BIRT Style and CSS Functional Specification

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Document Revisions

Version	Date	Description of Changes
Draft 1	8/15/2005	Initial draft.
Draft2	08/29/2005	Updated the UI changes based on review comments.

1. Introduction

A ROM style is a named style that contains a set of visual properties that can be applied to ReportElements. Report Designer can apply style to a ReportItem in several ways

- Allow the ReportElement to inherit style from its container
- Apply a style explicitly to a ReportElement.
- Define a style that applies to all the report elements of a type.
- Set the style properties on a ReportElement.

For more details on the ROM Style support refer to http://www.eclipse.org/birt/ref/ROM_Styles_SPEC.pdf

BIRT does not provide any mechanism to allow report designer to use existing styles defined in an external native CSS files. This projects aims at allowing report designer to import styles defined in CSS file into a report design.

2. Use cases

The following common use cases are supported.

2.1 Apply style defined in a CSS file to a report design.

A CSS file contains the styles .corporateBackground, corporateBlue defined. A report designer wants to apply the style to report design elements:

- Report designer imports the CSS file into a report design
- On importing each of the styles above is converted to ROM style named 'CorporateBackground' and 'CorporateBlue' and copied to the report design.
- Report designer applies the ROM styles to the Report Elements in the report design.

2.2 Importing styles in a CSS file into a library.

A report designer has several corporate styles defined in a CSS file; he plans to shares this styles across several report designs.

- Report designer imports the CSS file into a report design library file; all the styles defined in the CSS are copied into the library file.
- Report designer applies the library styles to various ReportElements in report designs.

3. Report Designer Operations

The following operations will be supported from the BIRT designer.

3.1 Import CSS file to a report design/report design library file.

Select CSS file to be imported. There are several ways user could import a CSS file into a report design.

- From the Outline view
- From the top windows menu

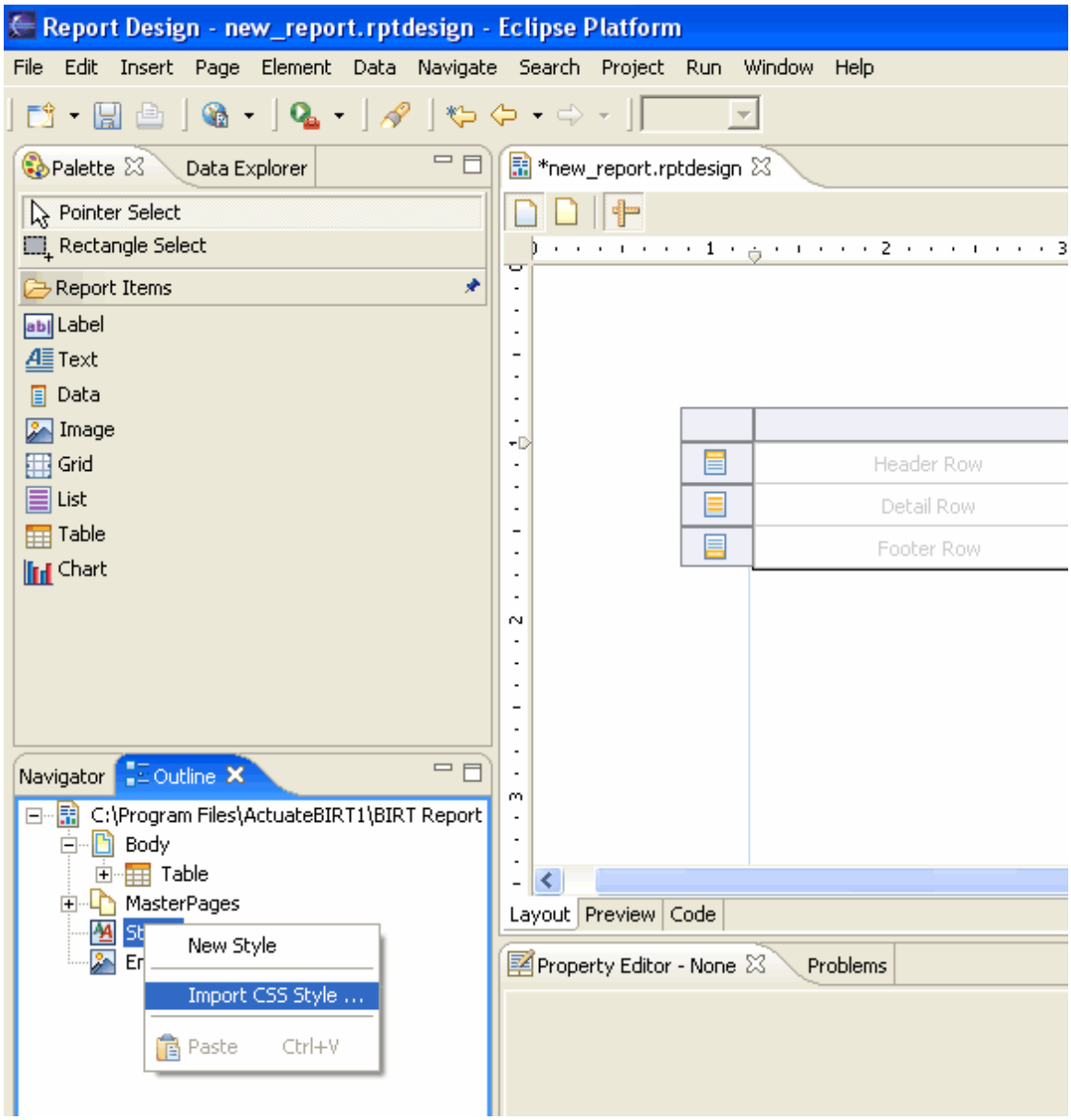

Figure 1 – Outline View supports CSS Style import

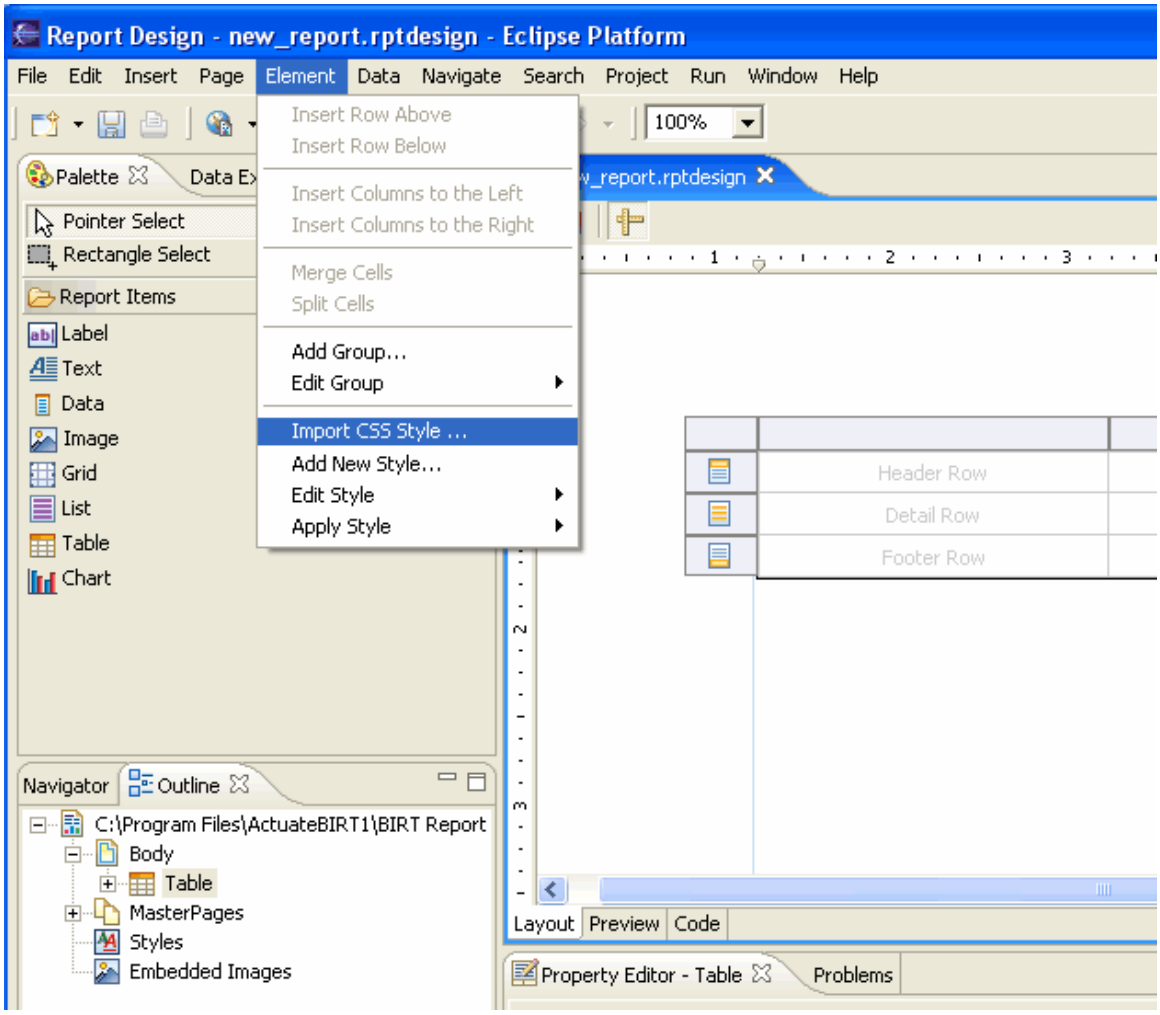

Figure 2 – Top windows menu has an option to Import CSS Style

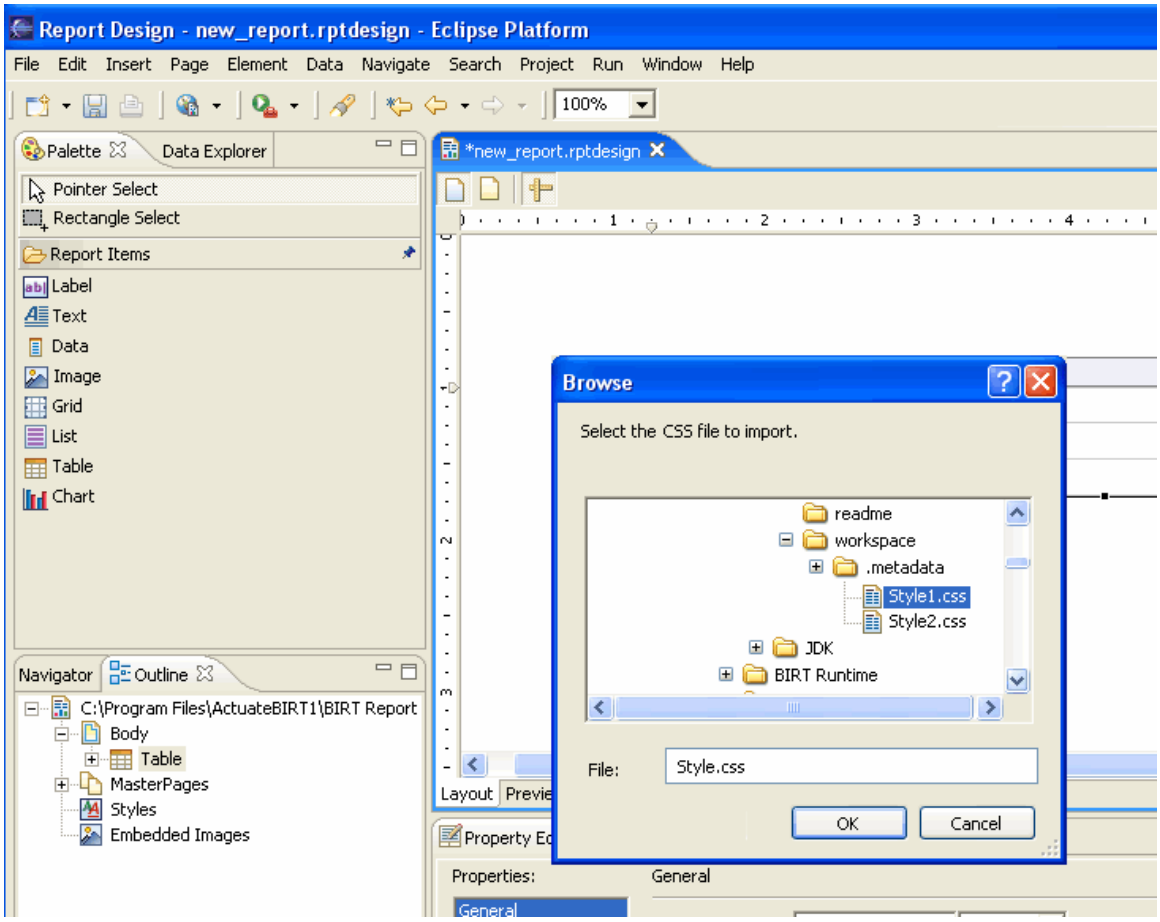

Figure 3 – File system browse dialog, which allows user to select the CSS file

3.2 User selects the styles from the list.

- User is shown a list of available styles from the CSS file. If a style name in CSS conflicts with a locally defined style, a unique name is give to the CSS style.
- User selects the styles to be imported. All the selected styles are copied to the report design file.

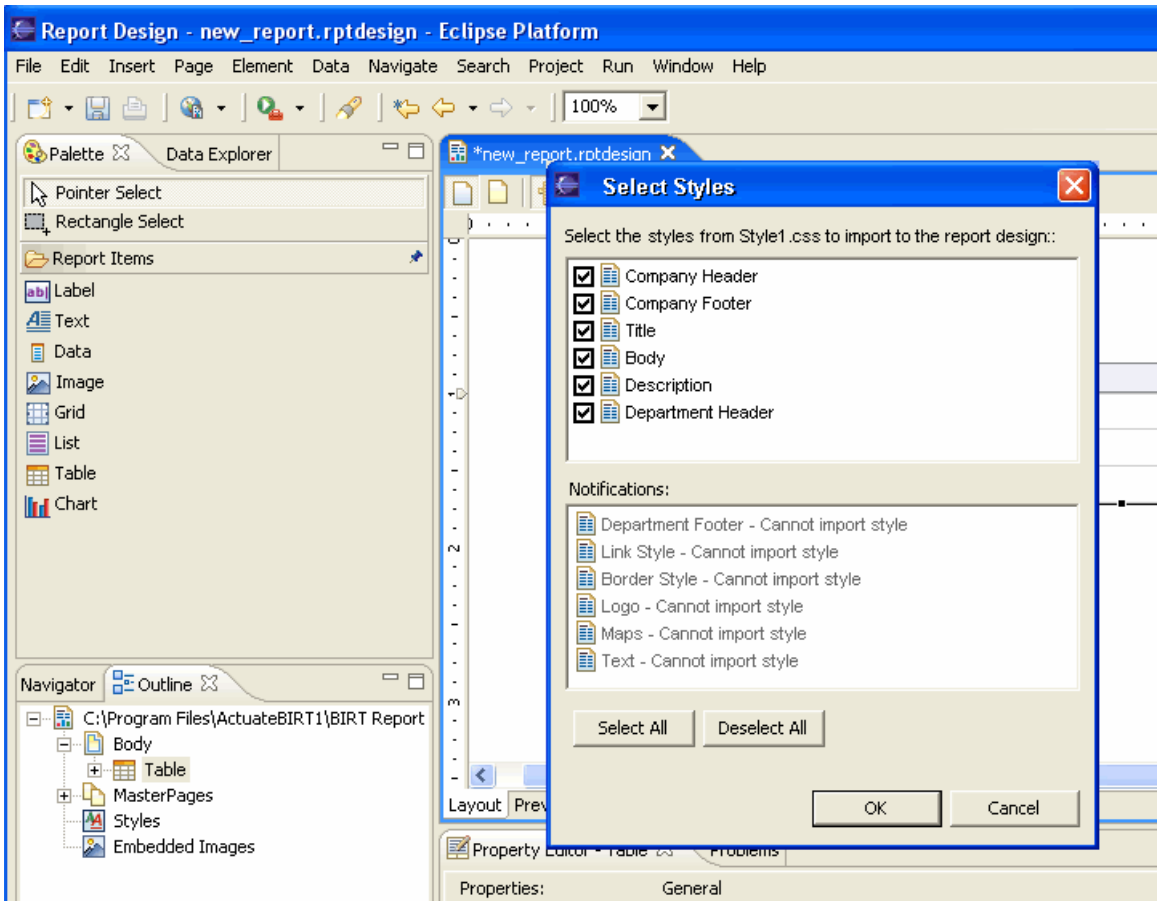

Figure 4 – Dialog, which allows user to choose the styles to import

3.3 Outline View

The outline view is updated to show all additional imported styles. User can now use the imported styles just as any locally defined styles.

Note: ROM will provide public API to perform the above operations.

4. Cascading Style Sheet Support

The ROM parses the external CSS file and converts to ROM style. CSS specification supports some complex syntax; all the CSS syntax is not supported. The following rules apply

- Some properties defined in CSS2 are not supported in ROM Style. The list below shows the list:

Unsupported CSS properties

text-transform

text-shadow

direction

unicode-bidi

list-style-type

list-style-image

list-style-position

table-layout

border-spacing

border-collapse

caption-side'

clear'

clip'

counter-increment'

counter-reset'

cue'

cue-after'

cue-before'

cursor'

direction'

float'

font-size-adjust'

marker-offset'

marks'

max-height'

max-width'

min-height'

min-width'

outline'

outline-color'

outline-style'

outline-width'

overflow'

pause'

pause-after'

pause-before'

pitch'

pitch-range'

'play-during'

position'

quotes'

richness'

right'

size

speak'

speak-header'

speak-numeral'

speak-punctuation'

speech-rate'

stress'

table-layout'

voice-family'

volume'

z-index'

Azimuth

- Unsupported CSS syntax is logged as warnings in log files.
- Rules for handling CSS parsing errors – Unknown property names, Illegal values, invalid keywords are ignored and logged as warnings in log files
- CSS2 support several types of selectors (refer to http://www.w3.org/TR/1998/REC-CSS2-19980512/selector.html#q1, the following selectors will be supported
  - type selectors. Example if a type selector 'H1' is defined, correspondingly a ROM style named "H1" is created.
  - class selectors. Example if a class selector 'DIV.table' or '.table' is defined in CSS, correspondingly a ROM style element named 'table' is created.

☞ Note: CSS2 supports subset matching of class selectors like P.pastoral.marine {color:green} *http://www.w3.org/TR/1998/REC-CSS2-19980512/selector.html#class-html*. Subset matching class selectors are not supported.

- The CSS2 shorthand properties are supported. Example of a short hand property, P {background: url("chess.png") gray 50% repeat fixed }, the 'background' property here is a shorthand property for setting the individual background properties (i.e., 'background-color', 'background-image', 'background-repeat', 'background-attachment' and 'background-position')
- CSS2 supports several rules: style rule, charset rule with keyword '@charset', import rule with keyword '@import', media rule with keyword '@media', font-face rule with keyword '@font-face, page rule with keyword '@page. Only style rule is supported.

5. Future releases

In future this feature could be extended to support dynamic linking to the CSS files i.e.:

- Allow user to include CSS files into report designs
- User can apply the styles defined in the external CSS file to the ReportElements, without making a local copy of the styles to the report design.
- Any change in the CSS file, will automatically affect the report at design and runtime.