

需求变更申请单			
项目名称:	数字化制造平台(MOM)	附件编号:	
涉及模块:	与视觉引导系统集成相关业务		
申请人:		申请时间:	2025/12/05
提交人:		预计解决:	
变更类型:	<input checked="" type="checkbox"/> 新增需求 <input type="checkbox"/> 更改需求 <input type="checkbox"/> 数据处理 <input type="checkbox"/> 程序优化 其它_____		
变更内容:	<p>1. 视觉引导系统集成</p> <p>● 需求描述:</p> <p>12月5日由信息化部组织的项目交流会，业务部门和相关系统供应商以及信息化部参与讨论了系统集成的相关初步方案，具体内容总结如下：</p> <ol style="list-style-type: none">1. 视觉引导系统部署与工控网，MOM 在内网，集成需要通过网闸单导系统集成。2. 业务对象涉及 15 个图号的产品工艺，涉及工序业务待定；产品工艺发布后将工艺结构化信息通过单导系统传递至视觉引导系统。同时后续工艺更改后，将更改后的工艺信息同步至视觉引导系统。3. 订单任务涉及 ZP01 和 ZP02 两类订单；任务在工单工序派工后将工单工序任务推送至视觉引导系统4. 视觉引导系统完成装配任务后，将装配完成的总图通过单导系统传递至 MOM，MOM 按照工单工序信息绑定至对应的结果上。 <p>● 解决方案:</p> <p>经过需求分析讨论，可按照以下方案进行开发处理：</p> <ol style="list-style-type: none">1) MOM 中指定 15 个图号的产品工艺在流程发布完成后将生成结构化工艺文件（约定 JSON 格式）通过单导系统传递至工控网视觉引导系统。2) 15 个图号的产品工艺发生更改升版后将更改后的结构化工艺文件（约定 JSON 格式）通过单导系统传递至工控网视觉引导系统。3) 工单工序任务派工后，将已派工的工序派工任务生成结构化任务文件通过单导系统传递至工控网视觉引导系统（注意同一道工序任务存在重派情况）。		

- 4) 工控网视觉引导系统完成装配任务后，将装配结果图按照固定的命名格式（工作订单号_工序任务号_序号：如 100001-01_30_01.png）通过单导系统传递至 MOM 中，MOM 按照格式将装配图上传至对应的工序任务上。
- 5) 工控网视觉引导系统的执行业务与 MOM 中的工序执行业务相互独立，没有任何约束

集成接口详细参数如下：

1. 产品工艺发布与变更同步

{

```

    "process_info": {
        "process_no": "JZ4.932.09296060GY-TX01",
        "process_version": "D.2",
        "process_name": "电源模块工艺规程",
        "process_desc": "testXXX"
    },
    "operation_list": [
        {
            "operation_info": {
                "operation_no": "10",
                "operation_name": "准备",
                "operation_desc": "按具体清单准备 XXXXX"
            },
            "step_list": [
                {
                    "step_no": "1",
                    "step_name": "工步 1",
                    "step_content": "工步 1 内容描述信息"
                },
                {
                    "step_no": "2",
                    "step_name": "工步 2",

```

```
        "step_content": "工步 2 内容描述 XXXX"
    },
    {
        "step_no": "3",
        "step_name": "工步 3",
        "step_content": "工步 3 内容描述 XXXX"
    }],
    "operation_material_info": [
        {
            "material_no": "9000000929403",
            "material_name": "盖板",
            "material_quantity": 2,
            "material_unit": "件",
            "error_prevention_mark": "错"
        },
        {
            "material_no": "3000000929433",
            "material_name": "腔体",
            "material_quantity": 2,
            "material_unit": "件",
            "error_prevention_mark": "错"
        }
    ],
    {
        "operation_info": {
            "operation_no": "20",
            "operation_name": "装配",
            "operation_desc": "按工艺内容装配 XXX"
        },
        "step_list": [

```

```
        "step_no": "1",
        "step_name": "工步 1",
        "step_content": "工步内容 XXX"
    },
    {
        "step_no": "2",
        "step_name": "工步 2",
        "step_content": "工步内容 2 描述 XXX"
    },
    {
        "step_no": "3",
        "step_name": "工步 3",
        "step_content": "工步内容 3XXXXX"
    }],
    "operation_material_info": [
        {
            "material_no": "1000000000001",
            "material_name": "安装板",
            "material_quantity": 1,
            "material_unit": "件",
            "error_prevention_mark": "反"
        },
        {
            "material_no": "1000000000001",
            "material_name": "安装板",
            "material_quantity": 1,
            "material_unit": "件",
            "error_prevention_mark": "反"
        }
    ]
},
```

```
{  
    "operation_info": {  
        "operation_no": "30",  
        "operation_name": "装配",  
        "operation_desc": "装配信息描述 XXX"  
    },  
    "step_list": [{  
        "step_no": "1",  
        "step_name": "工步 1 ",  
        "step_content": "工步 1 内容描述 Xxx"  
    },  
    {  
        "step_no": "2",  
        "step_name": "工步 2",  
        "step_content": "工步 2 内容描述 xxx"  
    },  
    {  
        "step_no": "3",  
        "step_name": "工步 3",  
        "step_content": "工步 3 内容描述"  
    }  
],  
    "operation_material_info": [  
        {"material_no": "1000000000034",  
         "material_name": "螺钉",  
         "material_quantity": 4,  

```

```
{  
    "material_no": "1000000000001",  
    "material_name": "安装板",  
    "material_quantity": 1,  
    "material_unit": "件",  
    "error_prevention_mark": "反"  
}  
}  
}  
  
2. 工序任务同步  
{  
    "order_info": {  
        "production_order_no": "100002345",  
        "product_batch": "202503",  
        "material_no": "9000000929403"  
    },  
    "work_order_list": [  
        {"work_order_info": {  
            "work_order_no": "100002345-01",  
            "work_order_quantity": 1,  
            "process_no":  
"JZ4.932.09296060GY-TX01",  
            "process_version": "D.2"  
        },  
        "dispatch_task_info": {  
            "operation_no": "10",  
            "operation_name": "准备",  
            "dispatch_quantity": 1,  
            "planned_start_time":  
"2025-12-09T08:30:00",  
            "planned_end_time":  
"2025-12-09T12:00:00",  
            "worker_code": "07488",  
            "worker_name": "张三",  
            "step_no": "1",  
            "step_content": "工步内容测试 xxx"  
        }  
    },  
    {
```

```
        "work_order_info": {
            "work_order_no": "100002345-02",
            "work_order_quantity": 1,
            "process_no": "JZ4. 932. 09296060GY-TX01",
            "process_version": "A. 1"
        },
        "dispatch_task_info": {
            "operation_no": "20",
            "operation_name": "装配",
            "dispatch_quantity": 1,
            "planned_start_time": "2025-12-09T13:00:00",
            "planned_end_time": "2025-12-09T17:00:00",
            "worker_code": "07488",
            "worker_name": "李四",
            "step_no": "1",
            "step_content": "工步内容 xxx"
        }
    },
    {
        "work_order_info": {
            "work_order_no": "100002345-03",
            "work_order_quantity": 1,
            "process_no": "JZ4. 932. 09296060GY-TX01",
            "process_version": "A. 2"
        },
        "dispatch_task_info": {
            "operation_no": "10",
            "operation_name": "准备",
            "dispatch_quantity": 1,
            "planned_start_time": "2025-12-09T08:00:00",
            "planned_end_time": "2025-12-09T11:30:00",
            "worker_code": "0876",
            "worker_name": "王五",
            "step_no": "1",
            "step_content": "工步 xxxx"
        }
    }
]
```

```
}
```

3. 装配结果上传

```
{
```

```
    "batch_info": {
```

```
        "work_order_no": "100002345-01",
```

```
        "operation_no": "10",
```

```
        "total_count": 2,
```

```
        "upload_time": "2025-12-09T14:30:00",
```

```
        "worker_code": "0786",
```

```
        "system_Id": "VGS"
```

```
    },
```

```
    "work_order_image_list": [ {
```

```
        "image_no": "100002345-01_10_01",
```

```
        "image_base64":
```

```
"iVBORw0KGgoAAAANSUhEUgAAAGQAAABkCAYAAABw4pVUAAAAAXNSROIArs4c6QAAAIR
1WE1mTU0AKgAAAAGABQESAAMAAAABAAEAAAeAAUAAAABAAAASgEbAAUAAAABAAAUGE
oAAMAAAABAAIAAIdpAAQAAAABAAAAGwAAAAAAACQAAAQAAAJAAAABAAOgAQADAAA
AAQABAACgAgAEAAAAAQAAABigAwAEAAAAAQAAABgAAAAA8A2UOAAA1wSF1zAAALEwAA
CxMBAJqcGAAAAlpVFh0WE1MOmNvbS5hZG9iZS54bXAAAAAADx40nhtcG1ldGEgeG1s
bnM6eD0iYWRvYmU6bnM6bWVOYS8iIHg6eG1wdGs9I1hNUCBDb3J1IDYuMC4wIj4KICAg
PHJkZjpSREYgeG1sbm6cmRmPSJodHRw0i8vd3d3LnczLm9yZy8x0Tk5LzAyLzIyLXJk
Zi1zeW50YXgtbnMjIj4KICAgICAgPHJkZjpEZVNjcmlwdG1vbibyZGY6YWJvdXQ9IiIK
ICAgICAgICAgICAgeG1sbm6dG1mZj0iaHR0cDovL25zLmFkb2J1LmNvbS90aWZmLzEu
MC8iPgogICAgICAgICA8dG1mZjpPcm11bnRhdG1vbj4xPC90aWZm0k9yaWVuudGF0aW9u
PgogICAgICA8L3JkZjpEZVNjcmlwdG1vbj4KICAgPC9yZGY6UkRGpgo8L3g6eG1wbWV0
YT4KGV7hZwAAIABJREFUeF7tnQdQ1EQcx19V1dP3z...",
        "image_format": "png",
        "image_desc": "10 工序核心组件安装示意图 01"
    },
    {
        "image_no": "100002345-01_10_02",
        "image_base64":
```

```
"iVBORw0KGgoAAAANSUhEUgAAAGQAAABkCAYAAABw4pVUAAAAAXNSROIArs4c6QAAAIR
1WE1mTU0AKgAAAAGABQESAAMAAAABAAEAAAeAAUAAAABAAAASgEbAAUAAAABAAAUGE
oAAMAAAABAAIAAIdpAAQAAAABAAAAGwAAAAAAACQAAAQAAAJAAAABAAOgAQADAAA
AAQABAACgAgAEAAAAAQAAABigAwAEAAAAAQAAABgAAAAA8A2UOAAA1wSF1zAAALEwAA
CxMBAJqcGAAAAlpVFh0WE1MOmNvbS5hZG9iZS54bXAAAAAADx40nhtcG1ldGEgeG1s
bnM6eD0iYWRvYmU6bnM6bWVOYS8iIHg6eG1wdGs9I1hNUCBDb3J1IDYuMC4wIj4KICAg
PHJkZjpSREYgeG1sbm6cmRmPSJodHRw0i8vd3d3LnczLm9yZy8x0Tk5LzAyLzIyLXJk
Zi1zeW50YXgtbnMjIj4KICAgICAgPHJkZjpEZVNjcmlwdG1vbibyZGY6YWJvdXQ9IiIK
ICAgICAgICAgICAgeG1sbm6dG1mZj0iaHR0cDovL25zLmFkb2J1LmNvbS90aWZmLzEu
MC8iPgogICAgICAgICA8dG1mZjpPcm11bnRhdG1vbj4xPC90aWZm0k9yaWVuudGF0aW9u
PgogICAgICA8L3JkZjpEZVNjcmlwdG1vbj4KICAgPC9yZGY6UkRGpgo8L3g6eG1wbWV0
YT4KGV7hZwAAIABJREFUeF7tnQdQ1EQcx19V1dP3z...",
        "image_format": "png",
        "image_desc": "10 工序核心组件安装示意图 02"
    }
}
```

	PgogICAgICA8L3JkZjpEZVNjcmlwdG1vbj4KICAgPC9yZGY6UkRGPgo8L3g6eG1wbWV0YT4KGV7hZwAAIABJREFUeF7tnQdQ1EQcx19V1dP3z...", "image_format": "png", "image_desc": "10 工序核心组件安装示意图 02" }]				
变更影响:					
风险分析:	双网集成传输，需信息化部按照保密要求进行评估。并指定允许传输的业务属性				
工时评估（天）					
需求&设计	开发	接口联调	测试	部署	合计
2	7	3	3	1	16
确认人（签字）					