Matthews Marking Systems™

Custom Software Statement of Work

PLUGIN SCOPE

Matthews Marking Systems will provide a software solution in the form of an MPERIA® Plugin. The plugin will use a configurable "anchor date" and a configurable pattern to specify which shifts occur on which dates.

The plugin's configuration for the shift pattern will take the following form:

A sequence of letters will be input with each letter indicating one calendar day and the shifts that take place that day, starting on the anchor date. The sequence can be any length. The letter "A" will indicate that the day's shifts are A,B, while the letter "C" will indicate that the day's shifts are C,D.

Example using info provided by Owens Corning:

Anchor Date: 1/3/23
Sequence: AACCAAACCAACCC
Result:

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1 C,D	2 C,D	3 A,B	4 A,B	5 C,D	6 C,D	7 A,B
8 A,B	9 A,B	10 C,D	11 C,D	12 A,B	13 A,B	14 C,D
15 C,D	16 C,D	17 A,B	18 A,B	19 C,D	20 C,D	21 A,B
22 A,B	23 A,B	24 C,D	25 C,D	26 C,D	27 A,B	28 A,B

After determining which shifts are on which days, the plugin will use the MPERIA® controller's current date and time along with a configurable shift change time to determine which shift is occurring. The plugin will then populate a configurable variable with the shift's code letter. The variable can be inserted into messages to print the current shift on the product.

REQUIREMENTS

These requirements govern the operation of the system. The plugin will be tested against these requirements.

1. The plugin shall use the MPERIA® controller's date and the configured anchor date and repeating shift patter to determine which shifts are to be used for that calendar day.
2. The plugin shall only support shifts which are 12 hours in length.
   a. The user shall configure the plugin for when the shift code is to change, not necessarily when the worker shift begins.
      i. The calendar provided by Owens Corning lists a start time of 6:45 and an end time of 7:00. It is assumed that the shift code actually changes at 7:00 rather than 6:45. If this is incorrect, clarification will be necessary, and a revision of the approval document will be needed.
3. The plugin shall support shifts that begin before and end after midnight.
   a. For example, with a shift start time of 7:00pm, the shift would end at 7:00am the next calendar day. The plugin will display the correct shift from the hours of midnight until 7:00am.
4. The plugin shall have a configurable option for the time that the shifts change.
   a. If the controller's time is before the configured time, the variable will contain the second of the previous day's shift code letters.
   b. If the controller's time is between the configured time (inclusive) and the configured time plus 12 hours (exclusive), the variable will contain the first of the current day's shift code letters.
   c. If the controller's time is equal to or later than the configured time plus 12 hours, the variable will contain the second of the previous day's shift code letters.
5. The variable name to be populated shall be configurable.

REVISIONS			
REV	DESCRIPTION	DATE	APPROVED
A	Changed from database to anchor data and pattern	1/23/23	KD
--	Document Created	01/16/23	KD