

# BIRT API Change Control Document

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## 1. Introduction

IReportItemPresentation is the interface implemented by extended item to support render time processing. The BIRT engine creates a default implementation, ReportItemPresentationBase, for this interface. It is recommended practice to extend from the base implementation instead of implementing the interface directly.

This request enhances the IReportItemPresentation interface to:

1. Set the extended item content object to the IReportItemPresentation, so extended item can access various properties supported by BIRT such as dynamic style, bookmark etc.
2. Extended item should use the DTE's interface to access the data result set, so the extended item can get the support of group, cube etc from DTE directly.

The related bug entry is:

[199834 Enable access to IContent object in IReportItemPresentation layer](#)

## 2. Changed APIs:

### 2.1 Name = Object onRowSets(IRowSet[] rowSets)

Component name = IReportItemPresentation

Package name = org.eclipse.birt.report.engine.extension

---

#### Change Request:

As a new API `onRowSets(IBaseQueryResults[])` has been added to support the same feature, so this API is deprecated.

#### Proposed Solution:

The old API should be deprecated. BIRT engine should call the new API to invoke the extended item.

```
@deprecated since BIRT 2.3
```

```
public abstract Object onRowSets( IRowSet[] rowSets)
throws BirtException;
```

### 3. Added APIs:

#### 3.1 Name = void setExtendedItemContent(IContent content)

Component name = IReportItemPresentation

Package name = org.eclipse.birt.report.engine.extension

#### Change Request:

In render time, the extended item will be transformed to a content object. In this phrase, some properties are handled by the extended item itself, some are processed by the engine directly. In some cases, the extended item need to access the properties handled by report engine, such as bookmark, styles etc. etc.

#### Proposed Solution:

ENGINE needs set the content object to the extended item before it handles the transformation.

For example if the extended item needs access the bookmark in the render time, it should:

1. Define a member field in the extended item to save the content object which is passed in this API. The content object can be used in future processing.

```
...
IContent content;
public void setExtendedItemContent(IContent content)
{
    this.content = content;
}
```

2. Use the saved content object to get the bookmark in the render processing, such as:

```
Object onRowSets(IBaseQueryResults[] results)
{
    ...
    String bookmark = content.getBookmark();
    ...
}
```

---

```
Set the content object to the extended item.

@param content
    The content generated by the extended item.

public void setExtendedItemContent( IContent content );
```

### 3.2 Name = Object onRowSets(IBaseQueryResults[] results)

Component name = IReportItemPresentation

Package name = org.eclipse.birt.report.engine.extension

#### Change Request:

The extension item should be able to access the query result from the DTE's API directly, so it can get support of group/cube etc from DTE directly.

#### Proposed Solution:

BIRT need give the query result as DTE's interface to extended item directly.

Process the extended item. It is called in render time.

```
@param results
    "results" is an array of query results which is passed to the
    extended item. The extended item could retrieve data from those
    results.

@return
    The returned value could be different depending on the type of the
    output. For image, returns an input stream or byte array.

@throws BirtException
    Throws exception when there is a problem processing the extended
    item

public abstract Object onRowSets( IBaseQueryResults[] results)
throws BirtException;
```

## 4. Removed APIs:

None.

## 5. Miscellaneous Change Requests

Change the ReportItemPresentationBase to implement the new interface. It should keep the backward compatibility with the existed extended item.