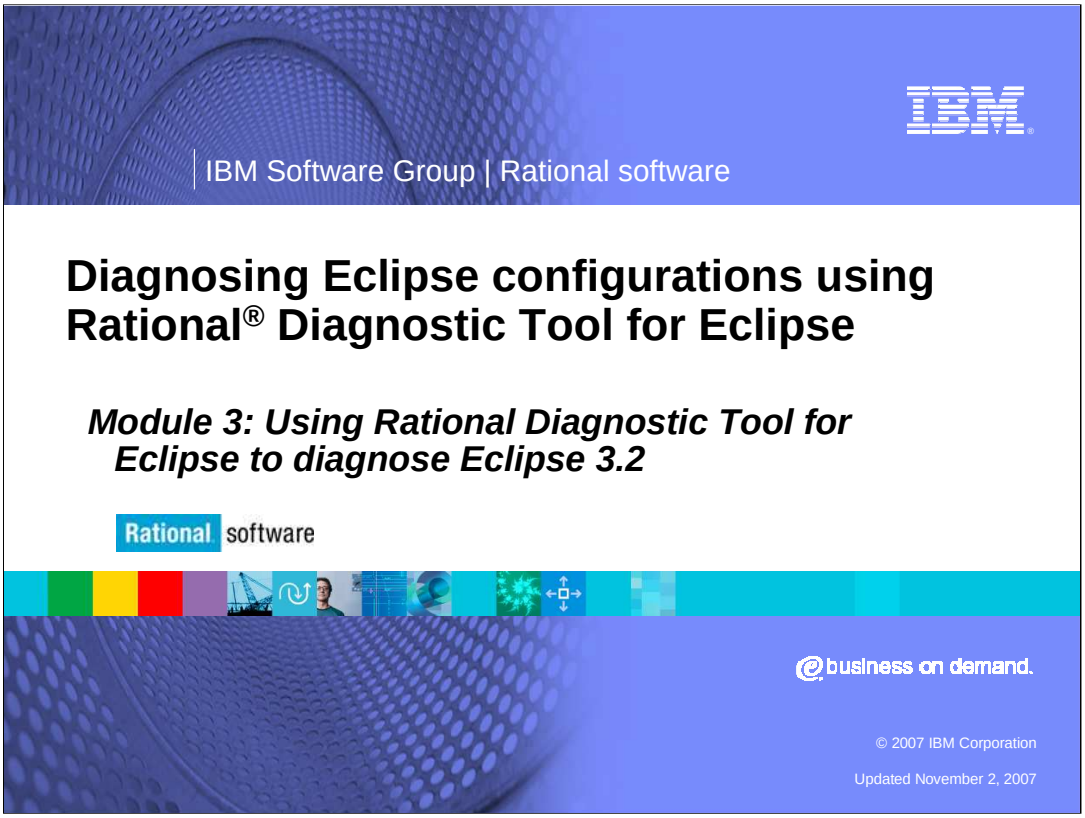
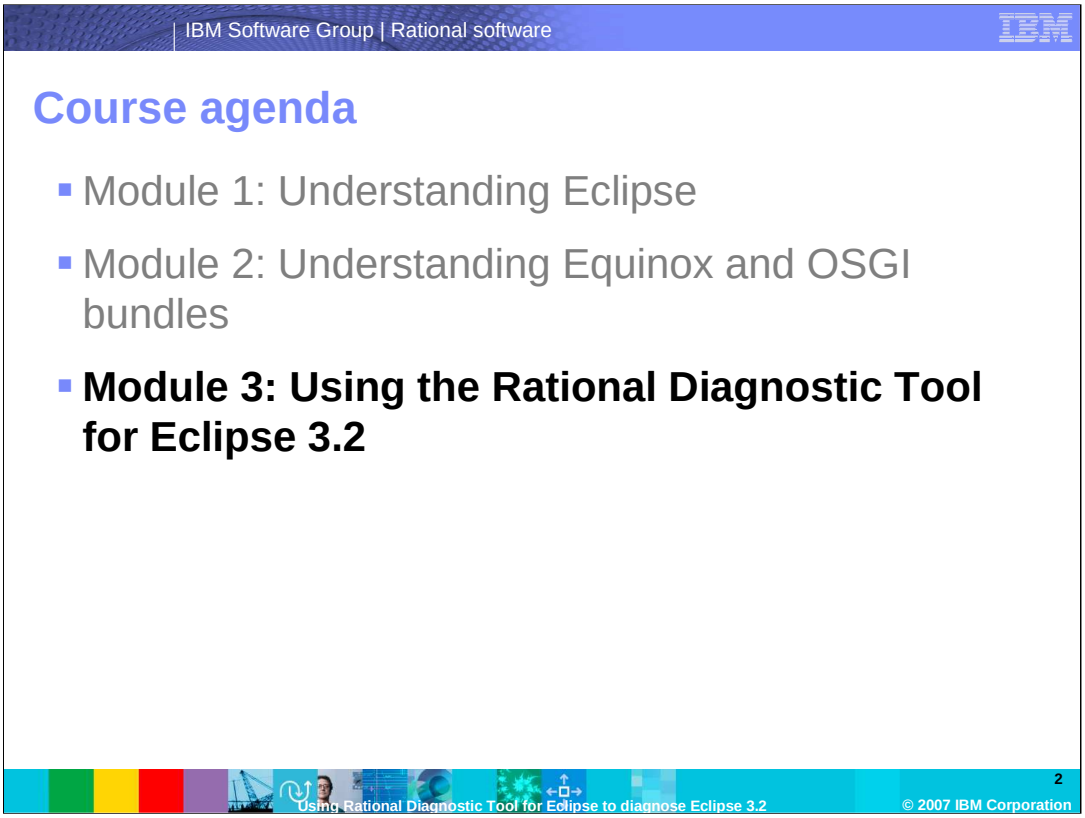
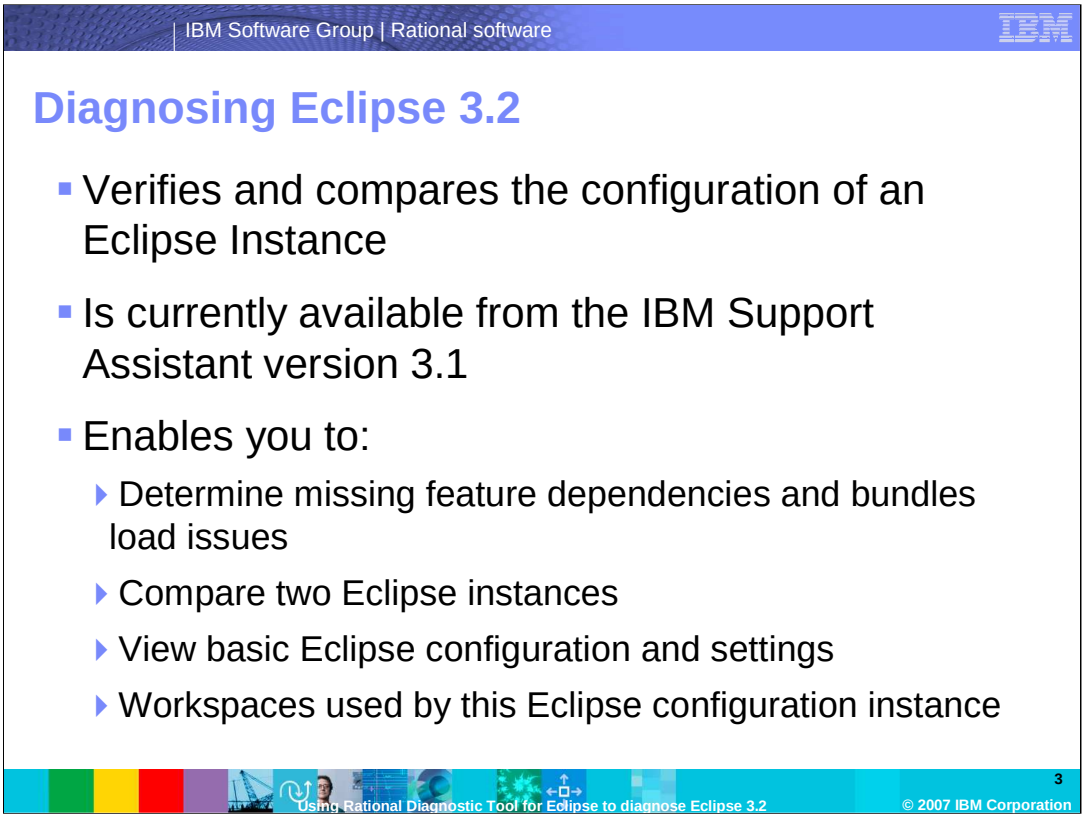


Now that you have a foundation for both Eclipse and OSGi technology, this module will cover using the **Rational Diagnostic Tool for Eclipse.**



This module is the third in a series to help you understand using the Rational Diagnostic Tool for Eclipse 3.2.



The IBM Rational Diagnostic Tool for Eclipse 3.2 version 1.0 verifies and compares the configuration of an Eclipse instance and is currently available from the IBM Support Assistant Version 3.1.

The Rational Diagnostic Tool for Eclipse helps you:

1) Easily determine missing feature dependencies and bundles load issues. For example, a bundle may not load for a variety of reasons. Traditionally, in order to find out the cause, you had to diagnose the Eclipse configuration from within the application while it is running. Rational Diagnostic Tool for Eclipse allows you to view bundle resolution errors without starting the Eclipse instance thus preserving the state of the Eclipse instance

2) Compare quickly two Eclipse instances, catching that slight variations between the two; where potentially, one instance is successful with a Rational product and the other is not. Comparing two or more Eclipse instances can be difficult. Slight differences in bundle versions can cause abnormal behavior. In Eclipse, you can view what is installed by going to *help->Software Updates-> Manager configuration*. In order to compare two Eclipse instances you would have to open the two Eclipse instances and compare by eye. File comparison tools do not understand how to interpret Eclipse bundles so Rational Diagnostic Tool for Eclipse creates an easy-to-read report on the differences between two or more Eclipse instances.

3) View basic Eclipse configuration and settings. Rational Diagnostic Tool for Eclipse provides one view of multiple settings; settings that you previously had to search through the file system to find.

And 4) Where exactly are the workspaces used by this Eclipse configuration instance? You can use “[dash] -configuration" or “[dash] -data" when running Eclipse to set custom configuration and workspace locations. Rational Diagnostic Tool for Eclipse can search for unknown configurations and the workspaces they reference.

The path taken to analyze Eclipse

- Rational Diagnostic Tool for Eclipse searches for Eclipse configurations
- Reads the OSGI state
- Analyzes the update configuration to find the locations of the equinox launcher
- Reads the features and plug-in properties

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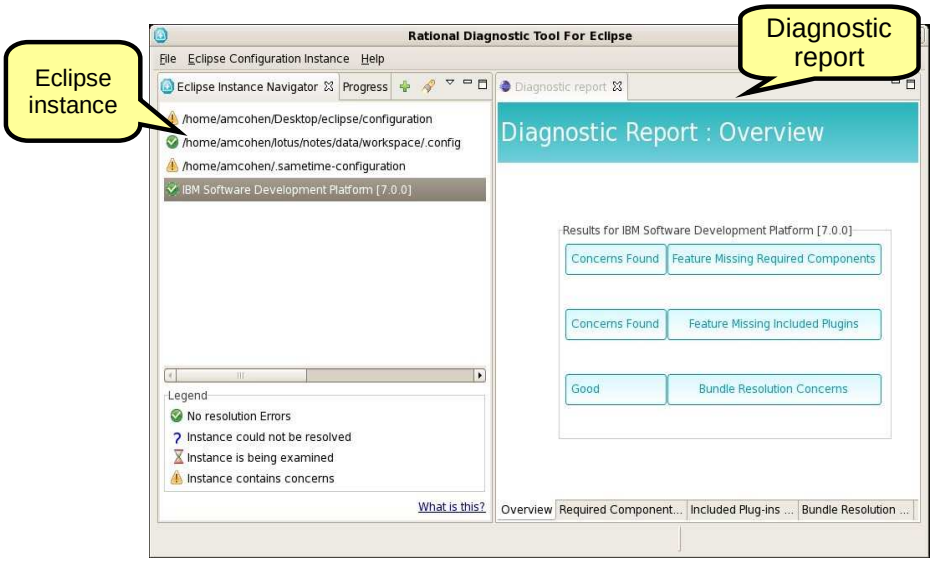
It is important to understand the path Rational Diagnostic Tool for Eclipse takes to analyze Eclipse. First, Rational Diagnostic Tool for Eclipse searches for Eclipse configurations. Second, it reads the OSGi state. Third, it analyzes the update configuration to find the locations of the Equinox launcher, and finally the Rational Diagnostic Tool for Eclipse reads the features and plug-in properties.

Diagnoses report



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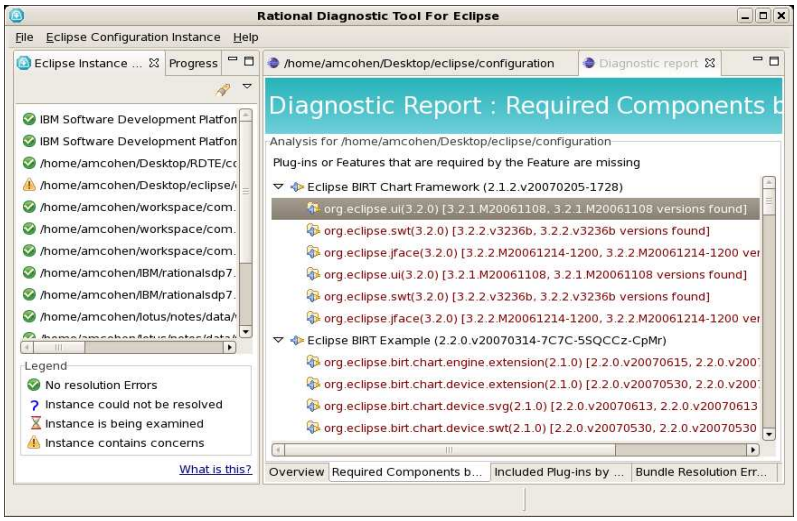
Once Rational Diagnostic Tool for Eclipse has found your Eclipse instance, it inspects and reports concerns for missing dependencies including: missing required components, missing included plug-ins, and bundle resolution errors.

Missing required components



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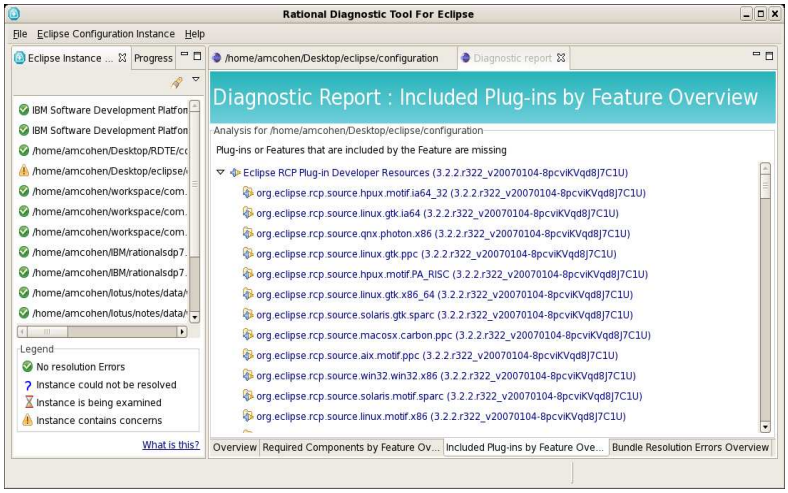
If you selected the required components error from the example in the previous diagnostic report slide, you will see the required components and dependencies errors. You can also walk through each dependency and identify incorrect plug-ins or features.

Missing included components



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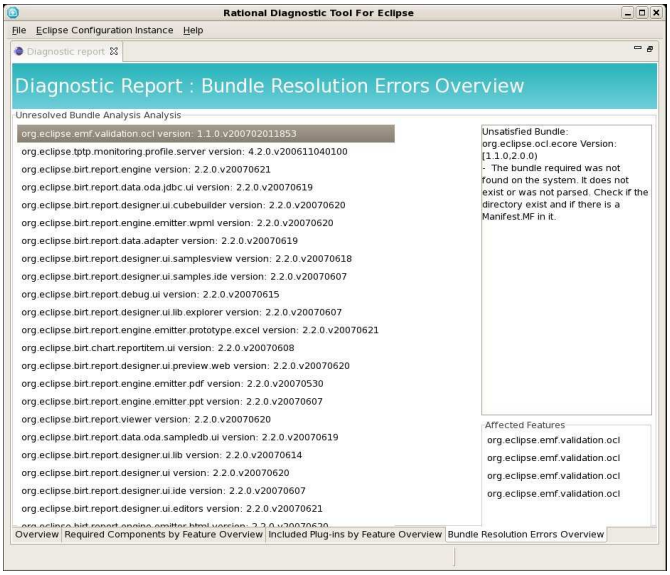
Similar to the missing required components area, this report tells you what components should have been installed. Keep in mind that a bundle may not get installed due to a filter such a “wrong OS.” So the fact that it is listed here does not mean that something is wrong.

Bundle resolution errors



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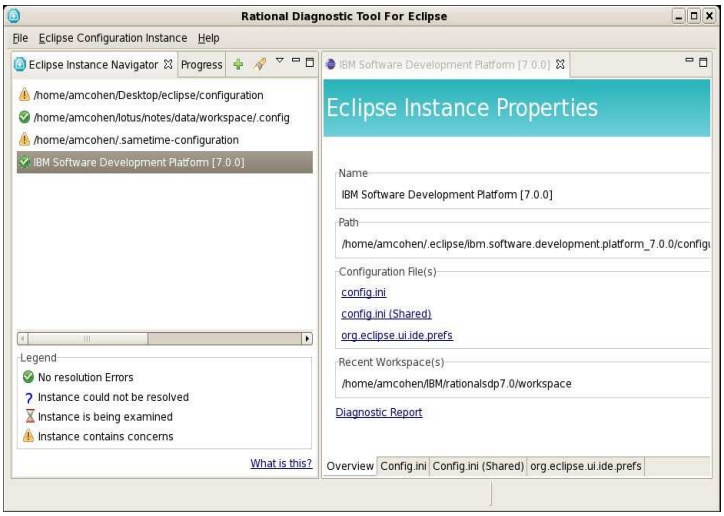
If you selected the bundle resolution concerns from the diagnostic report slide, you will be able to see the analysis and errors overview. This example shows the errors when bundles cause malfunctions in Eclipse.

Properties



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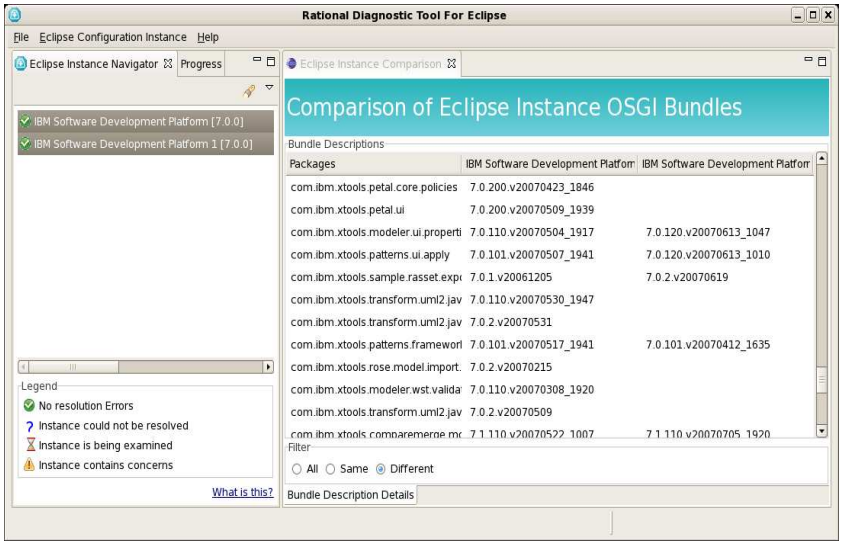
The Rational Diagnostic Tool for Eclipse properties view allows you to view several files that are scattered throughout the configuration. In this example, you can view the various details about Eclipse instance properties including: Name, path, configuration files, recent workspaces, and so on.

Compare



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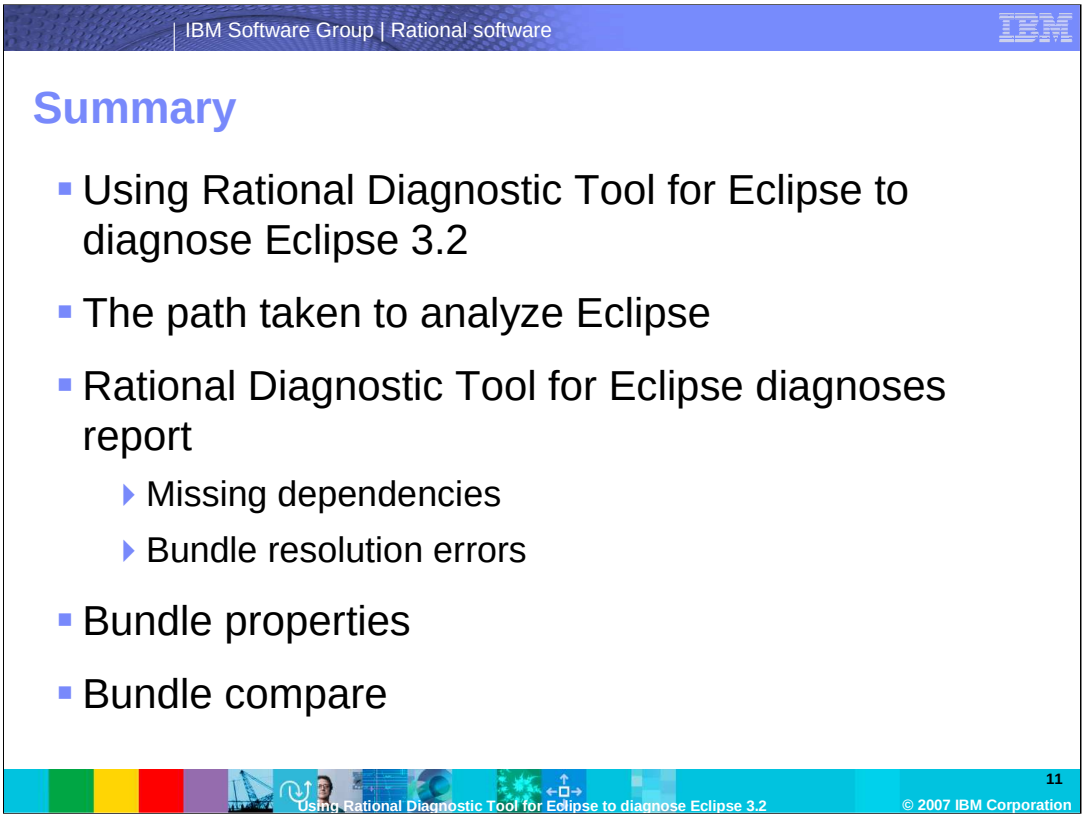
Arguably the most useful feature of Rational Diagnostic Tool for Eclipse is the compare feature. The ability to compare two or more instances will help you identify uniqueness, including details about packages, versions, differences, and other crucial details. You can discover the answers to questions like: Why does this configuration work and this configuration not? And, What got updated in a configuration that caused a problem in Eclipse?



In summary, this module covered the Rational Diagnostic Tool for Eclipse 3.2. You should now be familiar with Rational Diagnostic Tool for Eclipse, its uses to diagnosing Eclipse 3.2, the path it takes to analyze Eclipse, the Rational Diagnostic Tool for Eclipse diagnoses reports including: missing dependencies and bundle resolution errors. You should also now be comfortable reviewing bundle properties and understand the importance of bundle compare.

Additional resources

- IBM Rational software
  http://www.ibm.com/software/rational
- IBM Rational Software Delivery Platform
  http://www.ibm.com/software/info/developer/index.jsp
- Process and portfolio management
  http://www.ibm.com/software/rational/offerings/lifecycle.html
- Change and release management
  http://www.ibm.com/software/rational/offerings/scm.html
- Quality management
  http://www.ibm.com/software/rational/offerings/testing.html

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For more information, visit www.eclipse.org, www.osgi.org, or any of the links listed here and on the next slide.

Additional resources (continued)

- Architecture management
  http://www.ibm.com/software/rational/offerings/design.html
- Rational trial downloads
  http://www.ibm.com/developerworks/rational/downloads/?S_TACT=105AGX23&S_CMP=RCD
- developerWorks® Rational
  http://www.ibm.com/developerworks/rational
- IBM Rational TV
  http://www.ibm.com/software/info/television/index.jsp?cat=rational&media=video&item=en_us/rational/xml/M259765N40519Z80.xml
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  http://www.ibm.com/software/rational/partners/

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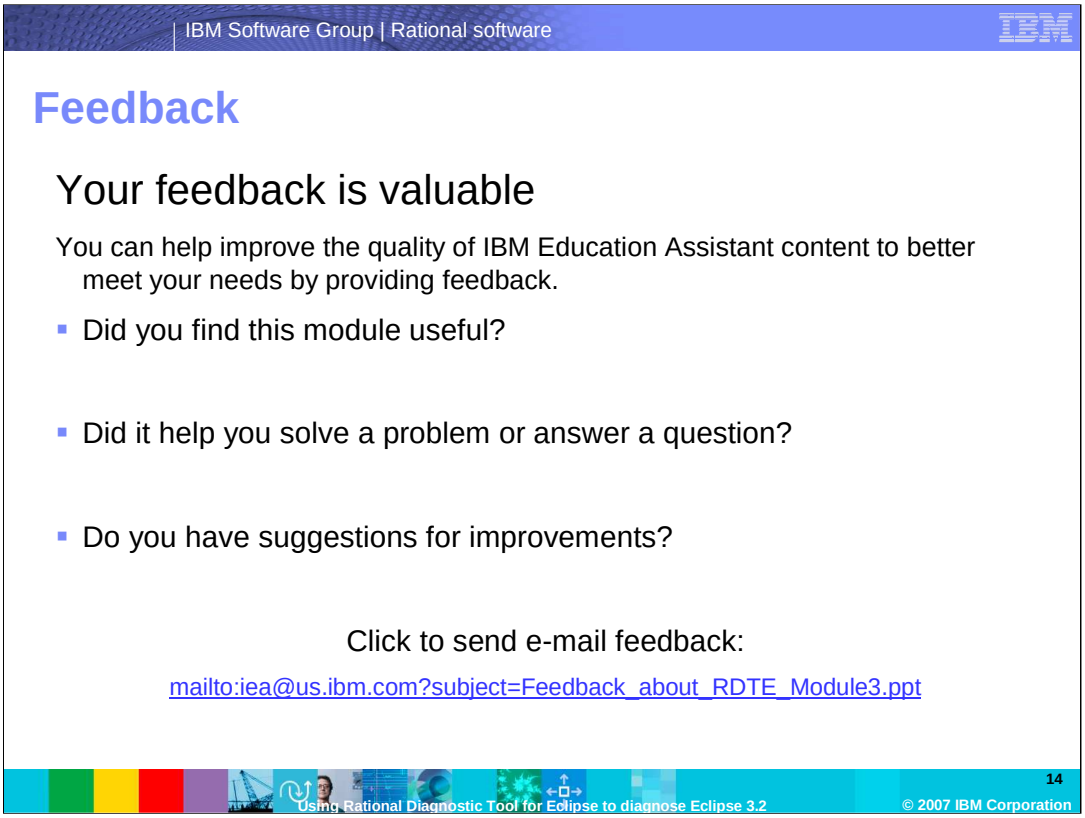
(five seconds of silence)



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