

# Tutorial

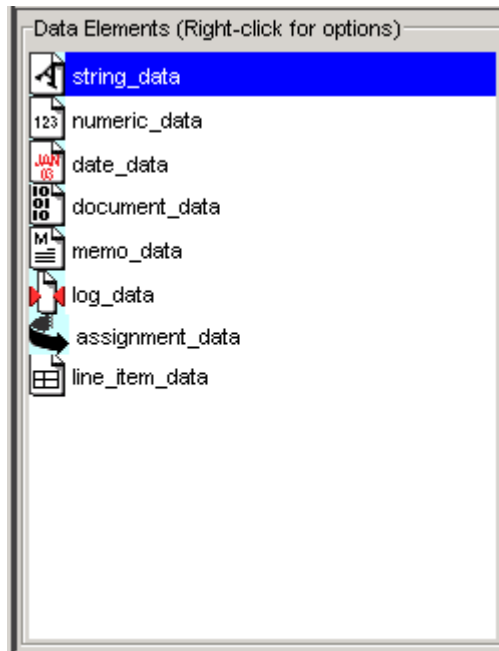
## HighOrbit BPM Data Types

HighOrbit BPM includes numerous data types, allowing a great deal of flexibility and customization in your workflow design. In this tutorial, we'll review each data type and discuss their possible uses.

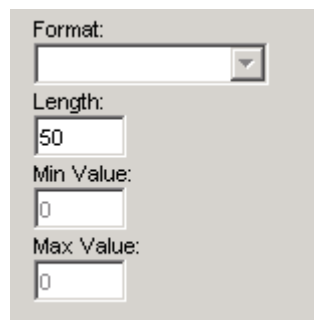
### String

#### Basic data type to hold limited length alphanumeric data

In most processes, the string data type will be used most often. It is designed to hold basic information that may consist of letters and numbers. The length of the string field can be set using by double-clicking on the data element and setting its properties.

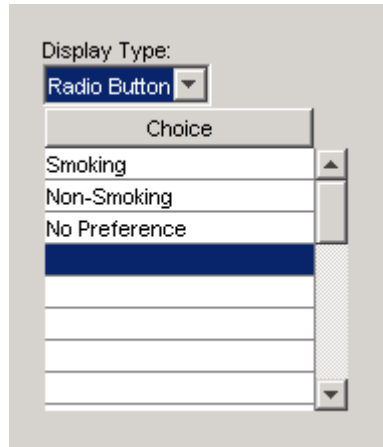


String Properties:

A screenshot of a "String Properties" dialog box. It contains four labeled input fields: "Format:" with a dropdown menu, "Length:" with a text box containing the number "50", "Min Value:" with a text box containing "0", and "Max Value:" with a text box containing "0".

But setting the string's length property, you can limit the amount of data allowed in the string field. String lengths can be set between 1 and 255 characters. For larger amounts of data, use the Memo data type described below.

String data types can also be used to create check boxes, radio buttons, or drop downs on the Task Detail web page. Just choose the type on the “Choices” tab, and enter the desired values.



The choices will appear as selected on the Task Detail page in the Web Interface:

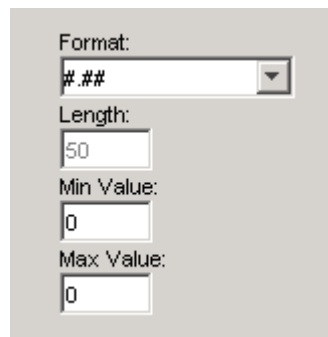
<b>Instructions:</b>	
<b>String Data</b>	<input type="radio"/> Smoking <input type="radio"/> Non-Smoking <input type="radio"/> No Preference
<b>Numeric Data</b>	<input type="text" value="0"/>

Using the properties page in the designer, you can also specify a default value to be used when a process instance is started. The default value will be assigned immediately after a process starts.

## Numeric **Holds number data for calculations**

Use the Numeric data type to hold numeric information that may be used in the workflow when performing calculations or business rule checks. Numeric data types can hold currency, quantity, or other numeric information. They should not normally be used to hold phone numbers, zip codes, SSNs, or credit card numbers. String fields are usually better for these types of data.

Number data types can be formatted to show a fixed number of digits before or after the decimal point. See the Designer’s Guide for a complete list of format settings.

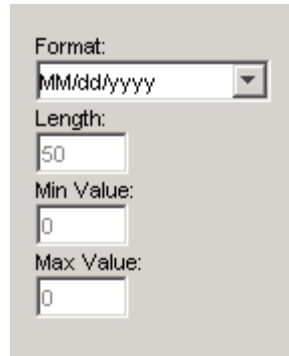


You can also set a minimum and maximum value in the data element’s properties. Use “0” for both to disable min/max checking.

## Date

### Holds date and time information

To store date or date/time, use the Date type data field. Dates can be formatted in the element's Property settings to show only a date, or to include time information. For a complete list of format options, see the Designer's Guide.



The image shows a configuration panel for a Date field. It includes a 'Format' dropdown menu currently set to 'MM/dd/yyyy', a 'Length' text input field with the value '50', a 'Min Value' text input field with the value '0', and a 'Max Value' text input field with the value '0'.

## Document

### Holds a file attachment or binary file

HighOrbit BPM allows a user to include one or more file attachments with each process instance. Files can include MS-Word documents, PDF files, image files, or any other type of file.

A Document data element appears on the Task Detail page as follows:



The image shows a 'Document Data' field in a task detail page. The field is labeled 'DOCUMENT ATTACHMENT: proposal.pdf' and contains three blue links: 'View', 'Download', and 'Email'. Below the links is a text input field and a 'Browse...' button.

If there is already a document attached, it can be viewed or downloaded by clicking on the appropriate link. To attach a new file, the user would click on the Browse... button and select a file. When the Task is completed or updated, the file will be uploaded and attached to the process data element.

## Memo

### Unlimited length string field

Use a Memo field when you need to store a large amount of information. A memo field will allow a user to enter as much information as necessary into the Task Detail page.

## Log

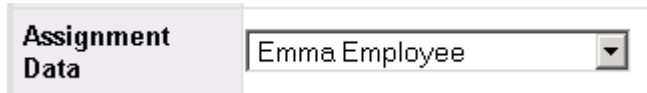
### “Append-able” field with user and time stamp

A Log data element allows a user to add or append data to existing data, while maintaining a history of all data entered prior. Each entry is preceded by a user name and a time stamp. An example of a Log data field is shown below:

<b>Log Data</b>	<pre>10/21/2004 10:58 CDT : (Demo Admin) :Called user, was at lunch, left a message  10/21/2004 10:58 CDT : (Wally Worker) :Called again, in a meeting  10/21/2004 10:59 CDT : (Wally Worker) :Talked to "John", said check was mailed yesterday.</pre>

## Assignment Select a user or group for later use in the workflow

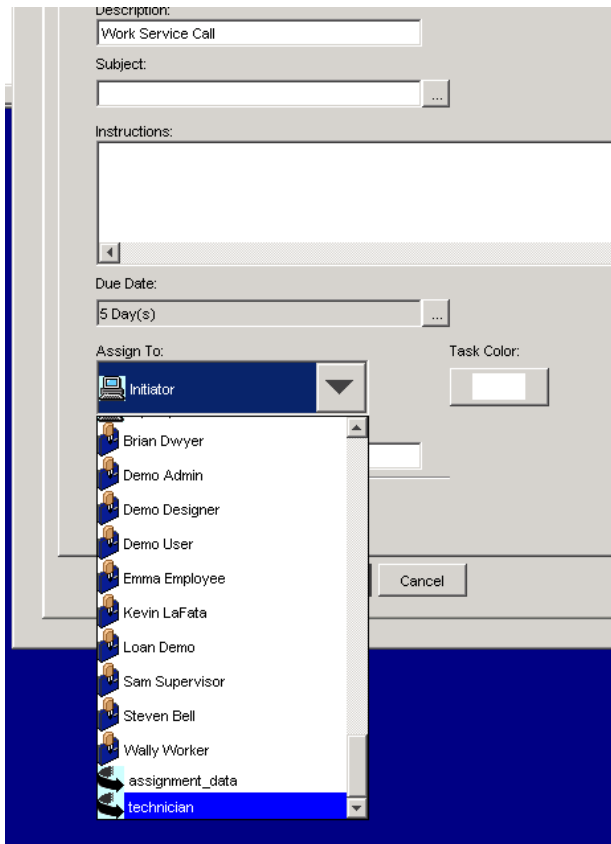
An Assignment data field shows as a drop down in the Task Detail page containing a list of users and groups for your company. The assignment field allows selection of a person or group to be used at a later stage in a workflow.



The image shows a form element labeled "Assignment Data" in a grey box. To its right is a dropdown menu with a white background and a grey border. The text "Emma Employee" is displayed in the dropdown, and a small downward-pointing arrow is visible on the right side of the dropdown box.

These fields can be used by a supervisor to assign a specific technician, for example, to work a service call.

The workflow designer simply selects the Assignment field in the "Assign To:" field in the Task Action Properties dialog:



The screenshot shows a "Task Action Properties" dialog box. The "Assign To:" field is a dropdown menu that is currently open, displaying a list of users and groups. The list includes "Initiator", "Brian Dwyer", "Demo Admin", "Demo Designer", "Demo User", "Emma Employee", "Kevin LaFata", "Loan Demo", "Sam Supervisor", "Steven Bell", "Wally Worker", "assignment\_data", and "technician". The "technician" option is highlighted in blue. To the right of the dropdown is a "Task Color:" field with a white box. Below the dropdown is a "Cancel" button. The dialog also contains fields for "Description:" (with "Work Service Call" entered), "Subject:", "Instructions:", and "Due Date:" (with "5 Day(s)" entered).

When the process reaches this task, it will be assigned to the person or group selected earlier in the workflow.



## Line Item Stores a variable length table of information

Line Item data types can store column-based, multi-line information such as item detail on a purchase order, or a list of service calls with timing data.

Line Items can perform basic calculations between columns, and can include one summary column to calculate “Grand Total” type information.

Example Line Item Table Definition:

Column	Name	Type	Size	Formula
A	Qty	Numeric	3	
B	Part Number	Alphanumeric	10	
C	Description	Alphanumeric	20	
D	Price Each	Numeric	6	
E	Ext Price	Numeric	7 D*A	

Summary Calculation

Description: Invoice Total

Operation: Sum

Use Column: E

This table would appear on the Task Detail page as follows:

Qty	Part Number	Description	Price Each	Ext Price
3	ABC111	Gromet	3.40	10.20
10	BR5	Sprocket	5.67	56.70
11	WDC5	Bastion	8.99	98.89

**Invoice Total:** 165.79

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For more information, please see the Designer’s Guide, or the Line Item Tutorial