

# Determine QC Time, GRPT, Average Inspection Time, QC Lag Adjustment

Once a plant starts using the SAP QM Module, the next step is to leverage on the new capability to determine when each new lot will be available (=released from QC).

This also allows SAP (and especially ATP) to prevent a lot to ship while it is in quality inspection.

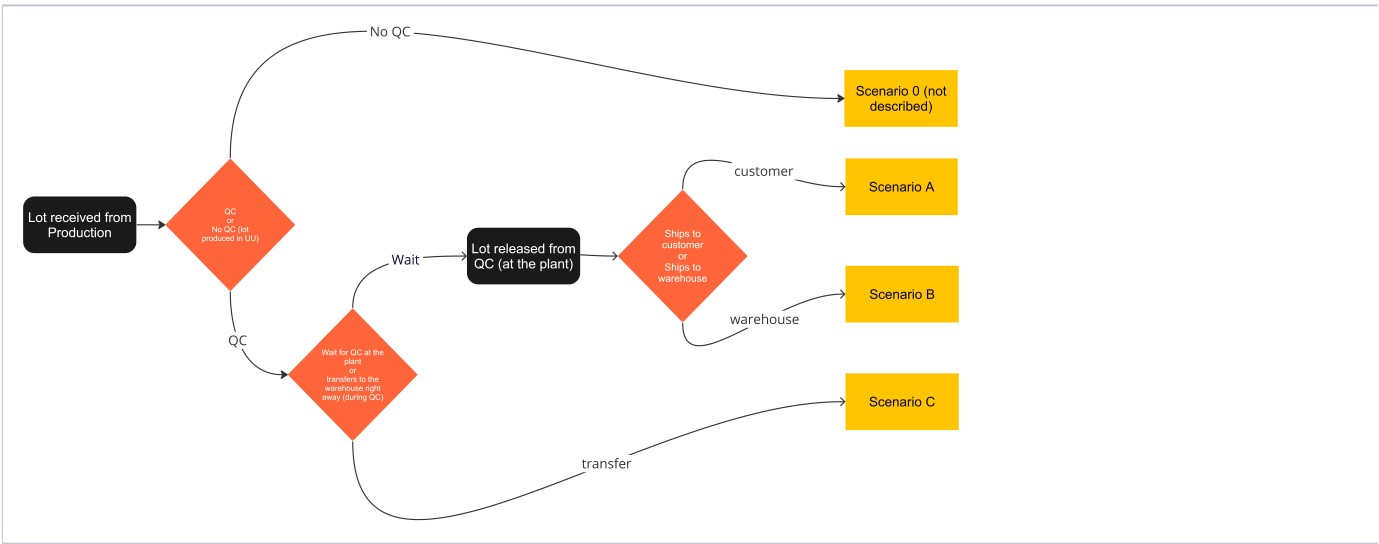
In addition, it allows SAP (and especially ATP) to determine if a specific lot can ship at a given date, while still being under quality inspection.

In order to achieve this, the Lab reviews their statistics and establishes the expected completion time of a given product (or family of products), which goes into SAP.

## Step-by-step guide

Now, in order to determine the SAP QC Time, SAP Average Inspection Time, SAP Goods Receipt Processing Time, SAP Planned Delivery Time, Picaso QC Lag, and Picaso QC Lag Adjustment, first determine what material flow applies:

- **Scenario A:** Lot is received in inventory at the manufacturing plant, then ships from the plant to final customer. All happening from within the production plant.
- **Scenario B:** Lot is received in inventory at the manufacturing plant, then is pushed to the warehouse once released from QC. Once it arrives at the warehouse, it can ship to final customers.
- **Scenario C:** Lot is received in inventory at the manufacturing plant, then is pushed to the warehouse right away, that is, before QC release. It is received at the warehouse in QC status. It will ship to final customers once released from QC.
- **Scenario C w/ autoMIGO:** same as C, with auto-MIGO
- **Scenario D:** Same as C, with lots being received in SAP, and QC starting, while campaign still in progress. Even more complex, therefore only if adds value (to be continued)
- **Special scenarios**, when there is no external scheduling system:
  - Scenario A-bis (same as A, no external scheduling system)
  - Scenario B-bis (-----B,-----)
  - Scenario C-bis (-----C,-----)
- What if we want to ensure that Picaso runs and SAP Planned orders have the same duration? With scenario A & B, we keep master data management simple, and this result



| Terminology                                                                                                                                                             |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Both Picaso and SAP have to be kept in synchronization when accounting for time the Lab needs to complete quality control.                                              |
| In the real world, the Lab typically starts working on samples during production. The time to process a sample and release a lot is called <b>Lab Turnaround Time</b> . |

Material flows:

| Phase | Scenario A |
|-------|------------|
|-------|------------|

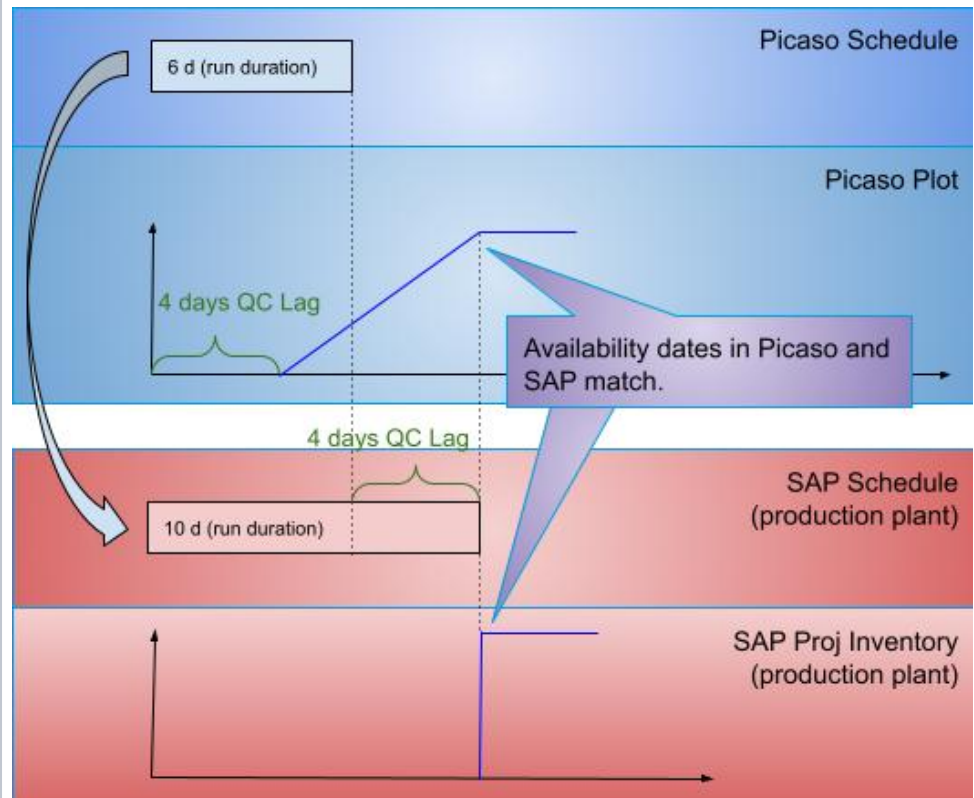
Production Run Time: 6 days

Lab Turnaround Time = 4 days

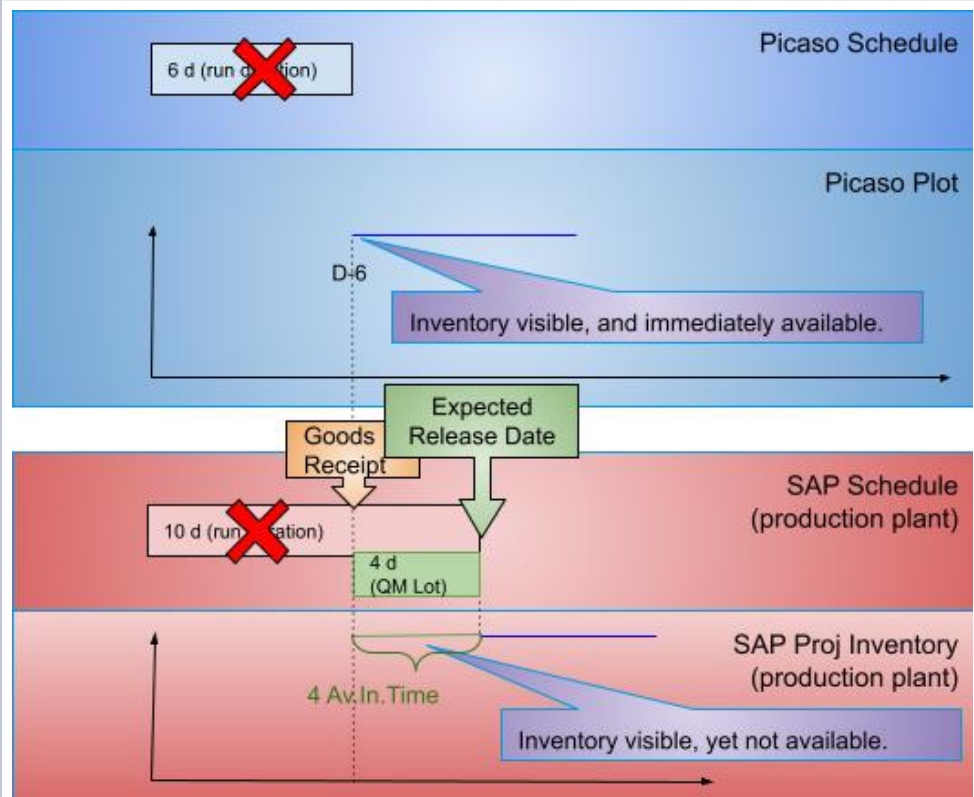
(in the schematics, Lab Turnaround Time is referred to as 'Lab Time')

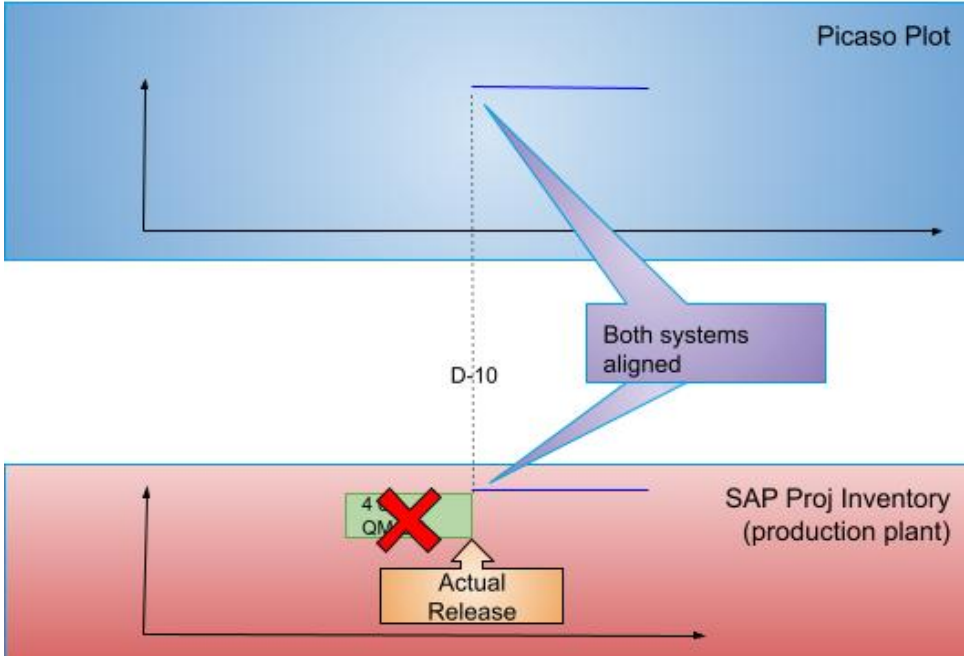
Before Goods Receipt from Production in the manufacturing plant

(why the interface created a 10 days planned order in SAP when the original Picaso run is 6 days? Find the answer here)



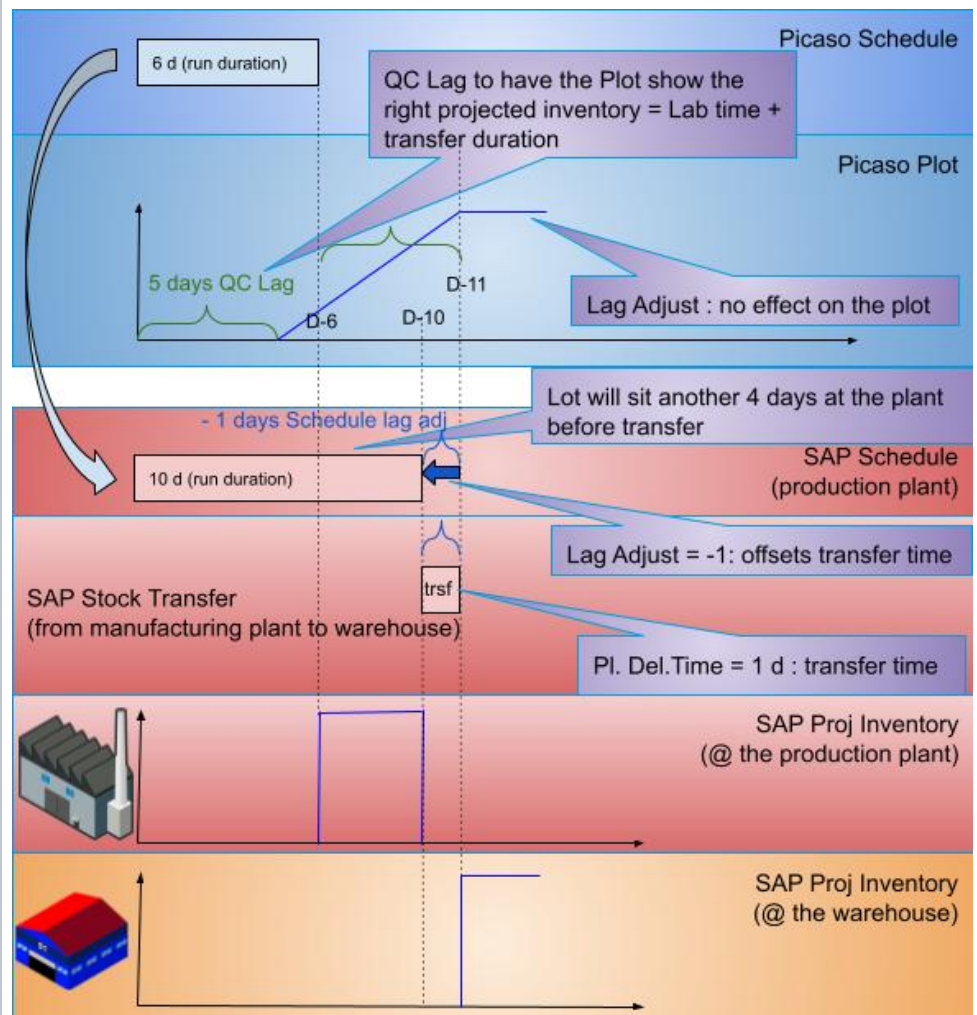
After Goods Receipt from Production in the manufacturing plant



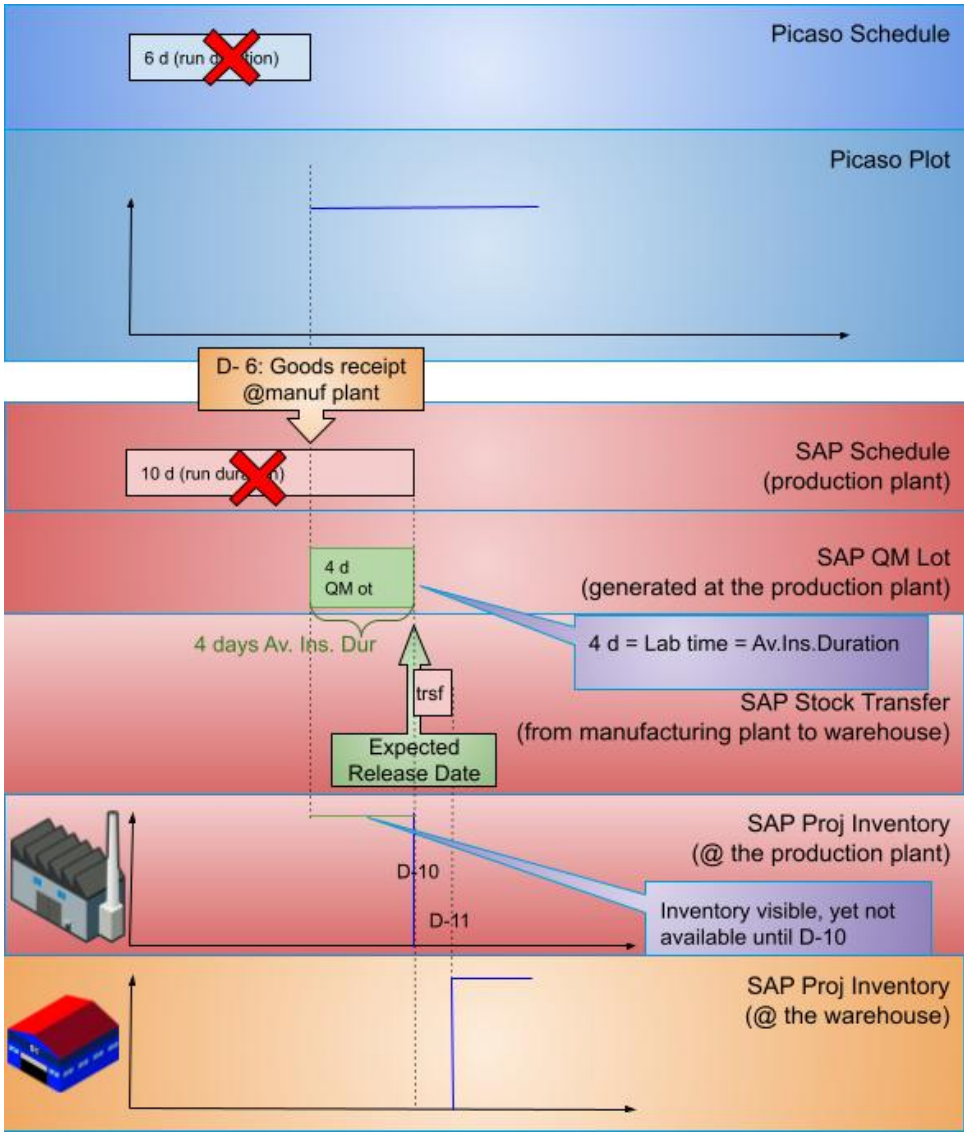
|                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>After QC Release</p>    |  <p>The diagram illustrates the timeline alignment between Picaso Plot and SAP Proj Inventory (production plant) after QC Release. The Picaso Plot (blue background) shows a timeline with a vertical dashed line at D-10. The SAP Proj Inventory (red background) shows a timeline with a green box labeled '4 QM' and a red 'X' over it, with an arrow pointing to an 'Actual Release' box. A callout box says 'Both systems aligned' pointing to the D-10 line.</p> |
| <p><b>Master Data:</b></p> | <p><b>Picaso:</b> QC Lag = Lab Turnaround Time (4 days)</p> <p><b>SAP (at the plant)</b></p> <ul style="list-style-type: none"> <li>• Av.Ins.Duration (@plant) = Lab Turnaround Time (ex. : 4 days)</li> <li>• Make sure these are blank (or 0): <ul style="list-style-type: none"> <li>◦ Planned Delivery Time (@plant)</li> <li>◦ Goods Receipt Processing Time (@plant)</li> </ul> </li> </ul>                                                                                                                                                        |
| <p><b>Phase</b></p>        | <p><b>Scenario B</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|                            | <p>Production Run Time: 6 days</p> <p>Lab Turnaround time = 4 days</p> <p>(in the schematics, Lab Turnaround Time is referred to as 'Lab Time')</p> <p>Transfer time between manufacturing plant and warehouse = 1 day</p> <p>Lot moved to the warehouse <b>after</b> QC release</p>                                                                                                                                                                                                                                                                     |

## Before Goods Receipt

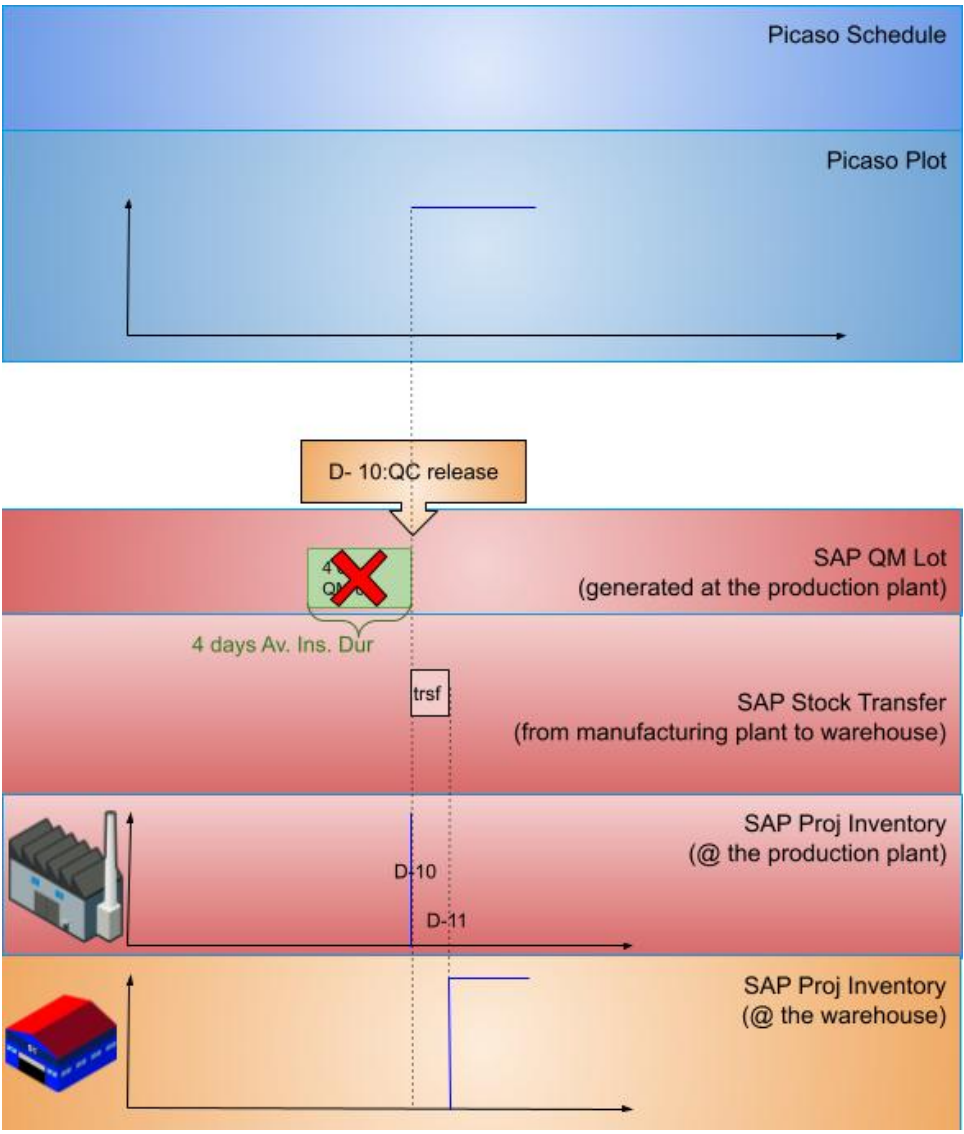
(why the interface created a 10 days planned order in SAP when the original Picaso run is 6 days? Find the answer [here](#))



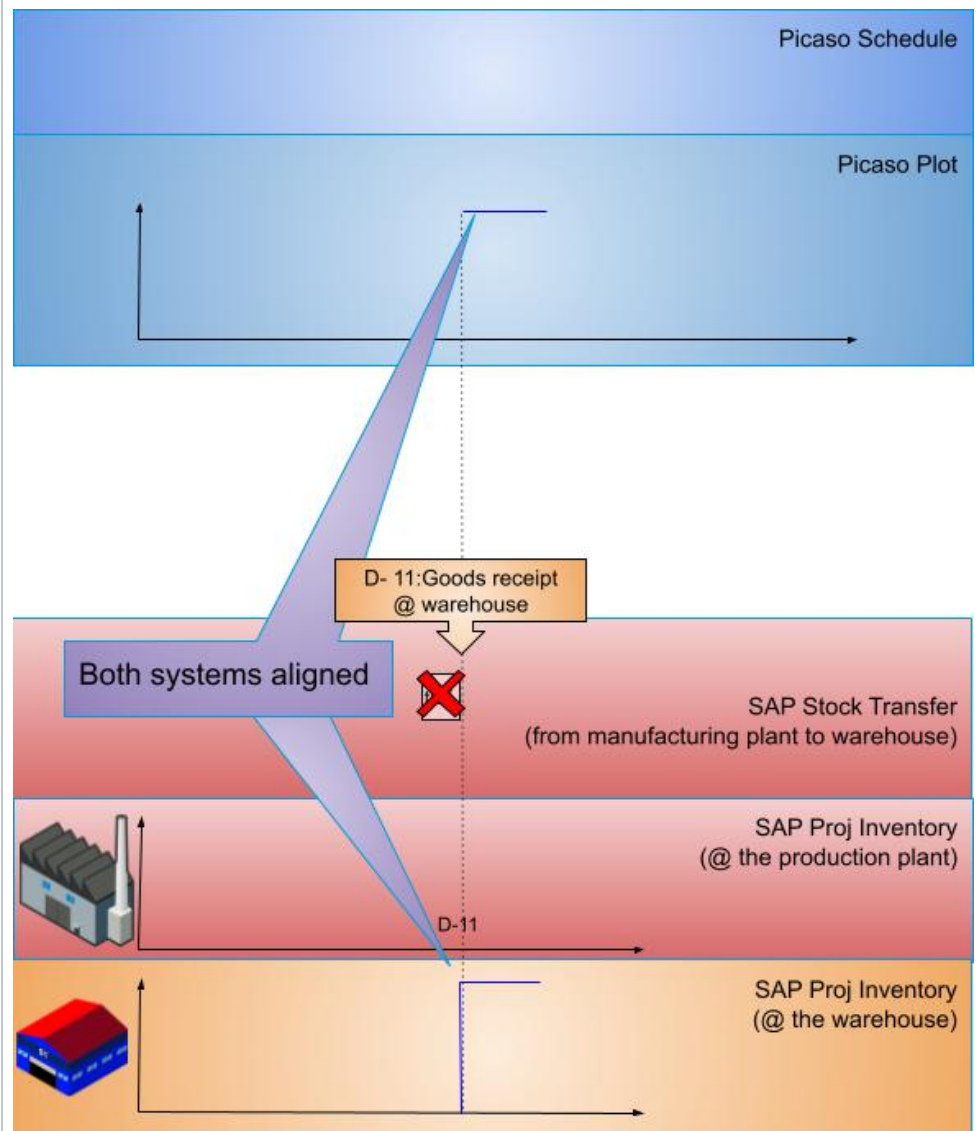
After Goods Receipt from Production in the manufacturing plant



After QC Release



After Goods Receipt from Transfer in the warehouse



#### Master Data:

#### Picaso:

- QC Lag = Lab Turnaround Time + transfer to the warehouse, including handling. (ex. : 5 days)
- Schedule Upload Lag Adjustment = - transfer & handling time (ex. : -1 days)

#### SAP (at the plant)

- Av.Ins.Duration (@plant) = Lab Turnaround Time (ex. : 4 days)
- Make sure these are blank (or 0):
  - Planned Delivery Time (@plant)
  - Goods Receipt Processing Time (@plant)

#### SAP (at the warehouse)

- Planned Delivery Time (@warehouse)= Transfer time (ex. : 1 days)
- Make sure these are blank (or 0):
  - Av.Ins.Duration (@warehouse)
  - Goods Receipt Processing Time (@warehouse)

#### Phase

#### Scenario C

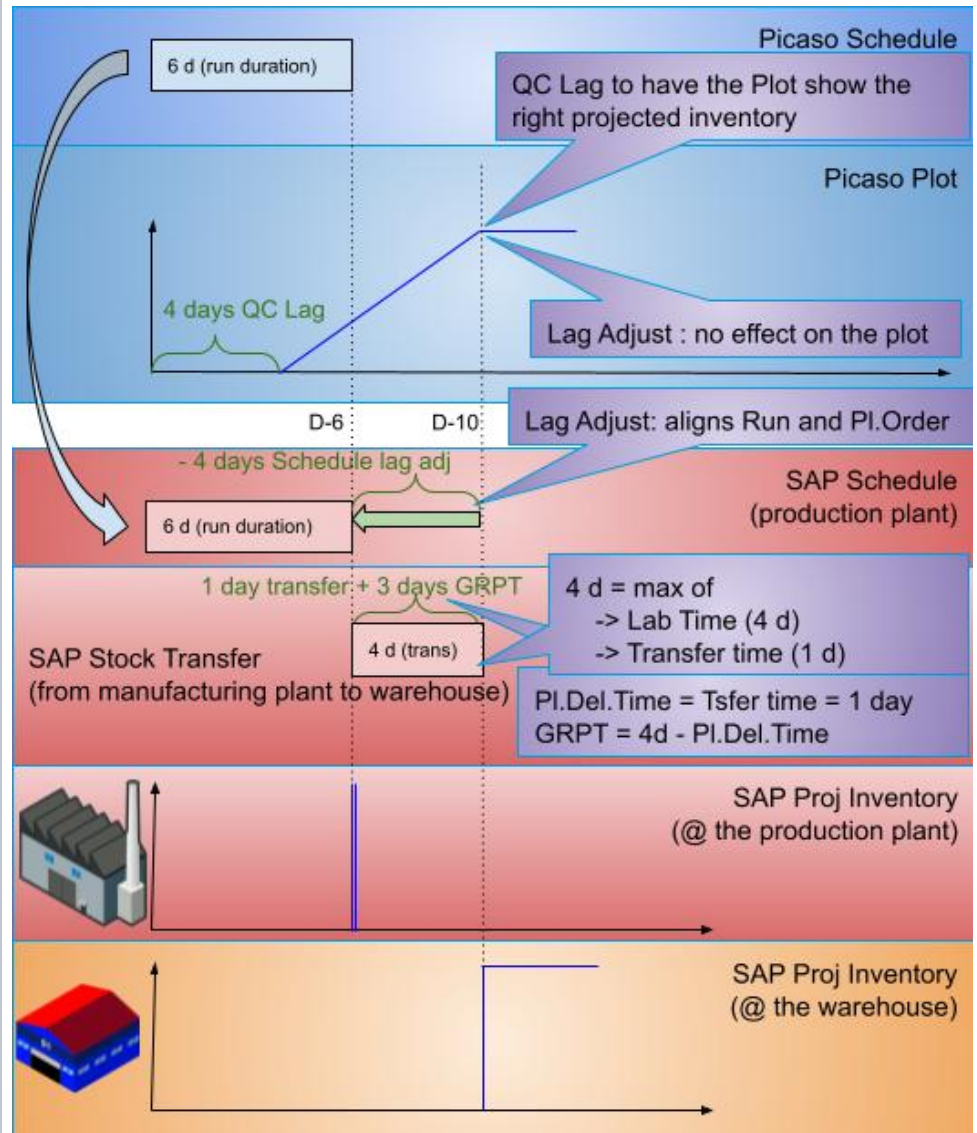
Production run time: 6 days

Lab Turnaround Time = 4 days

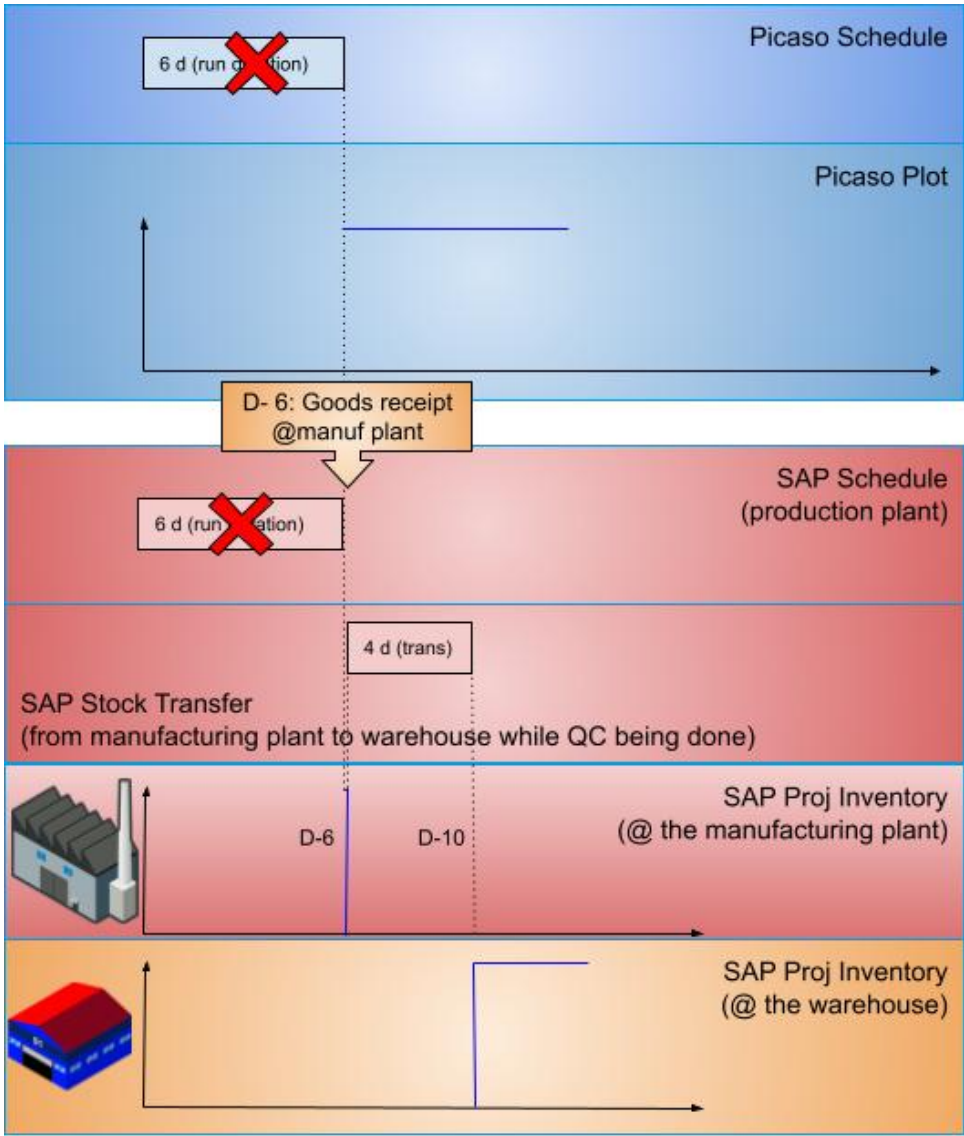
Transfer time between manufacturing plant and warehouse = 1 day

Lot moved to the warehouse **during** QC

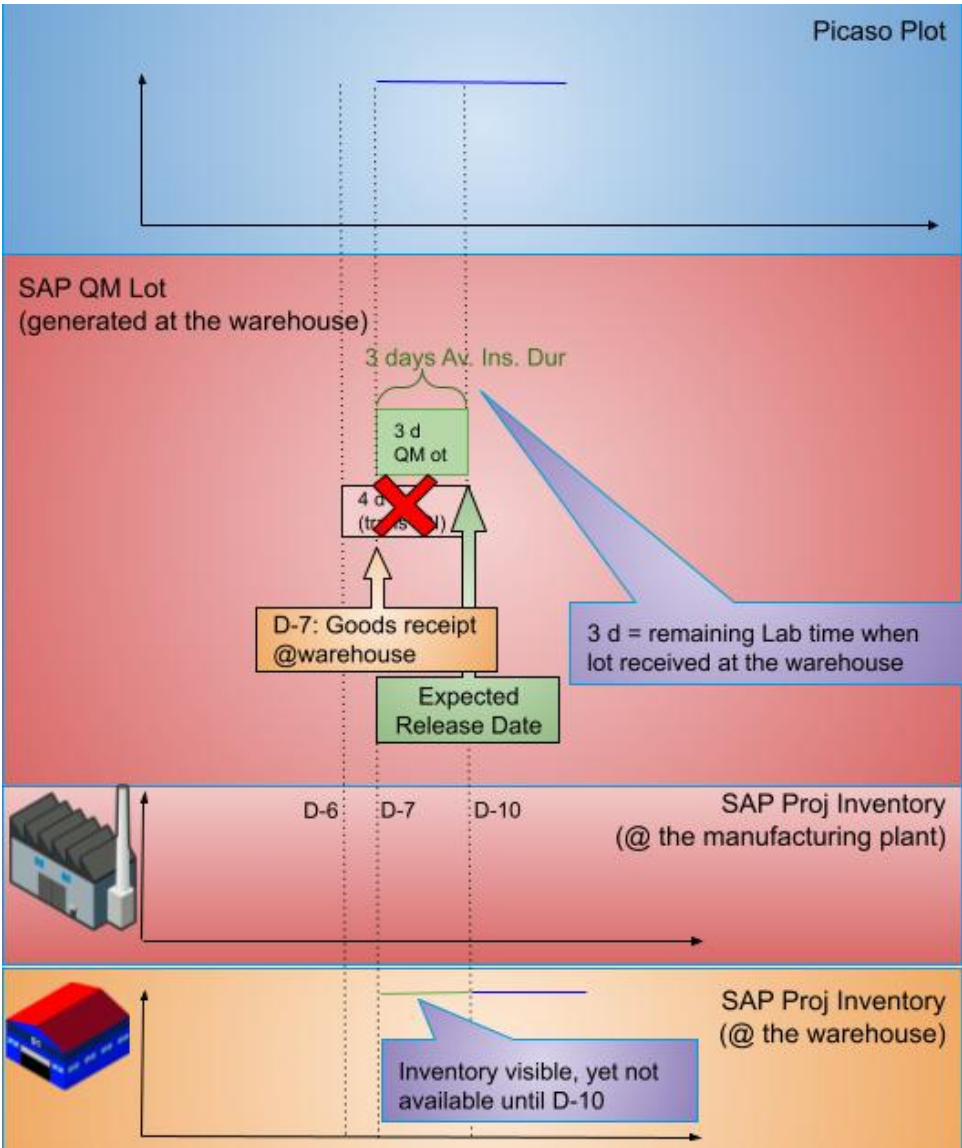
Before Goods Receipt from Production



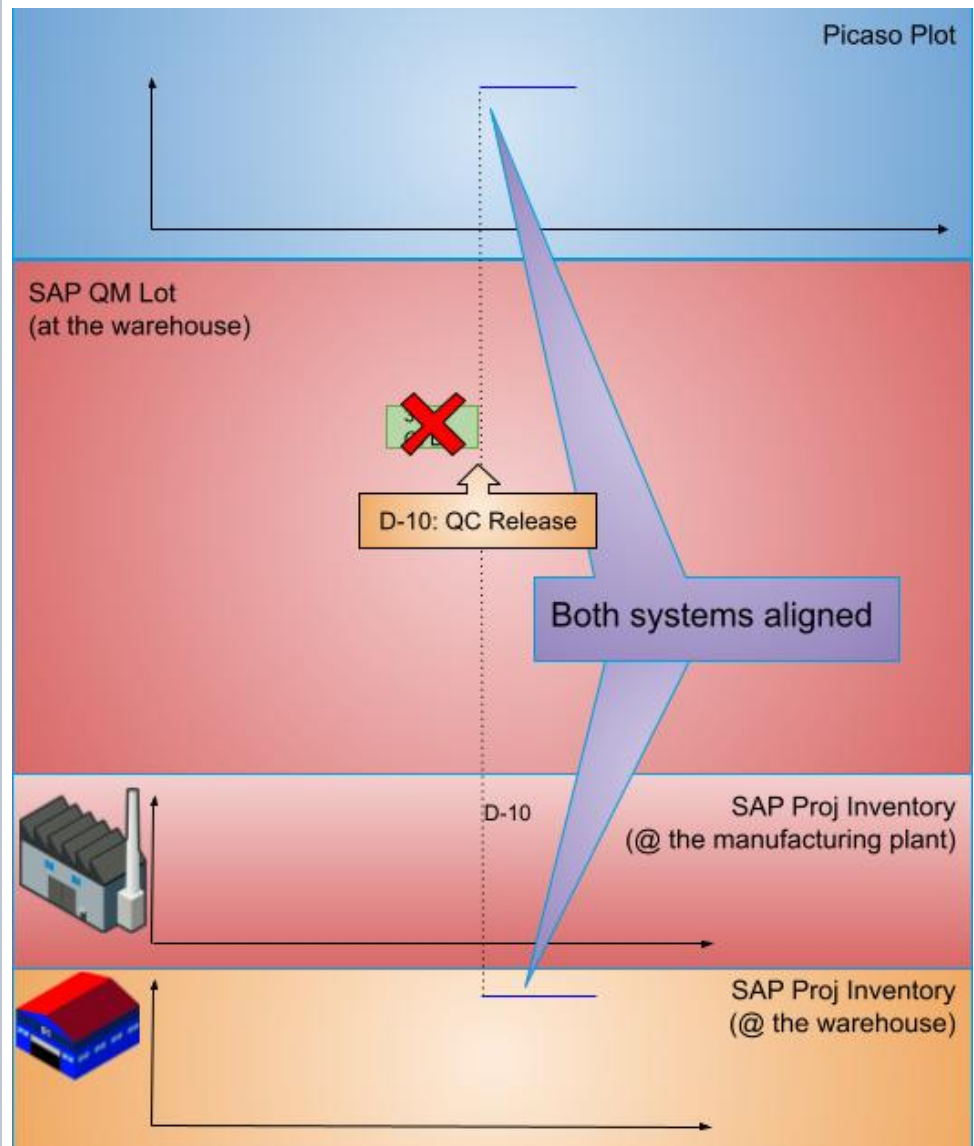
After Goods Receipt from Production in the manufacturing plant



After Goods Receipt from Transfer in the warehouse



After QC Release



**Master Data:**

**Picaso:**

- QC Lag = expected max of Lab Time / transfer to the warehouse, including handling. (ex. : 4 days)
- Schedule Upload Lag Adjustment = - QC Lag (ex. : -4 days)

**SAP (at the plant)**

- Make sure these are blank (or 0):
  - Av.Ins.Duration (@plant)
  - Planned Delivery Time (@plant)
  - Goods Receipt Processing Time (@plant)

**SAP (at the warehouse)**

- Planned Delivery Time (@warehouse)= Transfer time (ex. : 1 days)
- Goods Receipt Processing Time (@warehouse)= Lab Time - Transfer time (ex. : 3 days)
- Av.Ins.Duration (@warehouse)= Lab Time - Transfer time (ex. : 3 days) = GRPT

**Phase**

**Scenario C w/autoMIGO**

Production run time: 6 days

Lab Turnaround Time = 4 days

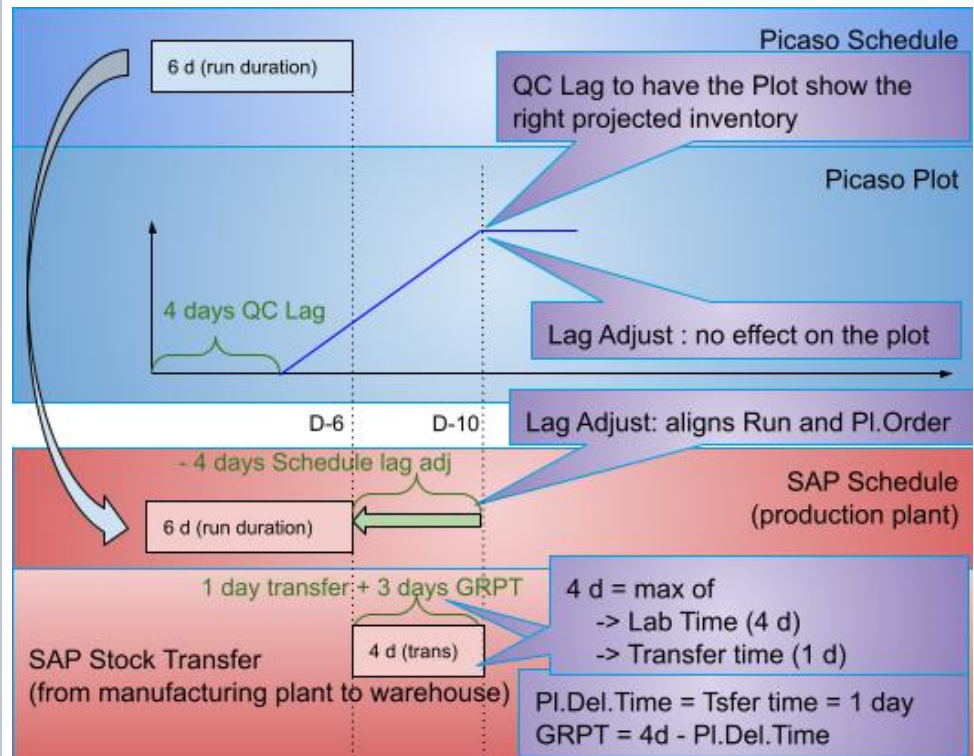
Transfer time between manufacturing plant and warehouse = 1 day (real transfer time, not transfer time in SAP)

Lot moved to the warehouse **during** QC

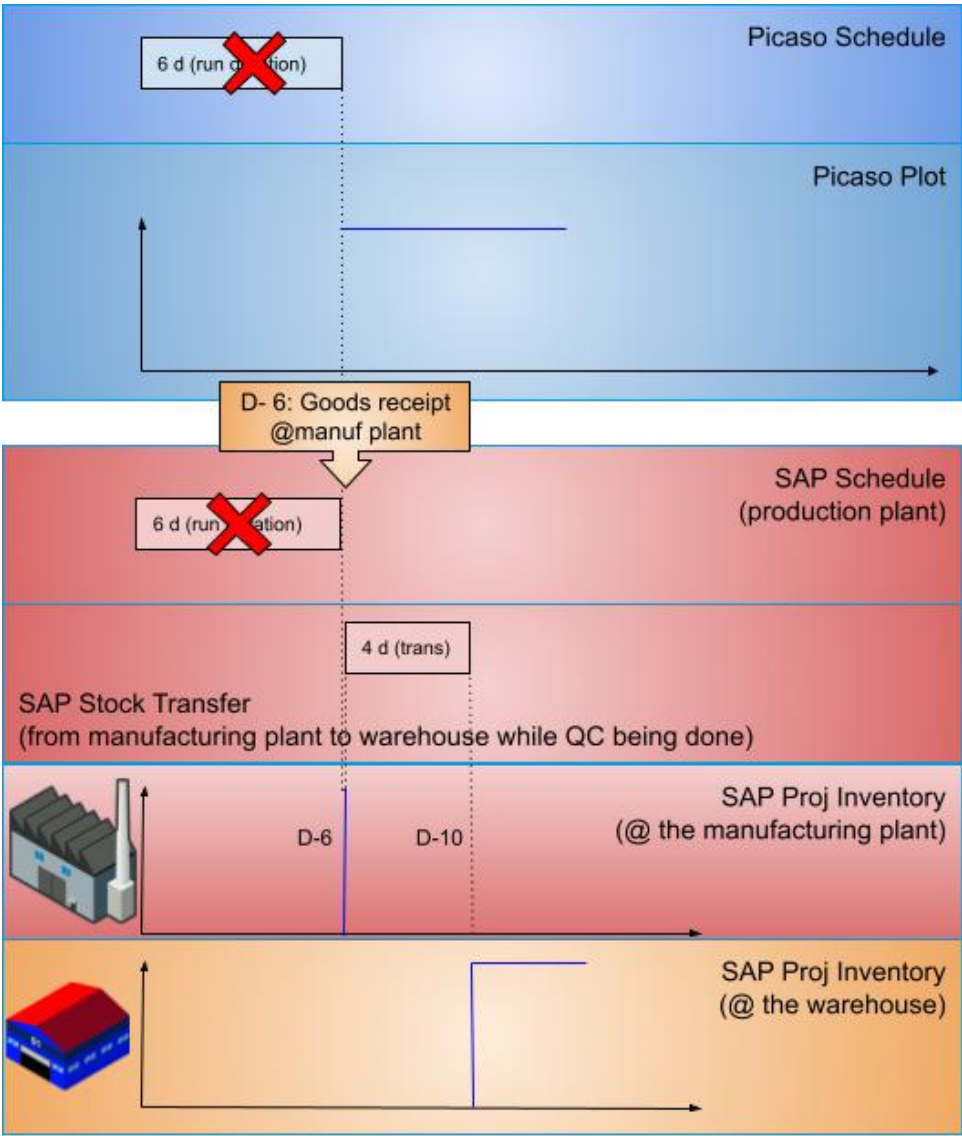
**autoMIGO for stock transfer** lot received at the warehouse (in SAP) immediately after GI from the plant.

 Therefore, even though the actual transfer time is 1 day, the transfer time in SAP is 0 days. We will call this the **SAP Transfer Time**

Before Goods Receipt from Production



After Goods Receipt from Production in the manufacturing plant



After Goods Issue for Transfer from the plant.

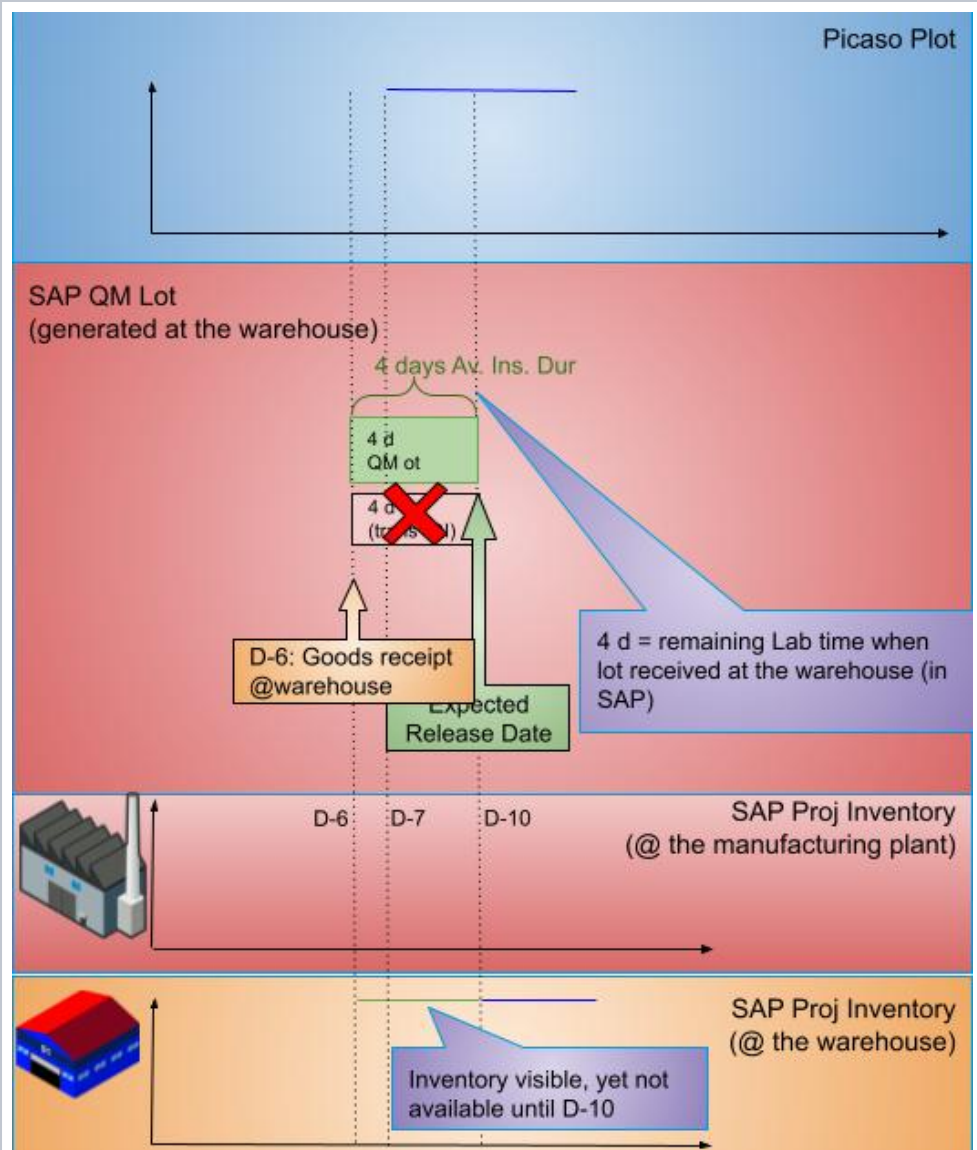
The Average Ins. Duration is therefore greater than in scenario C.

It does not mean that the lab takes more time to turnaround a lot.

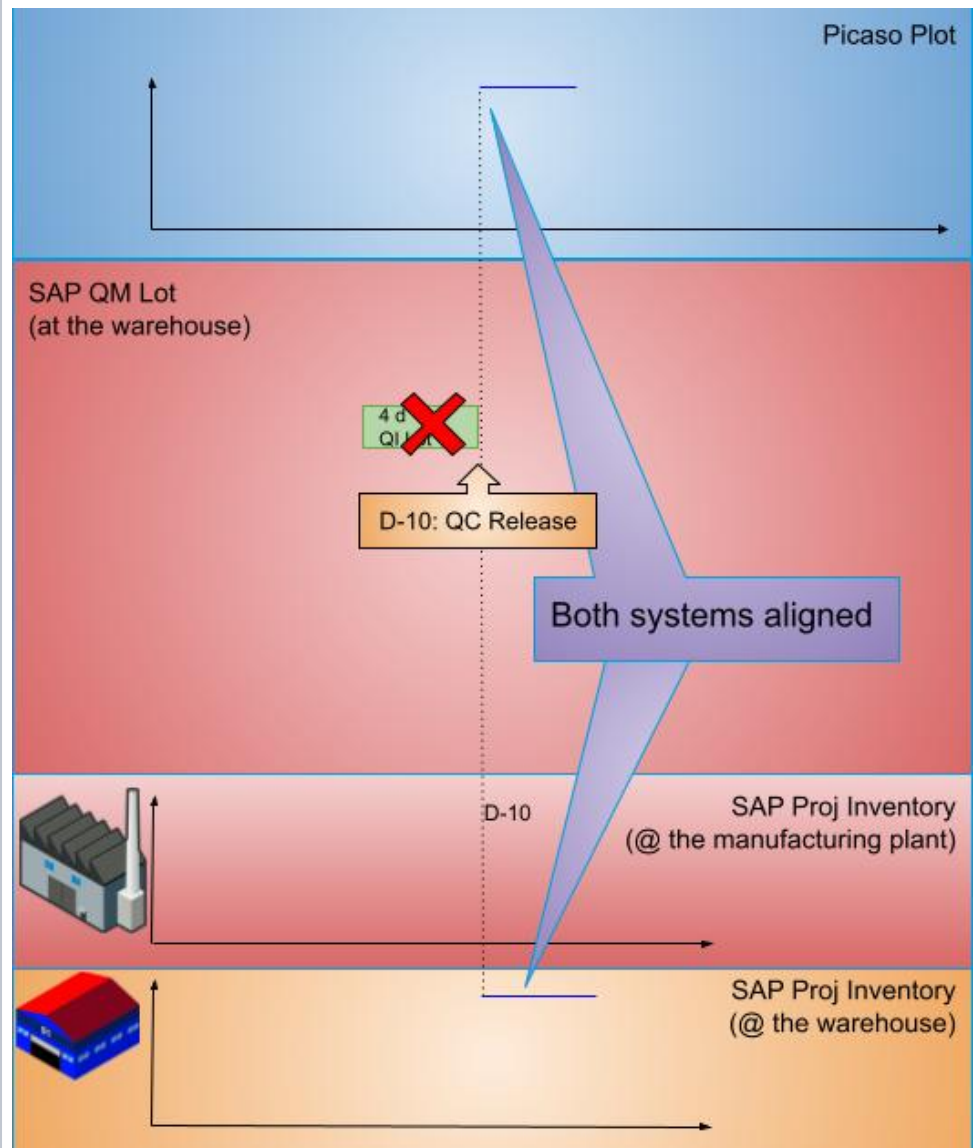
The Lab takes the exact same time.

It means that the lot arrives earlier at the warehouse (in SAP) than with scenario C,

while the lab still have to do the same work.



After QC Release



#### Master Data:

#### Picaso:

- QC Lag = expected max of Lab Turnaround Time / transfer to the warehouse, including handling. (ex. : 4 days)
- Schedule Upload Lag Adjustment = - QC Lag (ex. : -4 days)

#### SAP (at the plant)

- Make sure these are blank (or 0):
  - Av.Ins.Duration (@plant)
  - Planned Delivery Time (@plant)
  - Goods Receipt Processing Time (@plant)

#### SAP (at the warehouse)

- Planned Delivery Time (@warehouse)= Transfer time (ex. : 1 days)
- Goods Receipt Processing Time (@warehouse)= Lab Time - Transfer time (ex. : 3 days)
- Av.Ins.Duration (@warehouse)= Lab Time - autoMIGO Transfer time (ex. : 4 days), **hence <GRPT <= only change vs a Scenario C w/o autoMIGO**

#### Phase

#### Scenario A bis

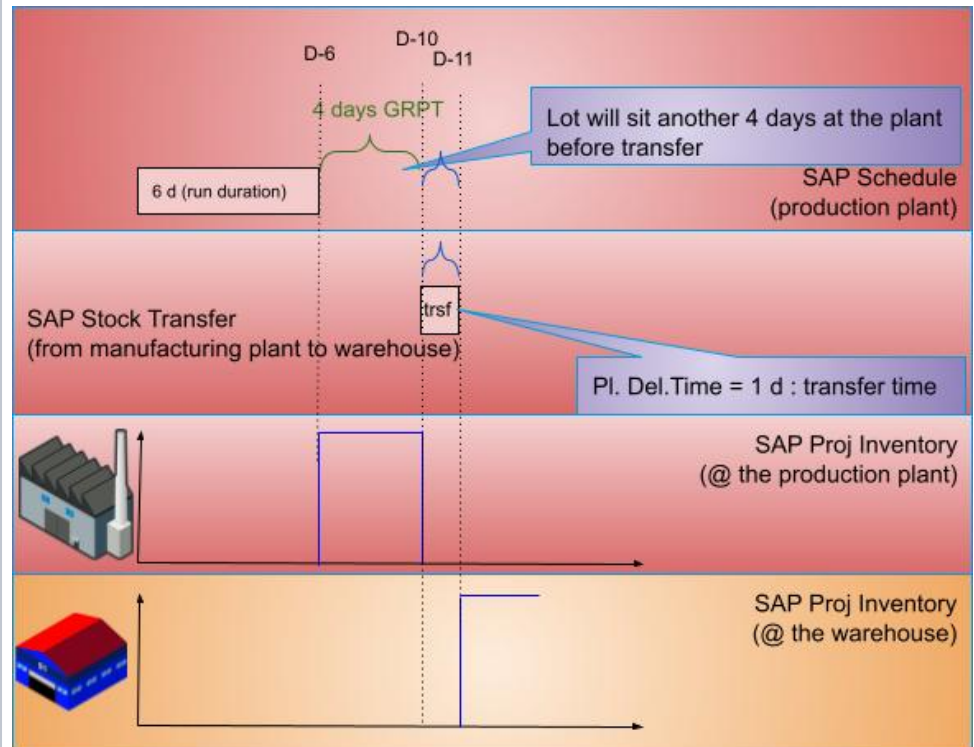
Production run time: 6 days

Lab time = 4 days

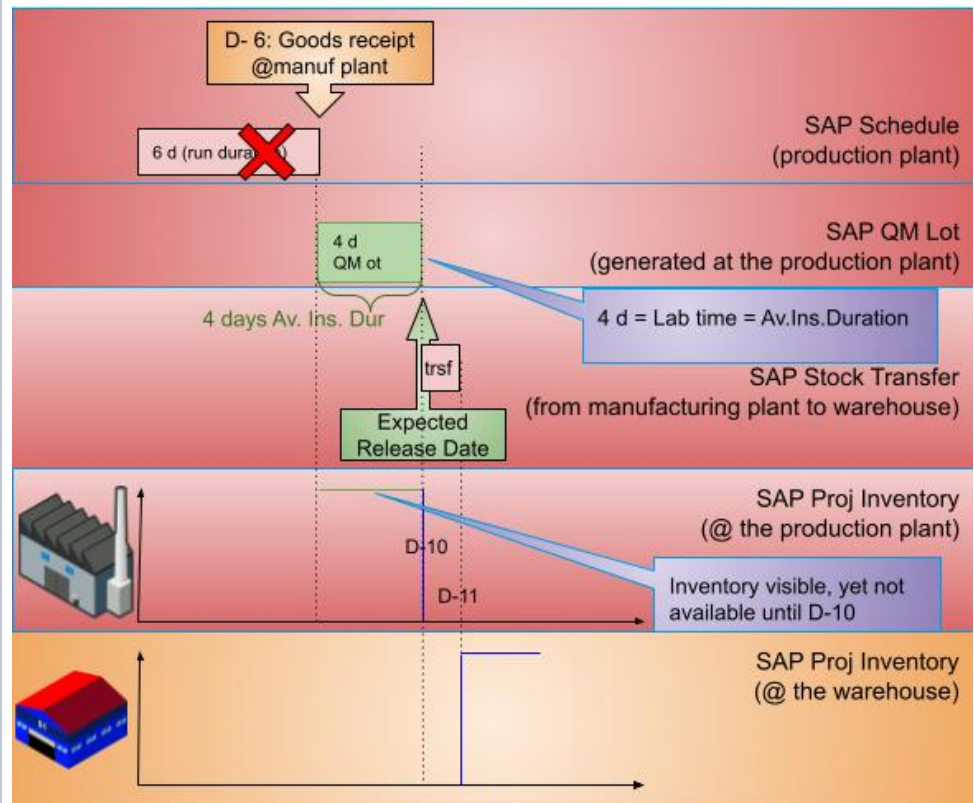
|                                                                 |                                                                                                                                                                                                                                                                                                                                                      |
|-----------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Before Goods Receipt from Production in the manufacturing plant |                                                                                                                                                                                                                                                                                                                                                      |
| After Goods Receipt from Production in the manufacturing plant  |                                                                                                                                                                                                                                                                                                                                                      |
| After QC Release                                                |                                                                                                                                                                                                                                                                                                                                                      |
| Master Data:                                                    | <p><b>SAP (at the plant)</b></p> <ul style="list-style-type: none"> <li>• Av.Ins.Duration (@plant) = Lab Time (ex. : 4 days)</li> <li>• Goods Receipt Processing Time (@plant) = Lab Time (ex. : 4 days)</li> <li>• Make sure these are blank (or 0): <ul style="list-style-type: none"> <li>◦ Planned Delivery Time (@plant)</li> </ul> </li> </ul> |

| Phase | Scenario B bis                                                                                                                                                                               |
|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|       | <p>Production run time: 6 days</p> <p>Lab time = 4 days</p> <p>Transfer time between manufacturing plant and warehouse = 1 day</p> <p>Lot moved to the warehouse <u>after</u> QC release</p> |

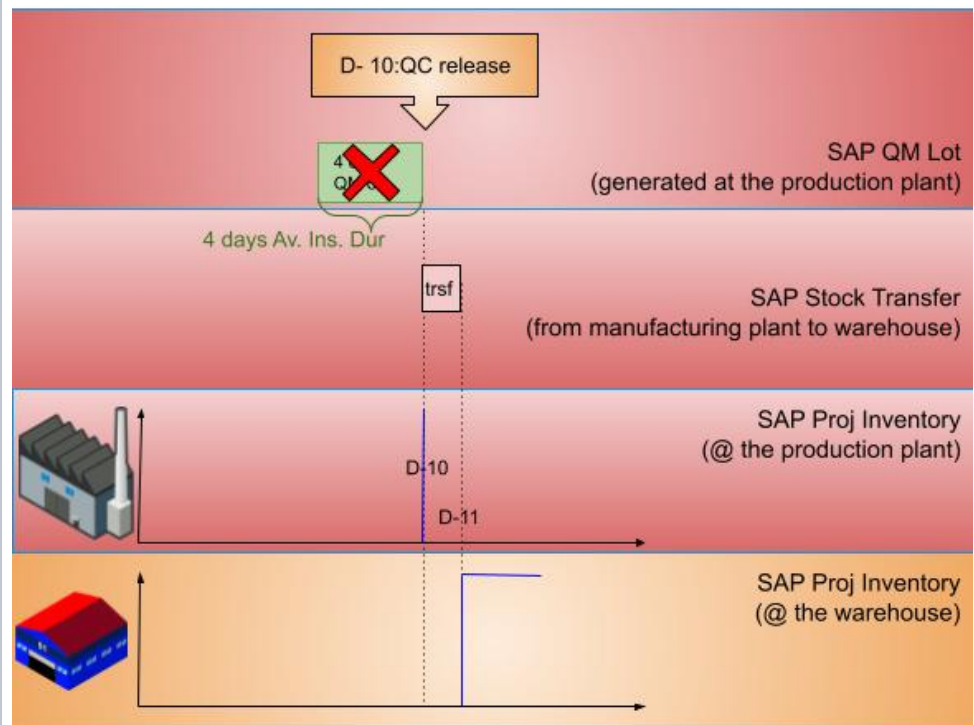
# Before Goods Receipt



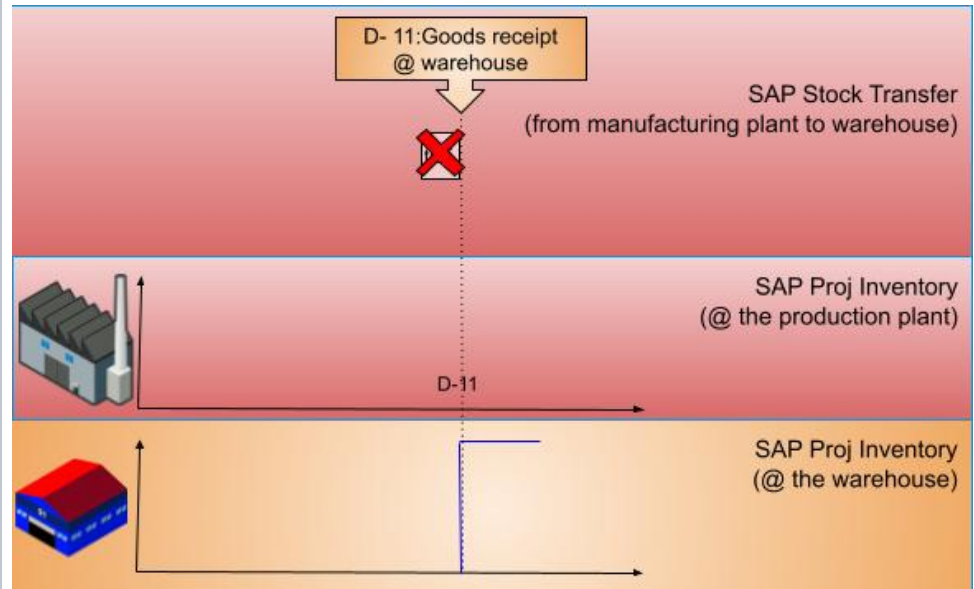
# After Goods Receipt from Production in the manufacturing plant



After QC Release



After Goods Receipt from Transfer in the warehouse



Master Data:

**SAP (at the plant)**

- Av.Ins.Duration (@plant) = Lab Time (ex. : 4 days)
- Goods Receipt Processing Time (@plant) = Lab Time (ex. : 4 days)
- Make sure these are blank (or 0):
  - Planned Delivery Time (@plant)

**SAP (at the warehouse)**

- Planned Delivery Time (@warehouse)= Transfer time (ex. : 1 days)
- Make sure these are blank (or 0):
  - Av.Ins.Duration (@warehouse)
  - Goods Receipt Processing Time (@warehouse)

Phase

Scenario C-bis

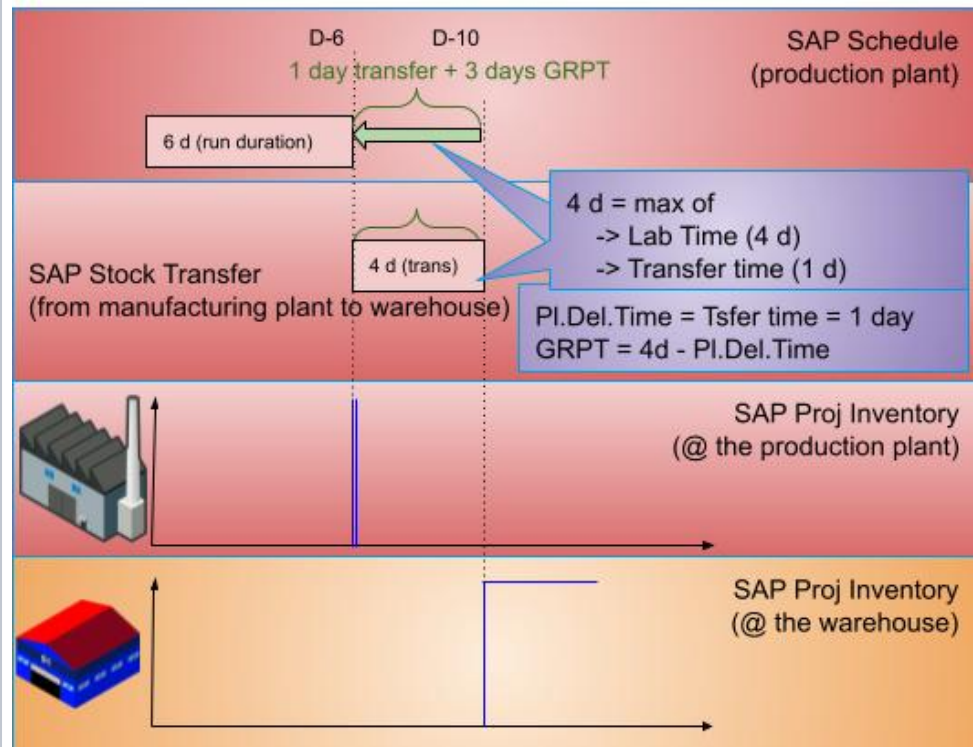
Production run time: 6 days

Lab time = 4 days

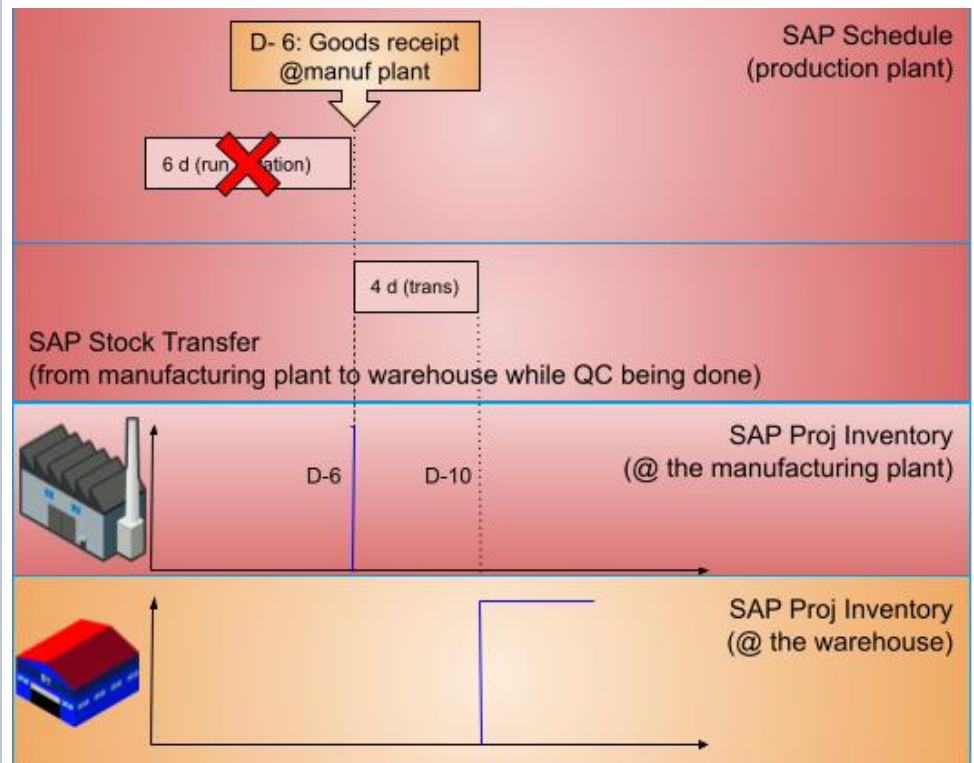
Transfer time between manufacturing plant and warehouse = 1 day

Lot moved to the warehouse **during** QC

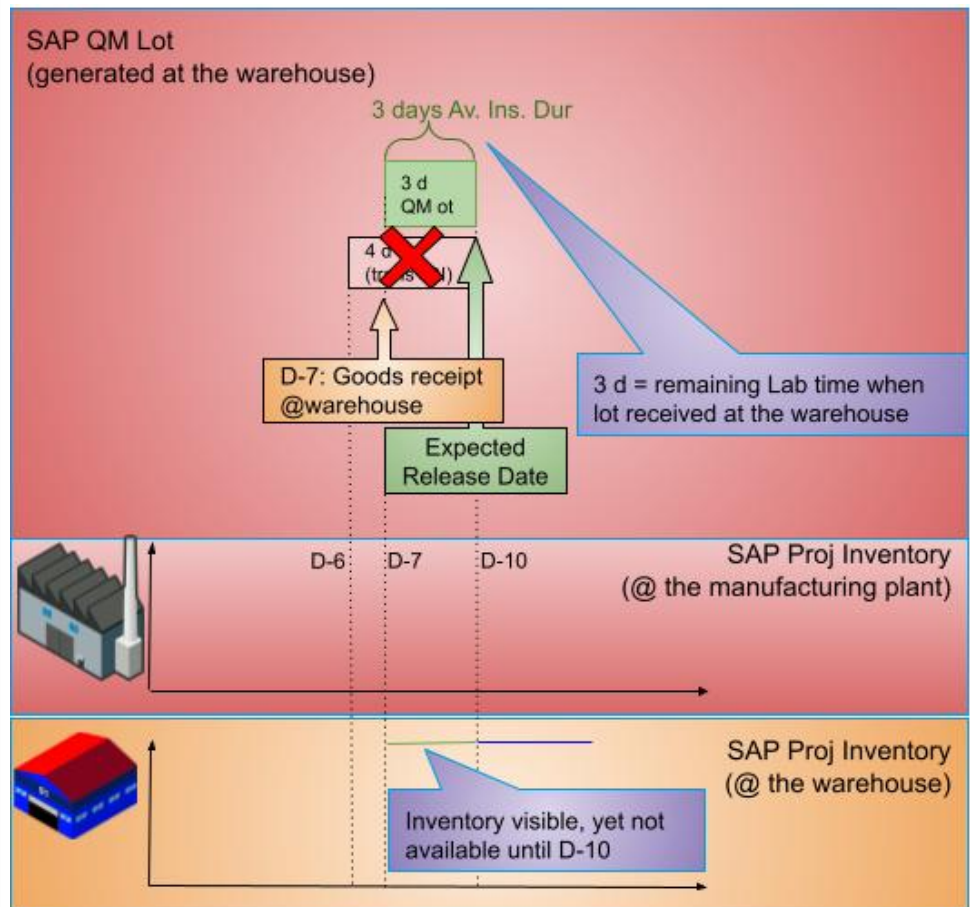
Before Goods Receipt from Production



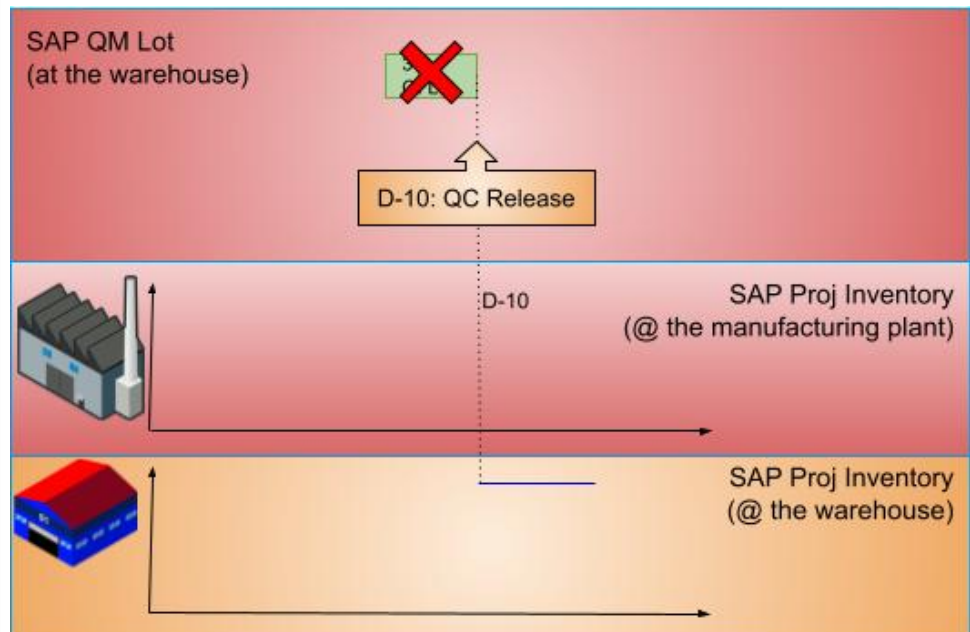
After Goods Receipt from Production in the manufacturing plant



After Goods Receipt from Transfer in the warehouse



After QC Release



|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Master Data:</b> | <p><b>SAP (at the plant)</b></p> <ul style="list-style-type: none"> <li>• Make sure these are blank (or 0): <ul style="list-style-type: none"> <li>◦ Av.Ins.Duration (@plant)</li> <li>◦ Planned Delivery Time (@plant)</li> <li>◦ Goods Receipt Processing Time (@plant)</li> </ul> </li> </ul> <p><b>SAP (at the warehouse)</b></p> <ul style="list-style-type: none"> <li>• Planned Delivery Time (@warehouse)= Transfer time (ex. : 1 days)</li> <li>• Goods Receipt Processing Time (@warehouse)= Lab Time - Transfer time (ex. : 4 days)</li> <li>• Av.Ins.Duration (@warehouse)= Lab Time - Transfer time (ex. : 3 days) = GRPT</li> </ul> |
|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**Recap:**

| Scenario         | Master Data Picaso                                                                                                    | Master Data SAP                                                                                                                                                                                                                                                                                  |
|------------------|-----------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| A                | QC Lag = Lab Time<br>Schedule Upload Lag Adjustment = 0 (or none)                                                     | <p><i>@the plant</i></p> <p>Av.Ins.Duration = Lab Time</p> <p>Planned Delivery Time = 0</p> <p>Goods Receipt Processing Time = 0</p>                                                                                                                                                             |
| B                | QC Lag = Lab Time + transfer to the warehouse, including handling<br>Schedule Upload Lag Adjustment = - transfer time | <p><i>@the plant</i></p> <p>Av.Ins.Duration = Lab Time</p> <p>Planned Delivery Time = 0</p> <p>Goods Receipt Processing Time = 0</p> <p><i>@the warehouse</i></p> <p>Planned Delivery Time = Transfer time</p> <p>Av.Ins.Duration = 0</p> <p>Goods Receipt Processing Time = 0</p>               |
| C                | QC Lag = max of (Lab Time // transfer time)<br>Schedule Upload Lag Adjustment = - QC Lag                              | <p><i>@the plant</i></p> <p>Av.Ins.Duration = 0</p> <p>Planned Delivery Time = 0</p> <p>Goods Receipt Processing Time = 0</p> <p><i>@the warehouse</i></p> <p>Planned Delivery Time = Transfer time</p> <p>GRPT = Lab Time - Transfer time</p> <p>Av.Ins.Duration = Lab Time - Transfer time</p> |
| C with auto-MIGO | QC Lag = max of (Lab Time // transfer time)<br>Schedule Upload Lag Adjustment = - QC Lag                              | <p><i>@the plant</i></p> <p>Av.Ins.Duration = 0</p> <p>Planned Delivery Time = 0</p> <p>Goods Receipt Processing Time = 0</p> <p><i>@the warehouse</i></p> <p>Planned Delivery Time = Transfer time</p> <p>GRPT = Lab Time - Transfer time</p> <p>Av.Ins.Duration = Lab Time</p>                 |

|       |     |                                                                                                                                                                                                                                                                                           |
|-------|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| A-bis | N/A | <i>@the plant</i><br><br>Av.Ins.Duration = Lab Time<br><br>Goods Receipt Processing Time = Lab Time<br><br>Planned Delivery Time = 0                                                                                                                                                      |
| B-bis | N/A | <i>@the plant</i><br><br>Av.Ins.Duration = Lab Time<br><br>Goods Receipt Processing Time = Lab Time<br><br>Planned Delivery Time = 0<br><br><i>@the warehouse</i><br><br>Planned Delivery Time = Transfer time<br><br>Av.Ins.Duration = 0<br><br>Goods Receipt Processing Time = 0        |
| C-bis | N/A | <i>@the plant</i><br><br>Av.Ins.Duration = 0<br><br>Planned Delivery Time = 0<br><br>Goods Receipt Processing Time = 0<br><br><i>@the warehouse</i><br><br>Planned Delivery Time = Transfer time<br><br>GRPT = Lab Time - Transfer time<br><br>Av.Ins.Duration = Lab Time - Transfer time |

Conclusion: the SAP QC Time, SAP Average Inspection Time, Goods Receipt Processing Time, Planned Delivery time, Picaso QC Lag, and Picaso QC Lag Adjustment apply during specific events of the life of a lot:

| Applies before the lot is received in inventory                                                                              | Applies once the lot has been received in inventory and the QM Lot has been generated |
|------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Picaso QC Lag<br><br>Picaso Schedule Upload Lag Adjustment<br><br>Goods Receipt Processing Time<br><br>Planned Delivery Time | Average Inspection Duration                                                           |

Use this [file](#) to help calculate the value of each parameter.



Tips for mass updates in SAP and Picaso:

- QM Average Inspection Time: raise a ticket with this category: Catalog/Industrial/Quality/Quality Control/ Request for Data mass Creation/Upd
- Maintain the [QC Lag](#) and the [Schedule Upload Lag Adjustment](#) in their respective tables in [ADM](#).

## Related articles

- [Access Picaso / EP / PicReport](#)
- [Run the weekly adherence Report](#)

- [Run the monthly adherence Report](#)
- [Redirect a forecast from a ship-to to another ship-to](#)
- [Setup a material in Picaso](#)