

OEE Studio

Tool Tip

Job/Shift Data

Viewing Job Data with associated Shift
Requirements – Vorne programming



Challenge ~

- In OEE Studio you can view data associated with specific shifts and data associated with specific jobs.
 - This is due to how the Vorne XL unit stores the data for each shift or job as separate entities.
 - **Requirement ~** To be able to view each job/part and identify which shift that job was run.
 - **Level of Effort ~ Medium ~** Need to know how to program a Vorne XL unit. You will need to use one of the User Strings (11 – 14) associated with Jobs.

Solution ~

- This Tool Tip provides a solution that does not require custom programming outside of OEE Studio.
 - This solutions calls for changes to a couple of Vorne XL programs:
 - Your **Job Reset** program should include a command to copy the Shift ID to User String 13 (for example)
 - The **Shift Start** program should include a command to copy the Shift ID to User String 13. (Assuming you are using standard Shift Start program)
 - The **Shift End** program needs to reset the Job so that the portion of the job run in the next shift is associated with that shift.
 - The **dependency** is that you need to use **one** of **User Strings 11 – 14** that are not being used. (These are associated with each job.)

Changes to Vorne XL Programs

Program Information

Select Program ⓘ

Program Number ⓘ

Program Name ⓘ

Each Program consists of a sequence of one or more commands and their parameters. Commands can be inserted, edited, deleted, and reordered (the latter by drag-and-drop) through the user interface.

| Program - OEENewJobPass | |
|-------------------------|--------------------------------------------------------------------|
| String Register > | Copy (Source=Short String 240, Destination=Short String 241) |
| Production State > | Save () |
| Reset (Type of Reset=) | Job Reset) |
| Numeric Register > | Write (Register=User Number 11, Constant=0) |
| String Register > | Copy (Source=Shift ID, Destination=Short String 13) |
| Display > | Play Message (Message=Job Message) |
| Program > | Execute After Delay (Program=~Message: Restore, Timer=64, Delay=5) |
| Insert Edit Delete | |

4

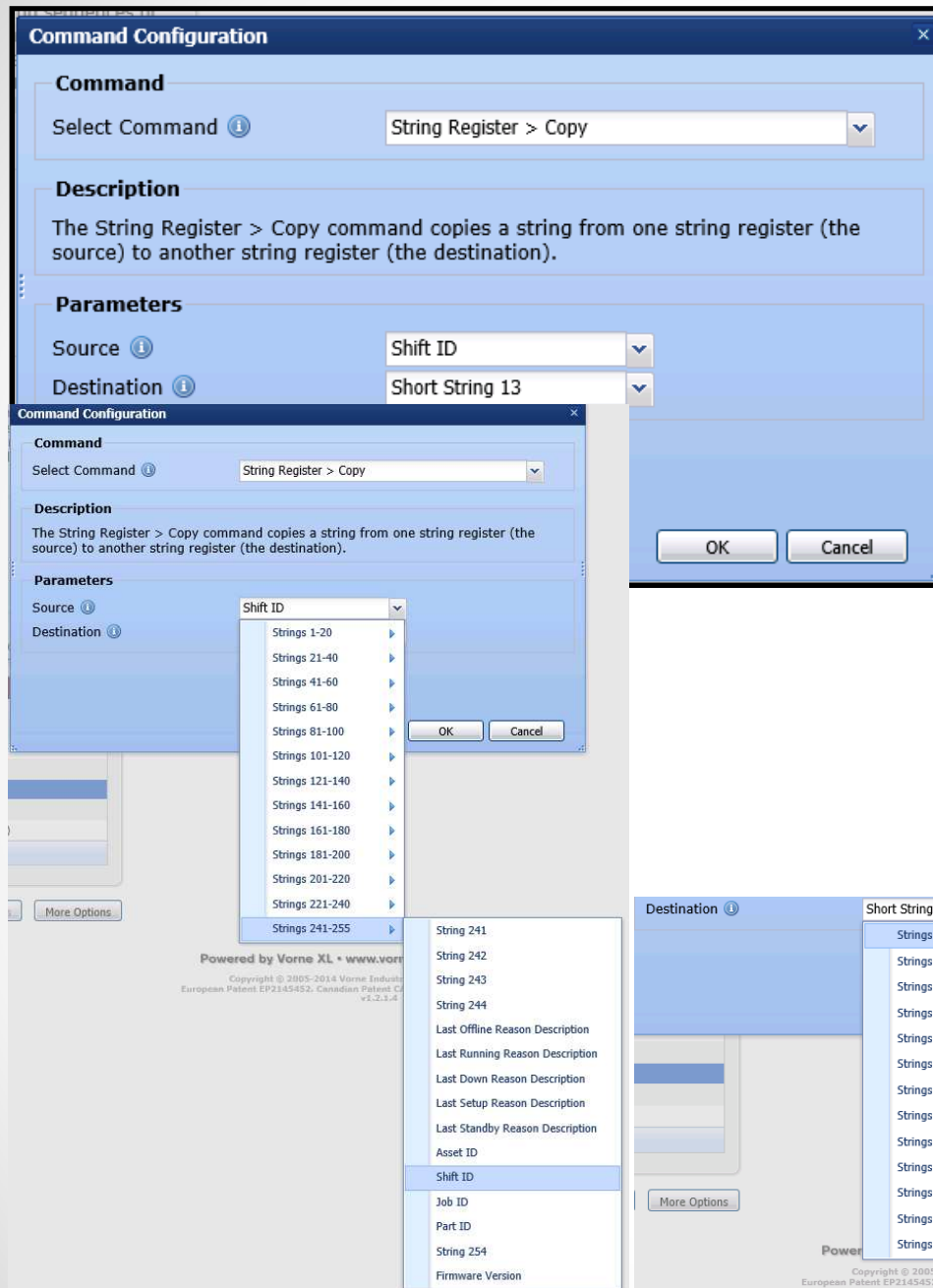
1. **Job Reset** This should be whatever program you use to reset jobs. This example is using a program called OEENewJobPass.
2. Log into the Vorne XL as administrator.
3. Go to **Administer – Configure Device – Programs – Programs** to find your Job Reset program.
4. Insert a new command **AFTER** the Job Reset command.

Insert Command in “job reset” program

1. **Select Command** = String Register > Copy
2. **Parameters – Source** = Strings 241-255 – Shift ID
3. **Parameters – Destination** = Strings 1-20 – Short String 13 (or whichever one you have available)

NOTE: Short/User Strings 11-14 are saved with the Job records.

4. Click **OK** and **Accept Changes** and **OK**. We will reprogram the device after we make one more change.



Changes to Shift: Start Program

Program Information

Select Program ⓘ Shift: Start

Program Number ⓘ 40

Program Name ⓘ Shift: Start

Each Program consists of a sequence of one or more commands and their parameters. Commands can be inserted, edited, deleted, and reordered (the latter by drag-and-drop) through the user interface.

Program - Shift: Start

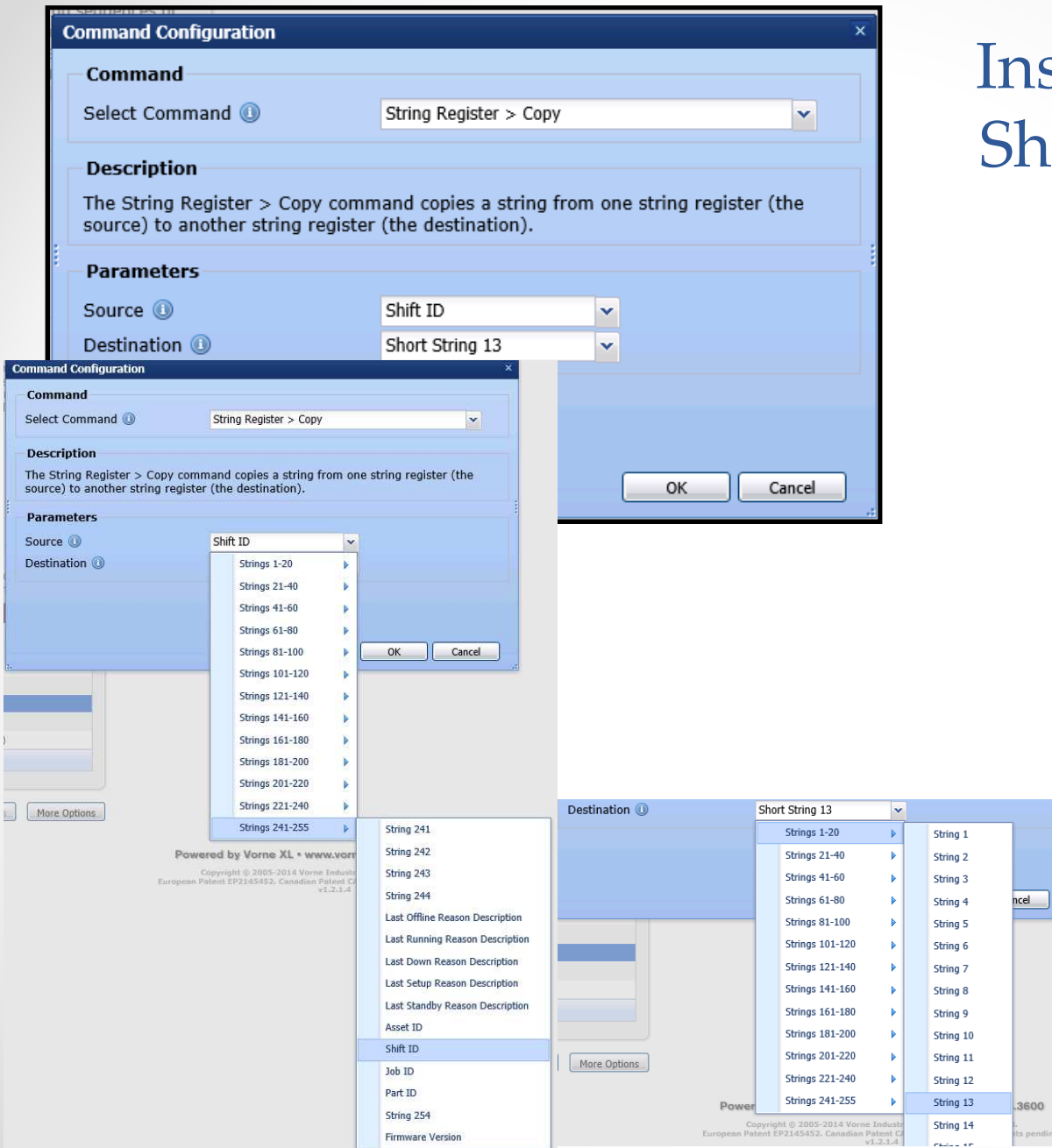
| |
|----------------------------------------------------------------------------------------|
| Program > Cancel Delayed Execution (Timer=14) |
| Production State > Restore (Restore Reason Code=Yes, Restore Message=Yes, Restore ...) |
| String Register > Copy (Source=Short String 241, Destination=Short String 240) |
| String Register > Copy (Source=Shift ID, Destination=Short String 13) |

3

1. **Shift: Start** - This should be whatever program you use at Shift Start in the Time Schedules. Log into the Vorne XL as administrator.
2. Go to **Administer – Configure Device – Programs – Programs** to find your **Shift: Start** program.
3. Insert a new command.

Insert Command in Shift Start program

1. **Select Command** = String Register > Copy
2. **Parameters – Source** = Strings 241-255 – Shift ID
3. **Parameters – Destination** = Strings 1-20 – Short String 13 (or whichever one you have available).
4. Click **OK** and **Accept Changes** and **OK**. Now click on **More Options** to **Program Configuration to Device**.
5. Follow these instructions for each device.



Changes to Shift End program

Program Information

Select Program ⓘ Shift: End ▼

Program Number ⓘ 44

Program Name ⓘ Shift: End

Each Program consists of a sequence of one or more commands and their parameters. Commands can be inserted, edited, deleted, and reordered (the latter by drag-and-drop) through the user interface.

| Program - Shift: End | |
|---------------------------------------------------------------------------------|--|
| Production State > Save () | |
| Legacy > Production State > Set (State=Standby) | |
| Production State > Set Reason Code (Reason Code=Standby > Not Scheduled) | |
| Display > Play Message (Message=Standby Message) | |
| Reset (Type of Reset=Job Reset) | |
| Program > Execute After Delay (Program=~Reason: Copy Stndby, Timer=14, Delay=1) | |
| Insert Edit Delete | |

3

1. **Shift: End**- This should be whatever program you use at Shift End in the Time Schedules. Log into the Vorne XL as administrator.
2. Go to **Administer – Configure Device – Programs – Programs** to find your **Shift: End** program.
3. Insert a **Reset – Job Reset** command.
4. Click **OK** and **Accept Changes** and **OK**. Now click on **More Options to Program Configuration to Device**.
5. Follow these instructions for each device.

OEE Studio – Default Settings

Now we need to label this field so that we can use it in our Ad Hoc Job reports.

1. Go to the **Settings** tab.
2. Select the **Defaults – General Defaults**.
3. Enter the name of the field for **User String 3** in the **Job User Fields**.
4. Click on **Apply Changes**.

The screenshot shows the 'System Defaults' configuration window. The left sidebar has a 'System' menu with 'Defaults' selected, and 'General Defaults' is highlighted with a red circle and the number '2'. At the bottom of the sidebar, the 'Settings' tab is selected with a red circle and the number '1'. The main area is titled 'System Defaults' and contains several sections: 'Default Start Time' with 'Shift Start Time' set to 8:00 AM and 'Shift End Time' set to 2:00 AM, and an 'Apply Changes' button circled in red with the number '4'. Below this is the 'Downtime calculation' section with checkboxes for 'Include Standby in Downtime' (unchecked) and 'Include Setup in Downtime' (checked). The bottom section is divided into 'Job User Fields' and 'Shift User Fields'. Under 'Job User Fields', the 'Job String 3' field is circled in red with the number '3' and contains the text 'Shift'. The 'Shift User Fields' section contains two columns of input fields for 'User No.' and 'User String' descriptions.

OEE Studio – Job Comparison ad-hoc reporting

On the Analytics tab, expand Job Data and click on Job Comparison.

1. Expand the **Click here for Printing**... and select Show and Hide Fields.

2. Find the field called 'Shift' and drag it to the **Row Area**.

3. Select the rest of the data you want to see and enjoy your new report.

4. Don't forget to save your report Layout!

Tabular Analysis Grid Analysis

Select multiple values to chart information Print / Export Chart

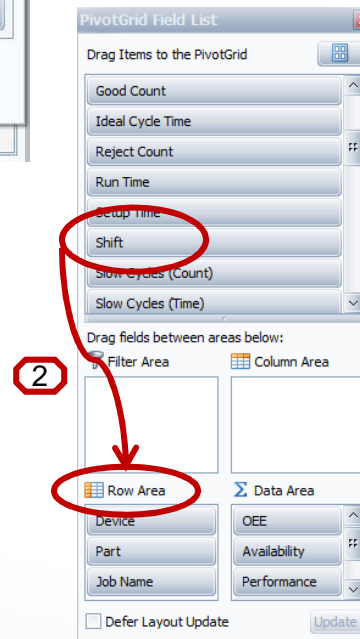
Drop Filter Fields Here

OEE Total Count Good Count Total Time Run Time Down Time Efficiency

Drop Column Fields Here

| Device | Shift | Part | Start Time | End Time | OEE | Total Count | Good Count |
|-------------------|-------------|----------|------------------------|------------------------|------|-------------|------------|
| 1014 RSS1 | First Shift | 72078500 | 10/15/2014 7:47:51 AM | 10/15/2014 7:51:58 AM | 28.3 | 7 | 7 |
| | | | 10/15/2014 7:51:59 AM | 10/15/2014 9:39:16 AM | 41.3 | 240 | 240 |
| | | | 10/15/2014 9:39:16 AM | 10/15/2014 12:10:24 PM | 52.8 | 429 | 429 |
| | | | 10/15/2014 12:10:26 PM | 10/15/2014 2:13:22 PM | 59.8 | 395 | 395 |
| | | | 10/15/2014 2:13:22 PM | 10/15/2014 3:30:00 PM | 61.0 | 251 | 251 |
| 72078500 Total | | | | | 53.1 | 1,322 | 1,322 |
| | | 74978500 | 10/15/2014 7:00:01 AM | 10/15/2014 7:04:58 AM | 0.0 | 1 | 1 |
| | | | 10/15/2014 7:04:58 AM | 10/15/2014 7:10:33 AM | 14.8 | 5 | 5 |
| | | | 10/15/2014 7:10:33 AM | 10/15/2014 7:47:51 AM | 16.2 | 32 | 32 |
| 74978500 Total | | | | | 14.3 | 38 | 38 |
| First Shift Total | | | | | 49.5 | 1,360 | 1,360 |

Click here for Printing, Exporting, Field Selection and Layout Settings.



Not all data is equal ~

- Your reporting needs are unique to your environment and requirements:
 - How you use your Vorne XL devices may include special customization which could include the use of User Strings and User Numbers, custom calculations or unique production states (Down, Setup & Standby).
 - May require customized reporting solutions.

Contact Us

- As the Vorne Authorized Reporting Consultants, we provide customized reporting solutions, including working with data from your ERP/MRP systems.
- In addition to customized reporting, we provide support and customization for the [OEE Studio](#) reporting software (designed specifically for the data captured from the Vorne XL devices).

Debbie Olk, CSM

Deb-Tech Systems, Inc. ~ Algonquin, Illinois ~ 847.854.3148 (o) ~
Debbie.Olk@debtechsystems.com

DebTechSystems.com