# Interview note : Multiple layout for HW laser print

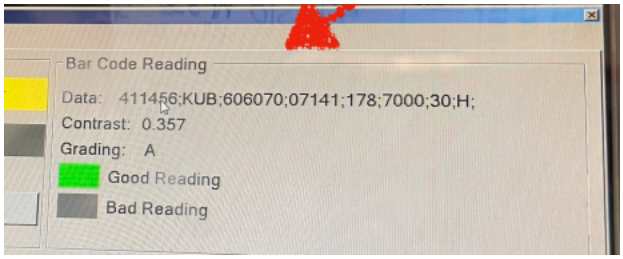
## Introduction

Casthouse has received a customer specification requiring modifications to the laser printing layout applied to billets. The request change affect both the visual layout and data matrix content must be modified in the Hertwich and Process systems.

## Current system


### Current layout

- Aluminium & Rusal Logo
- Data Matrix
- Hertwich machine (H1/H2)
- Text : KUBAL Sweden
- Charger (6 digits)
- Homat status (HO)
- Alloy code/Customer alloy code




509413;KUB;M26063;M26063;228;6000;11;H;

### Current data matrix

- Charger number (6 digits)
- Text : KUB
- Alloy code
- Customer alloy code
- Dimension
- Length
- Billet number (götnummer)
- Text : H (if it's homat)

# New request

## Custom layout

*Same as the current layout but add FvN information*

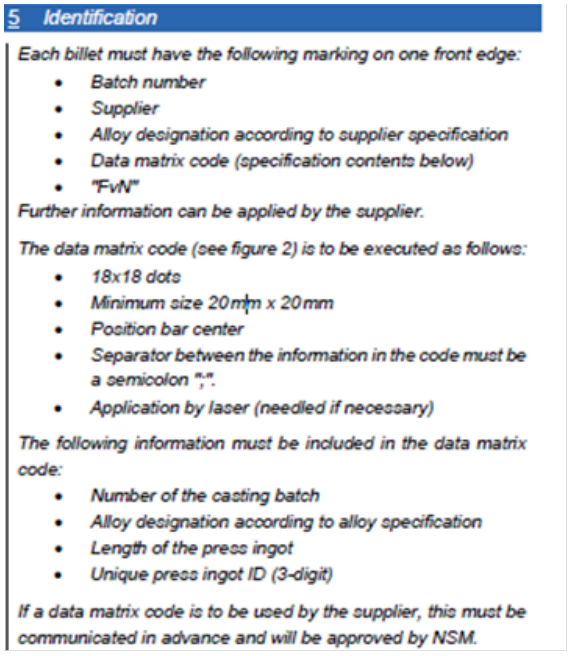
- Aluminium & Rusal Logo
- Data Matrix
- Hertwich machine (H1/H2)
- Text : KUBAL Sweden
- Charger (6 digits)
- Homat status (HO)
- Alloy code/Customer alloy code
- FvN code


## Custom data matrix

- Charger (6 digits)
- Customer alloy code
- Length
- Billet number in 3 digits (ex.001, 002)

**Note on the identification from the customer**

*Further information can be applied by the supplier**



5 Identification

Each billet must have the following marking on one front edge:

- Batch number
- Supplier
- Alloy designation according to supplier specification
- Data matrix code (specification contents below)
- "FvN"

Further information can be applied by the supplier.

The data matrix code (see figure 2) is to be executed as follows:

- 18x18 dots
- Minimum size 20 mm x 20 mm
- Position bar center
- Separator between the information in the code must be a semicolon ";".
- Application by laser (needled if necessary)

The following information must be included in the data matrix code:

- Number of the casting batch
- Alloy designation according to alloy specification
- Length of the press ingot
- Unique press ingot ID (3-digit)

If a data matrix code is to be used by the supplier, this must be communicated in advance and will be approved by NSM.

# Questions for Implementation Analysis

These questions must be answered before we can design the new process and it would be the information to discuss with Hertwich for the solution in their system.

### FvN Code

The customer specification shows two lines:

Line 1: FvN US

Line 2: 55-CSI

**Questions:**

1. What does "FvN" mean? What information does it represent?
2. What does "US" indicate? Is it the destination country code?
3. What does "55-CSI" mean? Is this a fixed value or does it change?
4. If it changes, what triggers the change and what are the possible values?
5. Does FvN vary by alloy, order, sales contract, customer, or shipping destination?

### Data Matrix

The new data matrix field order is:

Charger → Customer alloy code → Length → Billet number (3 digits)

**Questions:**

6. Is this field order fixed, or could other customers require different sequences?
7. If it could be different, who determines the field order for each customer?
8. Will data matrix content vary by customer/destination, or could it expand in the future?

### Rebundle Process

Assumption: We will have two layouts (standard + custom) assigned by customer setup.

**Questions:**

9. When a billet is shortened and reprinted, how should the layout be selected:
   - Automatically based on the original customer?
   - Manually by the operator?
10. Can a billet printed for Customer A ever be shipped to Customer B?
11. If yes, will Customer B accept the layout from Customer A, or does it need reprinting?
12. If reprinting is needed, how should the system manage layout selection to ensure correctness?

**Quality Control**

Currently, the laser print does not show customer information on the billet.

**Questions:**

13. During quality inspection in Hertwich area, how will operator verify that the correct layout was used?
14. During quality inspection in the finished goods area, how will inspector verify that the correct layout was used?
15. Currently, operators cannot see which layout will be used or which customer the billet is for. Should the system provide this information through:
    - In Hertwich screen showing template name and customer?
    - In process system showing this template/layout?
    - Reports or logs?
16. The system should select the layout automatically based on the customer in the order. But what is the desired system behavior for below these error cases?
    - The order has the wrong customer assigned
    - A new customer has no template configured yet

These questions help us build the right solution together with Hertwich. Getting clarity now means fewer changes and faster delivery later.