUTTING ISSUES REGISTER (piece bundle system)			
Order#	5467	**Order qty.**	1,800
Style#	F8821	**Cut components**	5 (1 collar, 1 front, 1 back, 2 sleeves)
Buyer	QAL Co.	**Parts qty.**	5 x 1,800 = 9,000
Colour	White	**Sewing line**	2

Cutting issued:

Parts	**Size**	**Quantity**									**Total**
		09/10	10/10	11/10	12/10	13/10				.	
BRIN #		8978	8979	8980	8981	8982					
Front	XS	100									100
	S	200	100		100						400
	M		200	100	300	200					800
	L		100	100		200					400
	XL			100							100
Back	XS	100									100
	S	200	100		100						400
	M		200	100	300	200					800
	L		100	100		200					400
	XL			100							100
Collar	XS	100									100
	S	200	100		100						400
	M		200	100	300	200					800
	L		100	100		200					400
	XL			100							100
Sleeve	XS	200									100
	S	400	200		200						400
	M		400	200	600	400					800
	L		200	200		400					400
	XL			200							100
Total		1,500	2,000	1,500	2,000	2,000					
Cumulative		1,500	3,500	5,000	7,000	9,000					
Balance		7,500	5,500	4,000	2,000	0					

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Session 3

Action items

Goals

Summarizing and revising the new knowledge gained.

Identifying concrete applications of the new knowledge that benefit your factory.

Session 3

Overview

One member should read the full session out loud to the rest of group

20 minutes

Learning manual, pens, and markers

Throughout this module, you gained new knowledge on how to issue bundles efficiently, precisely and timely.

Receiving bundle requisitions

Issuing bundles

Recording issued quantities

In this session, you will think of ways to apply your new knowledge to improve bundle issuing by reviewing best practices and drafting your own action plan.

Bundle requisition & issues notes and Cutting issues register templates are available online for you to print out and use in your own factory. To obtain it, contact your factory's FIT coordinator!

Activities

Activity

3a

5 minutes

Best practices checklist

In this activity, you will review best bundle issuing practices as a next step for evaluating your own and implementing improvements.

Instructions:

1) Together, look at the list of best practices in table 13, and put a ✓ in the column on the right if you use these practices in your factory.

Table 13. Issuing bundles

Best practices	✓
1. There is a clear, detailed bundle issuing system in place that both the cutting and sewing departments are aware of and understand.	
2. The cutting manager / workers handle bundle issuing, and have been trained to follow the issuing process.	
3. Bundle requisition and issue notes are used to requisition and issue bundles (BRIN).	
4. Bundle requisitions and pick up take place during specific timeslots in order to help everyone involved work more efficiently.	
5. When preparing and transferring bundles from one department to the other, workers know how to read and check BRINs.	
6. After issuing, issued quantities are recorded as appropriate in the cutting issues register by the cutting room manager.	

Activity

3b

15 minutes

Your action plan

In this activity, you will think of ways to apply your new knowledge to improve bundle issuing in your factory by drafting your own action plan.

Instructions:

1) Together, fill in the action plan (table 14) on the next page. Identify a key problem that you want to solve and write down the solutions you identified while working on this module.

Table 14. Issuing bundles – Action Plan

Problem identified				
Solutions identified	**Action(s) to be taken**	**Person responsible**	**By when?**	**How will improvements be measured?**

Issuing bundles

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FIT is being piloted in Asia under the regional Decent Work in the Garment Sector Supply Chains in Asia project funded by the Government of Sweden.

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