

Visual Production Scheduler (VPS)

API REFERENCE GUIDE

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Functions

reloadData

With this function, you can trigger an update of the simulation. This can also be done via the menu item „Reload “.

procedure reloadData(pClientGuid: [Guid](#)) rRetVal: [Boolean](#)

| | Data type | Description |
|----------------------------------|-----------|--|
| Parameter: pClientGuid | Guid | This value is used for the global identification of VPS Control-AddIn on a page. |
| rRetVal | Boolean | Return status |

resetProdOrderRoutingLineCustomColors

This function can be used to remove all individual color settings that were set by the *setProdOrderRoutingLineCustomColor* function.

procedure resetProdOrderRoutingLineCustomColors(pClientGuid: [Guid](#))

| | Data type | Description |
|----------------------------------|-----------|--|
| Parameter: pClientGuid | Guid | This value is used for the global identification of VPS Control-AddIn on a page. |

resetProdOrderRoutingLineSelection

With this function you can remove the current selection.

procedure resetProdOrderRoutingLineSelection(pClientGuid: [Guid](#))

| | Data type | Description |
|----------------------------------|-----------|--|
| Parameter: pClientGuid | Guid | This value is used for the global identification of VPS Control-AddIn on a page. |

scrollToDateTime

This function allows you to scroll to a specific point in time in the time scale.

```
procedure scrollToDateTime(pClientGuid: Guid; pDateTime: DateTime)
```

| | Data type | Explanation |
|----------------------------------|-----------|--|
| Parameter: pClientGuid | Guid | This value is used for the global identification of VPS Control-AddIn on a page. |
| pDateTime | DateTime | Time to be scrolled to |

Example:

```
//scroll to any date (businesslogic)
_date := DMY2Date(19, 1, 2022);
_integrationMngt.scrollToDateTime(gVpsClientGuid, CreateDateTime(_date, 0T));
```

setProdOrderRoutingLineCustomColor

This function can be used to set the color and text color of production order routing lines individually. These settings get not changed by Load/Reload and can only be reset to the default color or to the color having been set via the *OnProvideProdOrderRoutingLineColor* event using the *resetProdOrderRoutingLineColors* function.

```
procedure setProdOrderRoutingLineCustomColor(pClientGuid: Guid; pProdOrderRoutingLinePositions: List of [Text]; pBarColor: Text; pTextColor: Text)
```

| | Data type | Description |
|----------------------------------|-----------|--|
| Parameter: pClientGuid | Guid | This value is used for the global identification of VPS Control-AddIn on a page. |

| | | |
|--------------------------------|----------------|--|
| pProdOrderRoutingLinePositions | List of [Text] | List of selected production order routing lines. By default, there is one production order routing line. In the future, in case of multi-selection, several Production Order Routing Lines will be selected. |
| pBarColor | Text | Specify the bar color. |
| pTextColor | Text | Specify the text color. |

setProdOrderRoutingLineSelection

With this function you can select the production order routing lines. Currently, without having enabled multiselect, the first element in the list gets selected.

procedure setProdOrderRoutingLineSelection(pClientGuid: [Guid](#); pProdOrderRoutingLinePositions: [List of \[Text\]](#))

| | Data type | Description |
|----------------------------------|----------------|---|
| Parameter: pClientGuid | Guid | This value is used for the global identification of VPS Control-AddIn on a page. |
| pProdOrderRoutingLinePositions | List of [Text] | List of selected production order routing lines. By default, there is one production order routing line. In the future, in case of multi-selection, several Production Order Routing Lines will be selected |

Events

DoSkipWorkCenterOnDataLoad

This event allows the customer to prevent (skip) the loading of certain workcenters into the simulation during the load/reload phase. Subordinate or connected elements will then also not be loaded into the simulation.

```
[IntegrationEvent(/*IncludeSender*/false, /*GlobalVarAccess*/false)]
```

```
procedure DoSkipWorkCenterOnDataLoad(pClientGuid: Guid; var pWorkCenter:Record
  "Work Center"; var pSkip: Boolean; var pHandled: Boolean)
```

| | Data type | Description |
|----------------------------------|-----------|--|
| Parameter: pClientGuid | Guid | This value is used for the global identification of VPS Control-AddIn on a page. |
| var pWorkCenter | Record | Determines which record will be skipped. |
| var pSkip | Boolean | Determines whether records will be skipped or not. |
| var pHandled | Boolean | The event will be handled if it returns true |

OnAfterProdOrderRoutingLineSelectionChange

This event occurs when one or more production order routing lines get selected.

Please note: Multiselect is not officially released but can be unlocked by knowledgeable customers.

```
[IntegrationEvent(/*IncludeSender*/false, /*GlobalVarAccess*/false)]
```

```
procedure OnAfterProdOrderRoutingLineSelectionChange(pClientGuid: Guid;
  pProdOrderRoutingLinePositions: List of [Text]; var pHandled: Boolean)
```

| | Data type | Description |
|----------------------------------|----------------|---|
| Parameter: pClientGuid | Guid | This value is used for the global identification of VPS Control-AddIn on a page. |
| pProdOrderRoutingLinePositions | List of [Text] | List of selected production order routing lines. By default, there is one production order routing line. In the future, in case of multi-selection, several Production Order Routing Lines will be selected |

| | | |
|---------------------------|---------|---|
| <code>var pHandled</code> | Boolean | If it returns true, the event will be handled |
|---------------------------|---------|---|

OnAfterSaveProdOrderRoutingLine

This event occurs after saving a production order routing line.

[IntegrationEvent(*/*IncludeSender*/false, /*GlobalVarAccess*/false*)]

`procedure OnAfterSaveProdOrderRoutingLine(pClientGuid: Guid;`

`var pProdOrderRoutingLineRecordOriginalTemp: Record "Prod. Order Routing Line" temporary;`

`var pProdOrderRoutingLineRecordAfterTemp: Record "Prod. Order Routing Line" temporary)`

| | Data type | Description |
|---|-----------|--|
| Parameter: pClientGuid | Guid | This value is used for the global identification of VPS Control-AddIn on a page. |
| var pProdOrderRoutingLineRecordOriginalTemp | Record | The original production order routing line. |
| var pProdOrderRoutingLineRecordAfterTemp | Record | The after save production order routing line. |

`//do anything in bc here what has to be done after vps modified porl is saved to bc;`

OnBeforeSaveProdOrderRoutingLine

This event occurs before save a production order routing line.

[IntegrationEvent(*/*IncludeSender*/false, /*GlobalVarAccess*/false*)]

`procedure OnBeforeSaveProdOrderRoutingLine(pClientGuid: Guid;`

`var pProdOrderRoutingLineRecordOriginalTemp: Record "Prod. Order Routing Line" temporary;`

`var pProdOrderRoutingLineRecordBeforeTemp: Record "Prod. Order Routing Line" temporary)`

| | Data type | Description |
|---|-----------|--|
| Parameter: pClientGuid | Guid | This value is used for the global identification of VPS Control-AddIn on a page. |
| var pProdOrderRoutingLineRecordOriginalTemp | Record | The original production order routing line. |

| | | |
|--|--------|--|
| <code>var pProdOrderRoutingLineRecordBeforeTemp</code> | Record | The before save production order routing line. |
|--|--------|--|

`//do stuff here that has to be done before por1 is saved to bc (for example move dependent lines for reservations)`

OnBeforeScheduleProdOrderRoutingLine

This event occurs before schedule a production order routing line.

[IntegrationEvent(*/*IncludeSender*/*false, */*GlobalVarAccess*/*false)]

`procedure OnBeforeScheduleProdOrderRoutingLine(pClientGuid: Guid;`

`var pProdOrderRoutingLineRecordOriginalTemp: Record "Prod. Order Routing Line" temporary;`

`var pProdOrderRoutingLineRecordBeforeTemp temporary;`

`var pCancel: Boolean; var pHandled: Boolean)`

| | Data type | Description |
|---|-----------|--|
| Parameter: pClientGuid | Guid | This value is used for the global identification of VPS Control-AddIn on a page. |
| var pProdOrderRoutingLineRecordOriginalTemp | Record | The original production order routing line. |
| var pProdOrderRoutingLineRecordBeforeTemp | Record | The before scheduled production order routing line. |
| Var pCancel | Boolean | |
| Var pHandled | Boolean | The event will be handled if it returns true. |

OnBeforeTransfer events

These events can be used to modify Business Central data before transferring them into our simulation data. Not only simple modifications are possible, but also complex ones such as the application of flowFields/Flowfilters and thus execution of self-created or already existing formulas. The changes will **not be saved** in the Business Central data.

The events in detail:

OnBeforeTransferMachineCenter

This event occurs on loading a machine center

[IntegrationEvent(*/*IncludeSender*/*false, */*GlobalVarAccess*/*false)]

procedure OnBeforeTransferMachineCenter(pClientGuid: [Guid](#); var pMachineCenterRecord: [Record](#) "Machine Center"; var pHandled: [Boolean](#))

| | Data type | Description |
|----------------------------------|-----------|--|
| Parameter: pClientGuid | Guid | This value is used for the global identification of VPS Control-AddIn on a page. |
| var pMachineCenterRecord | Record | The machine center to be loaded. |
| var pHandled | Boolean | The event will be handled if it returns true |

OnBeforeTransferProdOrder

This event occurs on loading a production order.

[IntegrationEvent(*/*IncludeSender*/*false, */*GlobalVarAccess*/*false)]

procedure OnBeforeTransferProdOrder(pClientGuid: [Guid](#); var pProdOrderRecord: [Record](#) "Production Order"; var pHandled: [Boolean](#))

| | Data type | Description |
|----------------------------------|-----------|--|
| Parameter: pClientGuid | Guid | This value is used for the global identification of VPS Control-AddIn on a page. |
| var pProdOrderRecord | Record | The production order to be loaded. |
| var pHandled | Boolean | The event will be handled if it returns true |

OnBeforeTransferProdOrderLine

This event occurs on loading a production order line.

[IntegrationEvent(*/*IncludeSender*/*false, */*GlobalVarAccess*/*false)]

procedure OnBeforeTransferProdOrderLine(pClientGuid: [Guid](#); var pProdOrderLineRecord: [Record](#) "Prod. Order Line"; var pHandled: [Boolean](#))

| | Data type | Description |
|----------------------------------|-----------|--|
| Parameter: pClientGuid | Guid | This value is used for the global identification of VPS Control-AddIn on a page. |
| var pProdOrderLineRecord | Record | The production order line to be loaded. |
| var pHandled | Boolean | The event will be handled if it returns true |

OnBeforeTransferProdOrderRoutingLine

This event occurs on loading a production order routing line.

[IntegrationEvent(*/*IncludeSender*/*false, */*GlobalVarAccess*/*false)]

procedure OnBeforeTransferProdOrderRoutingLine(pClientGuid: [Guid](#); var pProdOrderRoutingLineRecord: [Record](#) "Prod. Order Routing Line"; var pHandled: [Boolean](#))

| | Data type | Description |
|------------------------------------|-----------|--|
| Parameter: pClientGuid | Guid | This value is used for the global identification of VPS Control-AddIn on a page. |
| var pProdOrderRoutingLineRecord | Record | The production order routing line to be loaded. |
| var pHandled | Boolean | The event will be handled if it returns true |

OnBeforeTransferWorkCenter

This event occurs on loading a work center.

[IntegrationEvent(*/*IncludeSender*/*false, */*GlobalVarAccess*/*false)]

procedure OnBeforeTransferWorkCenter(pClientGuid: [Guid](#); var pWorkCenterRecord: [Record](#) "Work Center"; var pHandled: [Boolean](#))

| | Data type | Description |
|----------------------------------|-----------|--|
| Parameter: pClientGuid | Guid | This value is used for the global identification of VPS Control-AddIn on a page. |
| var pWorkCenterRecord | Record | The work center to be loaded. |
| var pHandled | Boolean | The event will be handled if it returns true |

OnBeforeTransferWorkCenterGroup

This event occurs on loading a work center group.

[IntegrationEvent(*/*IncludeSender*/*false, */*GlobalVarAccess*/*false)]

procedure OnBeforeTransferWorkCenterGroup(pClientGuid: [Guid](#); var pWorkCenterGroupRecord: [Record](#) "Work Center Group"; var pHandled: [Boolean](#))

| | Data type | Description |
|----------------------------------|-----------|--|
| Parameter: pClientGuid | Guid | This value is used for the global identification of VPS Control-AddIn on a page. |
| var pWorkCenterGroupRecord | Record | The work center group to be loaded. |
| var pHandled | Boolean | The event will be handled if it returns true |

OnProdOrderRoutingLineCustomFunction

This event can be used, for example, to execute custom code in a context related to a production order routing line. The context is determined by the parameter *pContext*. (e.g. in the context menu of the Capacity View). See also "*OnProvideProdOrderRoutingLineCustomFunctions*".

```
[IntegrationEvent(/*IncludeSender*/false, /*GlobalVarAccess*/false)]
```

```
procedure OnProdOrderRoutingLineCustomFunction(pClientGuid: Guid;
pProdOrderRoutingLinePosition: Text; pCustomFunctionKey: Text;
pContext: Option; var pHandled: Boolean)
```

| | Data type | Description |
|-------------------------------|-----------|--|
| Parameter: | | |
| pClientGuid | Guid | This value is used for the global identification of VPS Control-AddIn on a page. |
| pProdOrderRoutingLinePosition | Text | Position of a selected production order routing line. |
| pCustomFunctionKey | Text | Specifies the context menu item. |
| pContext | Option | Describes the context menu item in more detail |
| var pHandled | Boolean | If it returns true, the event will be handled |

OnProvideAdditionalDateLine

This event, which is triggered during the (re)loading phase, can be used to configure an additional dateline that is not bound to an object. If the event is handled and a DateTime is specified, the line is shown, otherwise a possibly existing line is removed (at reload). If no values are specified for parameters that describe the appearance of the line, the default of the ControlAddIn results.

```
[IntegrationEvent(/*IncludeSender*/false, /*GlobalVarAccess*/false)]
```

```
procedure OnProvideAdditionalDateLine(pClientGuid: Guid; var pDateLineDateTime
: DateTime; var pDescription: Text; var pColor: Text; var pDescriptionColor:
Text; var pThickness: integer; var pDashArray: Text; var pHandled: Boolean)
```

| | Data type | Description |
|----------------------------------|-----------|--|
| Parameter: pClientGuid | Guid | This value is used for the global identification of VPS Control-AddIn on a page. |
| var pDateLineDateTime | DateTime | Date of the additional date line. |
| var pDescription | Text | Description of the additional date line. |
| var pColor | Text | Color of the additional date line. |
| var pDescriptionColor | Text | Color of the description of the additional date line. |
| var pThickness | Integer | Line thickness of the additional date line. |
| var pDashArray | Text | Dash of the additional date line. |
| var pHandled | Boolean | If it returns true, an already existing date line is removed (reload) |

OnProvideProdOrderLineAdditionalDateLine

This event, which is triggered during the loading phase, can be used to configure an additional dateline for a production order line in the Capacity View. This wdate line ill be displayed when selecting your ProductionOrderRoutingLine.

[IntegrationEvent(*/*IncludeSender*/*false, */*GlobalVarAccess*/*false)]

```
procedure OnProvideProdOrderLineAdditionalDateLine(pClientGuid: Guid;
pProdOrderLinePosition: Text; var pDateLineDateTime: DateTime;
var pDescription: Text; var pColor: Text; var pDescriptionColor:
Text; var pThickness: integer; var pDashArray: Text; var pHandled: Boolean)
```

| | Data type | Description |
|----------------------------------|-----------|--|
| Parameter: pClientGuid | Guid | This value is used for the global identification of VPS Control-AddIn on a page. |
| pProdOrderLinePosition | Text | Position of a selected production order routing line. |
| var pDateLineDateTime | DateTime | Date of the additional date line of a production order line. |
| var pDescription | Text | Description of the additional date line of a production order line. |

| | | |
|-----------------------|---------|--|
| var pColor | Text | Color of the additional date line of a production order line. |
| var pDescriptionColor | Text | Color of the description of the additional date line of a production order line. |
| var pThickness | Integer | Line thickness of the additional date line of a production order line. |
| var pDashArray | Text | Dash of the additional date line of a production order line. |
| var pHandled | Boolean | If it returns true, the event will be handled |

OnProvideProdOrderRoutingLineColor

This event occurs when, upon loading/reloading the data from Business Central, color and text color of the bars are configured individually. This applies to the Production Order View and the Capacity View. If the *pHandled* parameter is set to *false*, the default color is set.

```
[IntegrationEvent(/*IncludeSender*/false, /*GlobalVarAccess*/false)]
```

```
procedure OnProvideProdOrderRoutingLineColor(pClientGuid: Guid;
pProdOrderRoutingLinePosition: Text; var pBarColor: Text;
var pTextColor: Text; var pHandled: Boolean)
```

| Parameter: | Data type | Description |
|-------------------------------|-----------|--|
| pClientGuid | Guid | This value is used for the global identification of VPS Control-AddIn on a page. |
| pProdOrderRoutingLinePosition | Text | Position of a selected production order routing line. |
| var pBarColor | Text | Specifies the bar color. |
| var pTextColor | Text | Specifies the text color. |
| var pHandled | Boolean | If it returns true, the event will be handled |

OnProvideProdOrderRoutingLineCustomFunctions

This event allows the customer to "register" custom code or functionality on production order routing lines. This functionality can then be executed via the *OnProdOrderRoutingLineCustomFunction* event. (Example: a custom functionality on the context menu of a production order line in the Capacity View), see also *OnProdOrderRoutingLineCustomFunction*.

```
[IntegrationEvent(/*IncludeSender*/false, /*GlobalVarAccess*/false)]
```

```
procedure OnProvideProdOrderRoutingLineCustomFunctions
```

(pCustomFunctionsKeysAndDescriptions: Dictionary of [Text, Text];
 pContext: Option; var pHandled: Boolean)

| Parameter: | Data type | Description |
|-------------------------------------|----------------------------|--|
| pCustomFunctionsKeysAndDescriptions | Dictionary of [Text, Text] | List with keys and descriptions of context menu items. |
| pContext | Option | Precise description of context menu item. |
| var pHandled | Boolean | If it returns true, the event will be handled |

Example:

```
[EventSubscriber(ObjectType::Codeunit, Codeunit::"NETVPS IntegrationMgmt",
'OnProvideProdOrderRoutingLineCustomFunctions', '', false, false)]

    local procedure
handleOnProvideProdOrderRoutingLineCustomFunctions(pCustomFunctionsKeysAndDesc
riptions: Dictionary of [Text, Text]; pContext: Option; var pHandled:
Boolean)
    var
        _integrationMgmt: Codeunit "NETVPS IntegrationMgmt";
    begin
        case pContext of
            _integrationMgmt.getProdOrderRoutingLineCustomFunctionContext(
) ::contextMenuProdOrderView:
                // additional contextmenu items for Porl contextMenu in
ProdOrderView
                begin
                    pCustomFunctionsKeysAndDescriptions.Add('customFunctio
n1', 'customProdOrderViewFunction 1');
                    pCustomFunctionsKeysAndDescriptions.Add('separator1',
'-----');
                    pCustomFunctionsKeysAndDescriptions.Add('customFunctio
n2', 'customProdOrderViewFunction 2');
                    pCustomFunctionsKeysAndDescriptions.Add('separator2',
'-----');
                    pCustomFunctionsKeysAndDescriptions.Add('customFunctio
n3', 'customProdOrderViewFunction 3');
```

```

        end;

        _integrationMgmt.getProdOrderRoutingLineCustomFunctionContext(
) ::contextMenuCapacityView:

        Begin

        // additional contextmenu items for Por1 contextMenu in
        CapacityView

                pCustomFunctionsKeysAndDescriptions.Add('customFunction1', 'customCapacityViewFunction 1');

                pCustomFunctionsKeysAndDescriptions.Add('separator1',
'-----');

                pCustomFunctionsKeysAndDescriptions.Add('customFunction2', 'customCapacityViewFunction 2');

                pCustomFunctionsKeysAndDescriptions.Add('separator2',
'-----');

                pCustomFunctionsKeysAndDescriptions.Add('customFunction3', 'customCapacityViewFunction 3');

        end;

    end;

    //important!!! pHandled must be true in order the settings to be
    handled in VPS

    pHandled := true;

end;

```