IBM Planning Analytics
Version 2 Release 0

New Features

IBM

Note

Before you use this information and the product it supports, read the information in "Notices" on page 87.

Product Information

This document applies to IBM Planning Analytics Version 2.0 and might also apply to subsequent releases.

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Introduction

This documentation describes the features that are new in IBM® Planning Analytics.

Planning Analytics integrates business planning, performance measurement, and operational data to enable companies to optimize business effectiveness and customer interaction regardless of geography or structure. Planning Analytics provides immediate visibility into data, accountability within a collaborative process and a consistent view of information.

Finding information

To find documentation on the web, including all translated documentation, access IBM Knowledge Center (http://www.ibm.com/support/knowledgecenter).

Software environments

To review an up-to-date list of environments supported by IBM Planning Analytics, create a detailed system requirements report using the Software Product Compatibility Reports tool (https://www.ibm.com/software/reports/compatibility/clarity/index.html).

For more information on the Software Product Compatibility Report tool, you can watch this video:

https://youtu.be/91TkG58yTec

Known issues

To view known issues and their workarounds, see the IBM Support portal (http://www.ibm.com/support).

For information about using the Support portal, see the IBM Support portal assistance (http://www.ibm.com/software/support/portal/sp-help.html).

Accessibility

Accessibility features help users who have a physical disability, such as restricted mobility or limited vision, to use information technology products.IBM Planning Analytics has some components that support accessibility features. IBM Cognos® TM1® Performance Modeler, IBM Cognos Insight, and Cognos TM1 Operations Console have accessibility features. For information about these features, see the accessibility section in the documentation for each component.

IBM HTML documentation has accessibility features. Because PDF documents are supplemental, they include no added accessibility features.

Deprecation

Documentation of functionality might differ from what is available in your environment because functionality is deprecated or removed in the current release of Planning Analytics. In the documentation, Deprecated indicates deprecated functionality that will be removed in a future release. If you use deprecated functionality, it is recommended that you take appropriate action before you upgrade. In the documentation, Not supported indicates functionality that is no longer available or supported in the current release.

Samples disclaimer

The Sample Outdoors Company, Great Outdoors Company, GO Sales, any variation of the Sample Outdoors or Great Outdoors names, and Planning Sample depict fictitious business operations with sample data used to develop sample applications for IBM and IBM customers. These fictitious records include sample data for sales transactions, product distribution, finance, and human resources. Any resemblance to actual names, addresses, contact numbers, or transaction values is coincidental. Other sample files may contain fictional data manually or machine generated, factual data compiled from

academic or public sources, or data used with permission of the copyright holder, for use as sample data to develop sample applications. Product names referenced may be the trademarks of their respective owners. Unauthorized duplication is prohibited.

Forward-looking statements

This documentation describes the current functionality of the product. References to items that are not currently available may be included. No implication of any future availability should be inferred. Any such references are not a commitment, promise, or legal obligation to deliver any material, code, or functionality. The development, release, and timing of features or functionality remain at the sole discretion of IBM.

Chapter 1. What's new in Planning Analytics

Read about what's new or updated in IBM Planning Analytics and components that are installed with Planning Analytics, such as TM1 Server, TM1 Web, TM1 Performance Modeler, and TM1 Architect. Some updates affect only IBM Planning Analytics Local.

Planning Analytics 2.0.9.3 - October 9, 2020

IBM Planning Analytics Local version 2.0.9.3 and the cloud release of IBM Planning Analytics version 2.0.9.3 includes updates for IBM TM1 Server version 11.8.2.

IBM Planning Analytics version 2.0.9.3 includes numerous improvements and defect fixes. This version does not include new features. However, PMHub is fully deprecated as of version 2.0.9.3, as previously announced in the IBM Planning Analytics 2.0 deprecation notices. For details about the impact of this deprecation, see PMHub deprecation.

Note: Updates to each version of IBM Planning Analytics are cumulative. If you are upgrading IBM Planning Analytics, review all updates since your installed version to plan your upgrade and application deployment.

PMHub deprecation

PMHub is fully deprecated as of IBM Planning Analytics version 2.0.9.3, as previously announced in the IBM Planning Analytics 2.0 deprecation notices.

IBM Planning Analytics for Microsoft Excel must use hubless mode when upgrading to 2.0.9.3. In hubless mode, Planning Analytics for Microsoft Excel connects to Planning Analytics sources via Planning Analytics Workspace.

Planning Analytics for Microsoft Excel version 2.0.41 and prior do not support hubless mode. If you have version 2.0.41 or prior, please upgrade to the most recent version of Planning Analytics for Microsoft Excel when you install IBM Planning Analytics version 2.0.9.3

Planning Analytics for Microsoft Excel version 2.0.52 and later forces all non-overridden connections to IBM Planning Analytics version 2.0.9 or later to use hubless mode.

If you currently use an overridden connection to IBM Planning Analytics, you must remove the override to connect to IBM Planning Analytics version 2.0.9.3.

An overridden connection looks like this: `http://<hostname>/?pmhub&rest`. For example, `http://planninganalytics.ibmcloud.com/?pmhub&rest`.

You must remove the override and use `http://<hostname>/`. For example, `http://planninganalytics.ibmcloud.com/`.

Note that Exploration Views and Quick Reports encode their host information internally. As long as the `<hostname>` remains the same when moving from an overridden to a non-overridden connection, you do not need to modify any views or reports. In any circumstance, it is preferable to update your connection before interacting with any reporting content.

Planning Analytics 2.0.9.2 - July 27, 2020

IBM Planning Analytics Local version 2.0.9.2 and the cloud release of IBM Planning Analytics version 2.0.9.2 includes updates for IBM TM1 Server version 11.8.1.

Note: Updates to each version of IBM Planning Analytics are cumulative. If you are upgrading IBM Planning Analytics, review all updates since your installed version to plan your upgrade and application deployment.

TM1 Web is no longer part of the Planning Analytics long cadence (LC) release

As of the 2.0.9.2 LC release of IBM Planning Analytics, TM1 Web is no longer included in the long cadence release.

Instead, new versions of TM1 Web will be available approximately once a month, similar to the release schedules of IBM Planning Analytics Workspace and IBM Planning Analytics for Microsoft Excel. The first version of TM1 Web to be available on this new schedule is 2.0.55 SC.

New installer for TM1 Web

As of the 2.0.9.2 LC/2.0.55 SC releases of IBM Planning Analytics, TM1 Web is installed with the IBM Planning Analytics Spreadsheet Services installer. TM1 Web is no longer part of the web tier within the Planning Analytics Local installer.

For details on installing TM1 Web with the IBM Planning Analytics Spreadsheet Services installer, see Installing and configuring Planning Analytics TM1 Web.

Planning Analytics 2.0.9.1 - May 21, 2020

IBM Planning Analytics Local version 2.0.9.1 and the cloud release of IBM Planning Analytics version 2.0.9.1 includes updates for IBM TM1 Server version 11.8.0.

IBM Planning Analytics version 2.0.9.1 includes numerous improvements and defect fixes, but does not include new features.

Note: Updates to each version of IBM Planning Analytics are cumulative. If you are upgrading IBM Planning Analytics, review all updates since your installed version to plan your upgrade and application deployment.

Planning Analytics 2.0.9 - December 16, 2019

IBM Planning Analytics Local version 2.0.9 and the cloud release of IBM Planning Analytics version 2.0.9 includes updates and new features for IBM TM1 Server version 11.7.0.

Note: Updates to each version of IBM Planning Analytics are cumulative. If you are upgrading IBM Planning Analytics, review all updates since your installed version to plan your upgrade and application deployment.

Manage a list of TM1 databases on the TM1 Admin Server

In TM1 Server version 11.7.0, you can set up one TM1 Admin Server that refers to the active TM1 databases for a model. All your users can point to the TM1 Admin Server and you can rapidly switch over from one TM1 database to another TM1 database. The TM1 Admin Server doesn't need to be restarted, which means that you can completely automate the failover to the backup system if a crash occurs on a TM1 database.

GET the list of databases that are available

To see which databases are currently self-registered, you can retrieve the list of TM1 databases that are registered with the TM1 Admin Server. You can use GET against the `~/api/v1/Servers` resource to find the list of all databases that are available.

```
GET http://<adminserver>:<adminserver_port>/api/v1/Servers
```

Example response body:

```
{
    "@odata.context": "$metadata#Servers",
    "value": [
        {
            "Name": "24retail",
            "SelfRegistered": true,
            "Host": "http://DESKTOP-RHJLS04:8014",
            "IPAddress": "9.24.156.199",
```

```
            "IPv6Address": "",
            "PortNumber": 17414,
            "ClientMessagePortNumber": 0,
            "HTTPPortNumber": 8014,
            "IsLocal": false,
            "UsingSSL": false,
            "SSLCertificateID": null,
            "SSLCertificateAuthority": null,
            "SSLCertificateRevocationList": null,
            "ClientExportSSLSvrCert": false,
            "ClientExportSSLSvrKeyID": null,
            "AcceptingClients": true,
            "LastUpdated": "2020-01-09T13:44:04.566Z"
        },
        {
            "Name": "GO_New_Stores",
            "SelfRegistered": true,
            "Host": "https://DESKTOP-RHJLSO4:5010",
            "IPAddress": "9.24.156.199",
            "IPv6Address": "",
            "PortNumber": 45557,
            "ClientMessagePortNumber": 0,
            "HTTPPortNumber": 5010,
            "IsLocal": false,
            "UsingSSL": true,
            "SSLCertificateID": null,
            "SSLCertificateAuthority": null,
            "SSLCertificateRevocationList": null,
            "ClientExportSSLSvrCert": false,
            "ClientExportSSLSvrKeyID": null,
            "AcceptingClients": true,
            "LastUpdated": "2020-01-09T13:44:10.120Z"
        },
        {
            "Name": "GO_Scorecards",
            "SelfRegistered": true,
            "Host": "https://DESKTOP-RHJLSO4:44312",
            "IPAddress": "9.24.156.199",
            "IPv6Address": "",
            "PortNumber": 44321,
            "ClientMessagePortNumber": 0,
            "HTTPPortNumber": 44312,
            "IsLocal": false,
            "UsingSSL": true,
            "SSLCertificateID": null,
            "SSLCertificateAuthority": null,
            "SSLCertificateRevocationList": null,
            "ClientExportSSLSvrCert": false,
            "ClientExportSSLSvrKeyID": null,
            "AcceptingClients": true,
            "LastUpdated": "2020-01-09T13:44:09.360Z"
        },
        {
            "Name": "Planning Sample",
            "SelfRegistered": true,
            "Host": "https://DESKTOP-RHJLSO4:12354",
            "IPAddress": "9.24.156.199",
            "IPv6Address": "",
            "PortNumber": 12345,
            "ClientMessagePortNumber": 0,
            "HTTPPortNumber": 12354,
            "IsLocal": false,
            "UsingSSL": true,
            "SSLCertificateID": null,
            "SSLCertificateAuthority": null,
            "SSLCertificateRevocationList": null,
            "ClientExportSSLSvrCert": false,
            "ClientExportSSLSvrKeyID": null,
            "AcceptingClients": true,
            "LastUpdated": "2020-01-09T13:44:02.022Z"
        },
        {
            "Name": "proven_techniques",
            "SelfRegistered": true,
            "Host": "https://DESKTOP-RHJLSO4:5011",
            "IPAddress": "9.24.156.199",
            "IPv6Address": "",
            "PortNumber": 53333,
            "ClientMessagePortNumber": 0,
            "HTTPPortNumber": 5011,
            "IsLocal": false,
            "UsingSSL": true,
```

```
                    "SSLCertificateID": null,
                    "SSLCertificateAuthority": null,
                    "SSLCertificateRevocationList": null,
                    "ClientExportSSLSvrCert": false,
                    "ClientExportSSLSvrKeyID": null,
                    "AcceptingClients": true,
                    "LastUpdated": "2020-01-09T13:44:10.173Z"
            },
            {
                    "Name": "SData",
                    "SelfRegistered": true,
                    "Host": "https://DESKTOP-RHJLSO4:8010",
                    "IPAddress": "9.24.156.199",
                    "IPv6Address": "",
                    "PortNumber": 12346,
                    "ClientMessagePortNumber": 0,
                    "HTTPPortNumber": 8010,
                    "IsLocal": false,
                    "UsingSSL": true,
                    "SSLCertificateID": null,
                    "SSLCertificateAuthority": null,
                    "SSLCertificateRevocationList": null,
                    "ClientExportSSLSvrCert": false,
                    "ClientExportSSLSvrKeyID": null,
                    "AcceptingClients": true,
                    "LastUpdated": "2020-01-09T13:44:09.619Z"
            },
            {
                    "Name": "MyDB",
                    "SelfRegistered": true,
                    "Host": "https://DESKTOP-RHJLSO4:5001",
                    "IPAddress": "9.24.156.199",
                    "IPv6Address": "",
                    "PortNumber": 60042,
                    "ClientMessagePortNumber": 0,
                    "HTTPPortNumber": 5001,
                    "IsLocal": false,
                    "UsingSSL": true,
                    "SSLCertificateID": null,
                    "SSLCertificateAuthority": null,
                    "SSLCertificateRevocationList": null,
                    "ClientExportSSLSvrCert": false,
                    "ClientExportSSLSvrKeyID": null,
                    "AcceptingClients": true,
                    "LastUpdated": "2020-01-09T13:44:09.475Z"
            }
        ]
}
```

GET details for a specific database

You can do a GET against a specific database, for example, ~/api/v1/
Servers('*<database_name>*'), to retrieve details of that database.

```
GET http://<adminserver>:<adminserver_port>/api/v1/Servers('<database_name>')
```

Example response body for GET http://<adminserver>:5895/api/v1/Servers('Sdata')

```
{
    "@odata.context": "$metadata#Servers/$entity",
    "Name": "SData",
    "SelfRegistered": true,
    "Host": "https://DESKTOP-RHJLSO4:8010",
    "IPAddress": "9.24.156.199",
    "IPv6Address": "",
    "PortNumber": 12346,
    "ClientMessagePortNumber": 0,
    "HTTPPortNumber": 8010,
    "IsLocal": false,
    "UsingSSL": true,
    "SSLCertificateID": null,
    "SSLCertificateAuthority": null,
    "SSLCertificateRevocationList": null,
    "ClientExportSSLSvrCert": false,
    "ClientExportSSLSvrKeyID": null,
    "AcceptingClients": true,
```

```
    "LastUpdated": "2020-01-09T13:54:10.343Z"
}
```

POST a database to your list of available TM1 databases

You can add another TM1 database to your list of available databases. POST changes to the database list on the TM1 Admin Server as a collection of Server entities.

```
POST http://<adminserver>:<adminserver_port>/api/v1/Servers
```

Example body with a database to add:

```
{
    "Name":"MyModel1",
    "IPAddress":"172.20.10.10",
    "PortNumber":12345,
    "UsingSSL": true,
    "ClientMessagePortNumber":61098,
    "HTTPPortNumber":12999,
    "ClientExportSSLSvrCert":true,
    "ClientExportSSLSvrKeyID":"whateverExportSSLSvrKeyID",
    "AcceptingClients":true
}
```

Example response body for POST, which shows defaults applied

```
{
    "@odata.context": "$metadata#Servers/$entity",
    "Name": "MyModel1",
    "SelfRegistered": false,
    "Host": null,
    "IPAddress": "172.20.10.10",
    "IPv6Address": "",
    "PortNumber": 12345,
    "ClientMessagePortNumber": 61098,
    "HTTPPortNumber": 12999,
    "IsLocal": false,
    "UsingSSL": true,
    "SSLCertificateID": null,
    "SSLCertificateAuthority": null,
    "SSLCertificateRevocationList": null,
    "ClientExportSSLSvrCert": true,
    "ClientExportSSLSvrKeyID": "whateverExportSSLSvrKeyID",
    "AcceptingClients": true,
    "LastUpdated": "2020-01-09T22:09:19.838Z"
}
```

PATCH a database to your list of available TM1 databases

Use PATCH to upsert (insert or update) a database to your list of available databases. PATCH changes to the database list on the TM1 Admin Server as a collection of Server entities.

```
PATCH http://<adminserver>:<adminserver_port>/api/v1/Servers
```

Example body with a database to insert or update:

Some properties are not required in the body. The response body shows you the defaults that are applied.

```
{
    "Name": "MyModel2",
    "IPAddress":"172.20.10.10",
    "PortNumber":12345,
    "UsingSSL":false
}
```

Example response body for PATCH, which shows defaults applied

```
{
    "@odata.context": "$metadata#Servers/$entity",
    "Name": "MyModel2",
    "SelfRegistered": false,
    "Host": null,
```

```
        "IPAddress": "172.20.10.10",
        "IPv6Address": "",
        "PortNumber": 12345,
        "ClientMessagePortNumber": 0,
        "HTTPPortNumber": 0,
        "IsLocal": false,
        "UsingSSL": false,
        "SSLCertificateID": null,
        "SSLCertificateAuthority": null,
        "SSLCertificateRevocationList": null,
        "ClientExportSSLSvrCert": false,
        "ClientExportSSLSvrKeyID": null,
        "AcceptingClients": false,
        "LastUpdated": "2020-01-09T13:51:13.770Z"
  }
```

PATCH or DELETE a specific TM1 database

You can PATCH updates to individual TM1 databases or DELETE individual TM1 databases only if they were added using the TM1 REST API. Both of these requests use the same format.

The request body for a PATCH to an individual database cannot have the Name property because this property is implied by the URL.

```
PATCH http://<adminserver>:<adminserver_port>/api/v1/Servers('<database_name>')
```

```
{
    "IPAddress":"172.20.10.10",
    "PortNumber":12345,
    "UsingSSL":false
}
```

You don't need a request body to DELETE an individual database.

```
DELETE http://<adminserver>:<adminserver_port>/api/v1/Servers('<database_name>')
```

Use the ViewZeroOut TurboIntegrator function on MDX views

The ViewZeroOut TurboIntegrator function now works on MDX-based views. You can zero out the data of views with intersections that are unique to elements that exist only in hierarchies. For all views, including multi-hierarchy views, ViewZeroOut collects intersected leaf sets before it sets all data points in a view to zero.

Related topics:

ViewZeroOut

Use dynamic shapes and images in websheets

Customize your websheets! In TM1 Web, you can dynamically insert shapes and images anywhere in your websheet where you'd like the image to change when the value of a cell changes. You can dynamically insert logos, employee pictures, flags, product images, and more.

A dynamic image can be created by assigning a named range that contains an INDIRECT or INDEX-based formula to an image object. The formula resolves to a cell reference, and if an image is anchored to that cell, the dynamic shape reflects that image object's content.

To support this feature, TM1 Web persists the assigned formula, and when it recalculates, TM1 Web evaluates the named range formula to a cell reference. Using this cell reference, TM1 Web can then update the image object's file name to match the referenced image.

Open a websheet on the active tab when you save a multi-tab websheet

If you have a websheet with multiple tabs in a book, Planning Analytics Workspace keeps track of the active websheet tab when you save the book. Then, when you open the book in Planning Analytics Workspace later, you are right where you left off in your work!

Using Planning Analytics version 2.0.9 and Planning Analytics Workspace version 2.0.46, when you open a book with a websheet in Planning Analytics Workspace, the tab that you saved the websheet with is active.

Note: You must be using Planning Analytics Workspace on IBM Planning Analytics version 2.0.9 to take advantage of this feature of websheets in IBM Planning Analytics TM1 Web.

If you don't have Planning Analytics version 2.0.9, the default tab that the websheet was published with (using TM1 Perspectives or Planning Analytics for Microsoft Excel) is active when you open the book in Planning Analytics Workspace.

Deprecation of TM1 Operations Console

Deprecated in v2.0.9 In Planning Analytics version 2.0.9, TM1 Operations Console is no longer supported. When you access the TM1 Operations Console URL, you see a general 500 error message that indicates that the URL is not available. You can use IBM Planning Analytics Administration to monitor databases in IBM Planning Analytics and IBM Planning Analytics Local.
Related topics:

Monitor and administer databases

Planning Analytics 2.0.8 - July 17, 2019

IBM Planning Analytics Local version 2.0.8 and the cloud release of IBM Planning Analytics version 2.0.8 includes updates and new features for IBM TM1 Server version 11.6.0.

Note: Updates to each version of IBM Planning Analytics are cumulative. If you are upgrading IBM Planning Analytics, review all updates since your installed version to plan your upgrade and application deployment.

View process rollback and restart messages in TM1 logs

This update makes it easier to detect lock exceptions for TurboIntegrator processes, and makes it easier to process the tm1server.log file with automation tools. When a TurboIntegrator process rolls back and restarts, the process is now represented in the `tm1server.log` file as three steps: starting, restarting because of lock contention or rollback, and then finishing. An entry was added to the `tm1server.log` file that shows the TurboIntegrator process as restarting due to lock contention or rollback instead of just starting. This logging is enabled by default without setting any specific debug options.

Example log

```
2364    [15]   INFO   2019-01-09 20:30:37.986   TM1.Process   Process
"Diag.LockTest.DimensionWrite1" executed by user "CJP/stuart"
17088   [15]   INFO   2019-01-09 20:30:37.987   TM1.Process   Process
"Diag.LockTest.DimensionWrite2" executed by user "CJP/stuart"
```

```
17088   [15]   INFO   2019-01-09 20:30:41.058   TM1.Process   Process
"Diag.LockTest.DimensionWrite2" rolled back due to lock exception (2364).  Process will restart
automatically"
2364    [15]   INFO   2019-01-09 20:30:41.054   TM1.Process   Process
"Diag.LockTest.DimensionWrite1":  finished executing normally, elapsed time 3.07 seconds
17088   [15]   INFO   2019-01-09 20:30:41.058   TM1.Process   Process
"Diag.LockTest.DimensionWrite2" executed by user "CJP/stuart"
17088   [15]   INFO   2019-01-09 20:30:44.064   TM1.Process   Process
"Diag.LockTest.DimensionWrite2":  finished executing normally, elapsed time 3.00 seconds
```

View and report on audit log data with the TM1 REST APIs

You can retrieve audit logs by using the TM1 REST APIs the same way that you retrieve other logging data such as transaction and message logs. You can also use ODATA filters such as top, skip, and select for querying the details of audit logs. The contents of the audit log is unchanged.

If you are authorized to get audit logs, you can use the following query to retrieve audit logs:

```
/api/v1/AuditLogEntries
```

Note: If you are not authorized to get audit logs, for example if you are not an administrator, the result of this query is empty.

If the audit log has details, you can expand the AuditDetails by using the following query:

```
/api/v1/AuditLogEntries?$expand=AuditDetails
```

You can use filter options, such as top, skip, and select, to create queries based on any data field, including the time stamp. For example:

```
$filter=TimeStamp gt 2019-04-23T11:13:45Z
$filter=contains(Description, 'New')
$filter=ObjectType eq 'Dimension'
$select=UserName,Description,ObjectType,ObjectName
$count=true
$skip=2
$top=4
```

You can also use change tracking. When you set the Prefer header to odata.track-changes, a delta link is appended to each response body.

You can use TailAuditLog() to obtain the current timeStamp only. Then, you can use /api/v1/AuditLogEntries/!delta('<timestamp>') to retrieve any audit logs that occur after that timeStamp. For example:

```
/api/v1/AuditLogEntries
/api/v1/AuditLogEntries/!delta('<timestamp>')
```

Or:

```
/api/v1/AuditLogEntries?$select=User,ObjectType,ObjectName,Details&$expand=
AuditDetails($select=ID,User,Description,ObjectType,ObjectName)
```

Example of an auditLog entry

```
{
    "ID":"<id>",
    "TimeStamp":"2019-01-16T13:57:46Z",
    "User":"",
    "Description":"Server 'lemonade' was shutdown.",
    "ObjectType":"Server",
    "ObjectName":"SYSTEM"
}
```

Example auditLogEntry with AuditDetails

```
{
    "ID":"<id>",
    "TimeStamp":"2019-01-16T13:59:50Z",
    "User":"",
    "Description":"Server 'lemonade' was started.",
    "ObjectType":"Server",
    "ObjectName":"SYSTEM",
    "AuditDetails":[
        {
            "DetailID":"<id>",
            "TimeStamp":"2019-01-16T13:59:50Z",
            "User":"",
            "Description":"Property ChangedSinceLoaded was set to 'FALSE' for server 'lemonade'.",
            "ObjectType":"Server",
            "ObjectName":"SYSTEM"
        }
    ]
}
```

TM1 REST API updates

The following entity types were added to support audit logging:

- `AuditDetail`
- `AuditLogEntry`

The following function was added to support audit logging:

- `TailAuditLog`

What's next?

For more information about audit logging in general, see Using the audit log.

Iterate through SQL rowsets to speed up drill through queries

You can use TM1 REST API actions and entities to execute a relational drill through and retrieve results as a rowset entity. You can use the rowset to iteratively retrieve subsequent subset rows. This approach improves the performance of retrieving drill through results.

Actions

In Planning Analytics version 2.0.8, you can use the following actions to execute relational drillthroughs but return rowsets:

- Use ExecuteRelationalDrillthroughWithRowset to execute a relational drill through to get a rowset of a relational table.
- Use RelationalDrillthrough.ExecuteWithRowset to drill into a cell to get a rowset of a relational table.

Entity types

In Planning Analytics version 2.0.8, you can use the following entity types:

- A Rowset represents the result of an execution of a relational drill through. A rowset is session-scoped and must be deleted after you use it. Closing a session invalidates all of its rowsets.
- A RowsetRow represents a row in a rowset. The RowsetRow can be retrieved in subsequent requests. These subsequent requests do not cause the drillthrough process to be re-executed.

Example: Drill into a cell to get a rowset

```
POST /api/v1/Cubes('x')/Views('x')/tm1.Execute
POST /api/v1/Cellsets('x')/Cells(N)/DrillthroughScripts('x')/tm1.ExecuteWithRowset
GET /api/v1/Rowsets('x')?$expand=Rows($top=1000)
DELETE /api/v1/Rowsets('x')
```

Example: Use a transient process to open a CSV rowset

```
POST /api/v1/ExecuteRelationalDrillthroughWithRowset?$expand=Rows($select=A,B)
{
    "DrillthroughProcess":
    {
        "EpilogProcedure": "#****Begin: Generated Statements***\r\nReturnCsvTableHandle;\r
\n#****End: Generated Statements****",
        "DataSource": {
            "Type": "ASCII",
            "asciiDelimiterChar": ",",
            "asciiDelimiterType": "Character",
            "dataSourceNameForServer": "CSV_FILENAME.csv"
        }
    }
}
```

Review updates to the TM1 REST API metadata

IBM Planning Analytics Local version 2.0.8 and the cloud release of IBM Planning Analytics version 2.0.8 includes the following updates to the TM1 REST APIs for IBM TM1 Server version 11.6.0.

Metadata updates

The following entity types were changed in 11.6.0:

- **Added** AuditDetail
- **Added** AuditLogEntry
- **Added** Rowset
- **Added** RowsetRow

The following functions were changed in 11.6.0:

- **Added** TailAuditLog

The following actions were changed in 11.6.0:

- **Added** ExecuteRelationalDrillthroughWithRowset
- **Added** RelationalDrillthrough.ExecuteWithRowset
- **Added** Cube.Load
- **Added** Cube.Unload

To learn more, see What's new in 11.6.0 (https://www.ibm.com/support/knowledgecenter/ SSD29G_2.0.0/com.ibm.swg.ba.cognos.tm1_rest_api.2.0.0.doc/ r_restapi_v1_csdl_whats_new.html#restapi_v1_csdl_whats_new_11_6_0).

Include user names and memory usage in TM1 Web logs

⌂ User names and memory usage are included in TM1 Web logs. This update makes it easy to see when a user runs an active form, workbook, or cube that renders too many rows. To turn on this optional logging, the logging level of log4j.logger.com.ibm.cognos.tm1 must be set to DEBUG in the \tm1_64\webapps\tm1web\WEB-INF\configuration\log4j.properties file. You can review the audit logs and reduce the number of rows in the rendering.

The following information is included in logs:

- Timestamp
- Application and Active Form name
- Number of rows that were generated
- User name
- Current heap memory after the websheet renders

Example log when you open an active form

```
"<TIMESTAMP>:CLASSNAME:Constructed view for <ActiveFormViewid> contains <#> rows, by user
'<username>'.
<TIMESTAMP>:CLASSNAME:Current heap memory usage: <MB>".
```

Example log when you open a workbook

```
"<TIMESTAMP>:CLASSNAME:Creating WorkbookMetaData for <sheet name>, by user '<username>'.
<TIMESTAMP>:CLASSNAME:Current heap memory usage: <MB>".
```

Example log when you open a cube view

```
"<TIMESTAMP>:CLASSNAME:Exit from getUpdatedCubeViewData, updatedData: class name, username:
<username>.
<TIMESTAMP>:CLASSNAME:Current heap memory usage: <MB>".
```

Changes saved automatically in TM1 Application Web

⌂ In Planning Analytics version 2.0.8, the **Save** confirmation dialog box in IBM TM1 Application Web has been removed. When you close a view, you are not prompted to save changes. All data changes are saved automatically when you close the application. Your changes are available when you reopen the application. This change applies to all web browsers.

Configure login using TM1 Web URL API with Cognos Analytics security

⌂ In Planning Analytics version 2.0.8, a new parameter CSPHeaderFrameSource is available in the tm1web_config.xml file. If you use the TM1 Web URL API configured with integrated security mode 5 (Cognos Analytics security authentication), you must set this parameter to allow users to log in. This parameter controls security of the context that is loaded in the <frame> element, which is used by TM1 Web URL API. The CSPHeaderFrameSource parameter defines allowed sources for Content-Security-Policy (CSP) frame-src policy.

Syntax

```
<add key="CSPHeaderFrameSource" value="" />
```

If the CSPHeaderFrameSource is specified, it sets the allowed sources for the frame-src policy. If the value is left blank or the parameter is not set, the default value is '*', which allows content from all sources to load.

Remember: In IBM Planning Analytics Local version 2.0.8, you install a new version of the tm1web_config.xml file that is called tm1web_config.xml.new and your existing tm1web_config.xml file is preserved. To take advantage of fixes that are applied to this release, you must rename the tm1web_config.xml.new file to tm1web_config.xml and you must reapply any changes that you made to your previous configuration settings.

Example

```
<add key="CSPHeaderFrameSource" value="'self'" />
```

Sets the frame-src policy to 'self'.

Allows contents from the site's origin to load.

Example

```
<add key="CSPHeaderFrameSource" value="http://CAM_HOST:CAM_PORT http://
TM1WEB_HOST:TM1WEB_PORT" />
```

Sets the frame-src policy to http://CAM_HOST:CAM_PORT http://TM1WEB_HOST:TM1WEB_PORT.

Allows contents from CAM_HOST:PORT and TM1WEB_HOST:PORT to load.

What to do next

For more information on how to define sources for `frame-src`, see Sources on the MDN web docs site.

Relational data sources in TM1 Web websheets removed

⌂ Removed in v2.0.8 The ability to use relational data sources in TM1 Web has been removed from IBM Planning Analytics Local version 2.0.8. The IBM Data Server Driver for JDBC and SQLJ 4.17 (10.5.0.2) have also been removed from the installation kit (db2cc4.jar, ojdbc6.jar, sqlj4.zip, sqljdbc4.jar).

Planning Analytics version 2.0.7 was the last release with support for relational data sources in TM1 Web websheets.

TM1 Package Connector removed from Planning Analytics Local

⌂ Removed in v2.0.8 With IBM Planning Analytics Local version 2.0.8, the IBM Cognos Package Connector is no longer included in the Planning Analytics Local installation kit. This change does not affect Planning Analytics on cloud. Cognos Package Connector is not available or supported in Planning Analytics on cloud.

Planning Analytics 2.0.7 - April 29, 2019

IBM Planning Analytics Local version 2.0.7 and the cloud release of IBM Planning Analytics version 2.0.7 includes updates and new features for IBM TM1 Server version 11.5.0.

Note: Updates to each version of IBM Planning Analytics are cumulative. If you are upgrading IBM Planning Analytics, review all updates since your installed version to plan your upgrade and application deployment.

Install IBM Planning Analytics Local on Windows Server 2019

IBM Planning Analytics Local is now supported on Windows Server 2019.

To learn more, see Planning Analytics Local Installation and Configuration (https://www.ibm.com/support/knowledgecenter/SSD29G_2.0.0/com.ibm.swg.ba.cognos.tm1_inst.2.0.0.doc/pa_install.html)..

Upgrade to WebSphere Liberty Profile 18.0.0.4

The WebSphere Liberty Profile has been upgraded to 18.0.0.4. This upgrade requires a manual change to the `server.xml` file for existing IBM Planning Analytics Local installations that upgrade to Planning Analytics Local version 2.0.7.

In Planning Analytics Local version 2.0.7, the `server.xml` file has been updated to add the following property to disable sending server version information in response headers.

`<webContainer disableXPoweredBy="true"/>`

The response header is informational and not required for operations. It is now disabled by default to minimize thread surface.

Remember: In Planning Analytics Local version 2.0.7, you install a new version of the `server.xml` file that is called `server.xml.new` and your existing `server.xml` file is preserved. To take advantage of fixes that are applied to this release, you must rename the `server.xml.new` file to `server.xml` and you must reapply any changes that you made to your previous configuration settings.

For more information, see Upgrading Planning Analytics Local (https://www.ibm.com/support/knowledgecenter/SSD29G_2.0.0/com.ibm.swg.ba.cognos.tm1_inst.2.0.0.doc/c_tm1_inst_upgradingfromearlierversionsoftm1.html).

Optimize the login process with a new tms1.cfg parameter

A new parameter, **OptimizeClient**, has been added to the tms1.cfg file to prevent obtaining a lock when serializing objects when a user authenticates. This parameter determines whether private objects are loaded when the user authenticates during TM1 Server startup.

Note: A new user that was dynamically added, who logs in with CAM authentication, is still subject to lock contention because a new element must be added to the `}clients` dimension.

Organizations with many users, or users with many private objects, can set which users this parameter is applied to. This approach impacts the server load and potentially the amount of memory that is consumed at startup.

The **OptimizeClient** parameter can be set as follows:

- None = 0
- OperationsAdmin = 1
- Admin = 2
- All = 3

For more information, see **OptimizeClient** (https://www.ibm.com/support/knowledgecenter/SSD29G_2.0.0/com.ibm.swg.ba.cognos.tm1_inst.2.0.0.doc/c_optimizeclient.html).

Monitor threads with the Top logger

TM1 Server dynamically monitors the threads that are running and now outputs thread status to the `tm1top.log` file by using the Top logger. You can also log information about the sandboxes and job queue for a specific database.

You can use the new Top logger in IBM Planning Analytics on cloud and IBM Planning Analytics Local. You can download the logs from IBM Planning Analytics Administration. For more information, see Download database log files.

Note: The content of the `tm1top.log` file is the same as the TM1Top logs. The TM1Top utility is scheduled for deprecation on Planning Analytics Local.

Configure tm1s.cfg parameters

The Top logger is `Off` by default. To enable logging, you must add **TopLogging=T** to the `tm1s.cfg` file before you start your TM1 Server.

Note: This parameter cannot be configured in Planning Analytics Administration.

The following settings can be configured in the `tm1s.cfg` file:

TopLogging
Enables dynamic logging of the threads running in an instance of the TM1 Server. The Top logger can also display information about the sandboxes and job queue for a specific database.

Boolean, dynamic

Default=FALSE

TopScanFrequency
The logging frequency (interval) in seconds.

Integer, dynamic

Default is 5 seconds

0 disables the Top logger.

TopScanMode.Threads
Enables logging of the current processing state of each thread. This information includes the name of the user or process that started the thread, the API function that the thread is executing, the lock status of the last object that was locked, the number of objects that are used by the thread, and the total time, in seconds, that the current API function or chore process has been processing.

Default = T

TopScanMode.Sandboxes
> Enables logging of the active sandboxes for the current server, the total memory that is consumed for all sandboxes by a user, and the number of sandboxes for this user.
>
> Default = F

TopScanMode.SandboxQueueMetrics
> Enables logging of sandbox queue metrics. The name of the node for the sandbox, the status of the sandbox in the queue, and the length of time the sandbox was in the queue before it was processed is logged for each sandbox in the queue.
>
> Default = F

For more information, see Parameters in the tm1s.cfg file.

If TM1 Server starts with **TopLogging** turned on, the server adds the Top logger configuration to the `tm1s-log.properties` file if the configuration is not already there. The log level is INFO. The special log format is controlled by the format parameter of the definition, which must be set to TM1Top.

The following configuration information is added:

```
log4j.logger.Top=INFO, S_Top
log4j.appender.S_Top=org.apache.log4j.SharedMemoryAppender
log4j.appender.S_Top.MemorySize=5 MB
log4j.appender.S_Top.MaxFileSize=100 MB
log4j.appender.S_Top.MaxBackupIndex=20
log4j.appender.S_Top.File=tm1top.log
log4j.appender.S_Top.Format=TM1Top
```

After the Top logger is enabled and the configuration settings are added to the `tm1s-log.properties`, you can disable or enable the Top logger without restarting the TM1 Server.

TM1 REST API support

The Top logger and its settings can be read and modified by using the TMI REST API:

```
GET /api/v1/ActiveConfiguration/Administration/TopLog
PATCH /api/v1/StaticConfiguration/Administration/TopLog
{
    "ScanFrequency": "P0DT00H00M02S"
}
GET /api/v1/Loggers('Top')
PATCH /api/v1/Loggers('Top')
{
    "Level": "Off"
}
```

For more information, see TopLogSettings and TopScanMode.

Log example

```
=====  2019-01-09 22:20:54 GMT      2019-01-09 17:20:54 local   =====  Server:Planning Sample
===========
10744  Th:Pseudo           -                  Idle          -                  -
-              -    0
22584  Th:DynamicConfig    -                  Idle          -                  -
-              -    0
676    Admin               :1                 Idle          -                  -
-              -    0
4920   Sa        Architect                    Idle          -                  -
-              -    0
=====  2019-01-09 22:20:56 GMT      2019-01-09 17:20:56 local   =====  Server:Planning Sample
===========
8120   C:SleepEvery10s     -                  Run:R         -                  Process SyncSleep_10    Prolog
(6)    0
10744  Th:Pseudo           -                  Idle          -                  -
-              -    0
22584  Th:DynamicConfig    -                  Idle          -                  -
-              -    0
676    Admin    :1      Run:R  -  POST    /api/v1/Cubes('plan_BudgetPlan')/Views('def')/
```

```
tm1.Execute  -   1
22620  > Work unit for 676         -                          -             -
-    -      0
3284   > Work unit for 676         -                          -             -
-    -      0
22376  > Work unit for 676         -                          -             -
-    -      0
17568  > Work unit for 676         -                          -             -
-    -      0
2940   > Work unit for 676         -                          -             -
-    -      0
128    > Work unit for 676         -                          -             -
-    -      0
20552  > Work unit for 676         -                          -             -
-    -      0
4920    Sa            Architect        Idle         -             -             -
-         0
```

Run multiple processes on their own thread with a new TurboIntegrator function

You can now run TurboIntegrator processes in parallel, each on its own thread that is managed by TM1 Server, by using the new RunProcess function. This approach speeds up data load and other operations where TurboIntegrator processes are used to divide the work.

You can use the new RunProcess(ProcessName, [ParamName1, ParamValue1,ParamName2, ParamValue2]); function to run TurboIntegrator processes in parallel on a separate thread within the server. By using the RunProcess function, issues such as external encrypted credentials can be avoided.

For more information, see RunProcess.

Prepare for changes in behavior in TM1 Server

IBM Planning Analytics Local version 2.0.7 and the cloud release of IBM Planning Analytics version 2.0.7 includes updates that change behavior in IBM TM1 Server version 11.5.0. Review this list to prepare for your upgrade.

Default logging level of TM1.Mdx.Interface logger
In IBM Planning Analytics version 2.0.7 or later, the TM1.Mdx.Interface logger reports syntax errors only when set to DEBUG level.

Previously, in IBM Planning Analytics version 2.0.6 or earlier, the TM1.Mdx.Interface logger reported syntax errors when it was set to ERROR level. However, when Planning Analytics for Microsoft Excel or Planning Analytics Workspace generated invalid MDX internally, the tm1server log filled up quickly with a large number of entries in the form:

```
11276 [6b5] ERROR 2017-10-16 13:51:10.237 TM1.Mdx.Interface
    Syntax error at or near: 'hildren},{[Entity].[]})}', character position 21
```

These errors now appear only when the logging level is set to DEBUG. For more information, see System and performance monitoring (https://www.ibm.com/support/knowledgecenter/SSD29G_2.0.0/com.ibm.swg.ba.cognos.tm1_op.2.0.0.doc/c_systemandperformancemonitoring_n160007.html).

Default value of RulesOverwriteCellsOnLoad parameter
In IBM Planning Analytics version 2.0.7 or later, if the **RulesOverwriteCellsOnLoad** parameter is not present in the configuration file then it is assumed to be False by default. This is a change in behavior.

Previously, in IBM Planning Analytics version 2.0.6 or earlier, if this parameter was not present in the configuration file then it was assumed to be True by default.

For more information, see **RulesOverwriteCellsOnLoad** (https://www.ibm.com/support/knowledgecenter/SSD29G_2.0.0/com.ibm.swg.ba.cognos.tm1_inst.2.0.0.doc/c_rulesoverwritecellsonload.html).

Searching large transaction logs
In IBM Planning Analytics version 2.0.7 or later, if there are too many INVALID records, for example more than **500** invalid records in **one search** in the transaction logs, search stops and an error message is

generated in the server log. User intervention is required to clean up the transaction logs. This change prevents the server from searching for long periods and blocking other activities.

For example, the error message contains the following text:

```
Starts from <file name>, over 500 bad transaction records found, transaction log searching stopped.
```

The error message indicates where the search was started. For example, if the user searched from December 1 to December 12, the server searches multiple log files. The "Starts from" indicates where in the transaction logs the cleanup must start.

This change in the behavior of searching large transaction logs prevents the TM1 Server from generating large logs. However, user intervention is required to clean up the invalid records if the logs become too large.

Learn more about updates to TM1 REST APIs

IBM Planning Analytics Local version 2.0.7 and the cloud release of IBM Planning Analytics version 2.0.7 includes the following updates to the TM1 REST APIs for IBM TM1 Server version 11.5.0.

Metadata updates

The following entity types were changed in 11.5.0:

- **Added** GitPlan
- **Added** GitPullPlan
- **Added** GitPushPlan

The following complex types were changed in 11.5.0:

- **Added** Git
- **Added** GitCommit
- **Added** GitRemote
- **Added** TopLogSettings

The following enumerated types were changed in 11.5.0:

- **Added** GitPlanExecutionMode
- **Added** TopScanMode

The following actions were changed in 11.5.0:

- **Added** GitPullPlan.Execute
- **Added** GitPushPlan.Execute
- **Added** GitDeploy
- **Added** GitInit
- **Added** GitPull
- **Added** GitPush
- **Added** GitStatus
- **Added** GitUninit

The following properties were changed in 11.5.0:

- **Deprecated** property ID in Entry
- **Added** property Active in Session

To learn more, see What's new in 11.5.0 (https://www.ibm.com/support/knowledgecenter/SSD29G_2.0.0/com.ibm.swg.ba.cognos.tm1_rest_api.2.0.0.doc/r_restapi_v1_csdl_whats_new.html#restapi_v1_csdl_whats_new_11_5_0).

Support for hiding hierarchies

The `Visible` property of a [Hierarchy](https://www.ibm.com/support/knowledgecenter/SSD29G_2.0.0/com.ibm.swg.ba.cognos.tm1_rest_api.2.0.0.doc/r_restapi_v1_csdl_alltypes.html#restapi_v1_csdl_entitytype_Hierarchy) (https://www.ibm.com/support/knowledgecenter/SSD29G_2.0.0/com.ibm.swg.ba.cognos.tm1_rest_api.2.0.0.doc/r_restapi_v1_csdl_alltypes.html#restapi_v1_csdl_entitytype_Hierarchy) entity has been extended to allow a client to filter any collection of hierarchies.

For example:

```
GET /api/v1/Dimensions('dim')/Hierarchies?$filter=Visible eq true
```

By default, the `Visible` property is determined by the `Visible` dimension property (currently this is in the }DimensionProperties cube, which includes every individual hierarchy). This property defaults to True.

If a control cube exists with the name }HierarchyVisibility_{{DIMNAME}}, which has two dimensions: }Hierarchies_{{DIMNAME}} and }Groups, then more specific values here will overwrite the default dimension property (if TRUE or FALSE is written to the appropriate cell). Similar to security, if a user belongs to multiple groups, and any of those groups sets the hierarchy as visible, then the hierarchy will be visible.

Determining the value of the `Visible` property uses the following logic:

- Is there a value of TRUE anywhere in the }HierarchyVisibility_{{DIMNAME}} cube for this hierarchy or any group the current user belongs to? Then, `Visible` = true.
- Is there a value of FALSE anywhere in the }HierarchyVisibility_{{DIMNAME}} cube for this hierarchy or any group the current user belongs to? Then, `Visible` = false.
- Is the value of the VISIBILITY dimension property (note that this is per hierarchy) set to TRUE? Then, `Visible` = true.
- Is the value of the VISIBILITY dimension property set to FALSE? Then, `Visible` = false.
- Otherwise, `Visible` = true.

Use Git source control to deploy database assets between environments

As an administrator of a TM1 database, you can deploy database assets between environments (for example, from development to production) without stopping the database or manually copying and pasting assets. The source specifications of models and their database assets are created and managed with Git commands. You can see the structure of the database assets in Git and use Git commands to add and remove versions of your assets easily.

Why is this useful?

- You can see your database assets in an easy to read format. Assets can include chores, cubes, dimensions, processes, and more.
- You can build different versions of your database assets by using Git branches.
- You can control which versions of your database assets you use for your environments. Use one branch for your development environment and another for your production environment.
- You can see the differences between versions of your database assets easily. You can even revert to previous versions if you need to.
- You can deploy your database assets directly to your environment by using Git commands.

Note: This capability is available only in Planning Analytics Local.

To learn more, see Managing TM1 database assets with Git (https://www.ibm.com/support/knowledgecenter/SSD29G_2.0.0/com.ibm.swg.ba.cognos.tm1_rest_api.2.0.0.doc/c_tm1_restapi_model_deployment.html).

Load websheets faster in TM1 Web

To optimize loading of websheets in TM1 Web, you can set a new feature flag
`OptimizeCssForHiddenContent`. The feature flag can be added in `tm1_64\webapps\tm1web\WEB-INF\configuration\features.json`.

When `OptimizeCssForHiddenContent` is set to `true`, CSS style information that comes from hidden content (sheets, rows, columns, cells, or controls) is excluded during websheet loading.

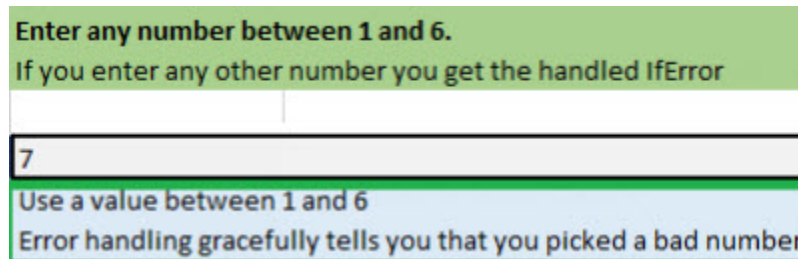`OptimizeCssForHiddenContent` is set to `false` by default.

Example

```
{
    "NestedDbsEvaluation": false,
    "NewIrrAlgorithm": false ,
    "OptimizeCssForHiddenContent": true
}
```

Use the IFERROR Excel function in TM1 Web

IBM Planning Analytics TM1 Web now supports the use of the `IFERROR` function in websheets.

The `IFERROR` function traps errors in a formula and returns an alternative result, such as text, when an error is detected.

Take advantage of improved cell formatting in TM1 Web websheets

The cell formatting of currency, fractions, phone numbers, and social security numbers in TM1 Web websheets has improved.

The following changes have been made to formatting of cells in websheets:

- For numbers with more than 15 digits, cells in websheets round up the number to the first 15 digits. For example, "123456789123456992.00" appears as "123456789123457000.00". In Excel, only the first 15 digits are stored and remaining digits are replaced by zeros. For example, "123456789123456992.00" appears as "123456789123456000.00".
- Currency appears with no space after the $ sign. Negative currency also appears with no space after the dollar sign. For example, "$99.00" and "-$999.00".
- Fractions are formatted to appear in fraction format "# ??/??" with a space between the whole number and the fraction. When the number is a whole number, the cell is formatted without a space after the whole number.
- Phone numbers are formatted as "(nnn) nnn-nnnn" as in Excel.
- Social security numbers are formatted with the first 9 digits. Any digits that follow the first 9 digits are truncated. For example, "1849348202" appears as "184-93-4820" with the last digit "2" truncated. This formatting is different in Excel. For numbers with more than 9 digits, Excel adds the format to the last 9 digits while the additional digits at the beginning don't change. For example, in Excel, "1849348202" appears as "1849-34-8202".

TM1 Web version 2.0.6 or earlier	TM1 Web version 2.0.7 or later	Cell formatting in Excel
123456789123456992.00	123456789123457000.00	123456789123456000.00
-99.00	-99.00	-99.00
$ 99.00	$99.00	$99.00
-$ 999.00	-$999.00	-$999.00
7/16/2038	7/16/2038	7/16/2038
Friday, April 03, 2150	Friday, April 03, 2150	Friday, April 3, 2150
25-Feb	25-Feb	25-Feb
0:00:00	0:00:00	0:00:00
4545.00%	4545.00%	4545.00%
44	44	44
01606	01606	01606
5.085959855E9	(508) 595-9855	(508) 595-9855
1849-34-8202	184-93-4820	1849-34-8202

This cell formatting is enabled by default in TM1 Web websheets with the feature flag `NewDataFormatter`. The feature flag can be set in `tm1_64\webapps\tm1web\WEB-INF\configuration\features.json`.

Example

```
{
    "NestedDbsEvaluation": false,
    "NewIrrAlgorithm": false ,
    "NewDataFormatter": true
}
```

Check out updated TM1 Web configuration defaults

The following TM1 Web configuration parameters have new default settings. These settings were previously recommendations. They are now default settings in the `tm1web_config.xml` file for new installations of TM1 Web.

Note: Some default configuration parameter values for Planning Analytics on cloud are different than in Planning Analytics Local.

ExportCellsThreshold
Specifies the maximum number of cells that an export of a websheet or a cube view can contain.

Default changed from blank to 1000000.

MaximumConcurrentExports
Specifies the maximum number of concurrent exports that can be executed from TM1 Web.

The default value in Planning Analytics on cloud is set to 3. This default value is unchanged.

The default value in Planning Analytics Local is changed from 5 to 4.

MaximumSheetsForExport
Specifies the maximum number of sheets that are allowed to export.

Default changed from 100 to 50.

WorkbookMaxCellCount
Specifies the maximum cell count of a workbook as a number with no thousands separators.

Default changed from -1 to 500000.

For more information, see TM1 Web configuration parameters.

Review deprecation notices

The following tools and components are deprecated or scheduled for deprecation in IBM Planning Analytics version 2.0.7. Review deprecation details for IBM Planning Analytics version 2.0.7 in Deprecation notices for IBM Planning Analytics.

- **Relational data sources in TM1 Web websheets (local only)**

  Planning Analytics version 2.0.7 is the last release with support for relational data sources in TM1 Web websheets.

- **IBM TM1 Package Connector (local only)**

  Planning Analytics version 2.0.7 is the last release of TM1 Package Connector.

- **Advanced Rules Editor (TM1 Architect and TM1 Perspectives only)**

  As of Planning Analytics version 2.0.7, the **AdvancedRulesEditor** parameter in the `tm1p.ini` file is ignored. The Advanced Rules Editor does not launch in TM1 Architect and TM1 Perspectives, only the basic rule editor launches.

- **IBM TM1 Operations Console**

  IBM TM1 Operations Console is scheduled for deprecation. You can use IBM Planning Analytics Administration to monitor databases in IBM Planning Analytics and IBM Planning Analytics Local.

  To learn more, see Monitor and administer databases (https://www.ibm.com/support/knowledgecenter/SSD29G_2.0.0/com.ibm.swg.ba.cognos.tm1_prism_gs.2.0.0.doc/c_paw_administer_servers.html)..

- **IBM Cognos Performance Management Hub**

  IBM Cognos Performance Management Hub (PMHub) is scheduled for deprecation.

  In Planning Analytics version 2.0.7, the following features have been disabled in PMHub because of security vulnerabilities:

  - Watchlists (com.ibm.ba.pm.service.watchlist)
  - Async job API (com.ibm.ba.pm.service.queue)
  - Pmpsvc passthrough support for PMHub (com.ibm.ba.pm.pmpsvc)
  - Support for old PMHub TM1 v1 requests (com.ibm.ba.pm.bridge)

  If you currently use these features, you have the option of maintaining a TM1 Server that is installed with Planning Analytics version 2.0.6 (ring-fenced by a firewall if necessary) and change any systems that use these features to reference this server.

- **IBM TM1 Top utility**

  The TM1 Top utility is scheduled for deprecation.

Planning Analytics 2.0.6 - October 11, 2018

IBM Planning Analytics Local version 2.0.6 and the cloud release of IBM Planning Analytics version 2.0.6 includes updates and new features for IBM TM1 Server version 11.4.0.

Note: Updates to each version of IBM Planning Analytics are cumulative. If you are upgrading IBM Planning Analytics, review all updates since your installed version to plan your upgrade and application deployment.

Upgrade to Java 8 and removal of Java 7

⌂ Planning Analytics Local has been upgraded to Java™ 8.0.5.20.

Important: You must stop all related IBM Cognos TM1 and IBM Planning Analytics services before you upgrade to Planning Analytics version 2.0.6.

On Windows, if the installation detects an existing JRE 7, a new JRE 8 is installed during the installation, and the JRE 7 `cacerts` file is copied to the `Java80\jre\lib\security` location. If you have an existing Java80 folder, the `cacerts` file is not copied over. The existing Java70 folder is removed. On Linux®, you must install Java 8.0.5.20.

Note: With the upgrade to Java 8 in Planning Analytics version 2.0.6, some tools such as the IBM Key Management tool (`ikeyman.exe`), are now located in the `<PA_install_directory>\jre\bin` directory of the Planning Analytics installation or in the IBM JRE installation if Linux used.

For more information, see Upgrading from Planning Analytics version 2.0.0 (https://www.ibm.com/support/knowledgecenter/SSD29G_2.0.0/com.ibm.swg.ba.cognos.tm1_inst.2.0.0.doc/t_tm1_inst_upgrade_200.html).

ThirdPartyCertificateTool no longer supported

⌂ Not supported in v2.0.6 + The ThirdPartyCertificateTool requires Java 7 and is not supported in Planning Analytics version 2.0.6 or later.

New TurboIntegrator functions to delete leaf elements from dimension or hierarchy

You can use TurboIntegrator functions to delete leaf elements from a dimension or hierarchy using a subset of elements for higher performance.

`DimensionDeleteElements( dimension, subset)`
The subset provides the list of elements to delete from the indicated dimension. The subset is usually temporary.

`HierarchyDeleteElements( dimension, hierarchy, subset)`
If you use `HierarchyDeleteElements` and the indicated hierarchy is the Leaves hierarchy, then the subset should list those leaves that should be deleted, and they are removed completely from the dimension.

New parameter to configure session timeout for TM1 Web

⌂ In IBM Planning Analytics Local version 2.0.6, there is a new parameter in the `tm1web_config.xml` file called `HttpSessionTimeout`. This parameter defines the session timeout (in minutes) of the HTTP session for TM1 Web.

If the `HttpSessionTimeout` parameter is not specified (missing or blank), the value is less than 1 or not a numerical value, the default `session-timeout` that is defined in the `web.xml` file is used.

Important: As of IBM Planning Analytics Local version 2.0.6, you must not change the `session-timeout` value in the `web.xml` file.

For more information, see Setting the TM1 Web session timeout (https://www.ibm.com/support/knowledgecenter/SSD29G_2.0.0/com.ibm.swg.ba.cognos.tm1_ug.2.0.0.doc/t_paw_troubleshooting_web_timeout.html).

Remember: In IBM Planning Analytics Local version 2.0.6, you install a new version of the `tm1web_config.xml` file that is called `tm1web_config.xml.new` and your existing `tm1web_config.xml` file is preserved. To take advantage of fixes that are applied to this release, you must rename the `tm1web_config.xml.new` file to `tm1web_config.xml` and you must reapply any changes that you made to your previous configuration settings.

TM1 REST API updates

IBM Planning Analytics Local version 2.0.6 and the cloud release of IBM Planning Analytics version 2.0.6 includes the following updates to the TM1 REST APIs for IBM TM1 Server version 11.4.0.

Metadata updates

The following functions were introduced in 11.4.0:

- Cube.DimensionsStorageOrder
- GetOIDCKeys

The following actions were introduced in 11.4.0:

- Cube.ReorderDimensions

- RemoveOIDCKeyFromCache

To learn more, see What's new in 11.4.0 (https://www.ibm.com/support/knowledgecenter/
SSD29G_2.0.0/com.ibm.swg.ba.cognos.tm1_rest_api.2.0.0.doc/
r_restapi_v1_csdl.html#restapi_v1_csdl_whats_new_11_4_0).

Planning Analytics 2.0.5 - June 25, 2018

IBM Planning Analytics Local version 2.0.5 and the cloud release of IBM Planning Analytics version 2.0.5 includes updates and new features for IBM TM1 Server version 11.3.0.

Note: Updates to each version of IBM Planning Analytics are cumulative. If you are upgrading IBM Planning Analytics, review all updates since your installed version to plan your upgrade and application deployment.

Local installation and configuration updates

⌂ IBM Planning Analytics Local version 2.0.5 includes the following updates to installation and configuration.

Planning Analytics Administration agent installation

The Planning Analytics Administration agent is required for the following features in Planning Analytics Workspace Local:

- Adding dimension members and attributes using drag and drop
- Importing data into a cube using drag and drop

For more information, see Planning Analytics Administration agent installation (https://www.ibm.com/
support/knowledgecenter/SSD29G_2.0.0/com.ibm.swg.ba.cognos.tm1_inst.2.0.0.doc/
c_tm1_install_paa.html).

Not supported 32-bit version of Planning Analytics no longer available

Planning Analytics Local version 2.0.5 does not include a 32-bit version of the installation program. For more information, see http://www-01.ibm.com/support/docview.wss?uid=swg22013654.

TM1 Server updates

IBM Planning Analytics Local version 2.0.5 and the cloud release of IBM Planning Analytics version 2.0.5 includes the following features for IBM TM1 Server version 11.3.0.

Change in the behavior of the STR function

The behavior of the STR function has been updated. This may cause a behavior change in usage depending on which version of IBM Planning Analytics you are upgrading from.

For more information, see STR (https://www.ibm.com/support/knowledgecenter/SSD29G_2.0.0/
com.ibm.swg.ba.cognos.tm1_ref.2.0.0.doc/r_tm1_ref_str.html.

Change in the behavior of TI process rollback

A TurboIntegrator process that encounters a major error now rolls back instead of committing any changes.

This change in behavior impacts only major errors. The entire TurboIntegrator process is a single atomic transaction. Either the entire process succeeds and is committed, or the entire process fails and rolls back. For example, errors such as the data source failing to open or attempting to write to a cube that doesn't exist are major errors and now trigger a rollback.

The handling of minor errors is unchanged. For example, errors such as having a malformed input line in a data source logs a minor error and continues running the next data source record.

Multi-threaded loading of individual cubes

You can enable multi-threaded loading of individual cubes, which delivers better speeds than the approach that is enabled by the `MaximumCubeLoadThreads` setting. The following `tm1s.cfg` settings are available to enable and configure this feature:

- `MTCubeLoad`
- `MTCubeLoad.MinFileSize`
- `MTCubeLoad.UseBookmarkFiles`
- `MTCubeLoad.Weight`
- `IndexStoreDirectory`
- `PreallocatedMemory.BeforeLoad`
- `PreallocatedMemory.Size`
- `PreallocatedMemory.ThreadNumber`

Using `MTCubeLoad` also eliminates the risk of changing feeder generation sequences. When `MTCubeLoad` is enabled, the `MaximumCubeLoadThreads` configuration option is ignored.

TM1 Server administrators can use new `tm1s.cfg` settings (`PreallocatedMemory.Size`, `PreallocatedMemory.ThreadNumber`, and `PreallocatedMemory.BeforeLoad`) to configure preallocation memory and optimize scale-up and performance results.

The following loggers have been added:

log4j.logger.TM1.Server.Loading=DEBUG
Allows you to capture individual timing of TM1 Server loading stages: DeSerializeDimensions, DeSerializeAttributeCubes, DeSerializeRegularCubes, GenerateServerSecurity.

log4j.logger.TM1.Cube.Loading=DEBUG
Captures cube loading time, separately for `.cub` and `.feeder` files.

For more information, see MTCubeLoad (https://www.ibm.com/support/knowledgecenter/ SSD29G_2.0.0/com.ibm.swg.ba.cognos.tm1_inst.2.0.0.doc/c_tm1_inst_mtcubeload.html).

New operational administrator

IBM Planning Analytics has a new system's user group, OperationsAdmin, whose sole purpose is to do maintenance and operational work. The members of this group do not see any of TM1 metadata, nor any cube or any other data. However, members of this group can perform tasks such as unlock users, disconnect users, and cancel threads.

For more information, see Administrative groups and authority (https://www.ibm.com/support/ knowledgecenter/SSD29G_2.0.0/com.ibm.swg.ba.cognos.tm1_op.2.0.0.doc/ c_understandingadministrativegroupsandauthority_n1701b8.html).

Reference a public subset by name in MDX

You can use the TM1SubsetToSet (https://www.ibm.com/support/knowledgecenter/SSD29G_2.0.0/ com.ibm.swg.ba.cognos.tm1_ref.2.0.0.doc/r_tm1_ref_tm1subsettoset.html) function to return the members of a public TM1 subset. If a private and a public subset have identical names, enter the optional scope parameter as `public` to return the members of the public TM1 subset. If the scope parameter is not specified, the server searches first for a private subset.

TM1 REST API updates

IBM Planning Analytics Local version 2.0.5 and the cloud release of IBM Planning Analytics version 2.0.5 includes the following updates to the TM1 REST APIs for IBM TM1 Server version 11.3.0.

Batch request capability

To execute a set of cell updates as autonomous requests, each of which can individually succeed or fail, you can batch multiple requests in one request.

The 11.3.0 version of the OData v4.0 based REST APIs partially implements the JSON format based $batch implementation, as specified in Chapter 19 of the OData Committee Specification 1: Batch Requests and Responses (http://docs.oasis-open.org/odata/odata-json-format/v4.01/odata-json-format-v4.01.pdf).

To learn more, see Batch options (https://www.ibm.com/support/knowledgecenter/SSD29G_2.0.0/com.ibm.swg.ba.cognos.tm1_rest_api.2.0.0.doc/dg_tm1_odata_additional_ops.html#dg_tm1_odata_batch_query_update_options).

Metadata updates

The following types were introduced in 11.3.0:

- `ErrorLogFile`
- `ProcessExecuteResult`
- `ProcessExecuteStatusCode`

The following entity types were **deprecated** in 11.3.0:

- `ProcessErrorLog`

The following functions and actions were introduced in 11.3.0:

- `TailMessageLog`
- `TailTransactionLog`
- `ExecuteProcessWithReturn`
- `Process.ExecuteWithReturn`

The following actions were **deprecated** in 11.3.0:

- `Process.Execute`
- `ExecuteProcess`

To learn more, see What's new in 11.3.0 (https://www.ibm.com/support/knowledgecenter/SSD29G_2.0.0/com.ibm.swg.ba.cognos.tm1_rest_api.2.0.0.doc/r_restapi_v1_csdl.html#restapi_v1_csdl_whats_new_11_3_0).

Documentation updates

The TM1 REST API documentation has been updated to include information about data spreading. To learn more, see Data spreading with the TM1 REST API (https://www.ibm.com/support/knowledgecenter/SSD29G_2.0.0/com.ibm.swg.ba.cognos.tm1_rest_api.2.0.0.doc/c_spreading_rest_api.html).

TM1 Web updates

IBM Planning Analytics Local version 2.0.5 and the cloud-only release of IBM Planning Analytics version 2.0.5 includes the following features for TM1 Web.

Changes to `web.xml` file

If you are upgrading IBM Planning Analytics TM1 Web with this installation of IBM Planning Analytics Local version 2.0.5, you install a new version of the `web.xml` file called `web.xml.new` and your existing `web.xml` file is preserved.

To take advantage of fixes applied to this release, you must use the web.xml.new file and you must reapply any changes that you made to your previous configuration settings. In particular, restore your values for **session-timeout**.

1. Back up the existing web.xml file in <PA_installation_location>/webapps/tm1web/WEB-INF. For example, rename web.xml to web.xml.old. This step backs up your current settings.
2. Rename web.xml.new to web.xml. This step uses the new version of web.xml that is supplied with IBM Planning Analytics Local version 2.0.5.
3. Replace the entry for **session-timeout** in web.xml with the entry from web.xml.old. This step restores any changes that you made to this property previously.

For example:

```
<session-config>
    <session-timeout>20</session-timeout>
</session-config>
```

Exporting to PDF

Exporting a websheet to PDF uses the print area information. If you define a print area in a worksheet, only the data in that area is exported to PDF. This behavior is the same as printing from Excel.

Cognos Insight updates

⌂ IBM Planning Analytics Local version 2.0.5 includes updates for Cognos Insight.

Deprecated Cognos Insight - Distributed mode

IBM Planning Analytics version 2.0.5 is the last release of Cognos Insight – Distributed mode when used with TM1 Applications. Cognos Insight in Connected mode and TM1 Application Web will continue to be supported.

This change does not affect the functionality of the client, with the exception of work offline. If the ability to work offline is an important capability, IBM recommends the use of IBM Planning Analytics for Microsoft Excel.

Planning Analytics 2.0.4 - February 16, 2018

IBM Planning Analytics Local version 2.0.4 and the cloud release of IBM Planning Analytics version 2.0.4 includes updates and new features for IBM TM1 Server version 11.2.0.

Note: Updates to each version of IBM Planning Analytics are cumulative. If you are upgrading IBM Planning Analytics, review all updates since your installed version to plan your upgrade and application deployment.

Local installation and configuration updates

⌂ IBM Planning Analytics Local version 2.0.4 includes the following updates to installation and configuration.

Deprecated 32-bit version of TM1 Server client installation

Planning Analytics Local version 2.0.4 is the last release of the 32-bit version of the TM1 Server client installation program.

For more information, see http://www-01.ibm.com/support/docview.wss?uid=swg22013654.

TM1 Server updates

IBM Planning Analytics Local version 2.0.4 and the cloud release of IBM Planning Analytics version 2.0.4 includes the following features for IBM TM1 Server version 11.2.0.

Encryption at rest

TM1 Server uses a two-tier key management system to encrypt and decrypt server data. TM1 APIs enable and disable data encryption. With the TM1 Server command line utility, you can perform master key rotations for added security. And, if you need to, you can restore files by using the TM1Crypt utility. For more information, see the TM1 Server data encryption in the *Planning Analytics Installation and Configuration* documentation.

Note: Encryption is not supported for IBM Planning Analytics on cloud. Encryption is available for Planning Analytics Local customers only. Encryption is not supported on a TM1 Server that is using replication and sync. Blobs are excluded from server artifacts that are encrypted by encryption at rest.

Server stability and improved server shutdown

The TM1 Server performs the following tasks to safely shut down the server:

1. Terminates all spawned external processes.
2. Cancels all running threads (which is the same as an administrator logging in and canceling all running threads).
3. Collects and produces information and metrics for the shutdown process.
4. Sends data to the event log and the server log.

You can use IBM Planning Analytics Administration to start and stop databases.

Change to reporting of memory consumed by feeders in TM1 Server

TM1 Server now reports the memory that is consumed by feeders only once. If there are no changes to rules or cube data, the memory consumption represents a static value that is recorded after the server successfully starts. If there are changes to rules, feeders, or cube data during the running of the server, the Memory Used for Feeders value in the }StatsByCube control cube is updated the next time that the server starts.

Note: The memory accounting is accurate at start-up time. You cannot change your feeders and see what kind of memory profile is generated without restarting the server.

For more information, see Performance Monitoring Control Cubes(https://www.ibm.com/support/knowledgecenter/SSD29G_2.0.0/com.ibm.swg.ba.cognos.tm1_op.2.0.0.doc/c_performancemonitoringcontrolcubes_n608ec.html).

Selectively enable multi-threaded query processing

The MTQQuery parameter in the tm1s.cfg file is now set to True by default. You can use a new TI function, EnableMTQQuery(), to selectively enable or disable multi-threaded query processing when calculating a view to be used in a TI process.

TM1 support for localizable attributes for View, Subset, and TI Processes

TM1 Server supports localizable attributes. You can provide a localized value for the attributes of Dimension, Element, and Cube. TM1 Server automatically returns the correct value for an attribute based on the user-supplied language locale or preferred language locale setting. You don't need to create an alias attribute or text attribute for each language.

In this version of TM1 Server, the View, TI Process, and Subset objects can also have attributes that are localizable. For more information, see Attributes and localization.

Sandbox comparisons

To enable sandbox comparisons, you can set **EnableSandboxDimension** parameter in your tm1s.cfg file.

For more information, see EnableSandboxDimension.

REST API updates

The following changes were made to the TM1 REST APIs:

- You can use the REST API actions `ExecuteCubeDrillthrough` and `ExecuteRelationalDrillthrough` to preview a datasource. For more information, see Preview a datasource.
- You can rename or copy a folder in the TM1 Server by using the `Copy` and `Move` actions that are bound to the Entry entity. Copy creates an Entry with a different name in the target destination and leaves the source Entry the same. Move creates an Entry with a different name in the target destination and removes the source Entry. You can specify whether the Entry that is created should be public or private. If the target folder is unspecified, the parent folder of the source is used. If the target Name is unspecified, the name of the source is used.
- You can retrieve elements by supplying either alias or invariant name: The OData-compliant REST API requires an application to know the type of the key when asked for dimension element. The supplied key can either be invariant name or alias. However, when the type is not known, that is, can be either invariant name or alias, the application cannot determine which one to use. For more information, see Retrieve elements by supplying either alias or invariant name.
- You can now execute a PUT on the reference of the subset element collection to update the collection. You can execute a DELETE on the reference of the collection to empty the collection. The $filter query option can be used to specify which element to be removed. For more information, see Update all elements in a static set.

To learn more, see What's new in 11.2.0 (https://www.ibm.com/support/knowledgecenter/ SSD29G_2.0.0/com.ibm.swg.ba.cognos.tm1_rest_api.2.0.0.doc/ r_restapi_v1_csdl.html#restapi_v1_csdl_whats_new_11_2_0).

TM1 Performance Modeler updates

IBM Planning Analytics Local version 2.0.4 and the cloud release of IBM Planning Analytics version 2.0.4 includes updates to IBM Cognos TM1 Performance Modeler.

In IBM Planning Analytics version 2.0.4, TM1 Performance Modeler is started as a Java application without a console window.

If you are trying to locate the TM1 Performance Modeler process in Task Manager, you must look for `javaw.exe`. Previously, this process appeared in Task Manager as `PerformanceModeler.exe`.

When TM1 Performance Modeler is starting up, the icon in the taskbar might appear as .

Cognos Insight updates

⌂ IBM Planning Analytics Local version 2.0.4 includes new features for Cognos Insight.

The following features were introduced in IBM Planning Analytics Local version 2.0.4. For more information, see the *Cognos Insight* documentation in IBM Knowledge Center.

Autosum

For any widget with numeric values in the grid, you can highlight cells and display their sum and average at the lower left side of the widget with a count of the number of cells selected.

1. To enable this feature for any widget, from the drop-down menu at the upper left of the widget, select **Show Autosum**.
2. Click in the grid to close the menu.

3. Highlight any range of numeric cells. For disconnected cells, use Ctrl+click to multi-select cells.

If you select any cells that contain strings, these cells are not included in the count of selected cells.

If none of the cells you select contain numeric data, the average displays NaN (not a number).

Context-sensitive action buttons

You can add parameters that can be synchronized with your TM1 data to an action button that runs a TurboIntegrator (TI) process. When the TI process runs, the parameter is dynamically replaced by the name of the currently selected member of the specified dimension.

For more information, see Adding action buttons that run a script (https://www.ibm.com/support/knowledgecenter/SSD29G_2.0.0/com.ibm.swg.ba.cognos.dsk_ug.2.0.0.doc/t_dsk_work_script.html).

Changes to startup

In IBM Planning Analytics 2.0.4, Cognos Insight is started as a Java application without a console window.

If you are trying to locate the Cognos Insight process in Task Manager, you must look for `javaw.exe`. Previously, this process appeared in Task Manager as `CognosInsight.exe`.

When Cognos Insight is starting up, the icon in the taskbar might appear as ☕.

Deprecation of Cognos Insight - Distributed mode

As of IBM Planning Analytics version 2.0.4, IBM announces the intent to deprecate the use of Cognos Insight – Distributed mode when used with TM1 Applications. Cognos Insight in Connected mode and TM1 Application Web will continue to be supported.

This change does not affect the functionality of the client, with the exception of work offline. If the ability to work offline is an important capability, IBM recommends the use of IBM Planning Analytics for Microsoft Excel.

Planning Analytics 2.0.3 - September 19, 2017

IBM Planning Analytics Local version 2.0.3 and the cloud release of IBM Planning Analytics version 2.0.3 includes updates and new features for IBM TM1 Server version 11.1.0.

Note: Updates to each version of IBM Planning Analytics are cumulative. If you are upgrading IBM Planning Analytics, review all updates since your installed version to plan your upgrade and application deployment.

Local installation and configuration updates

⌂ IBM Planning Analytics Local version 2.0.3 includes the following updates for installation and configuration.

Support for TM1 Server on IBM POWER8 little endian (LE)

You can now install IBM TM1 Server on Red Hat Enterprise Linux (RHEL) Server 7.1 operating system on POWER8 LE hardware. The *IBM Planning Analytics version 2.0.3 POWER8 LE install kit* provides TM1 Server only. The kit contains no applications or other components.

Note:

- You cannot use the IBM Cognos Configuration tool with this version of TM1 Server. You must use provided scripts to start and stop the TM1 Server. For more information, see Use scripts to start a TM1 Server on UNIX or Linux.
- This installation uses a subset of the TM1 Server configuration parameters in the `cogstartup.xml` file. For more information, see The tm1s.cfg.configuration file.

For more information, see Installing IBM TM1 Server on UNIX or Linux. For more information about supported operating systems, create a report for IBM Planning Analytics Local by using Software Product Compatibility Reports.

Not supported AIX for Planning Analytics Local version 2.0.3

Important:

Planning Analytics Local version 2.0.2 is the last release with AIX® support.

Planning Analytics Local version 2.0.3 is not supported on AIX.

New runtime C/C++ libraries for TM1 Server installed on UNIX or Linux

If you are running TM1 Server on Red Hat Enterprise Linux, you must install the runtime C/C++ libraries before you install Planning Analytics Local version 2.0.3. You can create a detailed system requirements report by using the Software Product Compatibility Reports tool (https://www.ibm.com/software/reports/compatibility/clarity/index.html).

Deprecated 32-bit version of TM1 Server

There is no longer a 32-bit installation program for TM1 Server. Planning Analytics Local for Windows 32-bit can be used only to install TM1 components.

TM1 Server updates

IBM Planning Analytics Local version 2.0.3 and the cloud release of IBM Planning Analytics version 2.0.3 includes the following features for IBM TM1 Server version 11.1.0.0.

Updates to the TM1Crypt utility

The TM1Crypt utility has been updated. For more information, see Running the TM1Crypt utility.

Enhanced cube rule area definition support for model using multiple hierarchies

Cube rules have changed as of IBM TM1 Server version 11.1.0.0. You can use a single rule statement to cover a set of same-named consolidated elements across hierarchies of the same dimension. This approach gives you greater flexibility with hierarchies.

For more information, see Use the Or operator to specify cube rules across hierarchies.

Changes to default behavior for FileRetry.FileSpec parameter

As of IBM TM1 Server version 11.1.0.0, if the FileRetry.FileSpec parameter is not specified in the tms1.cfg file (default), the retry logic is applied to all files in the logs directory only.

For more information, see FileRetry.FileSpec.

New tm1s.cfg parameter ODBCTimeoutInSeconds

The ODBCTimeoutInSeconds parameter specifies the timeout value that is sent to the ODBC driver using the SQL_ATTR_QUERY_TIMEOUT and SQL_ATTR_CONNECTION_TIMEOUT connection attributes.

For more information, see ODBCTimeoutInSeconds.

New tm1s.cfg parameter SQLRowsetSize

The SQLRowsetSize parameter specifies the maximum number of rows to retrieve per ODBC request.

For more information, see SQLRowsetSize.

New logger introduced

The TM1 server uses monitoring code to generate log messages that are pushed out to the `ops.logger`. Critical events that are pushed out to this logger include the following:

- Threads and their state
- Thread state of interest
- High contention
- Pool memory size
- Chore failure

To learn more, see Logging essential server information and Set database configuration parameters.

Updates to TM1 REST APIs

Types, actions, and functions have been added or changed in the TM1 REST API schema for IBM Planning Analytics Local version 2.0.3. These include the following features for TM1 server version 11.1.0.0:

- Locking and unlocking cubes or dimensions.
- Rule tracing, which includes tracing the calculation of a single cell. The result contains any components of the calculation.
- Ability to set the `Context` on a `Session` to better identify sessions and their associated threads. The client or consumers sets a context, which in turn allows consumers of this information to know who the client or consumer is.
- New properties in the `Document`, `ExternalDatabaseSettings`, and `Session` entities.

For more information, see the Release notes in *TM1 REST API* documentation.

TM1 Web updates

IBM Planning Analytics Local version 2.0.3 and the cloud-only release of IBM Planning Analytics version 2.0.3 includes the following features for TM1 Web.

Display the current TM1 database label in TM1 Web

The TM1DatabaseLabel parameter displays the TM1 database label in the banner beside the user name. For more information, see TM1DatabaseLabel Parameter and TM1 Web Configuration Parameters.

Specify the maximum cell count of a workbook

The WorkbookMaxCellCount parameter specifies the maximum cell count of a workbook as a number with no thousands separators. You can use WorkbookMaxCellCount to avoid issues opening workbooks with many cells.

For more information, see TM1 Web Configuration Parameters.

Limit the number of cells that can be exported from websheets

The ExportCellsThreshold parameter specifies the maximum number of cells that an export of a websheet or a cube view can contain. If the number of selected cells exceeds the threshold, a warning message is displayed and the export does not start.

For more information, see TM1 Web Configuration Parameters.

Hide dimensions in the cube viewer

The CubeViewerHiddenDimensionsEnabled parameter allows you to hide dimensions in the TM1 Web cube viewer.

For more information, see TM1 Web Configuration Parameters.

Waterfall chart support

TM1 Web supports excel-based Waterfall charts in websheets. These charts were released in Microsoft Excel 2016.

Planning Analytics 2.0.2 - June 1, 2017

IBM Planning Analytics Local version 2.0.2 and the cloud release of IBM Planning Analytics version 2.0.2 includes updates and new features for IBM TM1 Server version 11.0.2.

Note: Updates to each version of IBM Planning Analytics are cumulative. If you are upgrading IBM Planning Analytics, review all updates since your installed version to plan your upgrade and application deployment.

TM1 Server updates

IBM Planning Analytics Local version 2.0.2 and the cloud release of IBM Planning Analytics version 2.0.2 includes the following features for IBM TM1 Server version 11.0.2.

HTTP support enabled by default

The **HTTPPortNumber** tm1s.cfg parameter was optional is earlier releases. To support REST API features and applications that use the APIs, this option must be specified. If **HTTPPortNumber** is not defined in your tm1s.cfg file, then port number "5001" is assigned automatically.

MDXSelectCalculatedMemberInputs enabled by default

The **MDXSelectCalculatedMemberInputs** tm1s.cfg parameter is no longer optional. This tm1s.cfg parameter is now enabled by default.

New configuration parameters to prevent automatic TM1 server shutdown

You can prevent automatic TM1 server shutdowns when network issues block access to transaction logs. This feature is enabled by using three new tm1s.cfg parameters: **FileRetry.FileSpec**, **FileRetry.Count**, and **FileRetry.Delay**.

Planning Analytics 2.0.1 - February 7, 2017

IBM Planning Analytics Local version 2.0.1 and the cloud release of IBM Planning Analytics version 2.0.1 includes fixes for IBM TM1 Server version 11.0.1.

Note: Updates to each version of IBM Planning Analytics are cumulative. If you are upgrading IBM Planning Analytics, review all updates since your installed version to plan your upgrade and application deployment.

Planning Analytics 2.0.0 - December 16, 2016

IBM Planning Analytics Local version 2.0.0 and the cloud release of IBM Planning Analytics version 2.0.0 includes updates and new features for IBM TM1 Server version 11.0.0.

Note: Updates to each version of IBM Planning Analytics are cumulative. If you are upgrading IBM Planning Analytics, review all updates since your installed version to plan your upgrade and application deployment.

Local installation and configuration updates

⌂ IBM Planning Analytics Local version 2.0.0 includes the following updates for installation and configuration.

WebSphere Liberty Profile is the default application server

IBM Planning Analytics installs a WebSphere® Liberty Profile as the default application server. Apache Tomcat is no longer installed as the default application server as it was for IBM TM1 Server.

Note: In IBM Planning Analytics Local version 2.0.0, Performance Manager Hub can deploy only to another WebSphere Liberty Profile server; other versions of WebSphere are not supported.

WebSphere Liberty Profile uses the same default port numbers as were used for the Apache Tomcat server. For example, the default port number 9300 is also used for the WebSphere Liberty Profile.

Changes to selectable components in the TM1 Server installation wizard

In the TM1 Server installation wizard, the tiers that contain the selectable components were renamed.

- The TM1 Application Tier was renamed the TM1 Data Tier.
- The Web Application Tier was renamed the TM1 Web Tier.
- The TM1 Client Tier and the Developer Tier were merged to form the newly named TM1 Rich Tier.
- The Samples component was moved under the TM1 Data Tier.

TM1 Server updates

IBM Planning Analytics version 2.0.0 includes all features that were introduced in IBM TM1 Server version 11.0.0.0.

The following features were introduced in IBM TM1 Server version 11.0.0.0. For more information about these features, see the *TM1 for Developers*, *TM1 Reference*, and *TM1 REST API* documentation in IBM Knowledge Center.

Hierarchies

You can now create multiple hierarchies inside dimensions. This capability is supported through TM1 REST APIs, TurboIntegrator processes, and Planning Analytics Workspace modeling. This enhancement provides the following benefits:

- More efficient cube design
- Faster cube processing
- Attribute analysis
- Structured dimensions
- Dynamic analysis
- Re-org scenario planning
- Planning Analytics Workspace integration and modeling capabilities

New Control dimensions

The following control dimensions were added:

- The }Subsets_DimensionName dimension is used to track the subsets in each dimension. Each element in this dimension represents a subset.
- The }Views_CubeName dimension is used to track the views in each cube. Each element in this dimension represents a view.

Multi-threaded feeders

Multi-threaded feeders improve the performance of bulk feeder construction and cube feeder updates by using the number of available CPU cores. Three `tm1s.cfg` settings (**MTFeeders**, **MTFeeders.AtStartup**, and **MTFeeders.AtomicWeight**) were added to enable and configure this feature. For more information, see multi-threaded feeders in the *TM1 Rules* documentation.

MDX views as a TI data source

Previously, a view could be created and saved by using MDX expressions. In this release, the MDX-based view can now be used as a TurboIntegrator data source.

Support for multiple cores on Microsoft Windows

TM1 server multi-threaded queries are no longer limited to 64 CPU cores. Microsoft Windows Platforms with more than 64 processors can take full advantage of this feature and its performance benefits.

Deprecated IPAddress tm1s.cfg parameter deprecated

The **IPAddress** `tm1s.cfg` parameter is obsolete and has been replaced with **IPAddressV4** and **IPAddressV6**. You can use these parameters to specify whether TM1 client requests are routed through the public or private adapter. The default behavior uses the public IP adapter, which requires modifications to firewall profiles.

New TurboIntegrator Transactional rollback functions

Four new TurboIntegrator functions have been added to assist with managing chores: **ChoreRollback**, **ProcessExitByChoreRollback**, **ProcessRollback**, and **ProcessExitByProcessRollback**. For more information, see the *TM1 Reference* documentation.

New TM1 REST APIs

Types, actions, and functions have been added or changed in the TM1 REST API metadata for IBM TM1 Server version 11.0.0.0. These include support for TurboIntegrator debug contexts.

For more information, see the Metadata in *TM1 REST API* documentation.

TurboIntegrator Debugger tool

You can access a TurboIntegrator Debugger tool on IBM developerWorks. This tool provides a user interface where you can set breakpoints and step through TurboIntegrator processes to identify possible issues or errors in your TurboIntegrator scripts. The TurboIntegrator Debugger, which is built on the new TurboIntegrator process debugging capabilities of the TM1 REST API, is in preview release and is not a supported component of IBM Planning Analytics Local version 2.0.0.

TM1 Web updates

IBM Planning Analytics Local version 2.0.0 includes all features that were introduced in TM1 Web 10.3.0, which was introduced for IBM Planning Analytics on Cloud.

The following features were introduced in IBM Planning Analytics Local version 2.0.0. For more information about these features, see the *TM1 Web* documentation in IBM Knowledge Center.

Hierarchies in TM1 Web

TM1 websheets can display more than one hierarchy in a dimension.

Note: Hierarchies can be viewed in TM1 Web, however, you cannot create hierarchies in TM1 Web. You must create hierarchies in Planning Analytics Workspace. For more information, see Planning Analytics Workspace in IBM Knowledge Center.

You can open hierarchies by using Quick Reports in IBM Planning Analytics for Microsoft Excel.

Quick Reports (formerly Flex Views) are published as live websheets. A live websheet maintains its connection to the TM1 server. If the data on the server changes, the live websheet reflects the change.

For more information about Quick Reports, see Planning Analytics for Microsoft Excel in IBM Knowledge Center.

Note: Relative proportional spreading and relative percent adjustments are not supported in Quick Reports that are opened in TM1 Web.

TM1 Web API enhancements

The TM1 Web API has the following new functionality:

- As of IBM Planning Analytics Local version 2.0.0, it is no longer mandatory to use the version of Dojo that is provided with TM1 Web to load the TM1 Web JavaScript Library modules. TM1 Web now supports using the AMD loader from Dojo version 1.7 and later to load the JavaScript Library modules.
- The HTML <head> and <body> tags that are required to use the JavaScript library are simpler.
- The `tm1web/api/session/session` module in the JavaScript library allows users to log in, retrieve session information based on a session token, and destroy a session based on a session token.
- The `tm1web/api/session/LoginDialog` module in the JavaScript library allows users to display or destroy a login dialog box.
- The `tm1web/api/Workbook` class in the JavaScript library exposes execution information after an action button is executed. The `onActionButtonExecution` method API allows users to replace an existing Workbook or create a new one when an action button is clicked.
- The `tm1web/api/Workbook` class and the `tm1web/api/CubeViewer` class include `subset` and `subsets` set properties and methods.

For more information, see *TM1 Web API* in the *TM1 for Developers* documentation.

Relational websheets

TM1 Web now allows you to view relational data on the same websheet as TM1 data. By defining a relational query in an Excel file and then uploading the file to TM1 Web, you can view the results on the same websheet or tab. This allows you to report on OLAP and relational data together.

For more information, see Working with relational data in websheets (https://www.ibm.com/support/knowledgecenter/SSD29G_2.0.0/com.ibm.swg.ba.cognos.tm1_ug.2.0.0.doc/c_relational_data_websheets.html) in IBM Knowledge Center.

TM1 Web Accessibility

TM1 Web includes accessibility features to help you perform tasks by using only a keyboard. These features include keyboard navigation and keyboard access to menus and dialog boxes that are related to websheets.

- Context menus are accessed by using Shift+F10. The Up Arrow and Down Arrow keys select items from within the context menu.
- To expand or collapse a row in a websheet, you can use the Space bar.
- To access the set selector, you can use the Space bar. The Tab key moves you between the search, the Arrow keys, and the tree. Up Arrow and Down Arrow keys move you between items in the tree. The Enter key selects the focused item in the tree.

Note: When you access the set selector, if you press Esc to exit after you make changes, you lose your focus on the cell that you originally launched from. You are focused on the main page.

Support for Excel shapes in workbooks

Excel shapes, including basic shapes, arrows, banners, equation shapes, and lines, can be added to workbooks in TM1 Web. To see the list of supported and unsupported Excel shapes, see the List of Microsoft Excel-supported functionality by menu in IBM TM1 Web version 10.2.2 and later.

Single sign-on for TM1 Web

You can configure single sign-on for IBM TM1 Web by using Integrated Login (Kerberos) and the application server's security layer. Single sign-on enables HTTP users to log in only once to TM1 Web.

For more information, see *Configuring Integrated Login for TM1 Web using Kerberos and SPNEGO* in the *Planning Analytics Installation and Configuration* documentation.

TM1 worksheet functions

The following worksheet functions are now available:

TM1ELLIST
 Returns a set of element values from a TM1 model by using a single formula.

TM1GLOBALSANDBOX
 Returns the current global active sandbox that was selected from the toolbar.

TM1INFO
 Returns information about the current TM1 version and client.

TM1PRIMARYDB
 Returns the primary TM1 server name that the user is authenticated through, even if the user is implicitly logged in to multiple TM1 servers.

TM1 Performance Modeler updates

IBM Planning Analytics Local version 2.0.0 also includes all features that were introduced in Cognos TM1 Performance Modeler version 10.3.0, which was introduced for IBM Planning Analytics on Cloud.

The following features were introduced in IBM Planning Analytics Local version 2.0.0. For more information about these features, see the *IBM Cognos TM1 Performance Modeler* documentation.

Regenerate rules for the whole model

You can now regenerate rules for the whole model instead of having to regenerate rules one cube at a time. In the Model Design pane, right-click the server name and select **Generate Rules**.

Quick access to control cubes

You can quickly create a view for a control cube by double-clicking the control cube. Previously you right-clicked the control cube and selected **New view**. The view is named the same as the control cube, without the curly bracket.

Filter and search for objects in Model Design view

You can find and filter on objects that match specific criteria in the Model Design view. For example, you can find all objects that include `sales`, including rules, cubes, processes, subsets, links, views, dimensions, and chores. You can also do a selective search where you specify which objects that you want to search on. For example, you might want to list all rules that contain the word `tent`.

Search for elements in a dimension

When you edit large dimensions, navigation can be difficult. To make it easier, you can search through existing elements of the dimension that is open in the dimension editor.

Delete and rename imported terms in a cube calculation

You can now delete and rename terms that are used in a cube calculation. The cube calculation dynamically updates to match the term and checks to ensure that the calculation is valid.

Cognos Insight updates

⌂ IBM Cognos Insight is now installed as a component of IBM Planning Analytics Local. IBM Planning Analytics Local version 2.0.0 includes all features that were introduced in fix packs for Cognos Insight version 10.2.2, and also Cognos Insight version 10.3.0, which was introduced for IBM Planning Analytics on Cloud.

Note: For more information about new features in previous versions of Cognos Insight, see New features in the *Cognos Insight* documentation in IBM Knowledge Center.

The following features were introduced in IBM Planning Analytics Local version 2.0.0. For more information, see the *Cognos Insight* documentation in IBM Knowledge Center.

Row and column headers are highlighted when a cell is selected

When a cell is selected in a grid, the corresponding row and column headers are highlighted as they are in Excel. The color of the highlighting matches the color of the cell.

Search for objects in the content pane

You can search for objects in the content pane. You can type characters to filter on when you are unsure of an exact object name, or if you want to find objects that match specific criteria. The search finds all objects in the tree that match the criteria.

Search for members in the dimension editor

When you edit large dimensions, navigation can be difficult. To make it easier, you can search through existing elements of the dimension that is open in the dimension editor.

New right-click menu options for cells

Two new options available on the right-click menu for a cell:

- Export to
- Freeze panes

Previously, these options were available only from the widget toolbar.

Chapter 2. What's new in Planning Analytics Workspace

Find out what's new or changed in the most recent release of IBM Planning Analytics Workspace.The new features described here always reflect the full capabilities of Planning Analytics Workspace on cloud.

If you use Planning Analytics Workspace Local, some features might not be available. For more information, see Applicability of Planning Analytics Workspace documentation (https://www.ibm.com/support/knowledgecenter/SSD29G_2.0.0/com.ibm.swg.ba.cognos.tm1_prism_gs.2.0.0.doc/c_prism_applicability_documentation.html).

2.0.57 - What's new, October 2, 2020

Planning Analytics Workspace 2.0.57 SC is a local-only release that includes significant changes in the look and feel of Planning Analytics Workspace, as well as important new functionality.

Updates to each version of Planning Analytics Workspace are cumulative. To see what was new in previous releases, see Chapter 2, "What's new in Planning Analytics Workspace," on page 37.

Learn from the experts

There are a lot of big changes in Planning Analytics Workspace 2.0.57. From a completely revised interface to significant new features like forecasting, the best place to learn about these changes is from the detailed blogs created by our subject matter experts.

Click here to visit the central blog about Planning Analytics Workspace enhancements and new capabilities. From this central blog, you'll find links to other blog posts and additional information from a range of Planning Analytics Workspace pros.

Improved look and feel

The Planning Analytics Workspace user interface has been updated to make it easier to accomplish tasks, provide a more consistent experience with other IBM products, and to simplify the transition between Planning Analytics Workspace and Cognos Analytics.

As part of the interface update, new icons adhering to the Carbon Design principles have been introduced throughout Planning Analytics Workspace. For more information about Carbon Design principles, see https://www.carbondesignsystem.com.

Note: Because the interface that exists in versions of Planning Analytics Workspace prior to 2.0.57 SC is still supported, it is necessary to differentiate between the new interface and the 'old' interface in the documentation. When there is a divergence of procedures or capabilities between the current (new) interface and the old, the documentation describes the current interface as Planning Analytics Workspace and describes the interface in 2.0.55 SC and prior versions as Planning Analytics Workspace Classic.

A new **Home** page for Planning Analytics Workspace is the first significant changes you'll notice. On the new **Home** page, you can quickly access the area you want to work in, customized for your role within Planning Analytics Workspace. You can also quickly open your applications and plans, as well as your recent and favorite items.
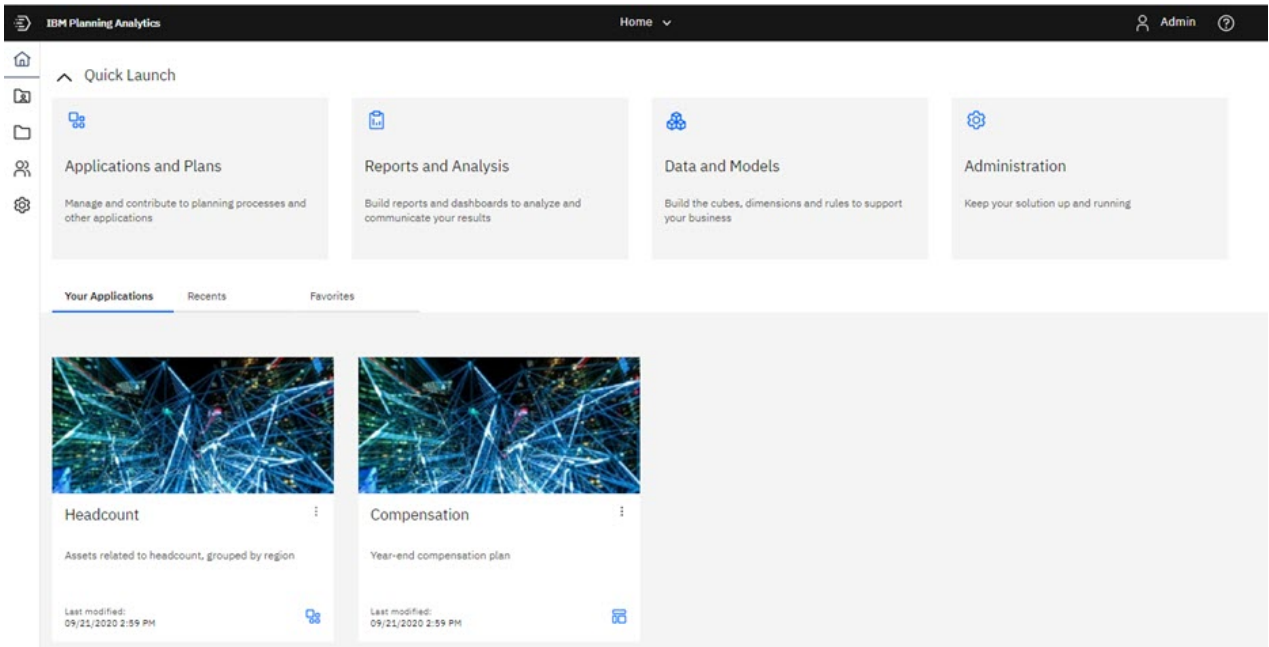
The prominent Quick Launch tiles that provide immediate access to **Applications and Plans**, **Reports and Analysis**, **Data and Models**, and **Administration** are dynamically displayed depending upon your role when you log in to Planning Analytics Workspace. Only the tiles that you can use based on your role appear. For example, an administrator sees all of the Quick Launch tiles, while an analyst sees only **Applications and Plans** and **Reports and Analysis**. You can click the Quick Launch show/hide button

 to show or hide the Quick Launch tiles. When you hide the tiles, you can see more of your applications, recent items, or favorite items.

You'll also notice improvements in other familiar places. For example, in books the user interface is simplified, new icons are present, and the toolbar has been decoupled from the view.
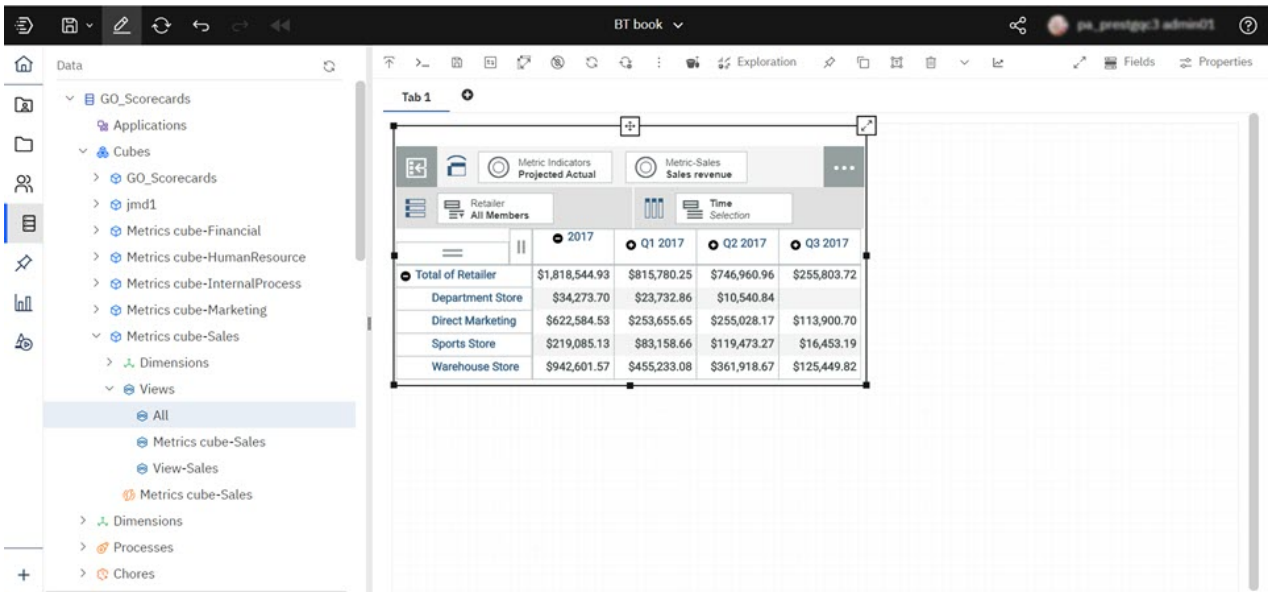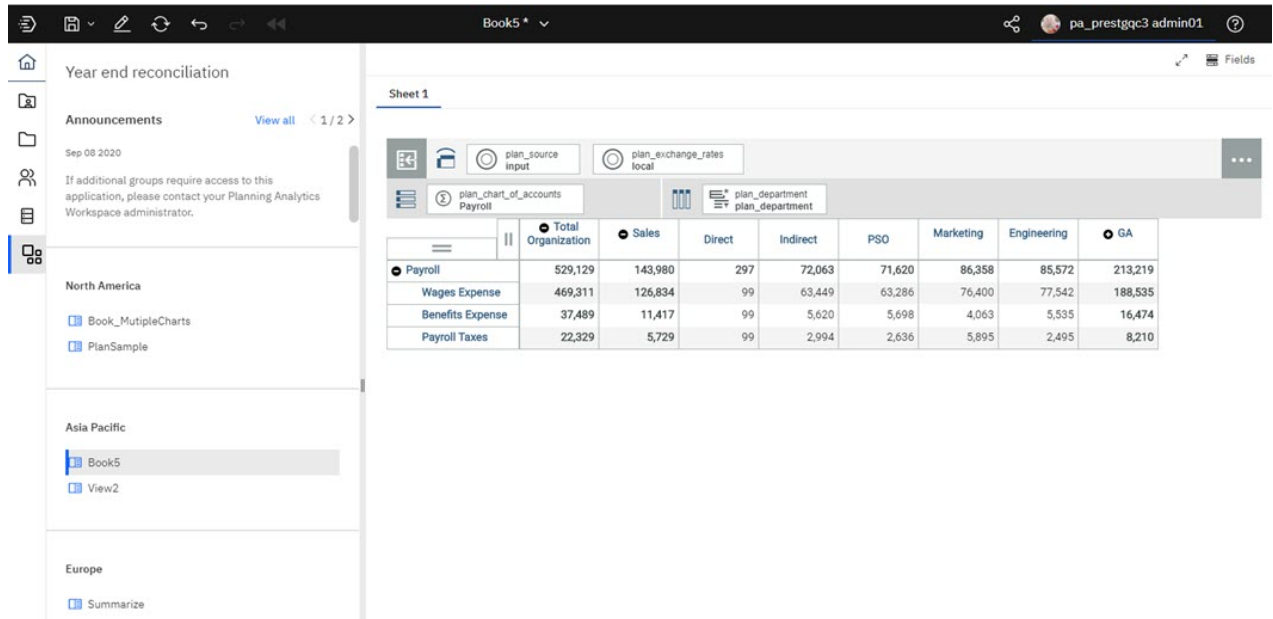
Use of the new interface is described in the relevant topics throughout the Planning Analytics Workspace help and documentation.

Applications and Plans

Applications and plans let you organize logically related Planning Analytics Workspace assets such as books, view, and websheets in containers.

An application contains related assets that are grouped in sections. These sections might reflect the structure of your organization, planning and budgeting requirements, or any other relevant grouping of assets. While an application contains logically related assets, there are no implied or required actions associated with the assets or sections in an application. An individual asset can belong to more than one application.

A plan contains assets that are grouped in steps. These steps can represent discrete tasks or contributions that must be completed in a planning or budgeting process. While steps can be ordered in a plan, there is no requirement for contributors to complete the steps sequentially; they can be completed in any order. Steps can also be assigned a due date for contributions. An administrator can require that steps be explicitly submitted for approval, and an administrator can reject and reset a submission.

For complete details on creating, managing, and using applications and plans, see Applications and plans.

Administration page changes

The Planning Analytics Workspace **Administration** page has been reorganized to provide greater insight into your environment and to simplify access to administrative tasks.

The Administration page now includes several task-specific tiles. The Databases tile provide quick insight into the health of your databases. The Users and Groups tile lets you know how many users are assigned to each role and the number of groups that are defined.

You can click any tile to perform the administrative tasks associated with the tile.

The tiles available on the **Administration** page vary depending on whether you are running Planning Analytics Workspace Local or on Cloud. The Agents tile is available only on Local, while the Secure Gateway tile is available only on Cloud.

For complete details on using the new Administration page, see Administer Planning Analytics Workspace.

Forecasting

You can now use forecasting in IBM Planning Analytics Workspace to discover and model trend, seasonality, and time dependence in data.

You can forecast in Planning Analytics Workspace by using automated tools that model time-dependent data. Automated model selection and tuning makes forecasting easy to use, even if you are not familiar with time series modeling.

Forecasts and their confidence bounds are displayed in visualizations as a continuation of historic data. You can also view the statistical details for generated models if you want to see the technical background.

The following example shows forecasting values and confidence bounds in a line visualization.
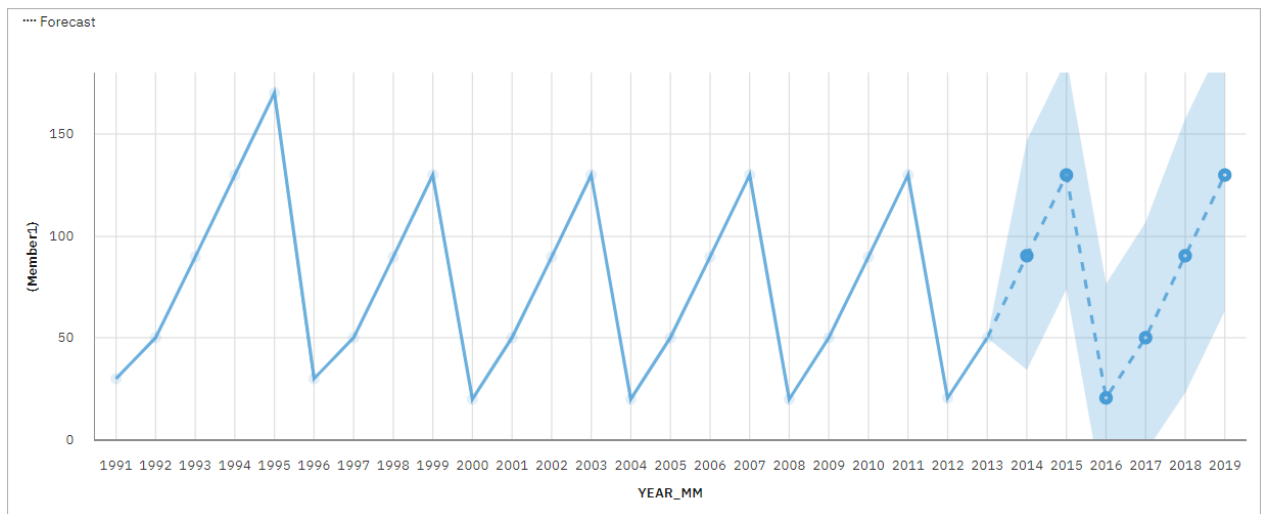
Specifying time series in forecasts often requires data manipulation. Planning Analytics Workspace supports a wide range of time series without the need for manipulation, ranging from standard date and time types, to nested periodic and cyclical time fields. When data is recognized as a time series, data preparation is automated. Appropriate trend and seasonal periods are detected, and models are selected from a set of nine different model types.

You can forecast in line, bar, and column visualizations. Forecasting allows analysis of hundreds of time series per visualization. Forecasts and confidence bounds are computed for each time series, and displayed in the visualization as extensions of the current data. You can inspect each time series separately, and tailor the forecast and results to your own data and requirements.

If you are familiar with forecasting models, you can view the selected model type, estimated model parameters, standard accuracy measures, and processing summary information.

For complete details on using forecasting in Planning Analytics Workspace, including a complete tutorial, see Forecasting.

Book and visualization improvements

The properties available to manage all aspects of your books have been significantly expanded. The visualization types available to use in Planning Analytics Workspace have been updated to provide more and improved visualizations.

Books

All objects in a book, such as explorations, visualizations, buttons, images, and text, can now be precisely managed using an expanded selection of properties.

When you select an object in a book and then click the **Properties** tab, you'll see an expanded list of properties that you can set to manage the object in your book. The properties available vary by object type, and the properties you're familiar with are still available, but new properties allow you to precisely manage the size, position, alignment, and appearance of all objects in a book.

Properties

General

∧ Appearance

Fill color   #F5CE22

Border color

Opacity

0%   100%

∧ Layout

Align

Position

X   Y

0 %   21.63 %

Size

Width   Height

31.25 %   13.89 %

Rotate

Angle   0 °
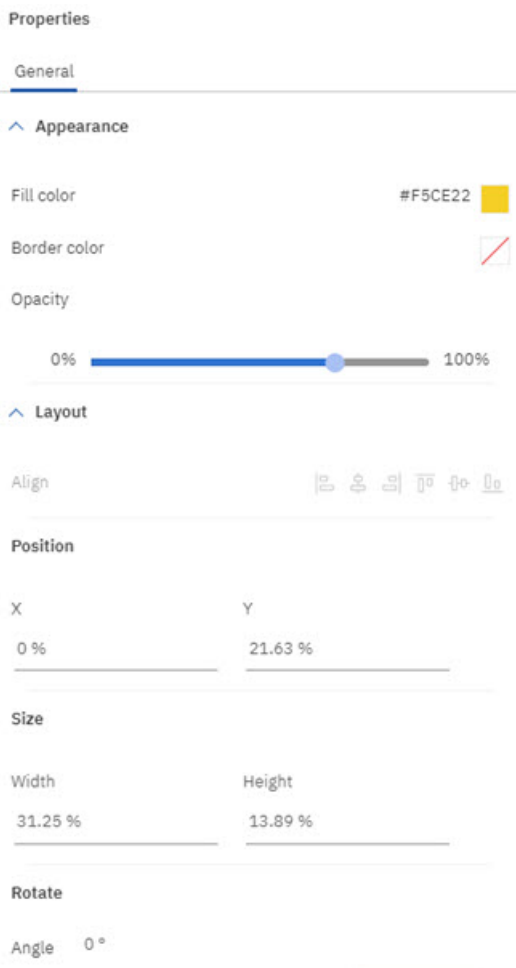
You can also set Dashboard properties to manage the general appearance of your book.
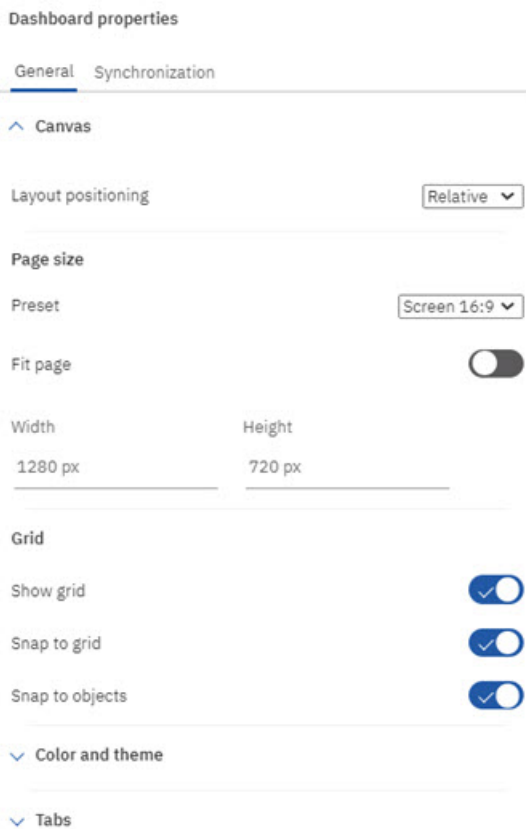
Details on using these properties are provided in the individual topics that describe how to build and manage books. For more information, see Work in books and views.

Visualizations

The list of visualizations available in Planning Analytics Workspace has been expanded to include twenty five options.
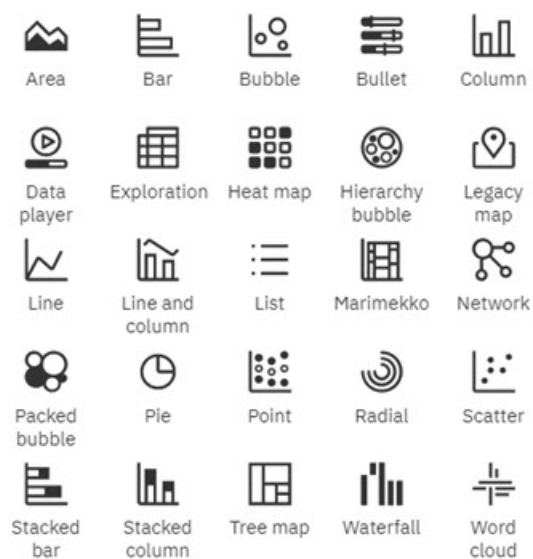
Explorations can be changed to visualizations in the same way you've always done it, but you can also place an empty visualization onto a book and use drop zones to build the visualization.
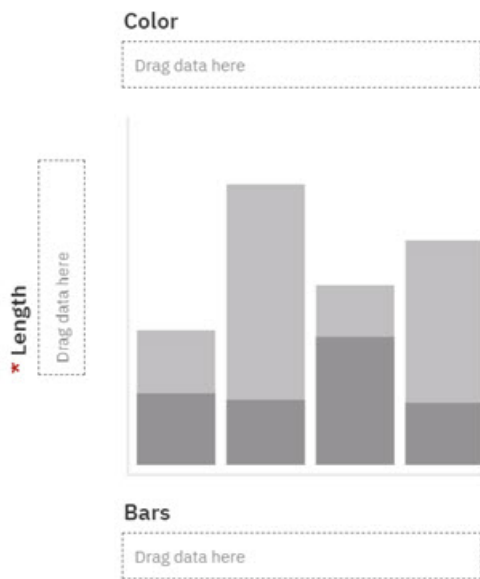
You can drag and drop dimensions from the Data tree onto the **Drag data here** drop zones to build a visualization from scratch. Once the visualization is complete, you can manage the visualization using the Fields tab on a book. You can drag and drop dimensions to different fields to change the structure of your visualization or you can click a field to select a new member to use in your visualization.

For further details, see Visualizations.

Ask for help in the cognitive Learn pane

If you want to learn more about how to use Planning Analytics Workspace, click the Help icon ⑦ and ask a question. The cognitive help tailors your help experience based on where you are working in the product

and finds only the answers that are relevant to your user role. You can find the latest videos, blogs, and documentation.

Use these features on the Learn pane to find answers and be more productive!
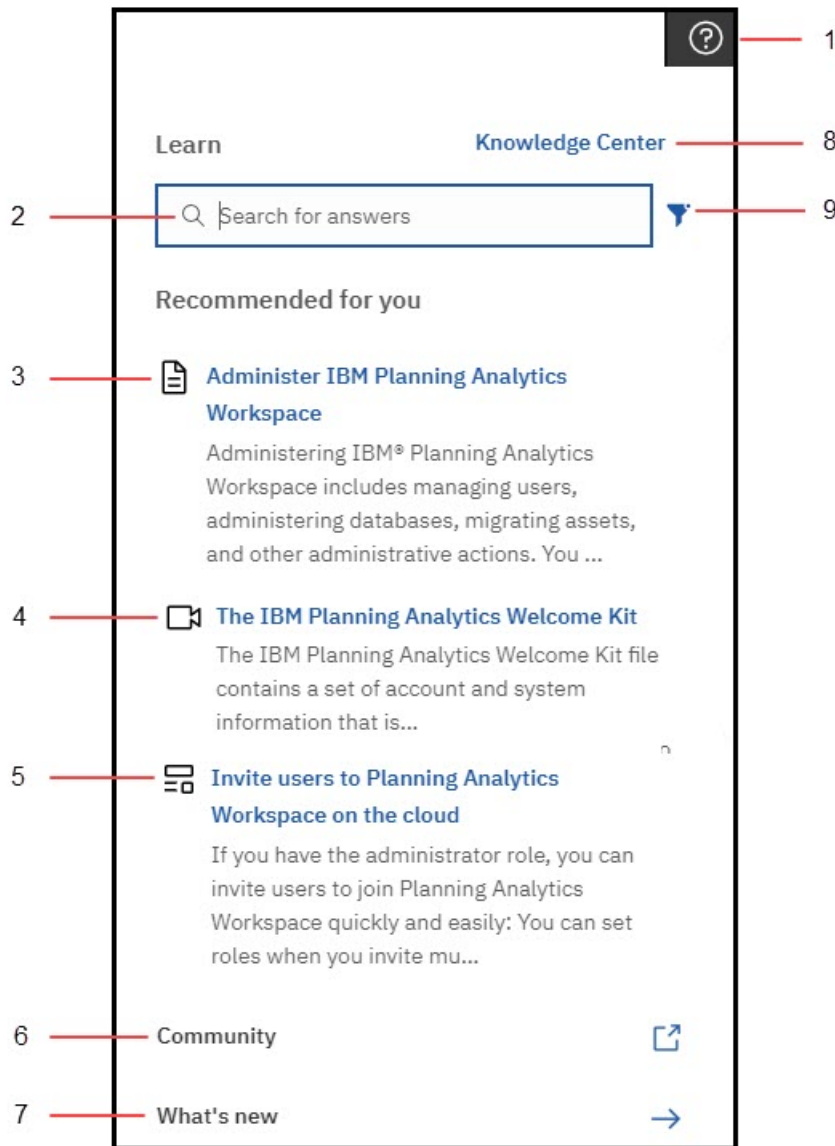
1

Click the Help icon to open the Learn pane (it remembers where you were the last time you opened it). Click anywhere to close it. The Learn pane recommends content that relates to your task and finds similar content that you might also like. And, it is always learning! When you search and find answers, you are training the Learn pane and those answers influence future recommendations.

2

Type a question in the Search box. You can search in any supported language in the Learn pane and you see translated documentation in your search results. You also see blogs and videos that match your search, however, blogs and videos aren't translated.

3

Read the formal product documentation, sourced from IBM Knowledge Center.

4

Watch a video! Sometimes the best way to learn is to see it in action.

5

Read a post in the Planning Analytics Community Blog The community blog posts are written by experts who use Planning Analytics Workspace and share their tips and tricks.

6

Go to the Planning Analytics Community. In the community, you can find the latest articles, blog posts, and events. You can also start and contribute to discussions about Planning Analytics.

7

Click **What's New** to find out what is new in the latest release of Planning Analytics Workspace.

8

Visit the IBM Knowledge Center for all IBM Planning Analytics documentation In the IBM Knowledge Center, you can read all documentation, including related products.

9

Filter your search results to show only your preferred content type: videos, blogs, or documentation.

Considerations for upgrading to Planning Analytics Workspace 2.0.57 SC

Users should be aware of the following considerations before upgrading to the new experience Planning Analytics Workspace 2.0.57 SC.

The upgrade to Planning Analytics Workspace 2.0.57 SC is a permanent upgrade. There is no way to revert to a prior version of Planning Analytics Workspace Classic.

Features not supported in initial 2.0.57 SC release

These features are not supported in the initial new experience Planning Analytics Workspace 2.0.57 SC release. Support for these features may be reintroduced in subsequent releases.

- Metrics charts/Scorecarding (Impact Diagram, Strategy Map, Custom Diagram) are not supported.
- Tree map visualizations upgrade successfully *except* when more than one dimension is present on an axis, in which case the tree map is converted to an Exploration during book upgrade.
- The Reports and Analysis landing page does not display individual tiles for books, views, or websheets. Rather, the Reports and Analysis landing page displays a searchable and sortable list of all assets.
- Mobile devices are not fully supported in the initial new experience release, as some gestures are not yet implemented.
- An Administrator cannot set up a global color palette.
- When you click **Share** > **Export**, you cannot share a book or view as an image or PowerPoint document. You can, however, export as PDF with enhanced print options.
- The Intent bar (sometimes called the NLP bar) is not available in this release.

Differences in behavior between Planning Analytics Workspace 2.0.57 SC and Planning Analytics Workspace Classic

- Chats are deprecated, as previously announced in this deprecation notice.
- Bookmarks and history are no longer available on the Content tree/Data tree. Instead, you can use the Recents or Favorites tabs on the Planning Analytics Workspace Home page to open assets that you have recently viewed or favorited.
- Collections has been changed to Pins. You can pin a view or websheet from a book. You can access pinned items from the Pin ⚲ button while in Edit mode.

2.0.55 - What's new, August 11, 2020

This version of Planning Analytics Workspace on cloud includes fixes only.

Updates to each version of Planning Analytics Workspace are cumulative. To see what was new in the previous release, see .

2.0.54 - What's new, July 15, 2020

See what's new in version 2.0.54 of IBM Planning Analytics Workspace in the following topics.

Note: Planning Analytics Workspace on cloud is available from July 15, 2020. Planning Analytics Workspace local is available starting from July 12, 2020.

Set your cookie preferences

IBM begins to capture metrics of your usage of IBM Planning Analytics Workspace on cloud to improve the product, and its capabilities, with the release of 2.0.54.

If you are based in the European Union, you will see a prompt the first time that you log on after Planning Analytics Workspace on cloud is upgraded. Users are determined to be in the European Union based on their IP address by using geolocation services. Your acceptance of cookie preferences is stored as a cookie in your browser, so if you clear your cookies or change browser, you see the prompt again. This is standard behavior, and enables you to control the level of cookies that you allow to be stored.

When you use this site, IBM uses cookies and other tracking technologies ("Cookies").

In addition to Cookies which are necessary for the proper functioning of its website, subject to your preferences, IBM and its authorized partners may also use Cookies to analyze and optimize the website functionality and to deliver content tailored to your interests.

Set your preferences using the buttons below:

- **Accept Default** will keep your preferences set to "Personalization" which also includes "Functional" Cookies and enables IBM and its authorized partners to collect statistics and to collect and use Cookie data to provide you a personalized web experience and more relevant ads on third party websites.
- **Proceed with Required Cookies Only** will set your Cookie preferences to "Required" and will prevent IBM and its partners from collecting and using Cookie data to collect statistics and to provide you a personalized web experience and more relevant ads on third party websites.
- **Cookie Preferences** will provide further information and allow you to customize your Cookie settings.

To provide a smooth navigation, your Cookie preferences will be shared across the IBM web domains listed here where the purpose and use of the Cookies will remain the same.

Accept Default

Proceed with Required Cookies Only

View Cookie Preferences

Privacy Policy | English ⌄

If you are not based in the European Union, you are not prompted for cookies but you can select the level of cookies by clicking ⬜ and then selecting **Cookie Preferences**. You can see more information about the levels of cookies by clicking **View Cookie Preferences** in the **Cookies** window.

To learn more, see:

Cookie preferences for Planning Analytics on cloud (https://www.ibm.com/support/knowledgecenter/ SSD29G_2.0.0/com.ibm.swg.ba.cognos.tm1_prism_gs.2.0.0.doc/c_paw_cookies.html)

Save a view to the TM1 database

You can save a view from Planning Analytics Workspace to the TM1 database.

When a view is saved to the database, it can be used by TM1 processes as a data source from which you can extract data and create or update objects or data.

A view saved to the TM1 database is also available to any Planning Analytics client that connects to the database.

To save a view to the TM1 database, select **Save to Server** from the shortcut bar.
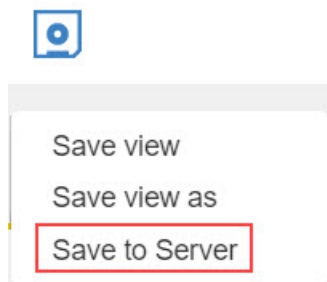
To learn more, see:

Save a view (https://www.ibm.com/support/knowledgecenter/SSD29G_2.0.0/
com.ibm.swg.ba.cognos.tm1_prism_gs.2.0.0.doc/t_paw_save_view.html).

Format numbers for an entire view

You can apply number formatting for an entire view from the shortcut bar.

To apply formatting, click the **Format** icon on the shortcut bar and select the desired format.

To learn more, see:

Change the format of data in a view (https://www.ibm.com/support/knowledgecenter/SSD29G_2.0.0/
com.ibm.swg.ba.cognos.tm1_prism_gs.2.0.0.doc/t_paw_format_data.html).

Suppress zeros for an entire view

You can suppress zeros for an entire view from the shortcut bar.

To suppress all rows and columns that contain only zeros, click on the shortcut bar, then select **All**.
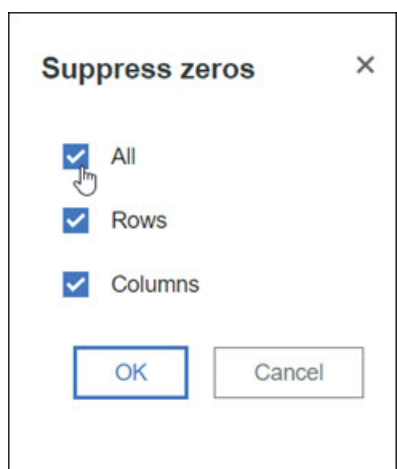
To learn more, see:

Suppress zeros (https://www.ibm.com/support/knowledgecenter/SSD29G_2.0.0/
com.ibm.swg.ba.cognos.tm1_prism_gs.2.0.0.doc/t_prism_suppress.html).

2.0.53 - What's new, May 21, 2020

Planning Analytics Workspace on cloud was refreshed on May 21, 2020 to include fixes only.

⌂IBM Planning Analytics Workspace Distributed for Planning Analytics Workspace Local now supports Red Hat OpenShift deployment. For details, see Install on OpenShift.

Updates to each version of Planning Analytics Workspace are cumulative. For more information on what was new in the previous release, see .

2.0.52 - What's new, April 22, 2020

See what's new in version 2.0.52 of IBM Planning Analytics Workspace in the following topics.

Usability improvements in the set editor

Quickly and easily define, edit, and re-order sets with new improvements to work with large dimensions.

This video demonstrates the new features in the set editor.

https://youtu.be/-69uMHYE7mA

Focus on one area at a time

You can hide the pane that you are not currently working in to enable you to focus on one area at a time.
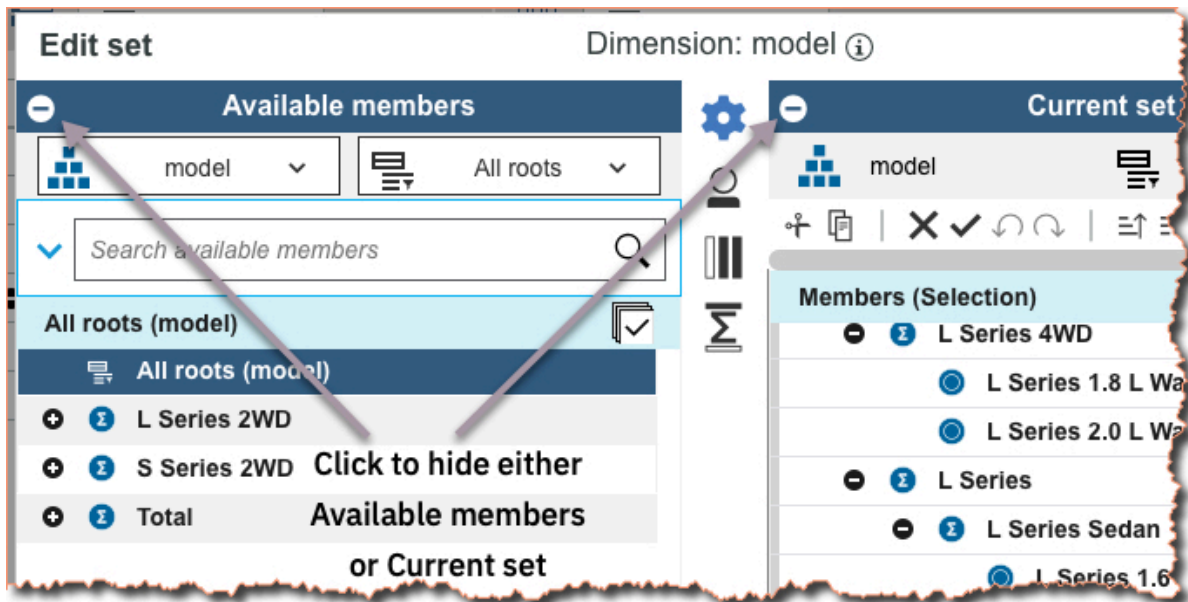
Maximize the set editor

Quickly maximize the set editor by clicking the **Max** icon ⤢.

If you added the set editor from the tree, you can resize the set editor by dragging the grab handles.

Drag and drop

Drag members into the **Current set** from **Available members**. Dragging uses the default insert settings

 . If there are a lot of members in the **Current set**, you can scroll down the pane while dragging the selection into the correct position.

Easy access to functions

The new toolbar makes it easy to edit the members in the current set, with the most frequently used functions available.

Configure default view settings for the Available members and Current set panes

For the **Available members** pane, you can choose to display **Default set**, **All roots**, **All members**, or **All leaves** by default. For the **Current set** pane, you can choose whether to display the members as a **Hierarchy**, or as a **Definition** (MDX).

Click to access the **Settings** menu.

To learn more, see:

Create and edit sets (https://www.ibm.com/support/knowledgecenter/SSD29G_2.0.0/
com.ibm.swg.ba.cognos.tm1_prism_gs.2.0.0.doc/t_paw_create_sets.html)

Deploy Planning Analytics Workspace Distributed on Kubernetes for high availability (local only)

⌂ IBM Planning Analytics Workspace Distributed is an upgrade for Planning Analytics Workspace Local that can be deployed in a container orchestration engine for high availability, fail-over, scalability, and fault tolerance.
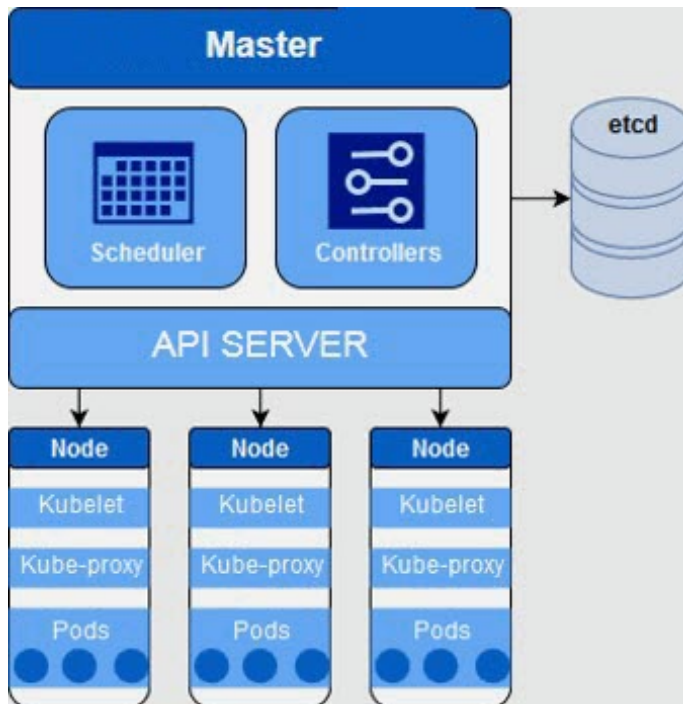
Note: Planning Analytics Workspace Distributed on Kubernetes is currently supported on Red Hat Enterprise Linux (RHEL) only.

What's the difference between Planning Analytics Workspace Distributed and Planning Analytics Workspace Local single machine installation?

- Planning Analytics Workspace Distributed has the same set of microservices and capabilities as Planning Analytics Workspace Local.
- Planning Analytics Workspace Distributed has multiple instances of stateless services for availability.
- Databases are configured for fault tolerance in Planning Analytics Workspace Distributed.
- Planning Analytics Workspace Distributed has no **Status** tab in the Planning Analytics Workspace administration tool.

Migration to Planning Analytics Workspace Distributed by using Planning Analytics Workspace Local backup is a seamless upgrade.

1. Back up Planning Analytics Workspace Local.
2. Then, follow the instructions to restore on Planning Analytics Workspace Distributed.

To learn more, see Installing Planning Analytics Workspace Distributed (https://www.ibm.com/support/knowledgecenter/SSD29G_2.0.0/com.ibm.swg.ba.cognos.tm1_inst.2.0.0.doc/c_paw_distributed_install_overview.html).

Download a log file that records changes to the availability status of your database

Use the AgentActions.log file to review the user and time associated with these database actions: start, stop, restart, and end process.

Every time a user performs an action that affects the availability of your Planning Analytics database, a record is written to the AgentActions.log file. This example shows instances of all the action types that are recorded in the log file.

```
2020-01-15 19:31 : User [admin01] performed [start] on the server.
2020-02-03 09:57 : User [admin01] performed [restart] on the server.
2020-03-05 20:10 : User [nolan] performed [stop] on the server.
2020-03-05 20:12 : User [nolan] performed [start] on the server.
2020-03-12 19:31 : User [admin01] performed [end process] on the server.
```

Note: The AgentActions.log file records only actions that are performed through the Planning Analytics Administration user interface. Crashes or actions performed through any means other than the user interface are not recorded.

To download the AgentActions.log file log, click ••• on a database tile and click **Download logs**. Then, select the AgentActions.log file and click **Download**.

Download logs

Select from available log files to download

Search 🔍

☐ All versions ▲	Date	Size
☑ AgentActions.log	Mar 3, 2020 11:04:35 AM	0.2 KB
☐ tm1s.log (locked)	Mar 3, 2020 2:24:52 PM	66896.7 KB
☐ tm1server.log	Mar 3, 2020 11:04:29 AM	13166.6 KB
☐ tm1event.log	Mar 3, 2020 11:04:29 AM	14.0 KB
☐ TM1ProcessError_20200210192546_178148⋯	Feb 10, 2020 7:25:46 PM	0.3 KB

Note: 🏠 To enable the AgentActions.log on Planning Analytics Local, you must add the following parameter to the `bootstrap.properties` file for your Planning Analytics Administration agent:

`LOG_ACTIONS=TRUE`

Restart the Planning Analytics Administration agent after you add the parameter.

To learn more about the Planning Analytics Administration agent and the `bootstrap.properties` file, see Install and configure the Planning Analytics Administration agent.

To learn more about downloading log files, see Download database log files (https://www.ibm.com/support/knowledgecenter/SSD29G_2.0.0/com.ibm.swg.ba.cognos.tm1_prism_gs.2.0.0.doc/paw_download_database_logs.html).

Quick access to Save as and Reload book actions

Now you can access **Save as** from the **Save** menu, and **Reload book** from the **Refresh** menu.
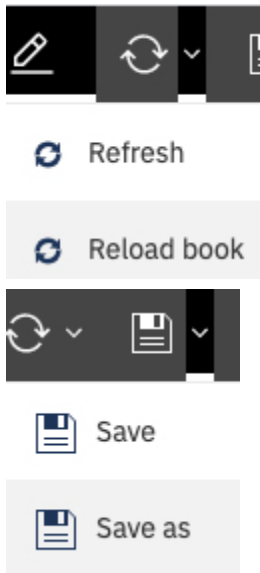
Previously, you accessed **Save as** and **Reload book** from .

To learn more, see:

Refresh data (https://www.ibm.com/support/knowledgecenter/SSD29G_2.0.0/
com.ibm.swg.ba.cognos.tm1_prism_gs.2.0.0.doc/c_paw_refreshing_data.html)

New book icons

We have made some changes to the edit mode and personal menu icons. You will also see new home page and maximize screen icons.

	Turn edit mode on or off.
	Go to the home page.
	Maximize the screen.
	Access the personal menu.

2.0.50, 2.0.51

Planning Analytics Workspace version 2.0.50, 2.0.51, and 2.0.52, have been combined so that the release of Planning Analytics Workspace 2.0.52 aligns with the IBM Planning Analytics for Microsoft Excel release.

2.0.49 - What's new, February 19, 2020

See what's new in version 2.0.49 of IBM Planning Analytics Workspace in the following topics.

Hierarchies are now sorted alphabetically

Hierarchies are now sorted alphabetically in the content tree, and in the set editor, so that the order of hierarchies is predictable.

The sort order for hierarchies is determined on the following basis:

- The default hierarchy (typically, the hierarchy with the same name as the dimension) appears first.
- The all-leaves hierarchy (typically called Leaves) appears last.
- All other hierarchies are sorted alphabetically by their caption.

To learn more, see:

Hierarchies (https://www.ibm.com/support/knowledgecenter/SSD29G_2.0.0/
com.ibm.swg.ba.cognos.tm1_prism_gs.2.0.0.doc/c_paw_modeling_hierarchies.html)

Enable security access for processes

By default, security access is disabled when you create a new process. This means the process cannot modify security data. If you want to allow a process to modify security, you must enable security access for that process.

Note that you must have an Administrator or Modeler role in Planning Analytics Workspace **and** be a member of either the ADMIN or SecurityAdmin group in TM1 to enable security access.

To enable security access:

On the **Script** tab of a process, click the **Options** button, then click **Enable security access**.
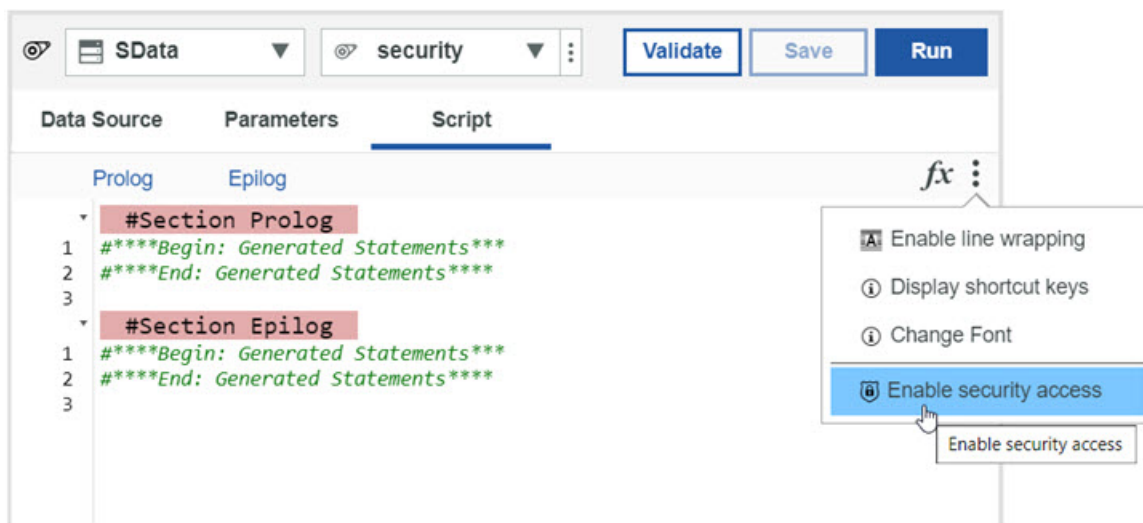
To learn more, see Processes (https://www.ibm.com/support/knowledgecenter/SSD29G_2.0.0/
com.ibm.swg.ba.cognos.tm1_prism_gs.2.0.0.doc/c_paw_processes.html).

2.0.48 - What's new, January 14, 2020

See what's new in version 2.0.48 of IBM Planning Analytics Workspace in the following topics.

Abbreviate numbers in views to thousands or millions

You can abbreviate numbers quickly in a view to thousands or millions to make your data easier to read.

To learn more, see:

Change the format of data in a view (https://www.ibm.com/support/knowledgecenter/SSD29G_2.0.0/
com.ibm.swg.ba.cognos.tm1_prism_gs.2.0.0.doc/t_paw_format_data.html)

Identify broken button links when you migrate a snapshot

When you migrate a book with a button, but do not migrate the target of the button, the button will be broken after migration. You can now view a list of migrated assets that result in broken buttons and take action to restore the buttons in the migration target environment.

When you migrate a snapshot that results in broken buttons, the **Snapshot logs** tab on the **Manage snapshots** page alerts you to this condition. A warning icon next to the **Migrated by** log action indicates the presence of broken buttons in the migrated snapshot. If you hover over the log action, an informational message confirms the issue.

When there are broken buttons in a migrated snapshot, the **Migrated by** log action becomes a link. Click the link to view a log report showing assets that contain broken buttons and the missing button targets.

Books with broken buttons

Asset path	Button target
/personal/24RetailNew/24Retail books/Application Portal	/personal/24Retail books/Products
/personal/24RetailNew/24Retail books/Application Portal	/personal/24Retail books/Capital
/personal/24RetailNew/24Retail books/Application Portal	/personal/24Retail books/Department P&L
/personal/24RetailNew/24Retail books/Application Portal	/personal/24Retail books/Dashboards
/personal/24RetailNew/24Retail books/Application Portal	/personal/24Retail books/Headcount

You can restore the broken buttons by adding the button targets to your snapshot and repeating the snapshot migration.

To learn more, see View snapshot logs (https://www.ibm.com/support/knowledgecenter/SSD29G_2.0.0/com.ibm.swg.ba.cognos.tm1_prism_gs.2.0.0.doc/paw_asset_view_activity.html).

2.0.47 - What's new, November 20, 2019

See what's new in version 2.0.47 of IBM Planning Analytics Workspace in the following topics.

Create a cube by importing a text file

You can quickly and easily create and populate a cube and its dimensions without having to write processes, by importing a text file into IBM Planning Analytics Workspace.

To learn more, see Create a cube from a file (https://www.ibm.com/support/knowledgecenter/SSD29G_2.0.0/com.ibm.swg.ba.cognos.tm1_prism_gs.2.0.0.doc/t_paw_cube_from_file.html).

Improvements to importing into dimensions

Improvements to importing into dimensions means that you can easily update an existing dimension hierarchy, and have more control over the dimension structure.

You can now update an existing dimension hierarchy (previously you could import only into an empty hierarchy). You can select a multi-level dimension structure when you create a new dimension by importing a text file, so you can quickly create a dimension with multiple levels. You can also specify a decimal separator and a thousand separator.

To learn more, see Import members and attributes into a dimension (https://www.ibm.com/support/knowledgecenter/SSD29G_2.0.0/com.ibm.swg.ba.cognos.tm1_prism_gs.2.0.0.doc/t_paw_drag_and_drop_files_to_create_members.html).

Apply aggregate calculations in a view

You can apply an aggregate calculation to two or more values in a view so that you can represent the aggregate value in a chart or report.

You can use aggregate calculations to summarize values that can't simply be added up or averaged. For example, percentage or ratio values that are the result of a rule calculation.

For both Planning Analytics Workspace on cloud and Planning Analytics Workspace Local, you must have IBM Planning Analytics version 2.0.9 or later.

To learn more, see Adding a member calculation to a view (https://www.ibm.com/support/knowledgecenter/SSD29G_2.0.0/com.ibm.swg.ba.cognos.tm1_prism_gs.2.0.0.doc/t_paw_adding_a_member_calculation.html) and Adding a summary calculation to a view (https://www.ibm.com/support/knowledgecenter/SSD29G_2.0.0/com.ibm.swg.ba.cognos.tm1_prism_gs.2.0.0.doc/t_paw_adding_a_dynamic_calculation.html.

2.0.46 - What's new, October 15, 2019

See what's new in version 2.0.46 of IBM Planning Analytics Workspace in the following topics.

Quickly set the data format in the view

You can now set the format of data by column and row directly in the cell view, making it quicker and easier to change the formatting in a view.

You can select a built in format, such as fixed, or you can create a custom format, if, say you wanted to use a specific currency symbol.

To learn more, see Change the format of data in a view (https://www.ibm.com/support/knowledgecenter/SSD29G_2.0.0/com.ibm.swg.ba.cognos.tm1_prism_gs.2.0.0.doc/t_paw_format_data.html) and Add cell values to the sheet as a cell view (https://www.ibm.com/support/knowledgecenter/SSD29G_2.0.0/com.ibm.swg.ba.cognos.tm1_prism_gs.2.0.0.doc/t_paw_cell_widget.html).

Unload a cube from memory

You can unload a cube from memory to temporarily reduce RAM consumption or to assist in the development and troubleshooting of rules feeders. Unloading a cube also unloads any views of the cube from memory.
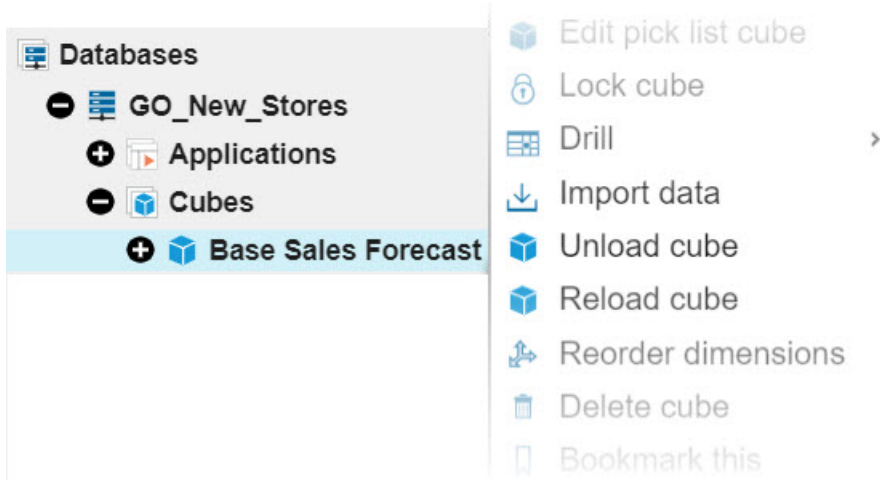
While a cube is unloaded, any request for data in the cube will cause the cube to be automatically reloaded, maintaining data availability. Additionally, you can use the **Reload** option to manually reload a cube.

You must be an administrator or modeler to unload or reload cubes.

To learn more, see Unload and reload a cube from memory (https://www.ibm.com/support/knowledgecenter/SSD29G_2.0.0/com.ibm.swg.ba.cognos.tm1_prism_gs.2.0.0.doc/t_paw_unload_cube.html).

Drill up on visualizations

You can now drill up to reveal the parent of a member in a visualization. In previous versions of Planning Analytics Workspace, you had to use the **Undo** option to view the parent of a member to which the **Drill down** option had been applied.
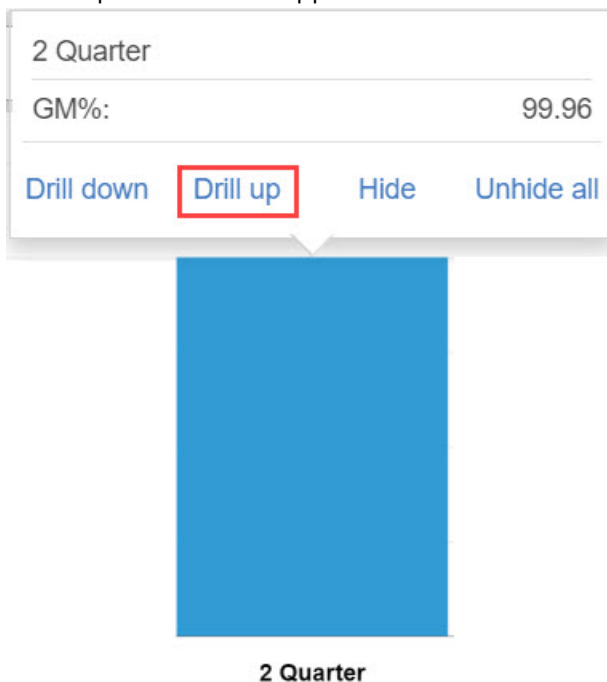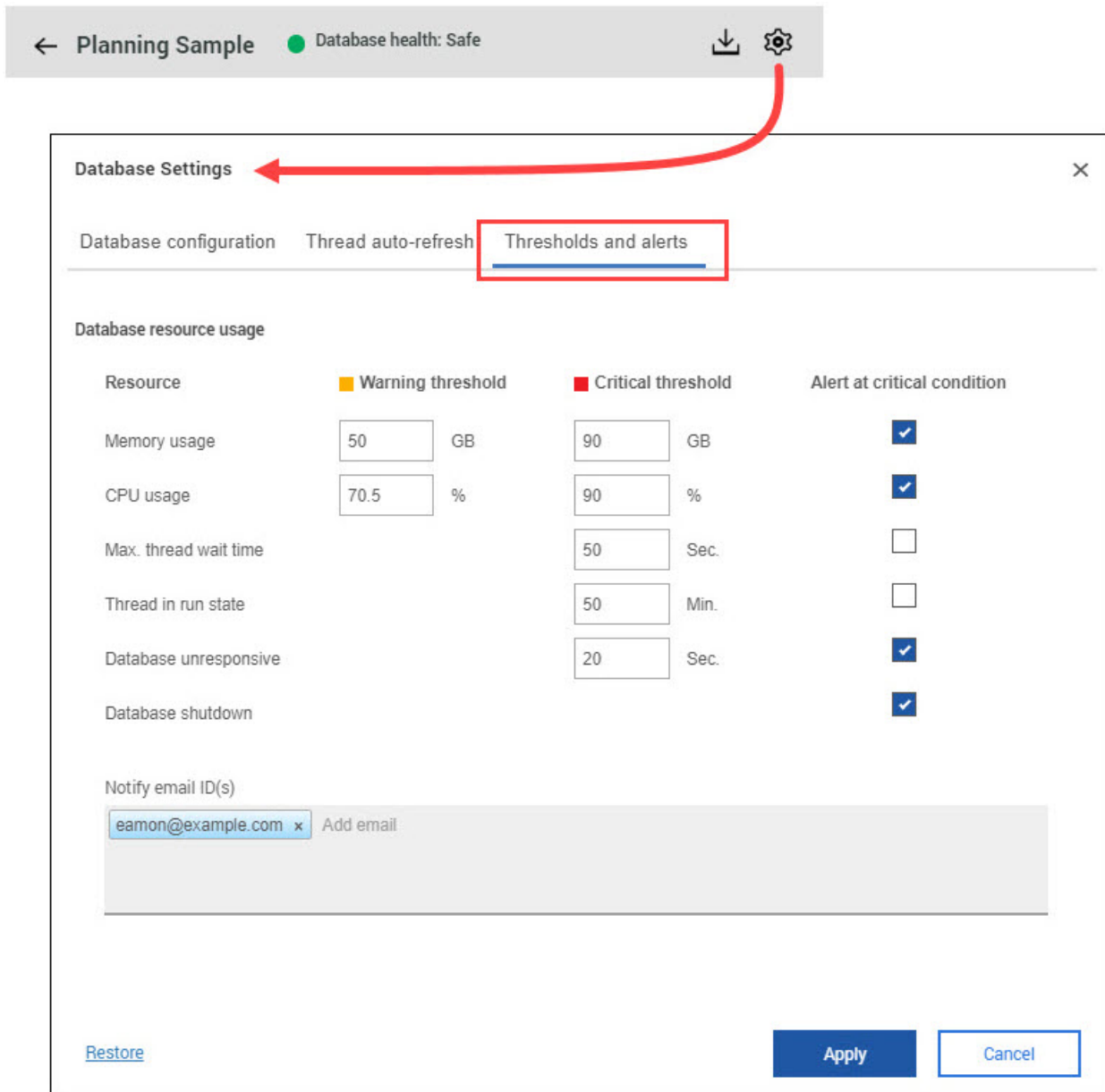
To learn more, see Visualization (https://www.ibm.com/support/knowledgecenter/SSD29G_2.0.0/com.ibm.swg.ba.cognos.tm1_prism_gs.2.0.0.doc/c_visualizations_in_paw.html).

See thresholds and alerts for individual databases from the database activity report page now

Database threshold and alert configuration settings are now combined in a single tab on the **Database settings** page.

In previous versions of Planning Analytics Administration, thresholds and alerts were set on separate tabs of a configuration page and the settings applied to all databases in your environment. It was not possible to apply unique settings per database.

Database threshold and alert configuration settings are now combined in a single tab on the **Database settings** page for an individual database in Planning Analytics Administration. This simplifies the configuration process and lets you apply unique threshold and alert settings for each database in your environment. You can now access the **Database settings** page by clicking the ⚙ icon on a database activity report.

To learn more, see Set database thresholds and alerts (https://www.ibm.com/support/knowledgecenter/ SSD29G_2.0.0/com.ibm.swg.ba.cognos.tm1_prism_gs.2.0.0.doc/ t_paw_set_database_thresholds_and_alerts.html).

View system resource thresholds and alerts combined in a single configuration page now

You can now configure system resource thresholds and alerts on a single page in Planning Analytics Administration.

Configuring system resource thresholds and alerts on a single page simplifies configuration in all environments, both cloud and local. Additionally, this change provides greater control when you use Planning Analytics Administration Local to monitor multiple agents, as you can configure unique settings for each agent. The following image shows multiple agents in a Planning Analytics Administration Local environment, but the feature is identical in Planning Analytics Administration on Cloud.

You can click ⏶ next to the **Resources** status metrics to open the **System resource usage** configuration page.

In previous versions of Planning Analytics Administration, system resource thresholds and alerts were set on separate tabs of a configuration page and the settings applied to all agents in your environment. It was not possible to apply unique settings per agent.

To learn more, see Set system resource thresholds and alerts (https://www.ibm.com/support/knowledgecenter/SSD29G_2.0.0/com.ibm.swg.ba.cognos.tm1_prism_gs.2.0.0.doc/t_set_system_resource_thresholds_and_alerts.html).

Install Planning Analytics Workspace Local on CentOS

⌂ Planning Analytics Workspace Local is now supported on Community Enterprise Operating System (CentOS). CentOS is a free, community-supported, open source Linux distribution. Planning Analytics Workspace Local on CentOS needs Docker Community Edition.

```
IBM Planning Analytics Workspace Administration

Install/Update IBM Planning Analytics Docker images (y/n)? (default n): y
Start the Administration Tool? (default y): y
[pawqc@qc-centos7ce1 paw46-local_1.0.1970-4]$ docker version --
Client: Docker Engine - Community
 Version:           19.03.1
 API version:       1.40
 Go version:        go1.12.5
 Git commit:        74b1e89
 Built:             Thu Jul 25 21:21:07 2019
 OS/Arch:           linux/amd64
 Experimental:      false

Server: Docker Engine - Community
 Engine:
  Version:          19.03.1
  API version:      1.40 (minimum version 1.12)
  Go version:       go1.12.5
  Git commit:       74b1e89
  Built:            Thu Jul 25 21:19:36 2019
  OS/Arch:          linux/amd64
  Experimental:     false
 containerd:
  Version:          1.2.6
  GitCommit:        894b81a4b802e4eb2a91d1ce216b8817763c29fb
 runc:
  Version:          1.0.0-rc8
  GitCommit:        425e105d5a03fabd737a126ad93d62a9eeede87f
 docker-init:
  Version:          0.18.0
  GitCommit:        fec3683
[pawqc@qc-centos7ce1 paw46-local_1.0.1970-4]$
```

To learn more, see Installing Planning Analytics Workspace Local (https://www.ibm.com/support/knowledgecenter/SSD29G_2.0.0/com.ibm.swg.ba.cognos.tm1_inst.2.0.0.doc/c_paw_install_overview.html).

2.0.45 - What's new, August 21, 2019

See what's new in version 2.0.45 of IBM Planning Analytics Workspace in the following topics.

Greater control over pick lists

You now have greater control over which cube cells contain pick lists, by creating a pick list control cube.

Pick list control cubes give you both precision and flexibility by enabling you to define which individual cells a pick list is available from. You can also create rules for the pick list control cube, which allows you to define pick lists for any section of a cube, from a single cell to the entire cube.

To learn more, see Create a pick list control cube (https://www.ibm.com/support/knowledgecenter/ SSD29G_2.0.0/com.ibm.swg.ba.cognos.tm1_prism_gs.2.0.0.doc/t_paw_pick_list_control.html).

Give your dashboards a corporate look and feel using custom fonts and chart palettes

You can customize your dashboards with corporate fonts, and use corporate color palettes for charts, allowing you to give dashboards your corporate identity.

Administrators load the chart palettes and fonts in **Settings**.

To learn more, see Upload custom fonts (https://www.ibm.com/support/knowledgecenter/ SSD29G_2.0.0/com.ibm.swg.ba.cognos.tm1_prism_gs.2.0.0.doc/t_paw_customize_fonts.html) and Add or remove color palettes for charts (https://www.ibm.com/support/knowledgecenter/SSD29G_2.0.0/ com.ibm.swg.ba.cognos.tm1_prism_gs.2.0.0.doc/t_customize_chart_patettes.html).

Delete a view from the content tree

You can now delete a database view directly from the content tree in IBM Planning Analytics Workspace if you are logged on as a modeler.
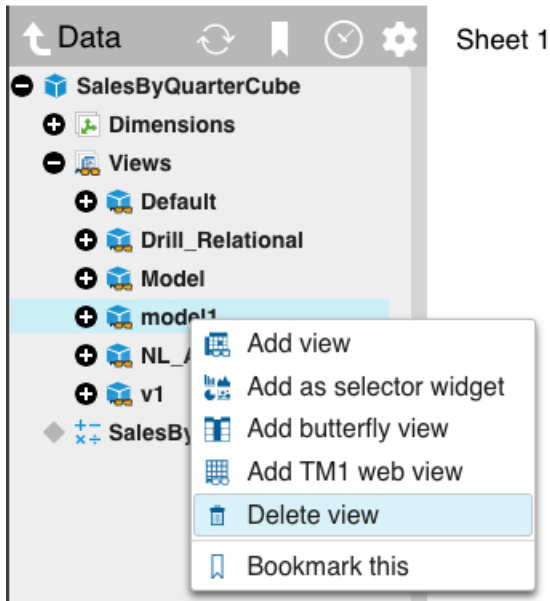
To learn more, see Delete a cube or a view (https://www.ibm.com/support/knowledgecenter/ SSD29G_2.0.0/com.ibm.swg.ba.cognos.tm1_prism_gs.2.0.0.doc/t_paw_delete_cube.html).

Show parents and children of members in the dimension editor

You can show the immediate parent of selected members and show the children.
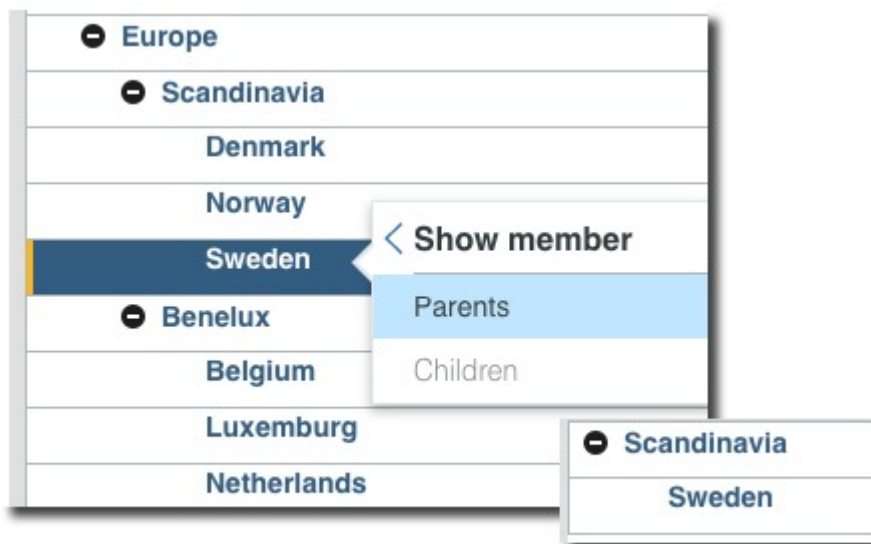
To learn more, see Add members to a dimension (https://www.ibm.com/support/knowledgecenter/ SSD29G_2.0.0/com.ibm.swg.ba.cognos.tm1_prism_gs.2.0.0.doc/ t_paw_add_members_to_dimension.html).

Retain your folder structure when migrating assets

When you migrate a snapshot in Planning Analytics Administration, you can now choose to retain the folder structure of your assets.

When you enable the **Keep folder structure while deploying** option, the folder structure from your source environment is automatically created on your target environment. You no longer need to manually replicate the folder structure from your source environment on your target environment when migrating assets!
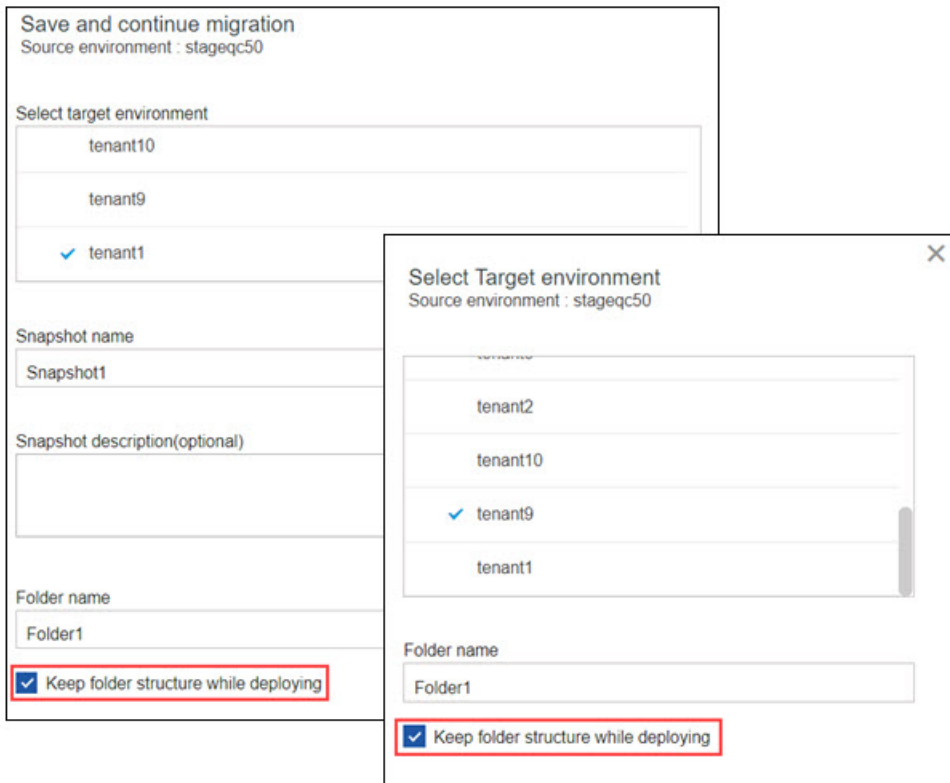
To learn more, see Get started with Lifecycle Management (https://www.ibm.com/support/knowledgecenter/en/SSD29G_2.0.0/com.ibm.swg.ba.cognos.tm1_prism_gs.2.0.0.doc/paw_asset_workflow.html).

Chapter 3. What's new in Planning Analytics for Microsoft Excel

Read about what's new or updated in IBM Planning Analytics for Microsoft Excel.

2.0.57 - Feature updates, September 14, 2020

IBM Planning Analytics for Microsoft Excel was refreshed on September 14, 2020 to include fixes only.

Updates to each version of Planning Analytics for Microsoft Excel are cumulative. To see what was new in the previous release, see 2.0.56 - Feature updates, August 12, 2020 (https://www.ibm.com/support/knowledgecenter/SSD29G_2.0.0/com.ibm.swg.ba.cognos.ug_cxr.2.0.0.doc/c_pax_new_features_2_0_56.html).

2.0.56 - Feature updates, August 12, 2020

IBM Planning Analytics for Microsoft Excel was refreshed on August 12, 2020 to include the following features and notices.

Updates to each version of Planning Analytics for Microsoft Excel are cumulative. To see what was new in the previous release, see 2.0.55 - Feature updates, July 16, 2020 (https://www.ibm.com/support/knowledgecenter/SSD29G_2.0.0/com.ibm.swg.ba.cognos.ug_cxr.2.0.0.doc/c_pax_new_features_2_0_55.html).

Cube Viewer

Starting in IBM Planning Analytics for Microsoft Excel version 2.0.56, you can change the font size and save views in the Cube Viewer.

Changing the font size

If you're working with large dimensions or sets, you can change the font size of the Cube Viewer to display more data.

For more information about changing the font size in the Cube Viewer, see Change the font size(https://www.ibm.com/support/knowledgecenter/SSD29G_2.0.0/com.ibm.swg.ba.cognos.ug_cxr.2.0.0.doc/c_pax_cube_viewer_zoom.html).

Save views to the TM1 Server Application folder

After you are finished working in the Cube Viewer, you can save your views to the TM1 Server Application folder.

For more information about saving views from the Cube Viewer, see Save a view from the Cube Viewer(https://www.ibm.com/support/knowledgecenter/SSD29G_2.0.0/com.ibm.swg.ba.cognos.ug_cxr.2.0.0.doc/t_pax_save_cube_viewer.html).

Changing hierarchies

If your dimension contains multiple hierarchies, you can use the set editor or Cube Viewer to change the hierarchy that's being used in your report.

For more information about changing the hierarchy of a report, see Change the hierarchy(https://www.ibm.com/support/knowledgecenter/SSD29G_2.0.0/com.ibm.swg.ba.cognos.ug_cxr.2.0.0.doc/c_pax_change_hierarchy.html).

2.0.55 - Feature updates, July 16, 2020

IBM Planning Analytics for Microsoft Excel was refreshed on July 16, 2020 to include the following features and notices.

Updates to each version of Planning Analytics for Microsoft Excel are cumulative. To see what was new in the previous release, see 2.0.54 - Feature updates, June 12, 2020 (https://www.ibm.com/support/knowledgecenter/SSD29G_2.0.0/com.ibm.swg.ba.cognos.ug_cxr.2.0.0.doc/c_pax_new_features_2_0_54.html).

Converting reports

As of 2.0.55, if you are converting reports in IBM Planning Analytics for Microsoft Excel, you can define whether or not the converted report uses Microsoft Excel's stylesheet formatting.

You can decide whether or not your converted reports use stylesheet formatting. When you convert a report directly from an Exploration View, the converted report uses stylesheet formatting if you have **Use Excel Formats** enabled. If you are creating or converting a report from the source tree, the cube viewer, or another path, the converted report defaults to using stylesheet formatting.

For more information about converting reports, see Converting a report from an Exploration View(https://www.ibm.com/support/knowledgecenter/SSD29G_2.0.0/com.ibm.swg.ba.cognos.ug_cxr.2.0.0.doc/c_pax_convert_reports.html).

2.0.54 - Feature updates, June 12, 2020

IBM Planning Analytics for Microsoft Excel was refreshed on June 12, 2020 to include fixes only.

Updates to each version of Planning Analytics for Microsoft Excel are cumulative. To see what was new in the previous release, see 2.0.53 - Feature updates, May 15, 2020 (https://www.ibm.com/support/knowledgecenter/SSD29G_2.0.0/com.ibm.swg.ba.cognos.ug_cxr.2.0.0.doc/c_pax_new_features_2_0_53.html).

2.0.53 - Feature updates, May 15, 2020

IBM Planning Analytics for Microsoft Excel was refreshed on May 15, 2020 to include fixes only.

Updates to each version of Planning Analytics for Microsoft Excel are cumulative. To see what was new in the previous release, see 2.0.52 - Feature updates, April 16, 2020 (https://www.ibm.com/support/knowledgecenter/SSD29G_2.0.0/com.ibm.swg.ba.cognos.ug_cxr.2.0.0.doc/c_pax_new_features_2_0_52.html).

2.0.52 - Feature updates, April 16, 2020

IBM Planning Analytics for Microsoft Excel was refreshed on April 16, 2020 to include the following features and notices.

Updates to each version of Planning Analytics for Microsoft Excel are cumulative. To see what was new in the previous release, see "2.0.51 - Feature updates, March 06, 2020" on page 70 (https://www.ibm.com/support/knowledgecenter/SSD29G_2.0.0/com.ibm.swg.ba.cognos.ug_cxr.2.0.0.doc/c_pax_new_features_2_0_51.html).

All connections are switching to IBM Planning Analytics Workspace

As of 2.0.52, if you are using TM1 Server 2.0.9 or newer and have any connections through PMHub in IBM Planning Analytics for Microsoft Excel, your connections will be switched to solely go through Planning Analytics Workspace.

All new connections in Planning Analytics for Microsoft Excel currently go through Planning Analytics Workspace. Existing PMHub connections will be switched to Planning Analytics Workspace connections if you are using Planning Analytics for Microsoft Excel 2.0.52 or newer with TM1 Server 2.0.9 or newer.

Improvements to the set editor

As of 2.0.52, the set editor has a number of improvements to make it easier to work with large dimensions.

To use the updated set editor, ensure that you have IBM Planning Analytics Workspace version 2.0.52 or later installed. Refer to the Planning Analytics for Microsoft Excel conformance requirements.

Note: If you are using IBM Planning Analytics for Microsoft Excel versions 2.0.51 and older with Planning Analytics Workspace versions 2.0.52 and newer, you will see all of the new set editor features, however any changes made in the default view settings for the Available Members and Current Set panes will not be saved.

Focus on one area at a time

You can hide the pane that you are not currently working in to enable you to focus on one area at a time.

Maximize the set editor

Quickly maximize the set editor by clicking the **Max** icon .

Note: If you added the set editor from the tree, you can resize the set editor by dragging the grab handles.

Drag and drop

Drag members into the **Current Set** from **Available Members**. Dragging uses the default insert settings
. If there are a lot of members in the **Current Set**, you can scroll down the pane while dragging the selection into the correct position.

Easy access to functions

The new toolbar makes it easy to edit the members in the current set, with the most frequently used functions available.

Configure default view settings for the Available Members and Current Set panes

For the **Available Members** pane, you can choose to display **Default set**, **All roots**, **All members**, or **All leaves** by default. For the **Current Set** pane, you can choose whether to display the members as a **Hierarchy**, or as a **Definition** (MDX).

Click ⚙ to access the **Settings** menu.

For more information about the set editor, see Sets(https://www.ibm.com/support/knowledgecenter/
SSD29G_2.0.0/com.ibm.swg.ba.cognos.ug_cxr.2.0.0.doc/c_paw_set.html).

Version requirements for using IBM Planning Analytics for Microsoft Excel 2.0.52 with TM1 Server.

Improvements in IBM Planning Analytics for Microsoft Excel 2.0.52 are tested on the current supported
TM1 Server versions (For more information on supported TM1 Server versions, see IBM Planning Analytics
for Microsoft Excel conformance requirements. Please note that some functionality will not work as
expected in TM1 Server versions 2.0.5 and older.

2.0.51 - Feature updates, March 06, 2020

IBM Planning Analytics for Microsoft Excel was refreshed on March 06, 2020 to include the following
features and notices.

Updates to each version of Planning Analytics for Microsoft Excel are cumulative. To see what was new in
the previous release, see "2.0.50 - Feature updates, February 7, 2020" on page 71 (https://
www.ibm.com/support/knowledgecenter/SSD29G_2.0.0/com.ibm.swg.ba.cognos.ug_cxr.2.0.0.doc/
c_pax_new_features_2_0_50.html).

Update the datasource or package for Exploration Views in bulk

As of version 2.0.51, you can now bulk update the datasource or package for multiple Exploration Views
at the same time.

To bulk update the datasource or package for your Exploration Views, you need to use the
`BulkSerializeUtil` command. For more information, see Bulk update the datasource or package for
Exploration Views(https://www.ibm.com/support/knowledgecenter/SSD29G_2.0.0/
com.ibm.swg.ba.cognos.ug_cxr.2.0.0.doc/t_pax_exploration_bulk_update_server.html)
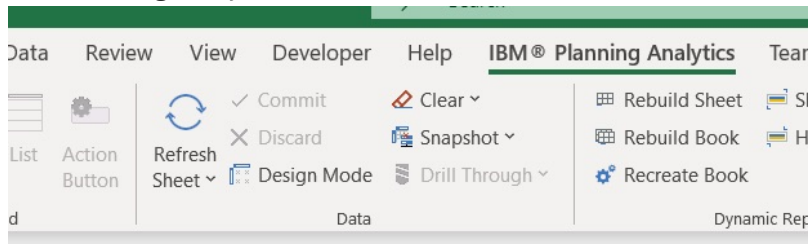
2.0.50 - Feature updates, February 7, 2020

IBM Planning Analytics for Microsoft Excel was refreshed on February 7, 2020 to include the following features and notices.

Updates to each version of Planning Analytics for Microsoft Excel are cumulative. To see what was new in the previous release, see "2.0.49 - Feature updates, December 19, 2019" on page 71 (https://www.ibm.com/support/knowledgecenter/SSD29G_2.0.0/com.ibm.swg.ba.cognos.ug_cxr.2.0.0.doc/c_pax_new_features_2_0_49.html).

Improvements to Design Mode

As of 2.0.50, use **Design Mode** to preserve or clear DBRW formulas when you are copying and pasting values into cells.

Design Mode is a handy tool that can be used to enable or disable the refreshing of an Exploration View upon every change. You can now also use **Design Mode** to preserve or clear DBRW formulas when you are copying and pasting values into cells. Simply enable or disable **Design Mode** from the **Data** group in the IBM Planning Analytics ribbon.

For more information about **Design Mode**, see Design Mode(https://www.ibm.com/support/knowledgecenter/SSD29G_2.0.0/com.ibm.swg.ba.cognos.ug_cxr.2.0.0.doc/c_pax_design_mode.html).

2.0.49 - Feature updates, December 19, 2019

IBM Planning Analytics for Microsoft Excel was refreshed on December 19, 2019 to include the following features and notices.

Updates to each version of Planning Analytics for Microsoft Excel are cumulative. To see what was new in the previous release, see "2.0.48 - Feature updates, November 20, 2019" on page 72 (https://www.ibm.com/support/knowledgecenter/SSD29G_2.0.0/com.ibm.swg.ba.cognos.ug_cxr.2.0.0.doc/c_pax_new_features_2_0_48.html).

Quickly access views from the IBM task pane

As of 2.0.49, you can open views from the IBM task pane.

You can now quickly access views from the IBM task pane by double-clicking a cube or Views node. You can also open a view by right-clicking a cube or Views node and selecting **Open in viewer** from the right-click menu.

Additionally, when you right-click a cube or Views node on the task pane, you can choose to run as one of the available report types.
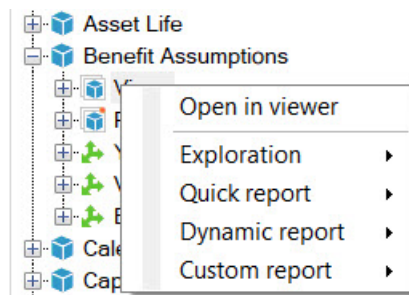
For more information about the IBM task pane and how you can open views from the task pane, see IBM task pane(https://www.ibm.com/support/knowledgecenter/SSD29G_2.0.0/com.ibm.swg.ba.cognos.ug_cxr.2.0.0.doc/c_pax_taskpane.html).

2.0.48 - Feature updates, November 20, 2019

IBM Planning Analytics for Microsoft Excel was refreshed on November 20, 2019 to include the following features and notices.

Updates to each version of Planning Analytics for Microsoft Excel are cumulative. To see what was new in the previous release, see 2.0.47 - Feature updates, October 15, 2019 (https://www.ibm.com/support/knowledgecenter/SSD29G_2.0.0/com.ibm.swg.ba.cognos.ug_cxr.2.0.0.doc/c_pax_new_features_2_0_47.html).

Show the information header in a Quick Report

Starting in 2.0.48, you can show or hide header information in a Quick Report. The header information includes the host URL, server name, and the cube name for the Quick Report.

For more information about the information header, see Show the information header in a Quick Report(https://www.ibm.com/support/knowledgecenter/SSD29G_2.0.0/com.ibm.swg.ba.cognos.ug_cxr.2.0.0.doc/t_pax_qr_header_informtion.html).

For more information on enabling the information header, see Manually enabling features in the tm1features.json file(https://www.ibm.com/support/knowledgecenter/SSD29G_2.0.0/com.ibm.swg.ba.cognos.ug_cxr.2.0.0.doc/r_pax_tm1features.html).

Dimension names are automatically displayed in a Quick Report

When you create or open a Quick Report, the names of the dimensions used in the Quick Report are automatically displayed at the top of the report.

For more information about Quick Reports, see Quick Reports(https://www.ibm.com/support/knowledgecenter/SSD29G_2.0.0/com.ibm.swg.ba.cognos.ug_cxr.2.0.0.doc/c_ug_cxr_powersheets.html).

Deprecation notice for the Reorder/Rename feature in Exploration Views and lists

In IBM Planning Analytics for Microsoft Excel version 2.0.49, the Reorder/Rename feature in Exploration Views and lists will be deprecated.

The Reorder/Rename feature:
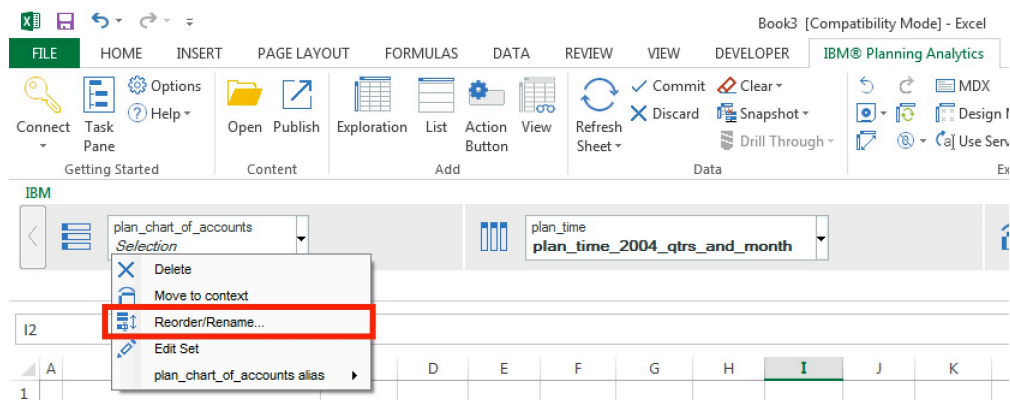
- You can use the set editor to reorder your members. For more information, see Reorder members in a set(https://www.ibm.com/support/knowledgecenter/SSD29G_2.0.0/com.ibm.swg.ba.cognos.ug_cxr.2.0.0.doc/t_set_editor_reorder_members.html).
- You can still use aliases to rename a member.

- To rename a calculated column or row, edit the column or row header. For more information, see Rename a calculated column or row(https://www.ibm.com/support/knowledgecenter/SSD29G_2.0.0/ com.ibm.swg.ba.cognos.ug.cxr.2.0.0.doc/t_pax_exploration_rename_calculation.html).

2.0.47 - Feature updates, October 15, 2019

IBM Planning Analytics for Microsoft Excel was refreshed on October 15, 2019 to include fixes only.

Updates to each version of Planning Analytics for Microsoft Excel are cumulative. To see what was new in the previous release, see 2.0.46 - Feature updates, September 13, 2019 (https://www.ibm.com/support/ knowledgecenter/SSD29G_2.0.0/com.ibm.swg.ba.cognos.ug.cxr.2.0.0.doc/ c_pax_new_features_2_0_46.html).

2.0.46 - Feature updates, September 13, 2019

IBM Planning Analytics for Microsoft Excel was refreshed on September 13, 2019 to include fixes only.

Updates to each version of Planning Analytics for Microsoft Excel are cumulative. To see what was new in the previous release, see 2.0.45 - Feature updates, August 16, 2019 (https://www.ibm.com/support/ knowledgecenter/SSD29G_2.0.0/com.ibm.swg.ba.cognos.ug.cxr.2.0.0.doc/ c_pax_new_features_2_0_45.html).

2.0.45 - Feature updates, August 16, 2019

IBM Planning Analytics for Microsoft Excel was refreshed on August 16, 2019 to include fixes only.

Updates to each version of Planning Analytics for Microsoft Excel are cumulative. To see what was new in the previous release, see 2.0.44 - Feature updates, July 30, 2019 (https://www.ibm.com/support/ knowledgecenter/SSD29G_2.0.0/com.ibm.swg.ba.cognos.ug.cxr.2.0.0.doc/ c_pax_new_features_2_0_44.html).

2.0.44 - Feature updates, July 30, 2019

IBM Planning Analytics for Microsoft Excel was refreshed on July 30, 2019 to include the following features.

Updates to each version of Planning Analytics for Microsoft Excel are cumulative. To see what was new in the previous release, see 2.0.43 - Feature updates, June 19, 2019 (https://www.ibm.com/support/ knowledgecenter/SSD29G_2.0.0/com.ibm.swg.ba.cognos.ug.cxr.2.0.0.doc/ c_pax_new_features_2_0_43.html).

Save your Exploration Views to the Planning Analytics Workspace Content Store!

As of 2.0.44, you can save your Exploration Views to the Planning Analytics Workspace Content Store.

Save your Exploration View to the Planning Analytics Workspace Content Store
Saving your Exploration Views to the Planning Analytics Workspace Content Store allows you to save enhanced views, and share your views between IBM Planning Analytics Workspace and IBM Planning Analytics for Microsoft Excel.

Share views between Planning Analytics Workspace and Planning Analytics for Microsoft Excel
Saving your Exploration View to the Planning Analytics Workspace Content Store allows you to share your views toPlanning Analytics Workspace and Planning Analytics for Microsoft Excel. Simply access the Planning Analytics Workspace from either product and open the view for quick and flexible collaboration.

The versatility of MDX Views
MDX expressions can be a powerful tool for storing and generating views. When you save your Exploration View to the Planning Analytics Workspace Content Store, the view is stored as an MDX expression. Just like in an MDX View, you can store calculations or headers, and define asymmetric axes when you save your Exploration Views to the Planning Analytics Workspace Content Store.

Compatibility

> Planning Analytics for Microsoft Excel version 2.0.44 used with Planning Analytics Workspace version 2.0.44 will receive full support for saving to the Planning Analytics Workspace Content Store.

> You also need IBM Planning Analytics version 2.0.7 IF 3 or newer installed. It is recommended that you install IBM Planning Analytics version 2.0.8 or newer.

For more information about saving your Exploration Views to the Planning Analytics Workspace Content Store, see Methods for saving an Exploration View(https://www.ibm.com/support/knowledgecenter/SSD29G_2.0.0/com.ibm.swg.ba.cognos.ug_cxr.2.0.0.doc/c_pax_exploration_save.html).

Enhanced clear functionality for Exploration Views

The clear functionality when applied to an Exploration View has been improved as of 2.0.44.

Using **Clear workbook**, **Clear worksheet**, or **Clear data** on an Exploration View or list view will now also clear any items in the context area drop zone.

For more information about clearing Exploration Views, see Clearing all data from an Exploration View or list view(https://www.ibm.com/support/knowledgecenter/SSD29G_2.0.0/com.ibm.swg.ba.cognos.ug_cxr.2.0.0.doc/t_pax_clear_data_exploration.html).

MDX button disabled after clearing an Exploration View or list view

As of 2.0.44, the MDX button will be temporarily disabled after a user clears an Exploration View or list view.

When you clear data in an Exploration View or list view, the cleared cells remain as blank cells on the report. Clearing the content does not break the link to the datasource. As of version 2.0.44, when you clear data in an Exploration View or list view, the button to open the MDX editor is temporarily disabled. This feature prevents other users from viewing the worksheet's MDX expression, which may contain information about the datasource.

The button to open the MDX editor is enabled again if the Exploration View or list view is refreshed by the user that initially cleared the data. When the view is refreshed, the context dimensions will query for the first available member for each subset and update the selections and the MDX expression is updated.

For more information about clearing Exploration Views, see Clearing all data from an Exploration View or list view(https://www.ibm.com/support/knowledgecenter/SSD29G_2.0.0/com.ibm.swg.ba.cognos.ug_cxr.2.0.0.doc/t_pax_clear_data_exploration.html).

Actions to prompt a Constrained Calculation

As of 2.0.44, you can use a number of actions to prompt a Constrained Calculation in IBM Planning Analytics for Microsoft Excel.

Constrained Calculations can be used in Planning Analytics for Microsoft Excel to limit recalculations strictly to a specified worksheet. Because Planning Analytics for Microsoft Excel is only recalculating the single worksheet, you may notice improved performance when refreshing a single worksheet. The 2.0.44 release of Planning Analytics for Microsoft Excel has enabled new actions that will prompt a recalculation when Constrained Calculations are enabled.

To learn more about the actions you can use to prompt a recalculation, see Actions that prompt a Constrained Calculation(https://www.ibm.com/support/knowledgecenter/SSD29G_2.0.0/com.ibm.swg.ba.cognos.ug_cxr.2.0.0.doc/r_pax_constrainedcalculationgestures.html).

To learn more about Constrained Calculations, see Constrained Calculations(https://www.ibm.com/support/knowledgecenter/SSD29G_2.0.0/com.ibm.swg.ba.cognos.ug_cxr.2.0.0.doc/c_pax_constrainedcalculations.html).

2.0.43 - Feature updates, June 19, 2019

IBM Planning Analytics for Microsoft Excel was refreshed on June 19, 2019 to include the following features.

Updates to each version of Planning Analytics for Microsoft Excel are cumulative. To see what was new in the previous release, see 2.0.42 - Feature updates, May 13, 2019 (https://www.ibm.com/support/knowledgecenter/SSD29G_2.0.0/com.ibm.swg.ba.cognos.ug_cxr.2.0.0.doc/c_pax_new_features_2_0_42.html).

Support for Microsoft Excel 2019

Starting in version 2.0.43, IBM Planning Analytics for Microsoft Excel will now be compatible with Microsoft Excel 2019.

You can now use Planning Analytics for Microsoft Excel with Microsoft Excel 2019. For more information on supported software environment, see the IBM Software Product Compatibility Reports (https://www.ibm.com/software/reports/compatibility/clarity/index.html).

2.0.42 - Feature updates, May 13, 2019

IBM Planning Analytics for Microsoft Excel was refreshed on May 13, 2019 to include the following features.

Updates to each version of Planning Analytics for Microsoft Excel are cumulative. To see what was new in the previous release, see 2.0.41 - Feature updates, April 12, 2019 (https://www.ibm.com/support/knowledgecenter/SSD29G_2.0.0/com.ibm.swg.ba.cognos.ug_cxr.2.0.0.doc/c_pax_new_features_2_0_41.html).

Quickly access the set editor from the IBM task pane

As of 2.0.42, you can open the set editor from the IBM task pane.

You can now quickly access the set editor from the IBM task pane by double-clicking a dimension or named set, or by right-clicking a dimension or named set and opening the set editor from the right-click menu.

For more information about the IBM task pane and how you can open the set editor from the IBM task pane, see IBM task pane(https://www.ibm.com/support/knowledgecenter/SSD29G_2.0.0/com.ibm.swg.ba.cognos.ug_cxr.2.0.0.doc/c_pax_taskpane.html).

Set data refresh options for your views

As of 2.0.42, you can set a data refresh option for your views from the cube viewer.

Using the Cube Viewer, you can define how data refreshes are triggered in your view.

For more information about how you can set data refresh options for your views, see Set data refresh options for a view(https://www.ibm.com/support/knowledgecenter/SSD29G_2.0.0/com.ibm.swg.ba.cognos.ug_cxr.2.0.0.doc/t_pax_cubeviewer_autorecalc.html).

Use Planning Analytics for Microsoft Excel without Performance Manager Hub

Planning Analytics for Microsoft Excel no longer requires IBM Cognos Performance Management Hub (PMHub) to access the TM1 Server or TM1 Admin Server.

For more information about how you can use Planning Analytics for Microsoft Excel without Performance Manager Hub, see Using Planning Analytics for Microsoft Excel without Performance Manager Hub (https://www-01.ibm.com/support/docview.wss?uid=ibm10883120).

2.0.41 - Feature updates, April 12, 2019

IBM Planning Analytics for Microsoft Excel was refreshed on April 12, 2019 to include the following features.Updates to each version of Planning Analytics for Microsoft Excel are cumulative. To see what

was new in the previous release, see 2.0.40 - Feature updates, February 22, 2019 (https://www.ibm.com/support/knowledgecenter/SSD29G_2.0.0/com.ibm.swg.ba.cognos.ug_cxr.2.0.0.doc/c_pax_new_features_2_0_40.html).

Speed up your worksheet refreshes with Constrained Calculations

As of 2.0.41, you can improve the performance and speed of your single worksheet refreshes using Constrained Calculations.

When you refresh your worksheet, IBM Planning Analytics for Microsoft Excel will recalculate every worksheet in your workbook. Using Constrained Calculations is an easy way to narrow the scope of the recalculates to just your active worksheet.

For more information about Constrained Calculations, see Constrained Calculations(https://www.ibm.com/support/knowledgecenter/SSD29G_2.0.0/com.ibm.swg.ba.cognos.ug_cxr.2.0.0.doc/c_pax_constrainedcalculations.html).

2.0.40 - Feature updates, February 22, 2019

IBM Planning Analytics for Microsoft Excel was refreshed on February 22, 2019 to include fixes.Updates to each version of Planning Analytics for Microsoft Excel are cumulative. To see what was new in the previous release, see 2.0.39 - Feature updates, December 21, 2018 (https://www.ibm.com/support/knowledgecenter/SSD29G_2.0.0/com.ibm.swg.ba.cognos.ug_cxr.2.0.0.doc/c_pax_new_features_2_0_39.html).

2.0.39 - Feature updates, December 21, 2018

IBM Planning Analytics for Microsoft Excel was refreshed on December 21, 2018 to include fixes.Updates to each version of Planning Analytics for Microsoft Excel are cumulative. To see what was new in the previous release, see 2.0.38 - Feature updates, November 27th, 2018 (https://www.ibm.com/support/knowledgecenter/SSD29G_2.0.0/com.ibm.swg.ba.cognos.ug_cxr.2.0.0.doc/c_pax_new_features_2_0_38.html).

New API function for Quick Reports

As of 2.0.39, you can use the `ReplaceWithFormats` function to replace the MDX statement in a Quick Report with another MDX statement. `ReplaceWithFormats` also has an option to preserve or destroy the existing sheet formatting in the Quick Report.

To find out more, see ReplaceWithFormats (https://ibm.github.io/paxapi/#replacewithformats).

2.0.38 - Feature updates, November 27, 2018

IBM Planning Analytics for Microsoft Excel was refreshed on November 27, 2018 to include fixes.Updates to each version of Planning Analytics for Microsoft Excel are cumulative.

Chapter 4. What's new in TM1 Web

There are new features in IBM TM1 Web. For more information, see the *TM1 Web* documentation in IBM Knowledge Center.

2.0.57 - Feature updates, September 21, 2020

IBM Planning Analytics TM1 Web was refreshed on September 21, 2020 to include the following updates.

New user experience

The TM1 Web user interface has been updated to provide a more consistent experience with other IBM products. A new login page and simplified icons throughout TM1 Web are the most prominent changes you'll notice.

Gestures, menu selections, and functionality remain unchanged. All existing websheets, views, and reports continue to work just as you'd expect.

Updates to each version of TM1 Web are cumulative. To see what was new in the previous release, see Chapter 4, "What's new in TM1 Web," on page 77.

2.0.56 - Feature updates, August 12, 2020

IBM® Planning Analytics TM1 Web was refreshed on August 12, 2020 to include fixes only.

Updates to each version of TM1 Web are cumulative. To see what was new in the previous release, see Chapter 4, "What's new in TM1 Web," on page 77.
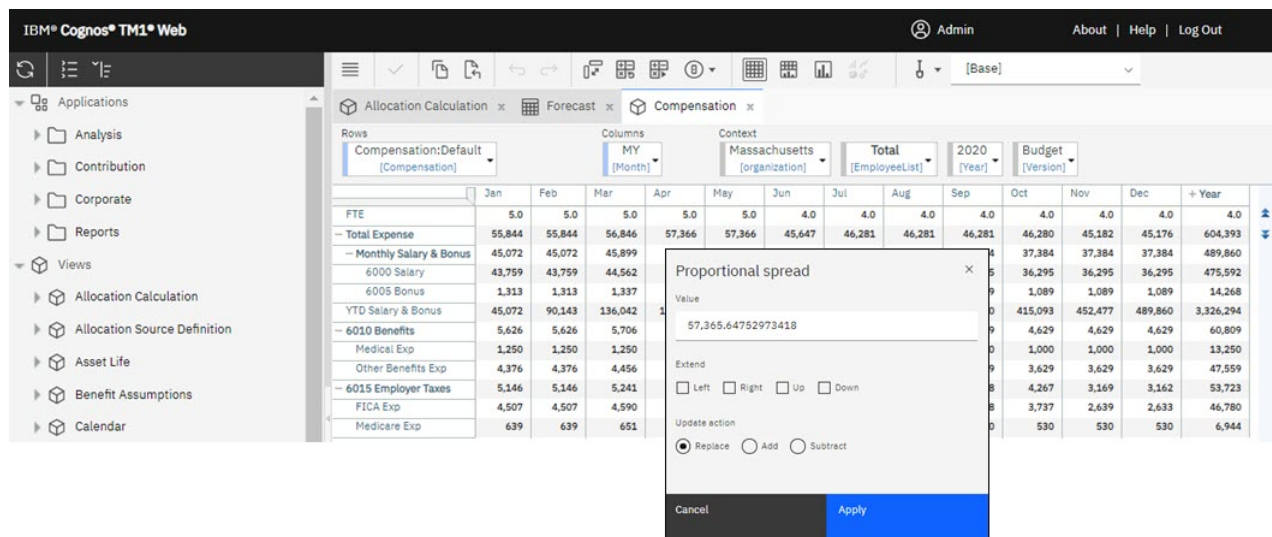
2.0.55 - Feature updates, July 16, 2020

IBM Planning Analytics TM1 Web was refreshed on July 16, 2020 to include the following features and notices.

Updates to each version of TM1 Web are cumulative. To see what was new in the previous release, see Chapter 4, "What's new in TM1 Web," on page 77.

New release schedule for TM1 Web

As of the 2.0.55 SC release of IBM Planning Analytics, new versions of TM1 Web will be released on a more frequent schedule. New versions will be available approximately once a month, similar to the release schedules of IBM Planning Analytics Workspace and IBM Planning Analytics for Microsoft Excel.

TM1 Web is no longer included in the 2.0.x LC releases of Planning Analytics.

New installer for TM1 Web

As of the 2.0.9.2 LC/2.0.55 SC releases of IBM Planning Analytics, TM1 Web is installed with the IBM Planning Analytics Spreadsheet Services installer. TM1 Web is no longer part of the web tier within the Planning Analytics Local installer.

For details on installing TM1 Web with the IBM Planning Analytics Spreadsheet Services installer, see Installing and configuring Planning Analytics TM1 Web.

2.0.9 - Feature updates, December 16, 2019

IBM Planning Analytics Local version 2.0.9 and the cloud-only release of IBM Planning Analytics version 2.0.9 includes the following updates for TM1 Web.

Use dynamic shapes and images in websheets

Customize your websheets! In TM1 Web, you can dynamically insert shapes and images anywhere in your websheet where you'd like the image to change when the value of a cell changes. You can dynamically insert logos, employee pictures, flags, product images, and more.

A dynamic image can be created by assigning a named range that contains an INDIRECT or INDEX-based formula to an image object. The formula resolves to a cell reference, and if an image is anchored to that cell, the dynamic shape reflects that image object's content.

To support this feature, TM1 Web persists the assigned formula, and when it recalculates, TM1 Web evaluates the named range formula to a cell reference. Using this cell reference, TM1 Web can then update the image object's file name to match the referenced image.

Open a websheet on the active tab when you save a multi-tab websheet

If you have a websheet with multiple tabs in a book, Planning Analytics Workspace keeps track of the active websheet tab when you save the book. Then, when you open the book in Planning Analytics Workspace later, you are right where you left off in your work!

Using Planning Analytics version 2.0.9 and Planning Analytics Workspace version 2.0.46, when you open a book with a websheet in Planning Analytics Workspace, the tab that you saved the websheet with is active.

Note: You must be using Planning Analytics Workspace on IBM Planning Analytics version 2.0.9 to take advantage of this feature of websheets in IBM Planning Analytics TM1 Web.

If you don't have Planning Analytics version 2.0.9, the default tab that the websheet was published with (using TM1 Perspectives or Planning Analytics for Microsoft Excel) is active when you open the book in Planning Analytics Workspace.

2.0.8 - Feature updates, June 21, 2019

IBM Planning Analytics Local version 2.0.8 and the cloud-only release of IBM Planning Analytics version 2.0.8 includes the following updates for TM1 Web.

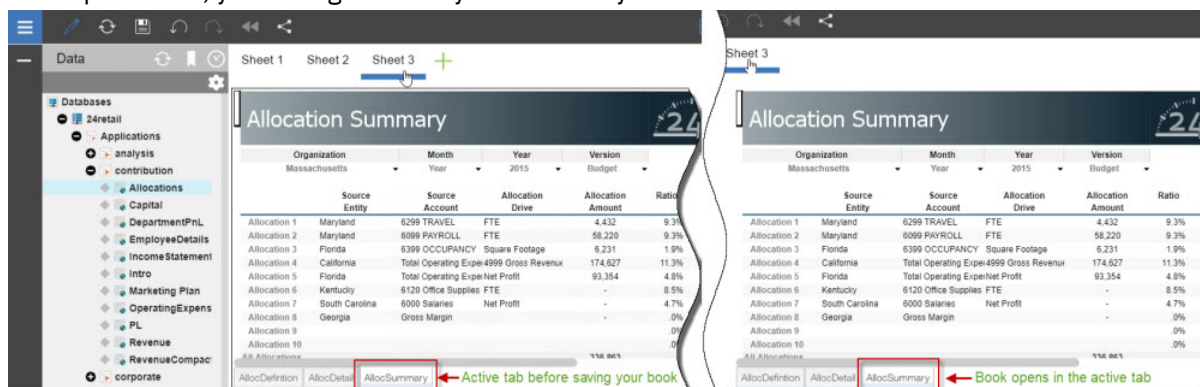### Include user names and memory usage in TM1 Web logs

⌂ User names and memory usage are included in TM1 Web logs. This update makes it easy to see when a user runs an active form, workbook, or cube that renders too many rows. To turn on this optional logging, the logging level of `log4j.logger.com.ibm.cognos.tm1` must be set to DEBUG in the `\tm1_64\webapps\tm1web\WEB-INF\configuration\log4j.properties` file. You can review the audit logs and reduce the number of rows in the rendering.

The following information is included in logs:

- Timestamp
- Application and Active Form name
- Number of rows that were generated
- User name
- Current heap memory after the websheet renders

Example log when you open an active form

```
"<TIMESTAMP>:CLASSNAME:Constructed view for <ActiveFormViewid> contains <#> rows, by user
'<username>'.
<TIMESTAMP>:CLASSNAME:Current heap memory usage: <MB>".
```

Example log when you open a workbook

```
"<TIMESTAMP>:CLASSNAME:Creating WorkbookMetaData for <sheet name>, by user '<username>'.
<TIMESTAMP>:CLASSNAME:Current heap memory usage: <MB>".
```

Example log when you open a cube view

```
"<TIMESTAMP>:CLASSNAME:Exit from getUpdatedCubeViewData, updatedData: class name, username:
<username>.
<TIMESTAMP>:CLASSNAME:Current heap memory usage: <MB>".
```

Changes saved automatically in TM1 Application Web

⌂ In Planning Analytics version 2.0.8, the **Save** confirmation dialog box in IBM TM1 Application Web has been removed. When you close a view, you are not prompted to save changes. All data changes are saved automatically when you close the application. Your changes are available when you reopen the application. This change applies to all web browsers.

Configure login using TM1 Web URL API with Cognos Analytics security

⌂ In Planning Analytics version 2.0.8, a new parameter CSPHeaderFrameSource is available in the `tm1web_config.xml` file. If you use the TM1 Web URL API configured with integrated security mode 5 (Cognos Analytics security authentication), you must set this parameter to allow users to log in. This parameter controls security of the context that is loaded in the `<frame>` element, which is used by TM1 Web URL API. The CSPHeaderFrameSource parameter defines allowed sources for Content-Security-Policy (CSP) `frame-src` policy.

Syntax

```
<add key="CSPHeaderFrameSource" value="" />
```

If the CSPHeaderFrameSource is specified, it sets the allowed sources for the `frame-src` policy. If the value is left blank or the parameter is not set, the default value is '*', which allows content from all sources to load.

Remember: In IBM Planning Analytics Local version 2.0.8, you install a new version of the `tm1web_config.xml` file that is called `tm1web_config.xml.new` and your existing `tm1web_config.xml` file is preserved. To take advantage of fixes that are applied to this release, you must rename the `tm1web_config.xml.new` file to `tm1web_config.xml` and you must reapply any changes that you made to your previous configuration settings.

Example

```
<add key="CSPHeaderFrameSource" value="'self'" />
```

Sets the `frame-src` policy to 'self'.

Allows contents from the site's origin to load.

Example

```
<add key="CSPHeaderFrameSource" value="http://CAM_HOST:CAM_PORT http://
TM1WEB_HOST:TM1WEB_PORT" />
```

Sets the `frame-src` policy to http://CAM_HOST:CAM_PORT http://TM1WEB_HOST:TM1WEB_PORT.

Allows contents from CAM_HOST:PORT and TM1WEB_HOST:PORT to load.

What to do next

For more information on how to define sources for `frame-src`, see Sources on the MDN web docs site.

Relational data sources in TM1 Web websheets removed

⌂ Removed in v2.0.8 The ability to use relational data sources in TM1 Web has been removed from IBM Planning Analytics Local version 2.0.8. The IBM Data Server Driver for JDBC and SQLJ 4.17 (10.5.0.2) have also been removed from the installation kit (db2cc4.jar, ojdbc6.jar, sqlj4.zip, sqljdbc4.jar).

Planning Analytics version 2.0.7 was the last release with support for relational data sources in TM1 Web websheets.

2.0.7 - Feature updates, April 29, 2019

IBM Planning Analytics Local version 2.0.7 and the cloud-only release of IBM Planning Analytics version 2.0.7 includes the following updates for TM1 Web.

Load websheets faster in TM1 Web

To optimize loading of websheets in TM1 Web, you can set a new feature flag `OptimizeCssForHiddenContent`. The feature flag can be added in `tm1_64\webapps\tm1web\WEB-INF\configuration\features.json`.

When `OptimizeCssForHiddenContent` is set to `true`, CSS style information that comes from hidden content (sheets, rows, columns, cells, or controls) is excluded during websheet loading.

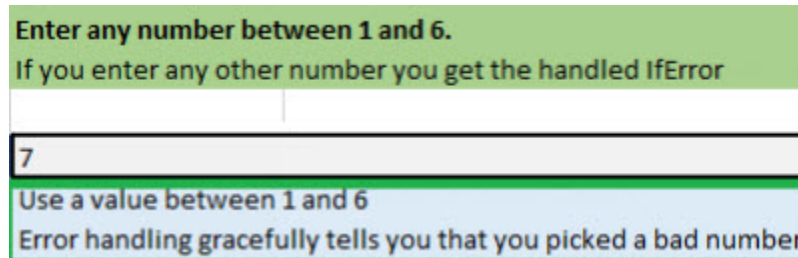`OptimizeCssForHiddenContent` is set to `false` by default.

Example

```
{
    "NestedDbsEvaluation": false,
    "NewIrrAlgorithm": false ,
    "OptimizeCssForHiddenContent": true
}
```

Use the IFERROR Excel function in TM1 Web

IBM Planning Analytics TM1 Web now supports the use of the IFERROR function in websheets.

The IFERROR function traps errors in a formula and returns an alternative result, such as text, when an error is detected.

Take advantage of improved cell formatting in TM1 Web websheets

The cell formatting of currency, fractions, phone numbers, and social security numbers in TM1 Web websheets has improved.

The following changes have been made to formatting of cells in websheets:

- For numbers with more than 15 digits, cells in websheets round up the number to the first 15 digits. For example, "123456789123456992.00" appears as "123456789123457000.00". In Excel, only the first 15 digits are stored and remaining digits are replaced by zeros. For example, "123456789123456992.00" appears as "123456789123456000.00".

- Currency appears with no space after the $ sign. Negative currency also appears with no space after the dollar sign. For example, "$99.00" and "-$999.00".

- Fractions are formatted to appear in fraction format "# ??/??" with a space between the whole number and the fraction. When the number is a whole number, the cell is formatted without a space after the whole number.

- Phone numbers are formatted as "(nnn) nnn-nnnn" as in Excel.

- Social security numbers are formatted with the first 9 digits. Any digits that follow the first 9 digits are truncated. For example, "1849348202" appears as "184-93-4820" with the last digit "2" truncated. This formatting is different in Excel. For numbers with more than 9 digits, Excel adds the format to the last 9 digits while the additional digits at the beginning don't change. For example, in Excel, "1849348202" appears as "1849-34-8202".

TM1 Web version 2.0.6 or earlier	TM1 Web version 2.0.7 or later	Cell formatting in Excel
123456789123456992.00	123456789123457000.00	123456789123456000.00
-99.00	-99.00	-99.00
$ 99.00	$99.00	$99.00
-$ 999.00	-$999.00	-$999.00
7/16/2038	7/16/2038	7/16/2038
Friday, April 03, 2150	Friday, April 03, 2150	Friday, April 3, 2150
25-Feb	25-Feb	25-Feb
0:00:00	0:00:00	0:00:00
4545.00%	4545.00%	4545.00%
44	44	44
01606	01606	01606
5.085959855E9	(508) 595-9855	(508) 595-9855
1849-34-8202	184-93-4820	1849-34-8202

This cell formatting is enabled by default in TM1 Web websheets with the feature flag `NewDataFormatter`. The feature flag can be set in `tm1_64\webapps\tm1web\WEB-INF\configuration\features.json`.

Example

```
{
    "NestedDbsEvaluation": false,
    "NewIrrAlgorithm": false ,
    "NewDataFormatter": true
}
```

Check out updated TM1 Web configuration defaults

The following TM1 Web configuration parameters have new default settings. These settings were previously recommendations. They are now default settings in the `tm1web_config.xml` file for new installations of TM1 Web.

Note: Some default configuration parameter values for Planning Analytics on cloud are different than in Planning Analytics Local.

ExportCellsThreshold
Specifies the maximum number of cells that an export of a websheet or a cube view can contain.

Default changed from blank to 1000000.

MaximumConcurrentExports
Specifies the maximum number of concurrent exports that can be executed from TM1 Web.

The default value in Planning Analytics on cloud is set to 3. This default value is unchanged.

The default value in Planning Analytics Local is changed from 5 to 4.

MaximumSheetsForExport
Specifies the maximum number of sheets that are allowed to export.

Default changed from 100 to 50.

WorkbookMaxCellCount
Specifies the maximum cell count of a workbook as a number with no thousands separators.

Default changed from -1 to 500000.

For more information, see TM1 Web configuration parameters.

Deprecation of relational datasources in TM1 Web websheets

🏠 Deprecated Planning Analytics version 2.0.7 is the last release with support for relational datasources in TM1 Web websheets.

2.0.6 - Feature updates, October 11, 2018

IBM Planning Analytics Local version 2.0.6 and the cloud-only release of IBM Planning Analytics version 2.0.6 includes the following features for TM1 Web.

New parameter to configure session timeout for TM1 Web

In IBM Planning Analytics Local version 2.0.6, there is a new parameter in the `tm1web_config.xml` file called `HttpSessionTimeout`. This parameter defines the session timeout (in minutes) of the HTTP session for TM1 Web.

If the `HttpSessionTimeout` parameter is not specified (missing or blank), the value is less than 1 or not a numerical value, the default `session-timeout` that is defined in the `web.xml` file is used.

Important: As of IBM Planning Analytics Local version 2.0.6, you must not change the `session-timeout` value in the `web.xml` file.

Remember: In IBM Planning Analytics Local version 2.0.6, you install a new version of the `tm1web_config.xml` file that is called `tm1web_config.xml.new` and your existing `tm1web_config.xml` file is preserved. To take advantage of fixes that are applied to this release, you must rename the tm1web_config.xml.new file to tm1web_config.xml and you must reapply any changes that you made to your previous configuration settings.

2.0.5 - Feature updates, June 25, 2018

IBM Planning Analytics Local version 2.0.5 and the cloud-only release of IBM Planning Analytics version 2.0.5 includes the following features for TM1 Web.

Changes to `web.xml` file

If you are upgrading IBM Planning Analytics TM1 Web with this installation of IBM Planning Analytics Local version 2.0.5, you install a new version of the `web.xml` file called `web.xml.new` and your existing `web.xml` file is preserved.

To take advantage of fixes applied in this release, you must use the `web.xml.new` file and you must reapply any changes that you made to your previous configuration settings. In particular, restore your values for **session-timeout**.

1. Back up the existing `web.xml` file in `<PA_installation_location>/webapps/tm1web/WEB-INF`. For example, rename `web.xml` to `web.xml.old`. This step backs up your current settings.

2. Rename `web.xml.new` to `web.xml`. This step uses the new version of `web.xml` that is supplied with IBM Planning Analytics Local version 2.0.5.

3. Replace the entry for **session-timeout** in `web.xml` with the entry from `web.xml.old`. This step restores any changes that you made to this property previously.

   For example:

   ```
   <session-config>
       <session-timeout>20</session-timeout>
   </session-config>
   ```

Exporting to PDF

Exporting a websheet to PDF uses the print area information. If you define a print area in a worksheet, only the data in that area will be exported to PDF. This behavior is the same as printing from Excel.

2.0.3 - Feature updates, September 19, 2017

IBM Planning Analytics Local version 2.0.3 and the cloud-only release of IBM Planning Analytics version 2.0.3 includes the following features for TM1 Web.

Display the current TM1 database label in TM1 Web

The TM1DatabaseLabel parameter displays the TM1 database label in the banner beside the user name. For more information, see TM1DatabaseLabel Parameter and TM1 Web Configuration Parameters.

Specify the maximum cell count of a workbook

The WorkbookMaxCellCount parameter specifies the maximum cell count of a workbook as a number with no thousands separators. You can use WorkbookMaxCellCount to avoid issues opening workbooks with many cells.

For more information, see TM1 Web Configuration Parameters.

Limit the number of cells that can be exported from websheets

The ExportCellsThreshold parameter specifies the maximum number of cells that an export of a websheet or a cube view can contain. If the number of selected cells exceeds the threshold, a warning message is displayed and the export does not start.

For more information, see TM1 Web Configuration Parameters.

Hide dimensions in the cube viewer

The CubeViewerHiddenDimensionsEnabled parameter allows you to hide dimensions in the TM1 Web cube viewer.

For more information, see TM1 Web Configuration Parameters.

Waterfall chart support

TM1 Web supports excel-based Waterfall charts in websheets. These charts were released in Microsoft Excel 2016.

2.0.0 - Feature updates, December 16, 2016

IBM Planning Analytics Local version 2.0.0 includes all features that were introduced in TM1 Web 10.3.0, which was introduced for IBM Planning Analytics on Cloud.

The following features were introduced in IBM Planning Analytics Local version 2.0.0. For more information about these features, see the *TM1 Web* documentation in IBM Knowledge Center.

Hierarchies in TM1 Web

TM1 websheets can display more than one hierarchy in a dimension.

Note: Hierarchies can be viewed in TM1 Web, however, you cannot create hierarchies in TM1 Web. You must create hierarchies in Planning Analytics Workspace. For more information, see Planning Analytics Workspace in IBM Knowledge Center.

You can open hierarchies by using Quick Reports in IBM Planning Analytics for Microsoft Excel.

Quick Reports (formerly Flex Views) are published as live websheets. A live websheet maintains its connection to the TM1 server. If the data on the server changes, the live websheet reflects the change.

For more information about Quick Reports, see Planning Analytics for Microsoft Excel in IBM Knowledge Center.

Note: Relative proportional spreading and relative percent adjustments are not supported in Quick Reports that are opened in TM1 Web.

TM1 Web API enhancements

The TM1 Web API has the following new functionality:

- As of IBM Planning Analytics Local version 2.0.0, it is no longer mandatory to use the version of Dojo that is provided with TM1 Web to load the TM1 Web JavaScript Library modules. TM1 Web now supports using the AMD loader from Dojo version 1.7 and later to load the JavaScript Library modules.
- The HTML <head> and <body> tags that are required to use the JavaScript library are simpler.
- The `tm1web/api/session/session` module in the JavaScript library allows users to log in, retrieve session information based on a session token, and destroy a session based on a session token.
- The `tm1web/api/session/LoginDialog` module in the JavaScript library allows users to display or destroy a login dialog box.
- The `tm1web/api/Workbook` class in the JavaScript library exposes execution information after an action button is executed. The `onActionButtonExecution` method API allows users to replace an existing Workbook or create a new one when an action button is clicked.
- The `tm1web/api/Workbook` class and the `tm1web/api/CubeViewer` class include `subset` and `subsets` set properties and methods.

For more information, see *TM1 Web API* in the *TM1 for Developers* documentation.

Relational websheets

TM1 Web now allows you to view relational data on the same websheet as TM1 data. By defining a relational query in an Excel file and then uploading the file to TM1 Web, you can view the results on the same websheet or tab. This allows you to report on OLAP and relational data together.

For more information, see Working with relational data in websheets (https://www.ibm.com/support/knowledgecenter/SSD29G_2.0.0/com.ibm.swg.ba.cognos.tm1_ug.2.0.0.doc/c_relational_data_websheets.html) in IBM Knowledge Center.

TM1 Web Accessibility

TM1 Web includes accessibility features to help you perform tasks by using only a keyboard. These features include keyboard navigation and keyboard access to menus and dialog boxes that are related to websheets.

- Context menus are accessed by using Shift+F10. The Up Arrow and Down Arrow keys select items from within the context menu.
- To expand or collapse a row in a websheet, you can use the Space bar.
- To access the set selector, you can use the Space bar. The Tab key moves you between the search, the Arrow keys, and the tree. Up Arrow and Down Arrow keys move you between items in the tree. The Enter key selects the focused item in the tree.

Note: When you access the set selector, if you press Esc to exit after you make changes, you lose your focus on the cell that you originally launched from. You are focused on the main page.

Support for Excel shapes in workbooks

Excel shapes, including basic shapes, arrows, banners, equation shapes, and lines, can be added to workbooks in TM1 Web. To see the list of supported and unsupported Excel shapes, see the List of Microsoft Excel-supported functionality by menu in IBM TM1 Web version 10.2.2 and later.

Single sign-on for TM1 Web

You can configure single sign-on for IBM TM1 Web by using Integrated Login (Kerberos) and the application server's security layer. Single sign-on enables HTTP users to log in only once to TM1 Web.

For more information, see *Configuring Integrated Login for TM1 Web using Kerberos and SPNEGO* in the *Planning Analytics Installation and Configuration* documentation.

TM1 worksheet functions

The following worksheet functions are now available:

TM1ELLIST
Returns a set of element values from a TM1 model by using a single formula.

TM1GLOBALSANDBOX
Returns the current global active sandbox that was selected from the toolbar.

TM1INFO
Returns information about the current TM1 version and client.

TM1PRIMARYDB
Returns the primary TM1 server name that the user is authenticated through, even if the user is implicitly logged in to multiple TM1 servers.

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