BIRT Page Break Support Feature Specification

Author: Rima Kanguri

Document Revisions

Version	Date	Description of Changes
Draft 1	02/17/2006	Initial draft.
Draft 2	02/27/2006	Minor changes based on team feed back
Draft 3	03/02/2006	Updates to section 3.3

1. Introduction

BIRT 2.0 supports page breaks. Currently page breaks are supported for Report items and Table/Grid rows. The behavior is not well defined, and the user is confused about what is supported. Also there are a couple of bugs for these issues.

In BIRT 2.1 we plan to document the limitations, document the supported behavior and make some enhancements to the current pagination support.

Some of the bugzilla entries referred to while coming up with the enhancements are listed below

- # 121275

- # 124585

- # 126120

- # 119580

The following lists the improvements and changes planned in BIRT 2.1

- Consistent page break behavior support in PDF and html

- Support page breaks for groups

- Support page breaks for groups, with the options 'Always excluding the first' and/or 'Always excluding the last'

- Page Interval – Currently the page interval is only supported for html and not for pdf. We will drop support in both formats.

- Drop support for PageBreakAfter and PageBreakBefore property for a row

2. Use Cases

The following are some of the common use cases that will be supported.

2.1 Support page breaks for groups

- Report designer defines a table with groups defined.
- Specifies page breaks after each group
- A page break will appear after each group

Note: Similarly page break before is supported.

2.2 Support page breaks with the options 'Always excluding first' and/or 'Always excluding last'

- Report designer can defines a table grouped on a field example country.
- Report designer can specify PageBreakBefore property to 'Always excluding the first' this will exclude the first page break.
- Report designer can specify PageBreakAfter property to 'Always excluding the last', which will exclude the last page break.

2.3 Support RepeatHeader for group after every page break

- Report designer can define table with groups
- For each group, the designer can specify if the group headers will repeat at every page break.

3. Page Break Behavior supported by Engine

Note: This section is based on Stanley's proposal.

3.1 Pagination Behavior

We summarize the page break rules in the following:

- PageBreakBefore and PageBreakAfter will be support for all first level (top level) report items.
- PageBreakBefore and PageBreakBefore will be supported in groups for all first level listing items and second level listing items.
- PageBreakBefore and PageBreakBefore will be supported by table, list items in first and second level listing elements.

3.2 Localization and Formatting

The `IRunTask` will be enhanced to take a locale, similar to the `IRenderTask`.

3.3 Others

- Page break behavior will be consistent for PDF and html format
- There is a generation option to not support soft page breaks. The option is mostly used for HTML to observe hard page breaks, i.e. page break explicitly set using PageBreakAfter and PageBreakBefore property.
- As the page break property is not supported for rows, the issue described in 119580 does not apply. https://bugs.eclipse.org/bugs/show_bug.cgi?id=119580
- Drop support for page interval.

4. BIRT Designer Changes

The following operations will be supported from the BIRT designer.

4.1 Page Break Properties

4.1.1 In BIRT 2.0 the UI allows user to specify the following the following page break settings.

Page break feature supports the following 3 properties, which is based on CSS specification. Not all the property values work.

- o Page Break After
- o Page Break Before
- o Page Break Inside (It allows only auto, always, inherit)

The possible values of the properties are listed in the table below.

Value	Description
Auto	Insert a page break after the element if necessary
Always	Insert a page break after the element
Avoid	Avoid inserting a page break after the element
Left	Insert page breaks after the element until it reaches a blank left page
Right	Insert page breaks after the element until it reaches a blank right page
Inherit	Inherit the container properties

4.1.2 In BIRT 2.1 we will support the following

- Page Break After - The possible values of the properties are listed in the table below.

Value	Description
Auto	Insert a page break after the element if necessary
Always	Insert a page break after the element
Avoid	Avoid inserting a page break after the element
Always excluding last	Inserts a page break after the item, except the last item. Note: This property is only supported for repetitive items like Group.

- Page Break Before - The possible values of the properties are listed in the table below.

Value	Description
auto	Insert a page break before the element if necessary
always	Insert a page break before the element
avoid	Avoid inserting a page break before the element
Always excluding first	Inserts a page break before the item, except the first item. Note: This property is only supported for repetitive items like Group.

- Page Break Inside - The possible values of the properties are listed in the table below.
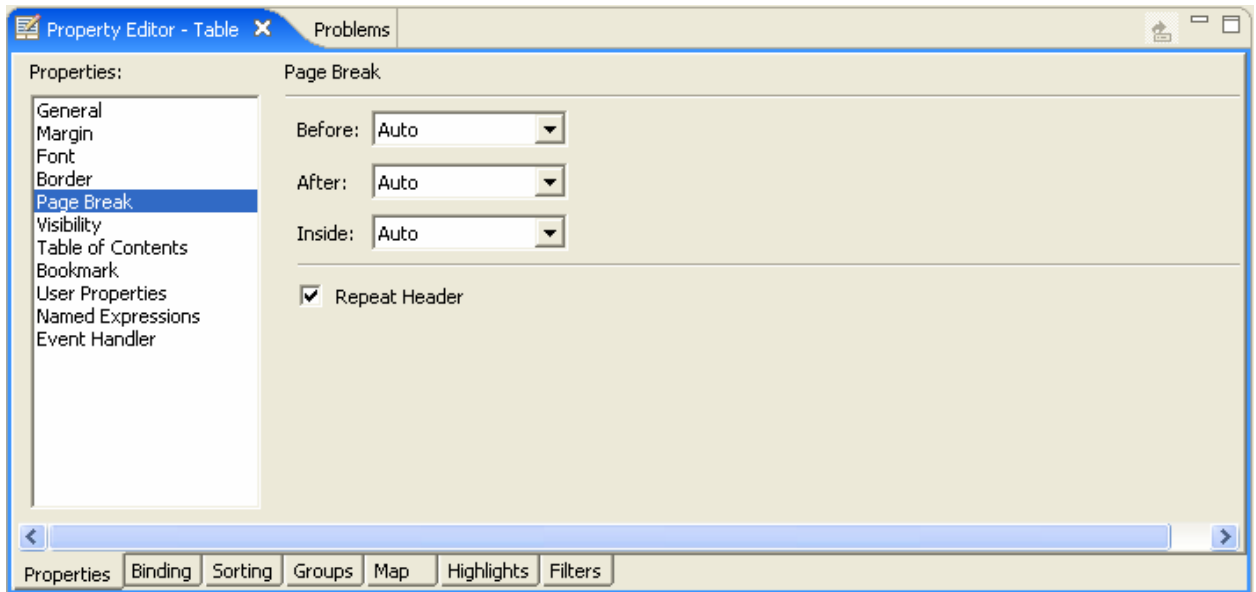
Value	Description
auto	Insert a page break after the element if necessary
avoid	Avoid inserting a page break after the element

☞ *Note: Engine is investigating if the PageBreakInside property can be supported in BIRT 2.1*

4.2 Table/List Group Dialog changes

- Page break support for group. Allows user to set PageBreakBefore, PageBreakAfter, and RepeatHeader properties.

- RepeatHeader – Allows user to set if the group headers repeats after every page break.

4.3 Table/List Property Editor changes

- Allow user to specify repeatHeader property from property editor of the table and list report item.

- Dropped support for page interval property.

5. Design Engine Changes

- Support of Report Header for table/list group

- Support PageBreakAfter, PageBreakBefore for table/list group

- Dropped support for page break properties for Row (table header, table footer, table detail, group header, group footer row). To support backward compatibility, if a group header or footer has a page break property set, the corresponding value is set on the group item.