



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.

```

var pProdOrderRoutingLineRecordBeforeTemp | 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.

<code>var pColor</code>	Text	Color of the additional date line of a production order line.
<code>var pDescriptionColor</code>	Text	Color of the description of the additional date line of a production order line.
<code>var pThickness</code>	Integer	Line thickness of the additional date line of a production order line.
<code>var pDashArray</code>	Text	Dash of the additional date line of a production order line.
<code>var pHandled</code>	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
<code>pClientGuid</code>	Guid	This value is used for the global identification of VPS Control-AddIn on a page.
<code>pProdOrderRoutingLinePosition</code>	Text	Position of a selected production order routing line.
<code>var pBarColor</code>	Text	Specifies the bar color.
<code>var pTextColor</code>	Text	Specifies the text color.
<code>var pHandled</code>	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('customFunction3', '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;

```