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Note that CAST highly recommends updating to the new release of AIP Console to take advantage of new features and bug fixes. See [Upgrade process](#) for more information about this.

## 1.17.1

### New features

#### Support for Microsoft ASP (Active Server Pages)

Support has been implemented for the delivery and analysis of [Microsoft ASP \(Active Server Pages\)](#).

### Updates

#### Architecture Studio model editor and Transaction Rules editor

The [Architecture Studio model editor](#) and [Transaction rule editor](#) have been updated to improve the workflow: the **selection criteria** available in the right hand panel that are used for the defining the contents of a Layers/Sets now function in inline mode. In other words, popups have been removed to make the definition of selection criteria much easier.

#### Resolved Known Issue

The [Known Issue](#) reported in 1.17.0 for WEBI-7807 has now been resolved. Architecture Models containing layers or sets whose names contain accented characters such as é and à or other special characters such as \ / : \* ? " < > | & ( ) can now be used without issue in the [Architecture Studio](#).

## 1.17.0

### New features

## Upgrade process

**AIP Console 1.17** now supports direct [upgrades](#) from **release 1.14 onwards**. In other words, there is no need to perform intermediate updates to get from 1.14 to a later release.

## Support for Oracle Forms and Reports

Support has been implemented for the delivery and analysis of **Oracle Forms and Reports**. Results produced by the [Oracle Forms Extractor](#) can now be delivered for analysis in a ZIP file or in a source code folder. See also:

- [Oracle Forms and Reports Discoverer](#)
- [Oracle Forms and Reports - Prepare and deliver the source code](#)
- [Oracle Forms and Reports - Analysis configuration and execution](#)

## Support for SAP PowerBuilder

Support has been implemented for the delivery and analysis of **SAP PowerBuilder**. See also:

- [PowerBuilder - Required third-party software](#)
- [PowerBuilder - Prepare and deliver the source code](#)
- [PowerBuilder - Analysis configuration and execution](#)

 CAST uses the PowerBuilder API during an analysis. As such, the same version of the PowerBuilder IDE used to compile the target application source code **must be installed on the machine on which the analysis is running** - i.e. the AIP Node.

## Support for custom/User Community extensions using "Universal Analyzer" technology

Support has been implemented in AIP Console for custom/User Community extensions that provide "Universal Analyzer" technology to perform analyses. This includes extensions such as [Perl](#), [ColdFusion](#), [Natural-Adabas](#), [DataStage](#), [Birt](#), [XPDL](#), [INGRES](#), [CA Ideal](#), [RDL](#), [Pacbase](#) and [SQR](#).

 Note that these extensions are not officially supported by CAST.

## Basic support for non-Microsoft C/C++

In this release the [C and Cpp File Discoverer](#) has been enabled out of the box. This discoverer will create one Analysis Unit when C or C++ files are detected - the following are supported:

- \*.c, \*.pc, \*.ppc
- \*.cpp, \*.cc, \*.cxx

 Note that the discoverer will not create an Analysis Unit when at least one Microsoft C/C++ .vcproj or .vcxproj project definition file is identified in any location under the root path (including recursive sub-folders) - in this situation a "standard" Visual C/C++ Analysis Unit is created.

## Implementation of Tools after Analysis feature

The first **Tools after Analysis** feature - **Update KB Assistant** - has been implemented in this release of AIP Console (this is a feature also available in CAST Management Studio). The tool enables you to run SQL queries against the Application's Analysis schema (also known as the Knowledge Base, where analysis results are stored) immediately after an analysis has completed and perform specific actions to modify the content of the Analysis schema (and therefore the analysis results).

See [Application - Config - Update Application schema](#) for more information.

 If you [import an application](#) from CAST Management Studio, then any **Content Enrichment tool** present in the Application will now also be visible in AIP Console, but with the **exception of the Update KB Assistant tool**, the tools will be **read-only**.

## Implementation of the notion of Execution Groups

The notion of Execution Groups has been implemented in this release of AIP Console (this is a feature also available in CAST Management Studio). Execution Groups are an "advanced level" feature that represent how auto-generated Analysis Units (i.e source code and configuration details) are analyzed. Depending on a variety of factors, multiple Analysis Units may be grouped together into one Execution Group, or one Execution Group may be created for each Analysis Unit.

Their objectives are as follows:

- to improve analysis **performance** - i.e. by grouping multiple Analysis Units together in one "analysis execution," analysis time can be improved

- to reduce the risk of an **analysis crashing** - an Execution Unit has an upper limit on the amount of source code that can be analyzed in one "analysis execution" (this differs per Technology) and this limit is designed to prevent an analysis crashing due to an out of memory error
- to ensure links between Analysis Units are **not missed**, particularly links determined by the CAST Inference Engine.

See [Application - Config - Analysis - Working with Execution Groups](#) for more information.

## Implementation of single Analysis Unit run

It is now possible to run the analysis for a single Analysis Unit when required.

## Implementation of Snapshot Indicators feature



This feature is in beta in this release.

A new feature has been introduced which aims to provide a **set of indicators** for a given snapshot - see [Application - Overview](#) for more detailed information. These indicators are designed to provide basic information quickly so that the snapshot can be validated. The following indicators can currently be configured to display on completion of a snapshot:

- Artifacts in transactions
- Complete Transactions with only end point
- Data entities used by transactions
- Incomplete transactions
- Part of functional enhancement
- Programs/Classes in transactions
- TF/DF weight ratio

This feature is not enabled "out-of-the-box" and requires a modification to the AIP Node .properties file to enable it - see [Configuring Indicators](#).

## Updates

### GUI update - Architecture Studio model and Transaction rule editors have been redesigned

The [Architecture Studio model editor](#) and [Transaction rule editor](#) have been redesigned to improve usability:

- Configuration of Layers/Sets/Rules is now performed in a right hand docked section, rather than directly in the item itself
- Icons have been redesigned entirely

### GUI update - Warning symbol added

A warning symbol has been added to the top right corner of AIP Console to indicate when there is an issue with an AIP Node, for example:

- The CAST Storage Server/PostgreSQL instance associated to the AIP Node is not responding or the connection has been lost
- Disk space is lower than 10GB on the associated AIP Node
- The AIP Node cannot access the designated CAST Extend server.

Clicking the warning symbol will display a popup providing more details about the issue. See [AIP Console - User interface](#).

### GUI update - Edit option in Version screen now displays Add version wizard

When editing an existing version from the [Version management screen](#) you will be returned to the [Add version wizard](#) so that you can edit the options you require. In previous releases, only Exclusion Rules could be edited in this way.

### GUI update - Application level Dynamic Rules Manager options moved to a new tab

Dynamic Rules Manager options previously available in the **Config > Tools tab** have been moved to the **Config > DLM tab**.

### Technical update - Enable automatic extension configuration option renamed and behavior has changed

When adding a new Version (specifically in the context of an [Application rescan](#)) the option entitled **Enable automatic extension configuration** has been updated:

- The option has been renamed as **Enable automatic discovery**
- The behavior of the option has changed:
  - when **enabled** (default position), AIP Console will perform the "code discovery" step and as a consequence, for any new source code added in the new version, new extensions may be downloaded, new packages may be detected and new Analysis Units may be created. Note that new releases of extensions that were used in the previous version will NOT be automatically downloaded, installed and used.

- when **disabled**, AIP Console will not perform the "code discovery" step and as a consequence this ensures that the new version is **identical** to the previous version even if new source code has been added in the new version. No new extensions will be downloaded and installed and no existing extensions will be updated.

## Technical update - Connection to CAST Storage Service/PostgreSQL over SSL now possible

It is now possible to configure a connection to CAST Storage Service/PostgreSQL using encrypted SSL. Please see [SSL encrypted mode configuration for CAST Storage Service and PostgreSQL](#) for more information.

## Technical update - Snapshot naming changes

It is now possible to:

- Choose the name of the snapshot when adding a new version - see [Standard onboarding - add a new Version - deliver code - generate snapshot](#).
- Rename an existing snapshot - see [Application - Snapshots](#).

## Technical update - SCC objects are now shown in the Transaction call graph

SCC (**Strongly Connected Components**) objects are now shown in the Transaction call graph as a single node:

- A new legend item call 'Strongly Connected Component' which can be used to highlight them.
- In the tooltip for SCC nodes, additional text denoting the number of objects in that component is displayed.
- On copying properties of a SCC node, properties of all the objects in the SCC is copied.

See [Application - Transactions - Call Graph](#) for more information.

## Technical update - Analysis email notifications now sent to all users with permission on an Application

**Analysis email notifications** are now sent to all users with **permission** to manage an Application in AIP Console. In previous releases of AIP Console, only the user that launched the analysis would have been sent a notification.

## Technical update - Measurement schema update

The Measurement schema managed by AIP Console will be updated to AIP 8.3.24 automatically the first time data needs to be synchronized in to the schema.

## Resolved issues

Internal ID	Ticket ID	Summary	Affects Version/s
WEBI-7565	23635	Problem: AIP CONSOLE 1.16.1 Create package step failed : Error Exception while executing a Groovy script java.lang. integer cannot be cast to java.lang.string	1.16.1
WEBI-7510	23089	Extend Service is not able to respond to Console as a Result Detail View in AIP Console is empty for an Application	1.13.1
WEBI-7378	23160	AIPCONSOLE : Packaging alerts from the Maven resource package could not be listed in AIP console	1.15.3
WEBI-6096	19970	C++ analysis Units not created automatically in AIP Console	1.11.1

## Known issues

Internal ID	Description	Workaround
WEBI-7807	<p>If you have created an Architecture Model in <a href="#">CAST Architecture Checker</a> (standalone):</p> <ul style="list-style-type: none"> <li>• and the model contains layers or sets whose names contain accented characters such as é and à or other special characters such as \ / : * ? " &lt; &gt;   &amp; ( )</li> <li>• and you import this model into AIP Console for use in <a href="#">AIP Console - Architecture Studio</a></li> <li>• and you then make changes to the model in <a href="#">AIP Console - Architecture Studio</a></li> <li>• and you save the changes</li> </ul> <p>The Architecture Studio will no longer function correctly and is rendered unusable.</p>	<ul style="list-style-type: none"> <li>• Remove the physical file in which the model has been saved. This is located here: <code>&lt;installation_folder&gt;\AipConsole\data\upload\architecture\models</code></li> <li>• If you have not yet saved the changes in <a href="#">AIP Console - Architecture Studio</a>, you can modify the names of the layers and sets to remove the special characters, then save the model.</li> </ul>

## Delivered CAST Dashboard release

AIP Console embeds the following release of the CAST Health and Engineering Dashboards (see [Install CAST Dashboards - new customers](#) for more information):

Version	1.18
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