#### PROCESS DOCUMENTATION AND TRAINING

#### **ARC#6535 Automated Certifications**

Nam Le - Nov 2021

#### **Business Case:**

ELMET TECHNOLOGIES is a manufacturer of raw materials that requires the creation of Material Certs for each work order. Currently they use different excel template files for each cert that is needed. The template file is opened, manually edited, and saved under a new name. What they would like to do is automate that process to eliminate the possibility of manual entry error. The data required for these certs is all available in GSS and should be able to be auto filled without any manual entry.

#### Solution:

The first part of this project will be to convert the Excel template files to Fillable PDF Documents. Each field on the template document will be given a logical corresponding name to the data that's required from GSS.

The second part of this project will be to add a GAB script to the Script 1, 2, or 3 button (TBD By Elmet) on the process screen of the GUI. When the user clicks the button to create the cert, the script will look at the part being created, then check for the "logical tie" to determine which template PDF to use. The script will then use the work order data to populate the fillable PDF, save it as a new file, and display the new file to the screen.

If the script does not find a "logical tie" for the part being created, a screen will popup with a drop down list of the available PDF templates to use. For the script to generate this drop down list, the Template Files should be stored in a specific folder on the server used ONLY for these Template Files.

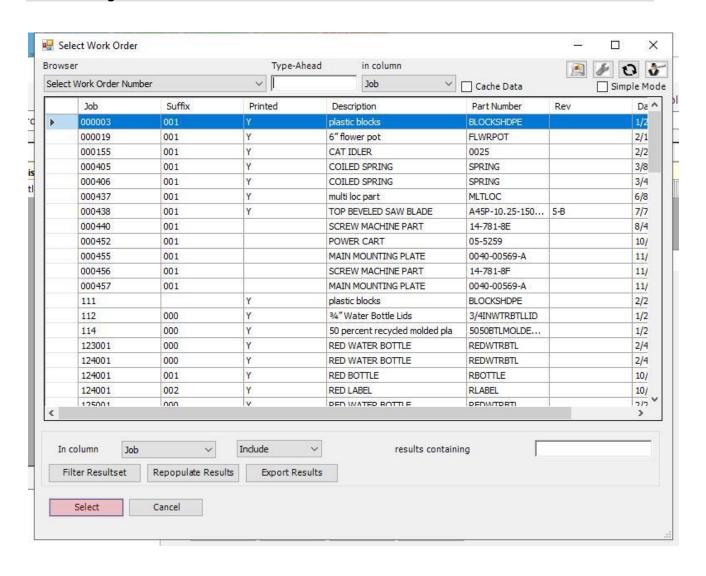
# Option 1: Print from WIP to FG screen

## **Shop Floor Control > Transactions > WIP To Finished Goods**

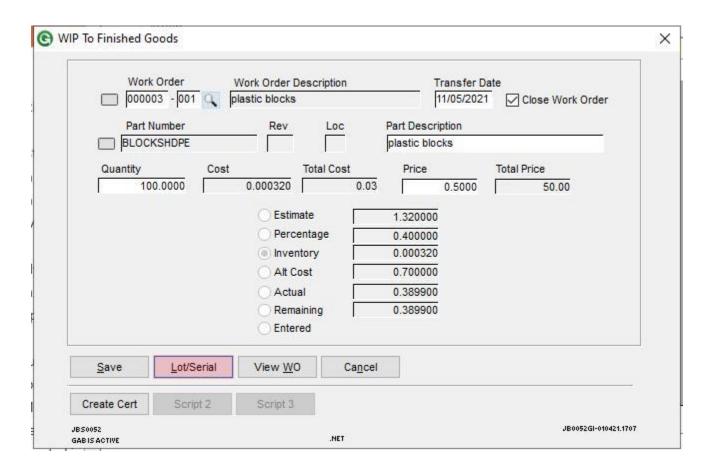
## On WIP to FG screen, click browse or enter a WO number

Wo	rk Order	- o - F	Work Order [	Description	1		ransfer D		Close Work Order
Par	Number	~ 1	Rev	Loc	, , , , , , , , , , , , , , , , , , ,	Part Descri		,,	Juse Work Order
Quantity	0.0000	Cost	0.000000	Total Cos	0.00	Price	0.0000	Total P	Price 0.00
			○ Estin	nate		0.000000			
			Perc	entage	-	0.000000			
			Inver			0.000000			
			O Alt C			0.000000			
			Actu	al	F	0.000000			
			Rema	aining		0.000000			
			<u>Enter</u>	red	5.5				
<u>S</u> ave	<u>L</u> ot/S	Serial	View W	0	Ca <u>n</u> cel				
Script 1	Scri	int 2	Script 3						

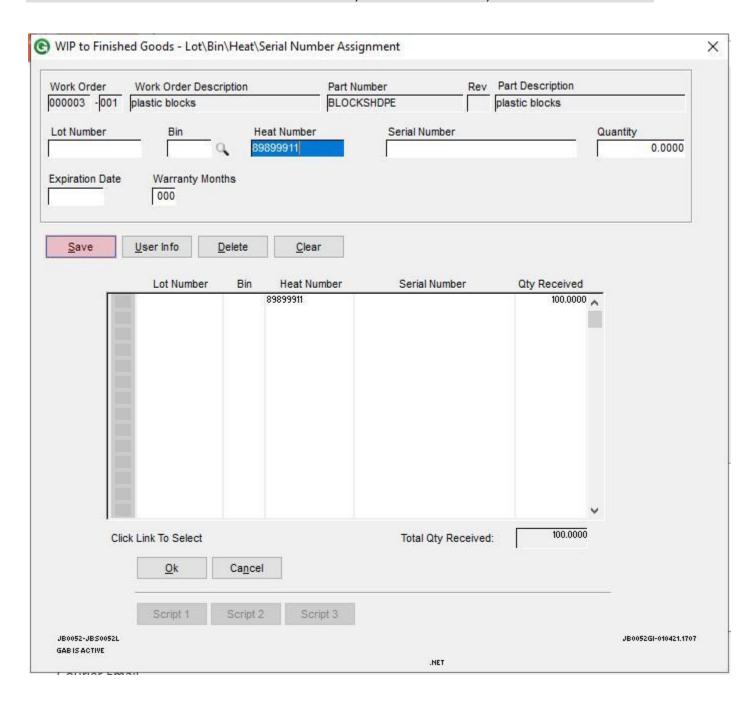
#### **WO Browsing**



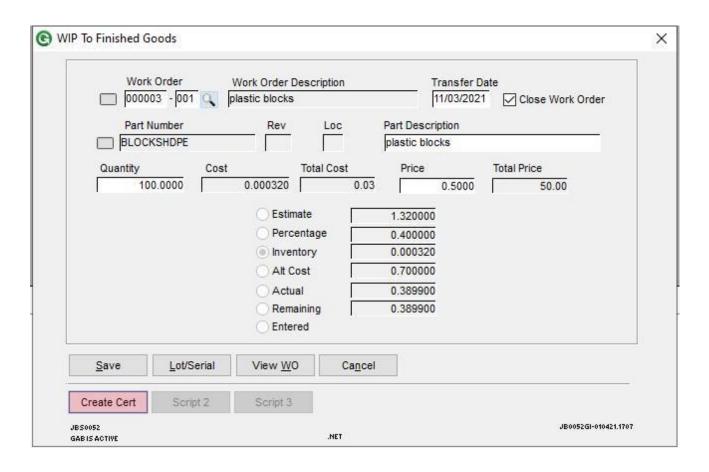
#### **Click Lot/Serial Button**



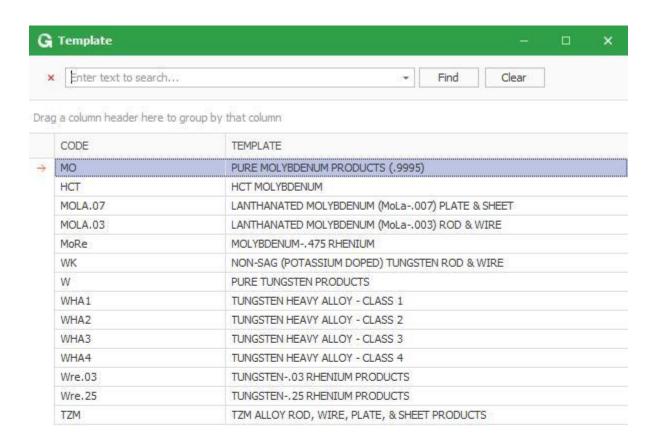
#### Enter the Material Lot# into the "Heat Number" field, then click on 'Save', then click on 'Ok' button



#### **Click Create Cert Button**



#### If the Part is not linked to a Cert, User would need to select a template







#### Output Sample



Tel: 207-333-6100 1560 Lisbon Street, Lewiston, ME 04240 ACCREDITED TO AS 9100, ISO 9001 CAGE CODE: 7AWJ9

# TUNGSTEN-3% RHENIUM ROD, WIRE & PARTS MATERIAL CERTIFICATION

The products contained in this shipment conform to the specifications and drawings listed on this order and the required testing have been performed.

The chemical composition complies with ASTM requirements for powder lot analysis. ASTM specifications and test methods are used as guidelines to control and monitor our processes to assure product quality. Applicable ASTM Material Standards: Rod/Wire – F73.

This product meets the requirements of low copper and mercury-free materials.

ITEM #:	BLOCKSHDPE	DATE:	11/05/2021				
CUSTOMER:	BLUECACTUS NURSERY	SO#:	0000003-0010				
CUSTOMER PO#:	YOUR RFQ	SIZE:	0.00x0.00				
CUST PART #		QUANTITY:	100.0000				
MATERIAL LOT#:	98765656						
CHEMICAL COMPOSITION							
W + Re	>99.95%						
W: (excluding gases)	96.5 - 97.5%	Re:	2.5 – 3.5 %				
AI:	35 PPM Max.	Mo:	50 PPM Max.				
C:	20 PPM Max.	Na:	20 PPM Max.				
Cr:	20 PPM Max.	Ni:	30 PPM Max.				
Cu:	10 PPM Max.	O:	50 PPM Max.				
Fe:	30 PPM Max.	Si:	40 PPM Max.				
K:	30 PPM Max.						

All other elements are contained at <20 ppm.

Country of Origin: USA

All products are compliant with EU RoHS Directive 2002/95/EC, 2011/65/EU.

The liability of Elmet Technologies LLC is limited to the cost of the materials in question.

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All products comply with: DFARS 252.225-7001 Buy American Act; DFARS 252.225-7009 Specialty Metals; DFARS 252.225-7052 Magnet and Tungsten. All products are compliant with EU RoHS Directive 2015/863 and with Regulation (EC) No. 1907/2006 of The European Parliament and of the Council concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH). Mercury or mercury-containing compounds were not intentionally added or came in direct contact with hardware or supplies furnished under this purchase order. Pursuant to Section 1502 ("the Provision") of the Dodd-Frank Wall Street Reform and Consumer Protection Act ("Act") (Pub. L. 111-203, 124 Stat. 1376, July 21, 2010), also referred to as the "Conflict Minerals Act", Elmet Technologies only purchases "DRC conflict-free" minerals from smelters on the Conflict-Free Smelter Program (CFSP) Compliant Smelter list. Material free from radiation contamination.

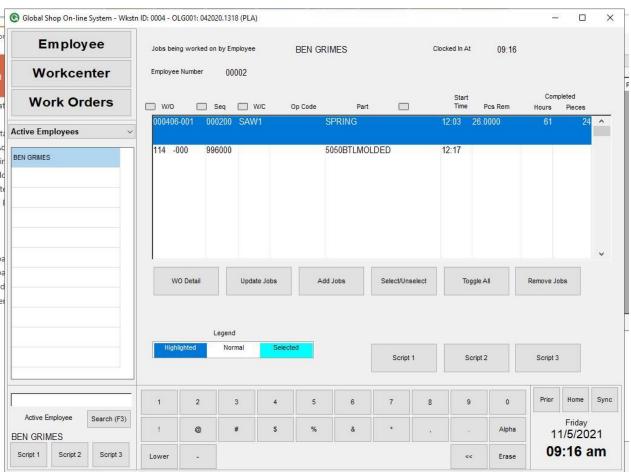
CERTIFIED:

Vinay M. Desai Chief Metallurgist

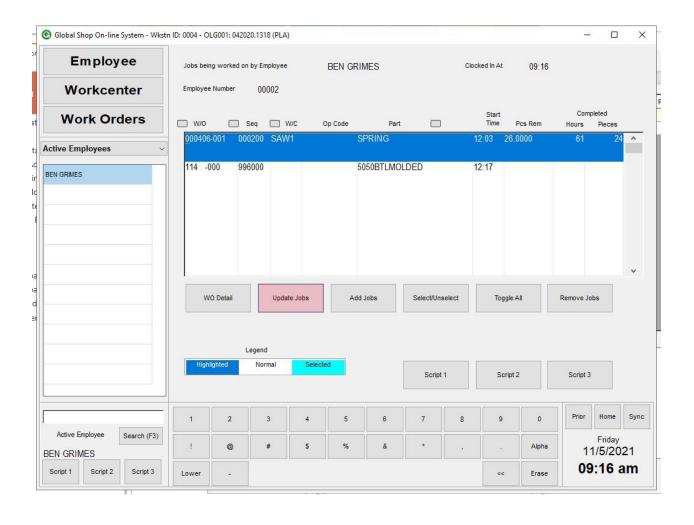
# **Option 2: Print from GUI**

# On Line System > Transactions > Shop Floor Data Collection (GUI)

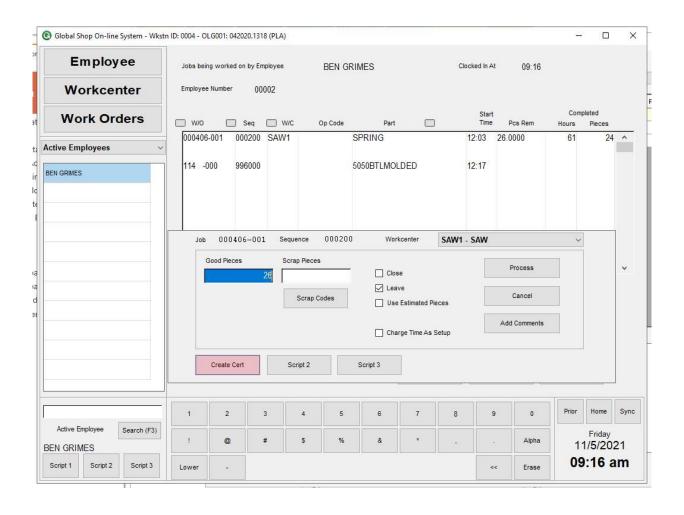
# After clock in, select a WO Global Shop On-line System - Wkstn ID: 0004 - OLG001: 042020.1318 (PLA)



#### **Click Update Jobs Button**



#### Enter the number of Good Pieces. Then Click Create Cert Button



**References:** Codes and Template Name

The Codes are entered as Description\_2 in the INVENTORY\_MST2 table

1	CODE	Template Name
2	МО	PURE MOLYBDENUM PRODUCTS (.9995)
3	нст	HCT MOLYBDENUM
4	MOLA.07	LANTHANATED MOLYBDENUM (MoLa007) PLATE & SHEET
5	MOLA.03	LANTHANATED MOLYBDENUM (MoLa003) ROD & WIRE
6	MoRe	MOLYBDENUM475 RHENIUM
7	WK	NON-SAG (POTASSIUM DOPED) TUNGSTEN ROD & WIRE
8	w	PURE TUNGSTEN PRODUCTS
9	WHA1	TUNGSTEN HEAVY ALLOY - CLASS 1
10	WHA2	TUNGSTEN HEAVY ALLOY - CLASS 2
11	WHA3	TUNGSTEN HEAVY ALLOY - CLASS 3
12	WHA4	TUNGSTEN HEAVY ALLOY - CLASS 4
13	Wre.03	TUNGSTEN03 RHENIUM PRODUCTS
14	Wre.25	TUNGSTEN25 RHENIUM PRODUCTS
15	TZM	TZM ALLOY ROD, WIRE, PLATE, & SHEET PRODUCTS