Release Notes

Axiom Enterprise Decision Support

Version 2021.2

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Contents

About the release notes

Syntellis is pleased to announce the 2021.2 release of Axiom Enterprise Decision Support. Each product release provides new features, enhancements, and configuration options to meet your needs. Many of these features and enhancements are a direct result of your feedback and suggestions.

The purpose of these release notes is to provide you with the following:

- High-level descriptions of new features
- Information to know before upgrading
- Steps for preparing for and scheduling your upgrade
- List of fixed issues

TIP: Periodically, the release notes are updated when new information is available, including patch release fixes. To view the latest release notes, we encourage you to view them in the Axiom Enterprise Decision Support online help.

New features in 2021.2

Directed workflow for cost modeling

Axiom Enterprise Decision Support now includes a directed workflow structure that walks a user through the process of creating and processing a cost model. This ensures that users complete the set up in the correct order and without missing steps. It also simplifies the costing process and ensures that it is successful. Behind the scenes, a new data model allows versioning of tables and cost model management, while on the user interface side, we have made improvements to the look-and-feel and usability of the process steps.

Create what-if cost models

You can now create a what-if cost model and use it to compare to your production models.

Processing a current cost model for closed periods

You can now run interim costing for a current cost model on a recurring basis. For example, your organization may run a cost process monthly during the current fiscal year when only certain periods close so that the debits and credits used to calculate the cost comes from the same time period.

Transform data for reporting

Axiom is a database of information that you may want to change to help you create reports that are meaningful and specific to your organization. You can take existing data and alter it to get the information that you need. You manipulate Axiom data by using data transformation definitions. These definitions allow you to define how, when, and where to change values in the database using different calculation types. The results of calculations can then be stored in certain Axiom fields, and then used for reporting.

Define encounters for analysis

You can define and gather encounters together to easily analyze populations so that your organization can address a wide variety of business questions or challenges. This allows you to look at a problem and identify the affected population. For example, you may want to evaluate the causes behind readmissions or find out what hip replacement patients are still experiencing joint pain more than three months after surgery.

Cost Comparison dashboard

The Cost Comparison dashboard provides comprehensive profitability by service line, physician, case type, and payor mix to quantify volumes, cost, revenue, contribution margin, and net income by service line and physician. With this dashboard, you can Identify specific opportunities for cost reduction.

COVID Impact dashboard

COVID Impact is a collection of dashboards with Axiom Intelligence visualizations that enable users to analyze how COVID-19 is affecting their institutions, from both cost and utilization aspects. In addition, information about COVID patients include demographic and geographic information, details of treatments for each patient encounter, and payor information. The data presented can help the institution analyze their current handling of COVID encounters and provide data for planning.

Physician Variations dashboard

Physician Variations is a collection of dashboards with visualizations that allow users to analyze variations in care and costs for physicians and service lines. Using these dashboards, both efficiencies and costs are compared across the institution.

Service Line dashboard

The Service Line dashboard provides comprehensive profitability by service line, physician, case type, and payor mix to quantify volumes, cost, revenue, contribution margin, and net income by service line and physician.

Volumes and Financials dashboard

Volumes and Financials provide details for all encounters, including encounters and costs, trends, net incomes, and inpatient mortality.

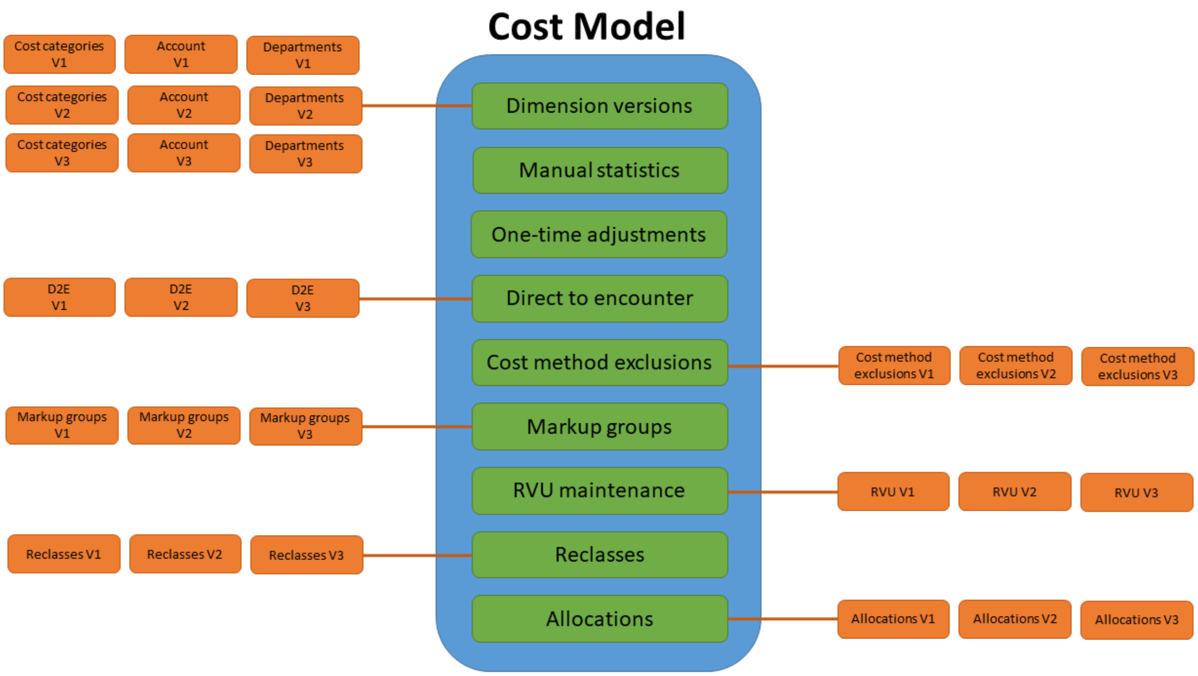
Directed workflow for cost modeling

▶ Why use this feature

Axiom Enterprise Decision Support now includes a directed workflow structure that walks a user through the process of creating and processing a cost model. This ensures that users complete the set up in the correct order and without missing steps. It also simplifies the costing process and ensures that it is successful. Behind the scenes, a new data model allows versioning of tables and cost model management, while on the user interface side, we have made improvements to the look-and-feel and usability of the process steps.

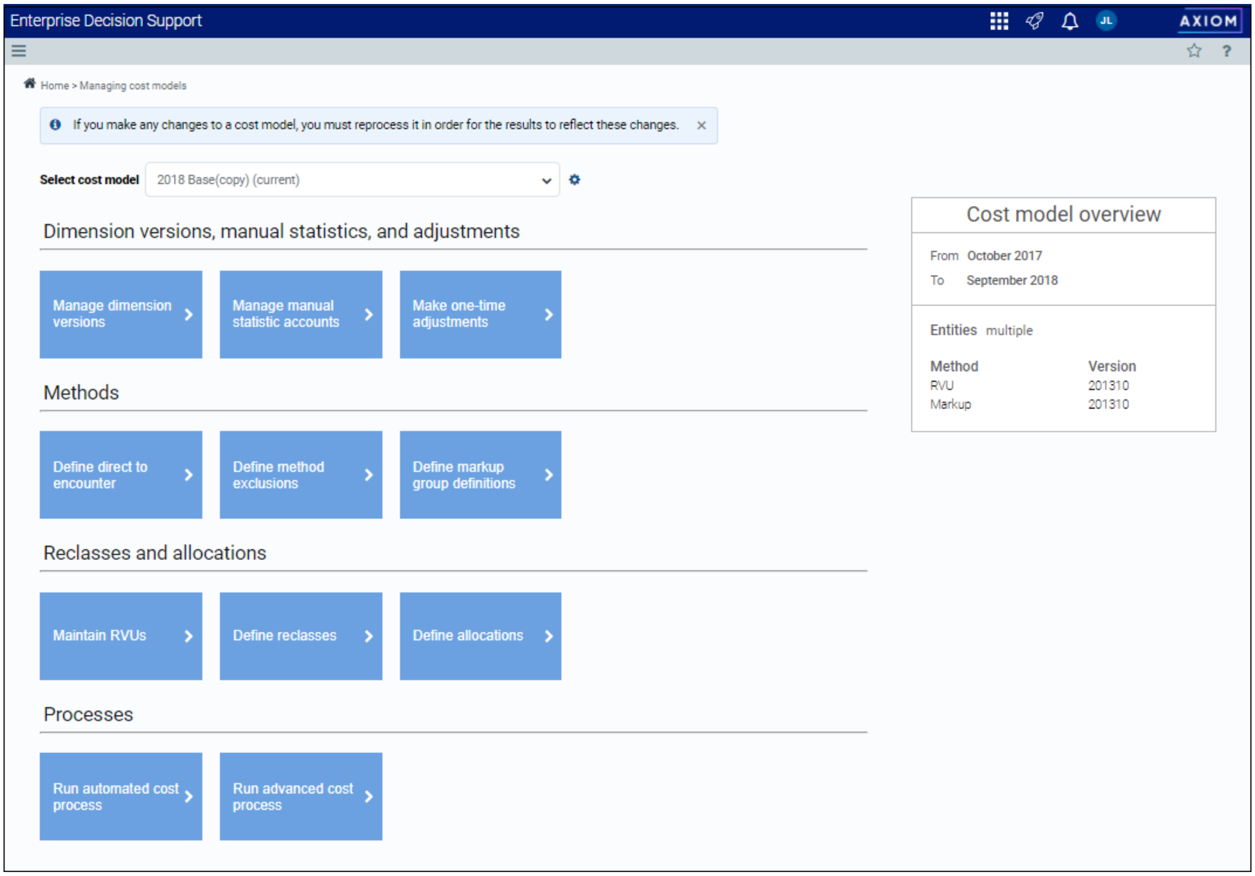
▶ How this feature works

What: In Axiom, a cost model is comprised of a series of configuration areas that you can easily modify to process costs as requirements and conditions change. A new data model allows cost models to be versioned, so that you can create multiple cost models, as needed, to support various real-time or planning scenarios. Most of these configuration areas are made up of individual tables, from which you can create multiple versions. You can swap these table versions in and out of the cost models to meet your needs. You can also create multiple cost models to meet your different costing needs, for example creating models for regions, hospitals, or fiscal quarters.



You can create and implement different versions of tables used in the cost model

The updated cost model home page directs you through the entire process of configuring or modifying a cost model from left to right, starting with **Manage dimension versions** and ending with **Define allocations**. After you have set up a cost model, you can process it fully or select different options within the process to run.



Manage the entire cost model configuration process from one location.

Where: From the Enterprise Decision Support home page, in the **Cost Accounting** section, click **Modify a cost model** or **Create a cost model**.

Who: Users assigned the EDS User or the EDS Admin role profile.

How: In the cost model home page, complete the following configuration options.

Dimension versions, manual statistics, and adjustments

- **Manage dimension versions** - Create versions of the cost categories, accounts, and departments dimensions, which includes data records used by Axiom when processing the cost model. You can also configure variability exceptions for each dimension.
- **Manage manual statistic accounts** - Define values by department for existing statistic accounts in addition to adding statistic accounts for departments.
- **Make one-time adjustments** - Modify account balances for a given department by changing one-time adjustments.

Methods

- **Define direct to encounter** - Create "pseudo" cost items to add to departments for costing those items or services normally not charged to the patient.
- **Define method exclusions** - Set up exclusions so certain cost items are not included as part of cost processing.
- **Define markup groups definitions** - Configure markups of cost items by cost item type or by pricing tier.

Reclasses and allocations

- **Maintain RVUs** - Add or edit the RVUs assigned to cost items within a department and entity.
- **Define reclasses** - Set up reclassification rules to specify moving dollars from one general ledger location to another during the costing process.
- **Define allocations** - Set up allocation rules and run order to move overhead expenses from support departments to revenue-producing departments during the costing process.

Processes

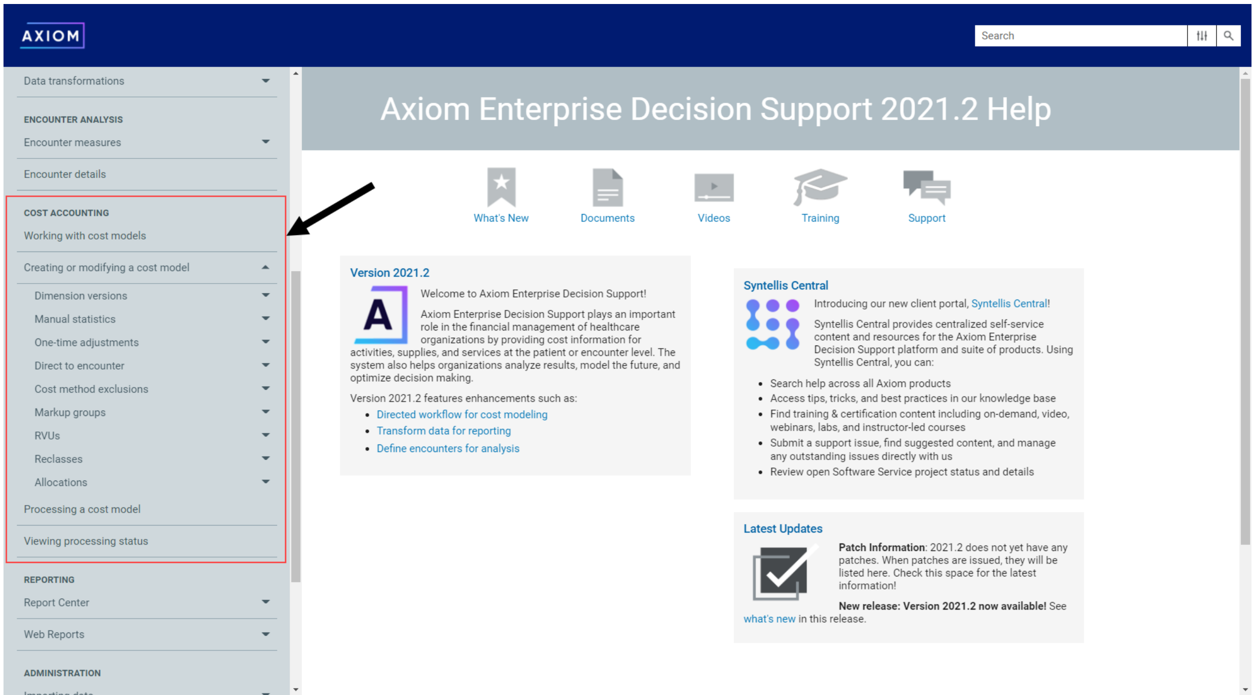
- **Run automated cost process** - Run the entire costing process from beginning to end.
- **Run advanced cost process** - Select only specific parts of the process to run.

TIP: To use this feature, we recommend that you read all of the associated online help topics listed in the "Where to find more information" section below.

Where to find more information

Due to the number of changes in the cost accounting feature, we recommend that you download and review the Axiom Enterprise Decision Support - Cost Management Guide.pdf or review the topics in the Cost Accounting area of the online help:

NOTE: The content in the PDF and in the online help is the same. The PDF simply provides a convenient way to review the help content outside of the product or to use for training purposes, as needed.



Processing a current cost model for closed periods

▶ Why use this feature

You can now process cost models for a closed period. For example, your organization may run a cost process monthly during the current fiscal year when only certain periods close so that the debits and credits used to calculate the cost comes from the same time period.

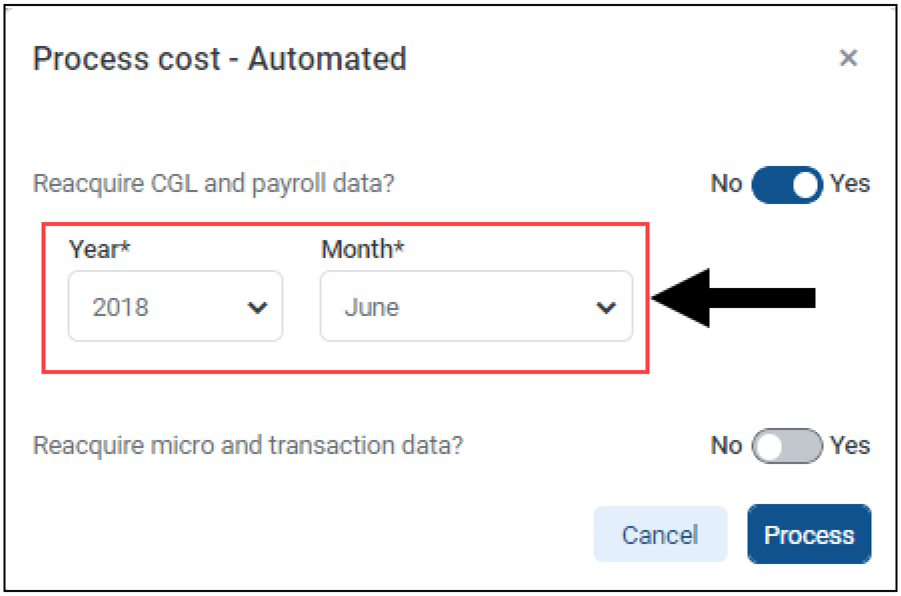
▶ How this feature works

What: When processing a current cost model, you can set the cost period end date so that Axiom acquires the last closed CGL and payroll data. This date must be within the model dates prior to the current period and include at least one period. For example, if a model has a January 1st start date and the current month is June, then the only months Axiom displays will be January through May.

Where: From the Enterprise Decision Support home page, in the **Cost accounting** section, click **Modify a cost model**.

Who: Users assigned the EDS User role profile.

How: Select the model from the **Select cost model** drop-down at the top of the cost model page. Under the **Processes** section, click **Run automated cost process**. To acquire the most recently closed CGL and payroll data, click the toggle to **Yes**, and from the **Year** and **Month** drop-downs, select the end date in which the CGL and payroll data were closed.



When processing a model within a model year, the processing dialog includes Year and Month drop-downs so that you can select the end date of the last closed month of CGL and payroll data to acquire and use in the model

Where to find more information

The following topics in the online help have been added or updated with information and instructions for using this feature:

- "Processing a cost model"
- Processing a cost model

Create what-if cost models

Why use this feature

You can now create a what-if cost model and use it to compare to your production or "live" models.

How this feature works

What: As part of creating or modifying a cost model, you can now enable or disable Axiom from summarizing the costs to the encounter level. If you disable summarization, you are in essence creating a what-if version of the model. You can then use the model to construct scenarios in which to compare to your production or "live" models. At any time, you can enable the summarization function—changing the what-if model to a production model—and vice versa.

Where: From the Enterprise Decision Support home page, in the **Cost accounting** section, click **Create a cost model** or **Modify a cost model**.

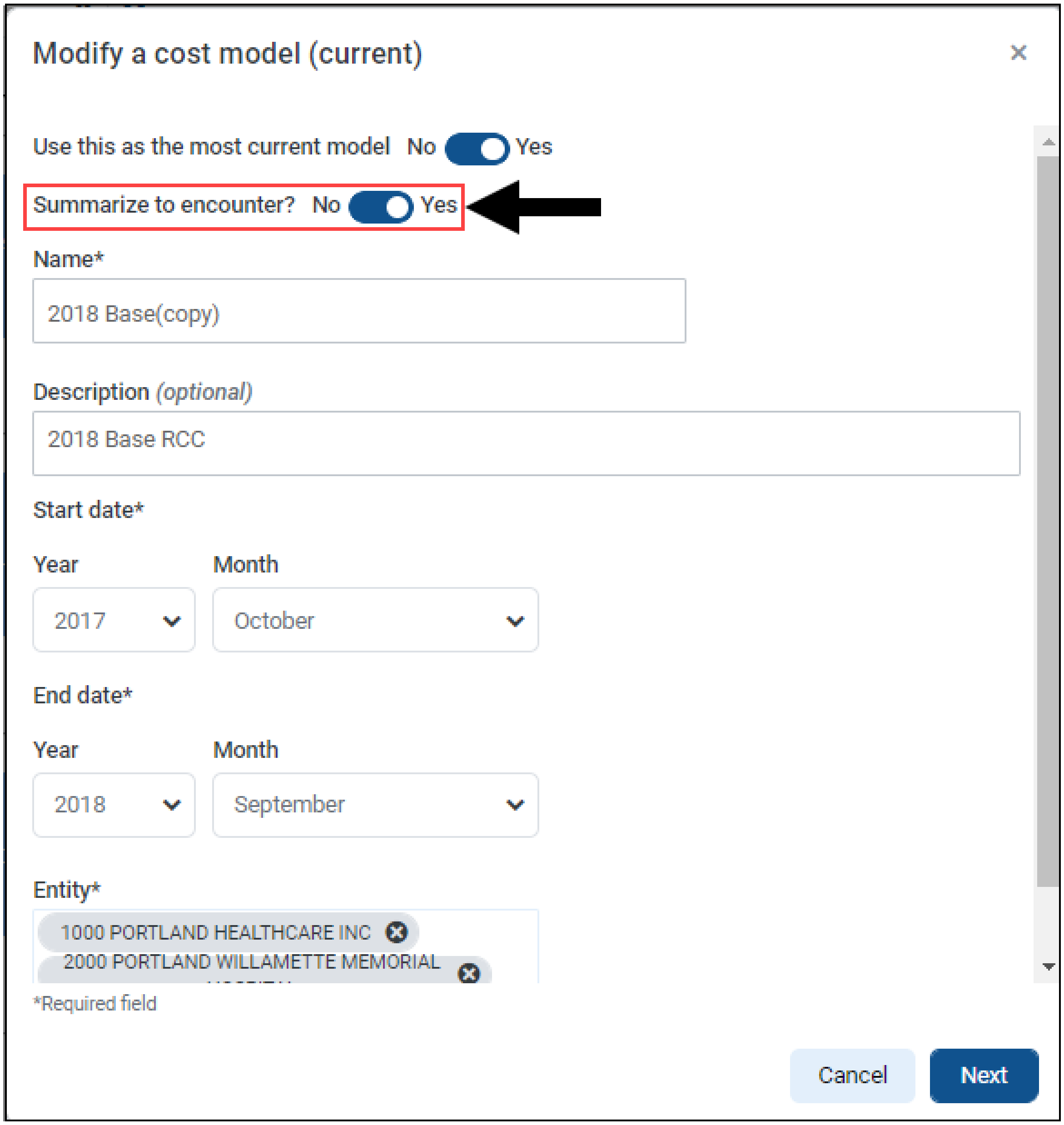
Who: Users assigned the EDS User role profile.

How: Create a model or select the model from the **Select cost model** drop-down at the top of the cost model page. In the **Create/Modify a cost model** dialog, do one of the following:

- To designate the model as a production or "live" model, sum up the cost model results to the encounter level by clicking the toggle to **Yes**.

  NOTE: Axiom will not allow you to select an overlapping model based on entity and cost period.

- To designate the model as a what-if model that you can use to compare different modeling scenarios against production or "live" models, click the toggle to **No**.



The toggle gives you the control to enable or disable the system from summarizing the costs to the encounter level

Where to find more information

The following topics in the online help have been added or updated with information and instructions for using this feature:

- "Creating or modifying a cost model"

Transform data for reporting

Why use this feature

You can manipulate data in the Axiom database for reporting purposes by using data transformation definitions. These definitions allow you to define how, when, and where to change values in the database using different calculation types with no SQL knowledge necessary. The results of calculations can then be stored in certain Axiom standard and custom fields.

Examples include:

- Perform calculations on encounter data elements and store the results in Axiom fields.
- Assign a date, numeric, or text constant to a field.
- Identify outliers.
- Perform If-Then-Else comparisons.
- Create basic formulas using constants as well as standard and custom fields for inputs

How this feature works

What: You manipulate Axiom data by using data transformation definitions. These definitions allow you to define how, when, and where to change values in the database using different calculation types. The results of calculations can then be stored in certain Axiom fields, and then used for reporting.

A data transformation definition is simply a mathematical formula that you configure that describes the data you want to use, how you want to use it, and where you want to store a result. When you create a definition, you choose a type, and Axiom prompts you to "fill in the blanks" by choosing:

- Calculation variables
- The table column fields to use in the calculation
- An operator
- A constant, if applicable
- Result variable
- The table column field in which to store the result

Types of data transformation calculations that you can perform include:

Type	Description
Assign Constant	Use to store a numeric, text, flag (Boolean), or date constant in an Axiom field. For example, you can store a benchmark or best practices length of stay for hip replacement surgery in an encounter custom field.

Type	Description
Basic Calculation	Calculate and store a value from Axiom numeric fields and constants. You may combine and group the fields and constants to form an expression using addition, subtraction, multiplication, and division operators.
Concatenate	Join Axiom fields and constants. You can use the constant as a delimiter.
Comparison	Create If Then Else formulas that compare Axiom fields to each other or to constants, and store a value based on whether the comparison is true or false.
Copy Field	Copy the value of one field to another field.

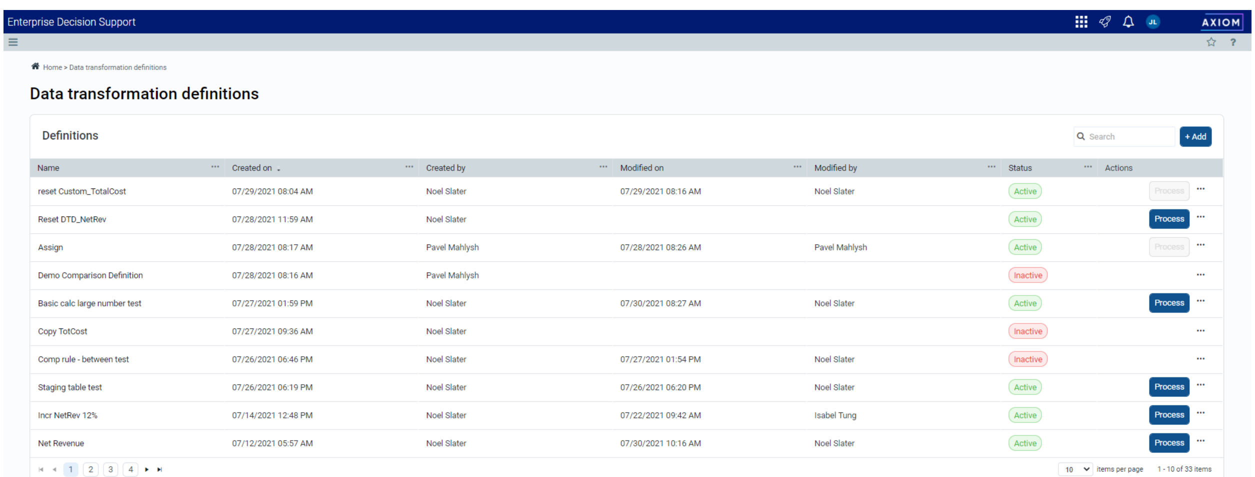
Where: From the Enterprise Decision Support home page, in the **Data enhancement and refinement** section, click **Define data transformations**.

> **NOTE:** This feature only displays to those with the Axiom EDS Rules Writer role profile.

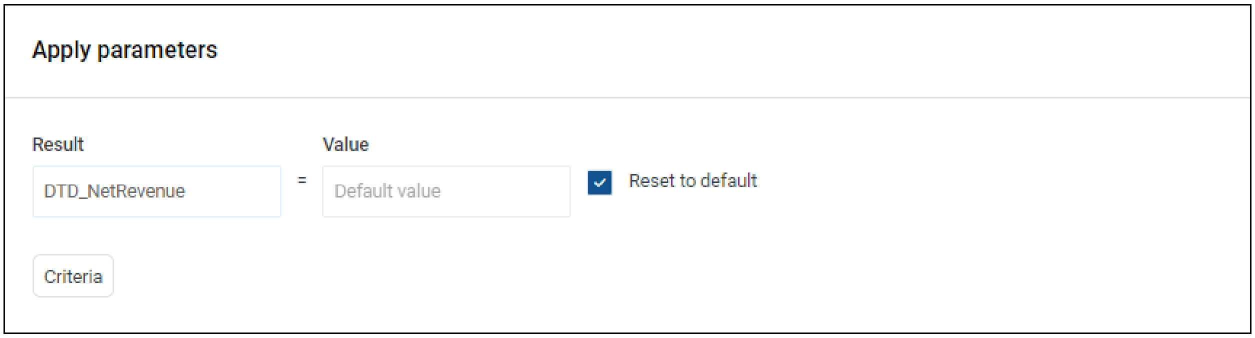
Who: Users assigned the EDS Rules Writer role profile.

How: Add a definition by clicking **+Add**. Edit, copy, or delete a definition by clicking the ellipsis (**...**) in the **Actions** column. Configure the definition by naming it and selecting the type of data transformation you want to apply. The definition prompts you with different entry fields, depending on the type of calculation you want to perform. After you are done and activate the definition, you can process it.

> **TIP:** To use this feature, we recommend that you read all of the associated online help topics listed in the "Where to find more information" section below.



Manage the definitions from one page.



Definition configuration is determined by the type of data transformation you want to set up.

▶ Where to find more information

The following topics in the online help have been added or updated with information and instructions for using this feature:

- "Transforming data for reporting"
  - "Adding, editing, or copying a data transformation definition"
  - "Activating or deactivating a data transformation definition"
  - "Deleting a data transformation definition"
  - "Processing a data transformation definition"

Define encounters for analysis

▶ Why use this feature

You can define and gather encounters together to easily analyze populations so that your organization can address a wide variety of business questions or challenges. This allows you to look at a problem and identify the affected population. For example, you may want to evaluate the causes behind readmissions or find out what hip replacement patients are still experiencing joint pain more than three months after surgery.

▶ How this feature works

What: By defining episodes and return population definitions in Axiom, you can gain insight across facilities, years, and patient care settings that are linked by a common ID with the flexibility to look at visits (and all of the associated visit data) for visits occurring before and after the index, anchor, or admission.

The definition allows you to configure the following:

- The date range in which the encounter(s) occurred

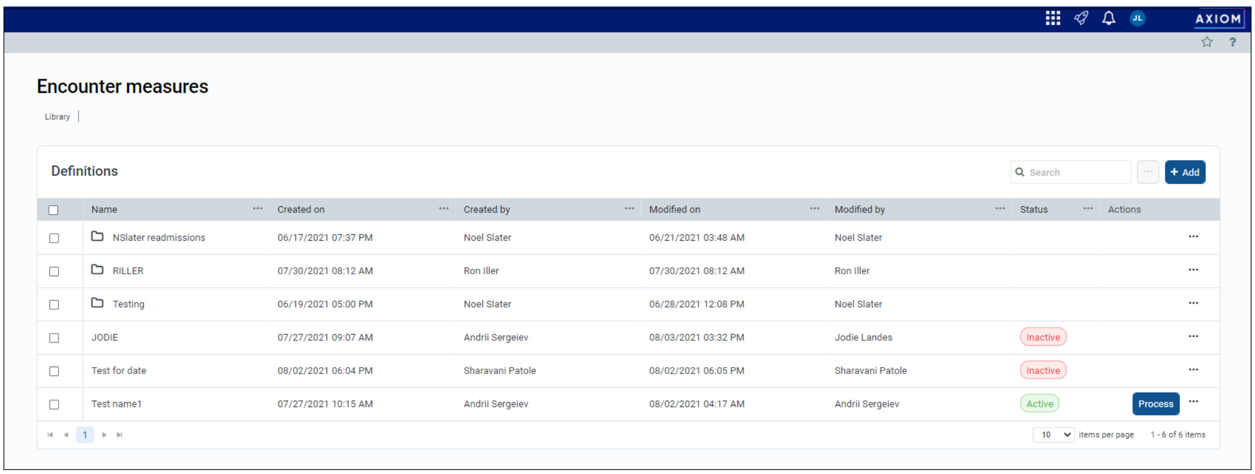
- The frequency and timeframe for when pre-anchor(s) and post-anchor(s) occured

Where: From the Enterprise Decision Support home page, in the **Encounter analysis** section, click **Define encounter rules**.

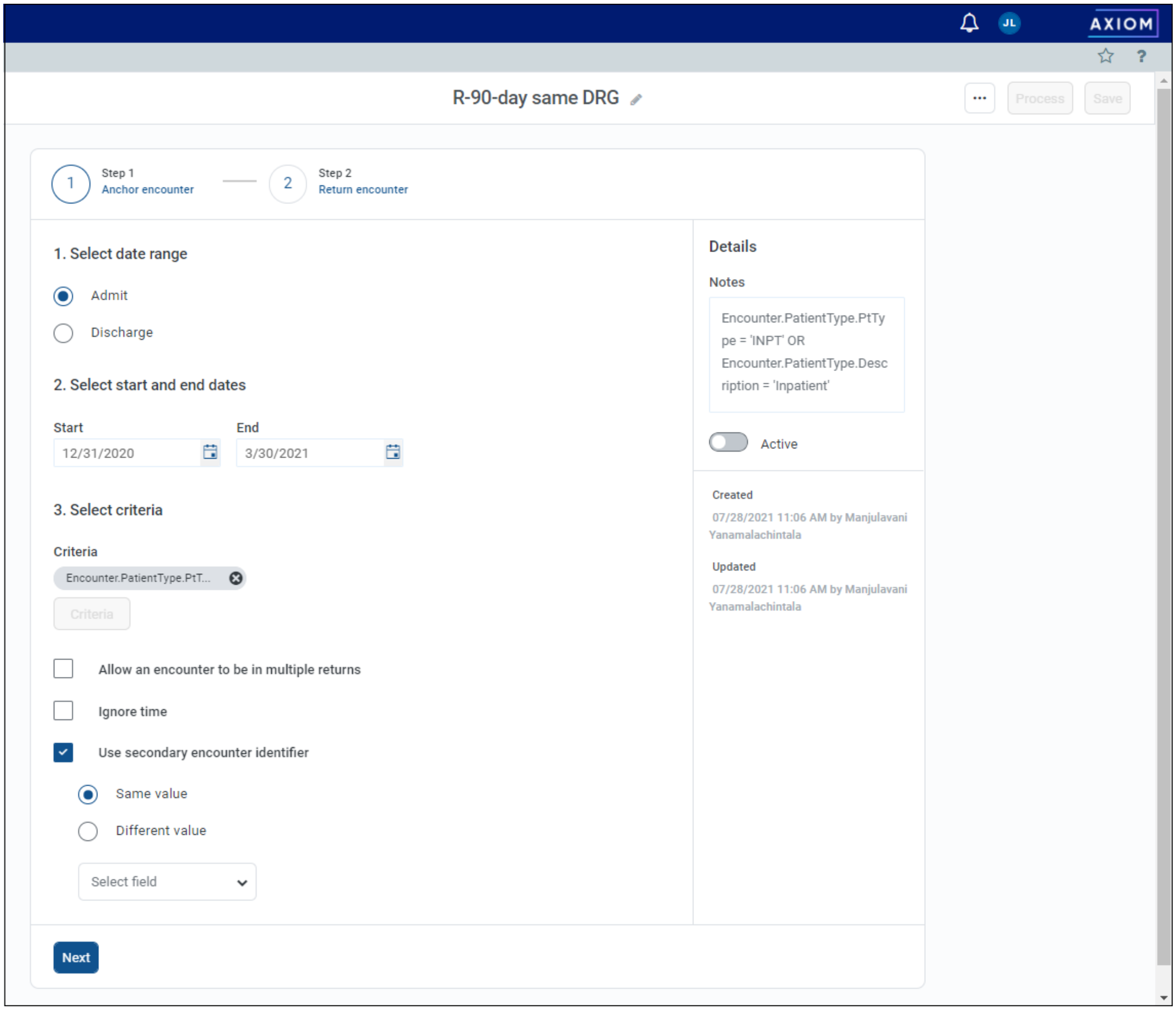
Who: Users assigned the EDS User role profile.

How: Add a definition by clicking **+Add**, and selecting either Episode or Return definition type. To search for a definition, you can use the search box in the upper right corner of the page. To filter the results in the table, click the ellipsis(**...**) in any of the available headings.

> **TIP:** To use this feature, we recommend that you read all of the associated online help topics listed in the "Where to find more information" section below.



Manage the definitions from one page.



The definition page clearly indicates the criteria needed and allows you to add notes to provide a description of the definition

Where to find more information

The following topics in the online help have been added or updated with information and instructions for using this feature:

- "Defining encounters"
  - "Managing folders"
  - "Adding, editing, or cloning an episode definition"
  - "Adding, editing, or cloning a return definition"
  - "Activating or deactivating an episode or return definition"
  - "Deleting an episode or return definition"
  - "Processing an episode or return definition"

The following topics in the online help have been added or updated with information and instructions for using this feature:

- Defining encounters
  - Managing folders
  - Adding, editing, or cloning an episode definition
  - Adding, editing, or cloning a return definition
  - Activating or deactivating an episode or return definition
  - Deleting an episode or return definition
  - Processing an episode or return definition

Cost Comparison dashboard

▶ Why use this feature

The Cost Comparison dashboard provides comprehensive profitability by service line, physician, case type, and payor mix to quantify volumes, cost, revenue, contribution margin, and net income by service line and physician. With this dashboard, you can Identify specific opportunities for cost reduction.

DRG Code and Name	Encounters	ALOS	Variable Cost / Encounter	Top Quartile	Opportunity per Encounter	Opportunity
	23	6.3	$14,972	$0	$14,972	$344,349
003 ECMO OR TRACH W MV >96 HRS OR PDX EXC FACE, MOUTH &...	16	24.4	$94,772	$147,970	($53,198)	($851,171)
004 TRACH W MV >96 HRS OR PDX EXC FACE, MOUTH & NECK W/...	34	26.1	$50,560	$96,859	($46,299)	($1,574,160)
011 TRACHEOSTOMY FOR FACE, MOUTH & NECK DIAGNOSES OR L...	2	27.5	$0	$85,205	($85,205)	($170,409)
023 CRANIOTOMY W MAJOR DEVICE IMPLANT OR ACUTE COMPLE...	25	8.7	$20,305	$22,917	($2,612)	($65,302)
024 CRANIO W MAJOR DEV IMPL/ACUTE COMPLEX CNS PDX W/O ...	10	4.0	$23,348	$26,024	($2,676)	($26,759)
025 CRANIOTOMY & ENDOVASCULAR INTRACRANIAL PROCEDURE...	53	6.9	$23,933	$26,512	($2,579)	($136,682)
026 CRANIOTOMY & ENDOVASCULAR INTRACRANIAL PROCEDURE...	29	6.7	$15,842	$19,529	($3,687)	($106,927)
027 CRANIOTOMY & ENDOVASCULAR INTRACRANIAL PROCEDURE...	23	3.1	$8,718	$16,184	($7,466)	($171,709)
028 SPINAL PROCEDURES W MCC	5	10.2	$11,784	$23,540	($11,755)	($58,777)
029 SPINAL PROCEDURES W CC OR SPINAL NEUROSTIMULATORS	14	5.5	$27,809	$21,504	$6,305	$88,271
030 SPINAL PROCEDURES W/O CC/MCC	4	5.3	$37,390	$11,331	$26,059	$104,237
031 VENTRICULAR SHUNT PROCEDURES W MCC	2	7.0	$23,404	$19,057	$4,346	$8,692
032 VENTRICULAR SHUNT PROCEDURES W CC	2	9.0	$9,170	$13,198	($4,028)	($8,056)
033 VENTRICULAR SHUNT PROCEDURES W/O CC/MCC	3	1.3	$14,662	$12,491	$2,172	$6,516
034 CAROTID ARTERY STENT PROCEDURE W MCC	2	2.0	$12,123	$34,329	($22,205)	($44,411)
035 CAROTID ARTERY STENT PROCEDURE W CC	4	1.5	$7,543	$13,103	($5,561)	($22,243)
036 CAROTID ARTERY STENT PROCEDURE W/O CC/MCC	7	1.0	$8,036	$13,153	($5,117)	($35,819)
037 EXTRACRANIAL PROCEDURES W MCC	5	7.0	$12,092	$22,149	($10,058)	($50,288)
038 EXTRACRANIAL PROCEDURES W CC	30	2.3	$8,450	$13,445	($4,995)	($149,846)
039 EXTRACRANIAL PROCEDURES W/O CC/MCC	63	1.3	$8,553	$11,701	($3,149)	($198,366)
040 PERIPH/CRANIAL NERVE & OTHER NERV SYST PROC W MCC	3	16.0	$38,348	$13,489	$24,859	$74,578
041 PERIPH/CRANIAL NERVE & OTHER NERV SYST PROC W CC OR ...	8	5.3	$14,209	$23,060	($8,851)	($70,809)
042 PERIPH/CRANIAL NERVE & OTHER NERV SYST PROC W/O CC/...	2	3.5	$7,053	$14,107	($7,053)	($14,107)
052 SPINAL DISORDERS & INJURIES W CC/MCC	2	1.5	$0	$27,694	($27,694)	($55,387)
054 NERVOUS SYSTEM NEOPLASMS W MCC	50	5.7	$9,172	$8,448	$724	$36,216
055 NERVOUS SYSTEM NEOPLASMS W/O MCC	24	4.5	$9,504	$9,861	($357)	($8,570)
056 DEGENERATIVE NERVOUS SYSTEM DISORDERS W MCC	20	9.0	$10,766	$3,681	$7,085	$141,703
057 DEGENERATIVE NERVOUS SYSTEM DISORDERS W/O MCC	119	8.0	$6,167	$5,617	$550	$65,463
Total	**35,463**	**4.1**	**$8,870**	**$10,134**	**($1,264)**	**($44,819,512)**

How this feature works

What: You view a dashboard and use slicers and built-in dashboard tools to select the exact entities, service lines, date ranges, and other data elements to select the precise data you want to work with.

Where: From the Enterprise Decision Support home page, in the **Reporting** section, click **Intelligence Center**. From the Intelligence Center, click **Enterprise Decision Support**, then click **Standard Dashboards**, then **Cost Comparison Dashboard**

Who: Users assigned the EDS User role profile.

How: Use slicers and other dashboard tools to specify the entities, service lines, and other data types to view the needed subset of the data on each dashboard.

> **TIP:** To use this feature, we recommend that you read all of the associated online help topics listed in the "Where to find more information" section below.

Where to find more information

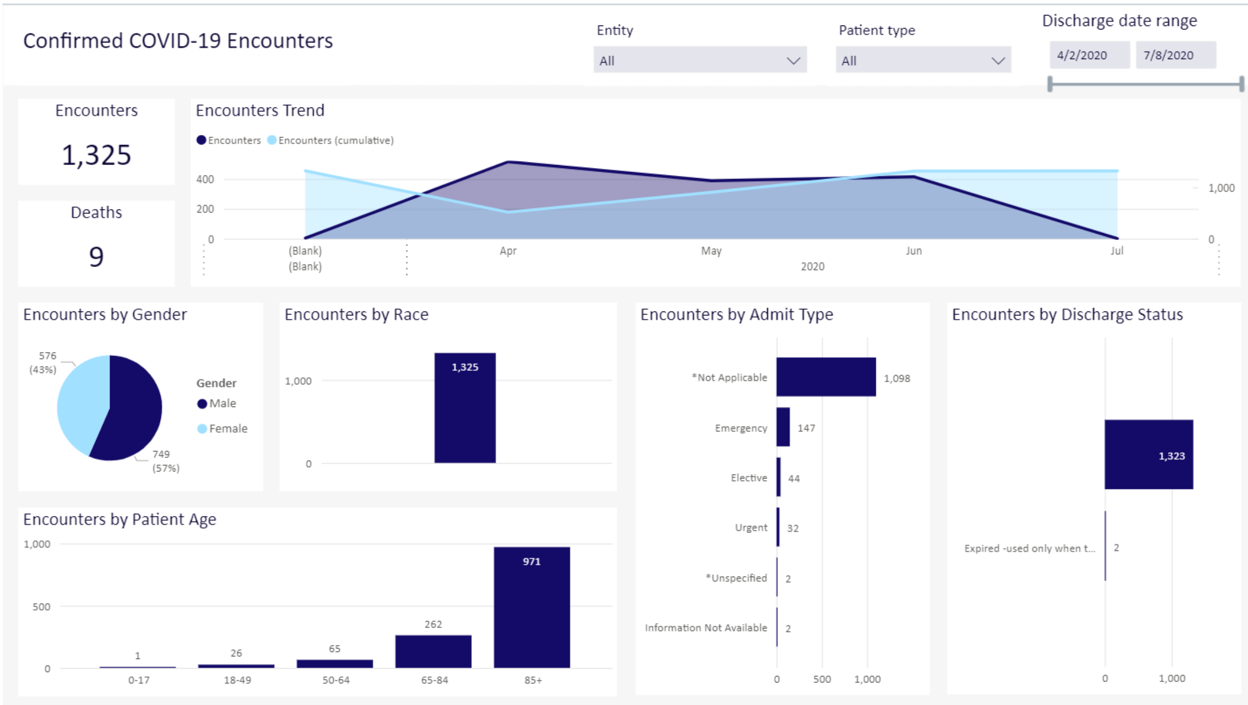
The following topics in the online help have been added or updated with information and instructions for using this feature:

- "Dashboards"
  - "Dashboard reports"
  - "Dashboard tools"
- "Cost Comparison dashboard"

COVID Impact dashboard

Why use this feature

COVID Impact is a collection of reports with Axiom Intelligence visualizations that enable users to analyze how COVID-19 is affecting their institutions, from both cost and utilization aspects. In addition, information about COVID patients include demographic and geographic information, details of treatments for each patient encounter, and payor information. The data presented can help the institution analyze their current handling of COVID encounters and provide data for planning.



The reports are:

- Confirmed COVID-19 Encounters, which provides patient demographic information and shows encounter trends over time.
- COVID-19 Geography, which provides an interactive map of the United States showing the locations and relative size of COVID encounters. Users can view data by state, county, or ZIP code, aiding in the identification of COVID clusters.
- Utilization, which examines encounters by total cost range, cost per case by specialty groups, and usage and costs. Costs are broken down by individual items used by the institution for its COVID encounters.
- Encounter Detail, which lists all COVID encounters with a high-level summary and links to view the full encounter detail for the individual patient. Encounter details include summary of their stay, demographics, groupings the patient belongs to, ICD codes and description for all diagnoses, all providers who treated the patient, financial details, payor types, and surgeries.
- Financials, which shows costs for DRGs, net income by financial class, and costs per encounter.

▶ How this feature works

What: You view a dashboard and use slicers and built-in dashboard tools to select the exact entities, service lines, date ranges, and other data elements to select the precise data you want to work with.

Where: From the Enterprise Decision Support home page, in the **Reporting** section, click **Intelligence Center**. From the Intelligence Center, click **Enterprise Decision Support**, then click **Standard Dashboards**, then **COVID Impact**

Who: Users assigned the EDS User role profile.

How: Use slicers and other dashboard tools to specify the entities, service lines, and other data types to view the needed subset of the data on each dashboard.

> **TIP:** To use this feature, we recommend that you read all of the associated online help topics listed in the "Where to find more information" section below.

Where to find more information

The following topics in the online help have been added or updated with information and instructions for using this feature:

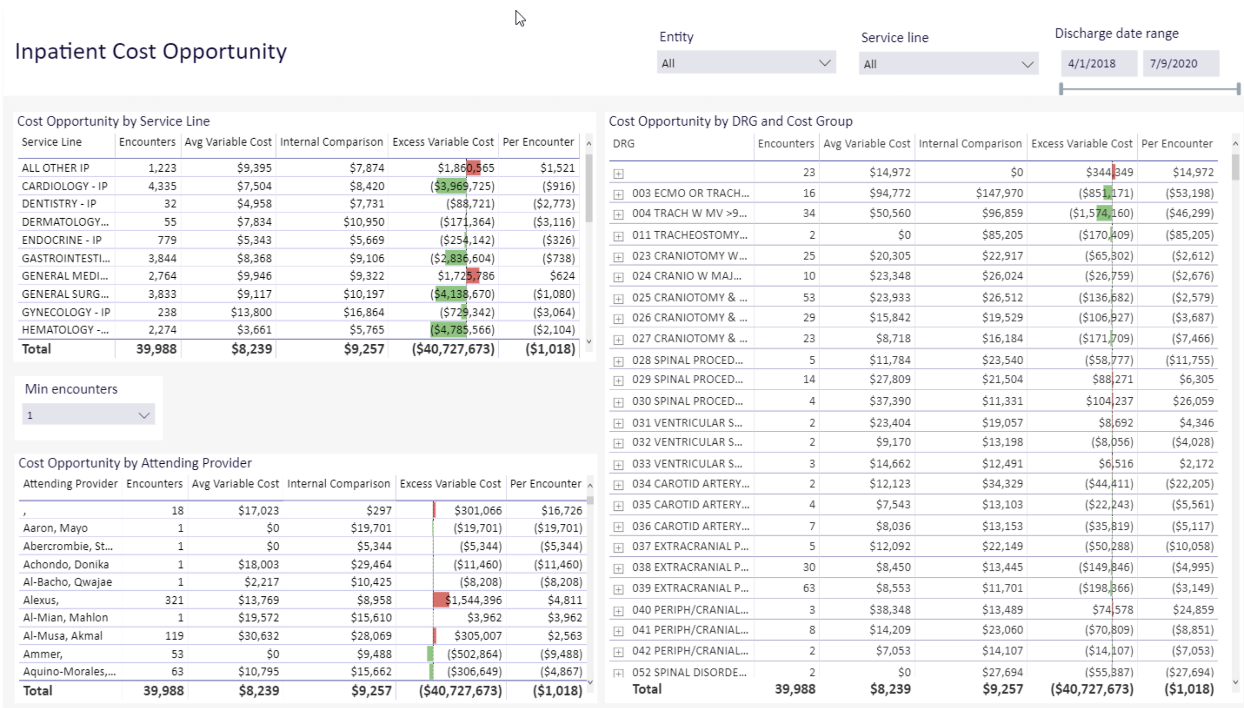
- "Dashboards"
  - "Dashboard reports"
  - "Dashboard tools"
- COVID Impact dashboard"
  - "Confirmed COVID-19 Encounters"
  - "COVID-19 Geography"
  - "Utilization"
  - "Encounter Detail"
  - "Financials"

The following topics in the online help have been added or updated with information and instructions for using this feature:

Physician Variations dashboard

Why use this feature

Physician Variations is a collection of reports with Axiom Intelligence visualizations that allow users to analyze variations in care and costs for physicians and service lines. Using these reports, both efficiencies and costs are compared across the institution.



The reports are:

- Inpatient Cost Opportunity, which visualizes cost opportunities by service line, by attending provider, and by DRG and cost group
- Inpatient Length of Stay Opportunity, which visualizes opportunities as excess days by attending provider and by DRG
- Inpatient Contribution Margin, which visualizes the contribution margin by attending provider. by payor mix, and by DRG
- Inpatient Encounter Selection, which analyzes cost opportunities in service lines by DRG, by principal diagnosis, and by principal procedure. It also analyzes cost opportunities for attending physicians

How this feature works

What: You view a dashboard and use slicers and built-in dashboard tools to select the exact entities, service lines, date ranges, and other data elements to select the precise data you want to work with.

Where: From the Enterprise Decision Support home page, in the **Reporting** section, click **Intelligence Center**. From the Intelligence Center, click **Enterprise Decision Support**, then click **Standard Dashboards**, then **Physician Variations**

Who: Users assigned the EDS User role profile.

How: Use slicers and other dashboard tools to specify the entities, service lines, and other data types to view the needed subset of the data on each dashboard.

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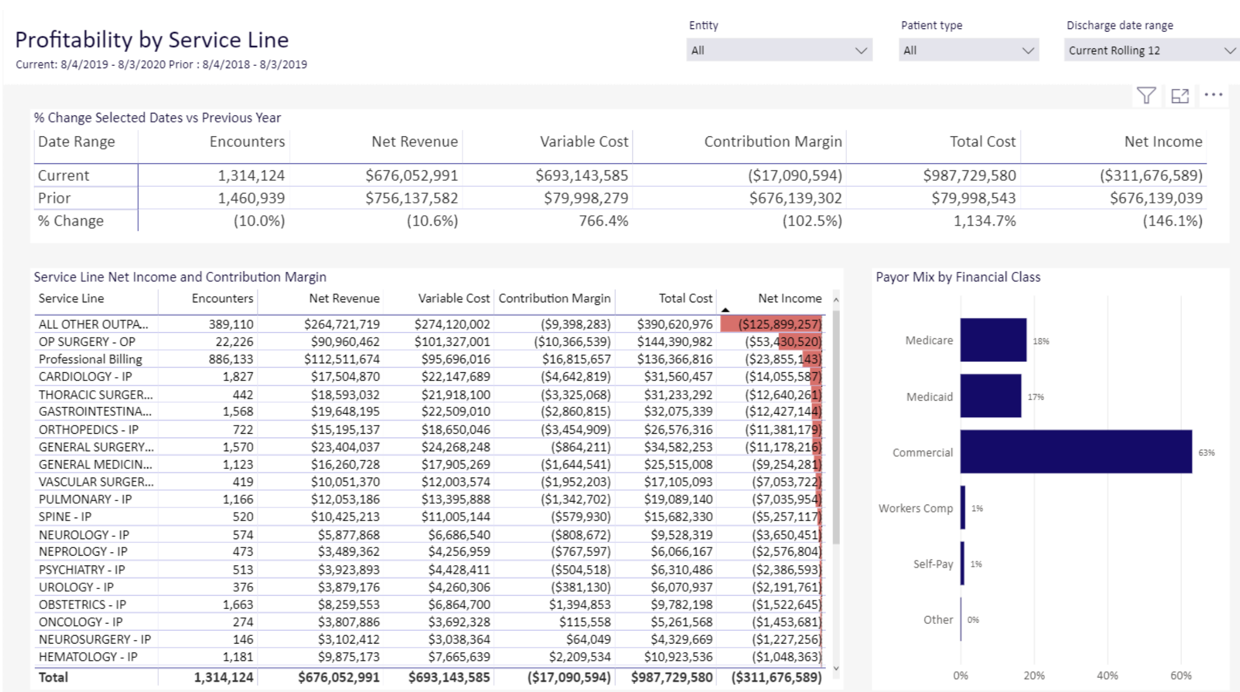
The following topics in the online help have been added or updated with information and instructions for using this feature:

- "Dashboards"
  - "Dashboard reports"
  - "Dashboard tools"
- "Physician Variations dashboard"

Service Line dashboard

Why use this feature

The Service Line dashboard provides comprehensive profitability by service line, physician, case type, and payor mix to quantify volumes, cost, revenue, contribution margin, and net income by service line and physician.



Date Range	Encounters	Net Revenue	Variable Cost	Contribution Margin	Total Cost	Net Income
Current	1,314,124	$676,052,991	$693,143,585	($17,090,594)	$987,729,580	($311,676,589)
Prior	1,460,939	$756,137,582	$79,998,279	$676,139,302	$79,998,543	$676,139,039
% Change	(10.0%)	(10.6%)	766.4%	(102.5%)	1,134.7%	(146.1%)

Service Line	Encounters	Net Revenue	Variable Cost	Contribution Margin	Total Cost	Net Income
ALL OTHER OUTPA...	389,110	$264,721,719	$274,120,002	($9,398,283)	$390,620,976	($125,899,257)
OP SURGERY - OP	22,226	$90,960,462	$101,327,001	($10,366,539)	$144,390,982	($53,430,520)
Professional Billing	886,133	$112,511,674	$95,696,016	$16,815,657	$136,366,816	($23,855,143)
CARDIOLOGY - IP	1,827	$17,504,870	$22,147,689	($4,642,819)	$31,560,457	($14,055,587)
THORACIC SURGER...	442	$18,593,032	$21,918,100	($3,325,068)	$31,233,292	($12,640,261)
GASTROINTESTINA...	1,568	$19,648,195	$22,509,010	($2,860,815)	$32,075,339	($12,427,144)
ORTHOPEDICS - IP	722	$15,195,137	$18,650,046	($3,454,909)	$26,576,316	($11,381,179)
GENERAL SURGERY...	1,570	$23,404,037	$24,268,248	($864,211)	$34,582,253	($11,178,216)
GENERAL MEDICIN...	1,123	$16,260,728	$17,905,269	($1,644,541)	$25,515,008	($9,254,281)
VASCULAR SURGER...	419	$10,051,370	$12,003,574	($1,952,203)	$17,105,093	($7,053,722)
PULMONARY - IP	1,166	$12,053,186	$13,395,888	($1,342,702)	$19,089,140	($7,035,954)
SPINE - IP	520	$10,425,213	$11,005,144	($579,930)	$15,682,330	($5,257,117)
NEUROLOGY - IP	574	$5,877,868	$6,686,540	($808,672)	$9,528,319	($3,650,451)
NEPROLOGY - IP	473	$3,489,362	$4,256,959	($767,597)	$6,066,167	($2,576,804)
PSYCHIATRY - IP	513	$3,923,893	$4,428,411	($504,518)	$6,310,486	($2,386,593)
UROLOGY - IP	376	$3,879,176	$4,260,306	($381,130)	$6,070,937	($2,191,761)
OBSTETRICS - IP	1,663	$8,259,553	$6,864,700	$1,394,853	$9,782,198	($1,522,645)
ONCOLOGY - IP	274	$3,807,886	$3,692,328	$115,558	$5,261,568	($1,453,681)
NEUROSURGERY - IP	146	$3,102,412	$3,038,364	$64,049	$4,329,669	($1,227,256)
HEMATOLOGY - IP	1,181	$9,875,173	$7,665,639	$2,209,534	$10,923,536	($1,048,363)
Total	**1,314,124**	**$676,052,991**	**$693,143,585**	**($17,090,594)**	**$987,729,580**	**($311,676,589)**

The reports are:

- Profitability by Service Line
- Profitability Trends
- Service Line Summary
- Provider Net Income
- Service Line Opportunity -- Inpatient

How this feature works

What: You view a dashboard and use slicers and built-in dashboard tools to select the exact entities, service lines, date ranges, and other data elements to select the precise data you want to work with.

Where: From the Enterprise Decision Support home page, in the **Reporting** section, click **Intelligence Center**. From the Intelligence Center, click **Enterprise Decision Support**, then click **Standard Dashboards**, and then **Service Line**.

Who: Users assigned the EDS User role profile.

How: Before you can use the Service Line Dashboard, you must first set the current period in Axiom Decision Support. In the dashboard, use slicers and other dashboard tools to specify the entities, service lines, and other data types to view the needed subset of the data on each dashboard.

> **TIP:** To use this feature, we recommend that you read all of the associated online help topics listed in the "Where to find more information" section below.

Where to find more information

The following topics in the online help have been added or updated with information and instructions for using this feature:

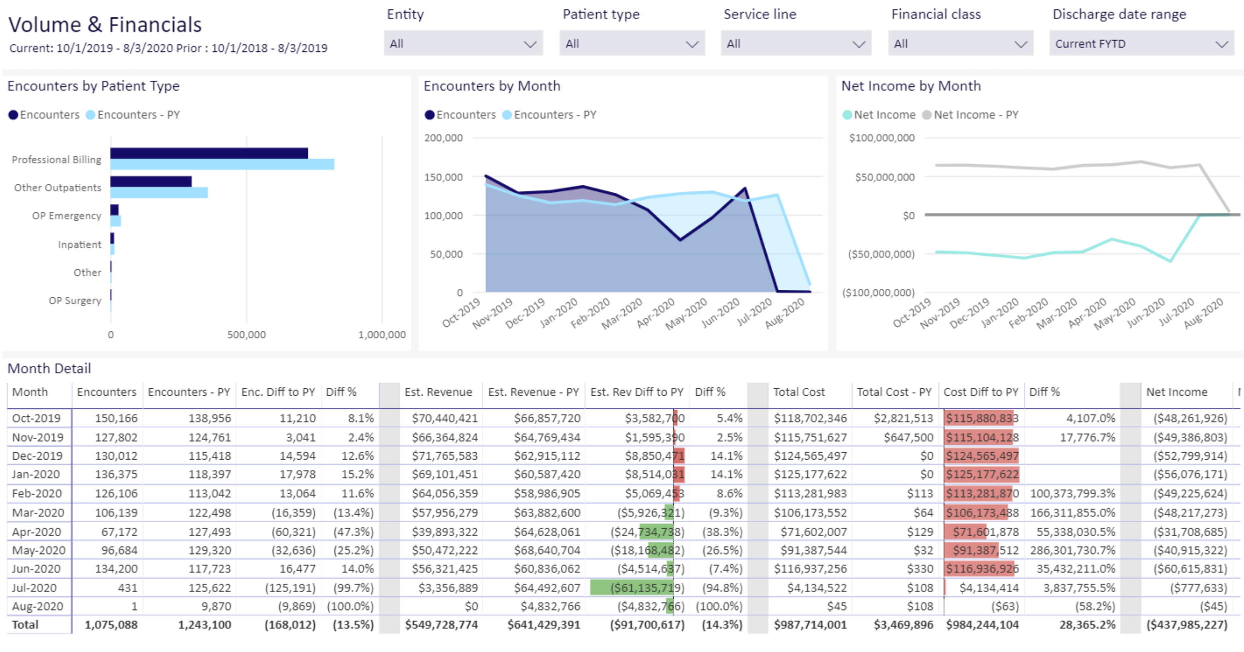
- Dashboards
  - "Dashboard reports"
  - "Dashboard tools"
- "Service Line dashboard"
  - "Configuring the Service Line Dashboard"
  - "Using the Service Line Analytics Dashboard"

The following topics in the online help have been added or updated with information and instructions for using this feature:

Volumes and Financials dashboard

▶ Why use this feature

Volumes and Financials provide details for all encounters, including encounters and costs, trends, net incomes, and inpatient mortality.



Month	Encounters	Encounters - PY	Enc. Diff to PY	Diff %	Est. Revenue	Est. Revenue - PY	Est. Rev Diff to PY	Diff %	Total Cost	Total Cost - PY	Cost Diff to PY	Diff %	Net Income
Oct-2019	150,166	138,956	11,210	8.1%	$70,440,421	$66,857,720	$3,582,700	5.4%	$118,702,346	$2,821,513	$115,880,833	4,107.0%	($48,261,926)
Nov-2019	127,802	124,761	3,041	2.4%	$66,364,824	$64,769,434	$1,595,390	2.5%	$115,751,627	$647,500	$115,104,128	17,776.7%	($49,386,803)
Dec-2019	130,012	115,418	14,594	12.6%	$71,765,583	$62,915,112	$8,850,471	14.1%	$124,565,497	$0	$124,565,497		($52,799,914)
Jan-2020	136,375	118,397	17,978	15.2%	$69,101,451	$60,587,420	$8,514,031	14.1%	$125,177,622	$0	$125,177,622		($56,076,171)
Feb-2020	126,106	113,042	13,064	11.6%	$64,056,359	$58,986,905	$5,069,453	8.6%	$113,281,983	$113	$113,281,870	100,373,799.3%	($49,225,624)
Mar-2020	106,139	122,498	(16,359)	(13.4%)	$57,956,279	$63,882,600	($5,926,321)	(9.3%)	$106,173,552	$64	$106,173,488	166,311,855.0%	($48,217,273)
Apr-2020	67,172	127,493	(60,321)	(47.3%)	$39,893,322	$64,628,061	($24,734,738)	(38.3%)	$71,602,007	$129	$71,601,878	55,338,030.5%	($31,708,685)
May-2020	96,684	129,320	(32,636)	(25.2%)	$50,472,222	$68,640,704	($18,168,482)	(26.5%)	$91,387,544	$32	$91,387,512	286,301,730.7%	($40,915,322)
Jun-2020	134,200	117,723	16,477	14.0%	$56,321,425	$60,836,062	($4,514,637)	(7.4%)	$116,937,256	$330	$116,936,926	35,432,211.0%	($60,615,831)
Jul-2020	431	125,622	(125,191)	(99.7%)	$3,356,889	$64,492,607	($61,135,719)	(94.8%)	$4,134,522	$108	$4,134,414	3,837,755.5%	($777,633)
Aug-2020	1	9,870	(9,869)	(100.0%)	$0	$4,832,766	($4,832,766)	(100.0%)	$45	$108	($63)	(58.2%)	($45)
Total	**1,075,088**	**1,243,100**	**(168,012)**	**(13.5%)**	**$549,728,774**	**$641,429,391**	**($91,700,617)**	**(14.3%)**	**$987,714,001**	**$3,469,896**	**$984,244,104**	**28,365.2%**	**($437,985,227)**

The reports are:

- Volumes & Financials: This report shows encounters and the associated costs on a monthly basis, and net incomes. It compares the current year encounters with the previous year for the same month.
- Trends: This report has three trend views. First is a list of all the months in the date range you selected, with the number of encounter, estimated revenue, total cost, and net income. Next is a graph of the number of encounters over your date range. Net Income Trend shows net incomes using a base line of $0, giving you a quick view of positive and negative net income over your date range.
- Provider Detail: First, this report shows percentages of encounters by the financial class. Next is a table of providers with their encounters, costs, and net income. Totals for all provides is also provided.

> **TIP:** For easier viewing, click once in a row you want to review to dim the other rows in the table.

- Provider Net Income: You can view volume and net income in a bubble chart. Use splicers to customize the view, such as by service line or financial class. You can use multiple selections in splicer drop-down menus.
- Inpatient Mortality: This report lets you view mortality for inpatients in several ways. First, the mortality rate is shown in a graph by the month over your chose date range. Next, table lists counts for encounters and death within those encounters and the mortality rate: the data may be viewed by attending provider, DRG, provider specialty or service line. Finally, a chart shows deaths by standard age ranges.
- Net Income: Income, both positive and negative, is shown on a cumulative chart over your selected date range.

How this feature works

What: You view a dashboard and use slicers and built-in dashboard tools to select the exact entities, length of stay, date ranges, and other data elements to select the precise data you want to work with.

Where: From the Enterprise Decision Support home page, in the **Reporting** section, click **Intelligence Center**. From the Intelligence Center, click **Enterprise Decision Support**, then click **Standard Dashboards**, then **Volumes and Financials**.

Who: Users assigned the EDS User role profile.

How: Use slicers and other dashboard tools to specify the entities, service lines, and other data types to view the needed subset of the data on each dashboard.

TIP: To use this feature, we recommend that you read all of the associated online help topics listed in the "Where to find more information" section below.

Where to find more information

The following topics in the online help have been added or updated with information and instructions for using this feature:

- Dashboards
  - "Dashboard reports"
  - "Dashboard tools"

- Volumes and Financials dashboard
  - "Volume & Financials"
  - "Trends"
  - "Provider Detail"
  - "Provider Net Income"
  - "Inpatient Mortality"
  - "Net Income"

The following topics in the online help have been added or updated with information and instructions for using this feature:

What to do know before upgrading

IMPORTANT: You must apply the Axiom 2021.2 upgrade before applying any 2021.2 Axiom product upgrades. Axiom upgrades are backwards compatible so you can upgrade different products at different times, but you must upgrade to the Axiom 2021.2 *before* the first product upgrade. Refer to the **Axiom 2021.2 Release Notes** and **Axiom Healthcare Suite 2021.2 Release Notes** for considerations before upgrading.

When upgrading to the 2021.2.3 version of Axiom Enterprise Decision Support, keep in mind the following:

- This product upgrade contains updated templates, calculation methods, driver files, and remediated defects.
- KHA delivered reports may be removed or replaced. Any report that you saved under a different name or created new will remain untouched. Replaced reports are available in Document History, if needed.
- Any KHA delivered report that was moved to a new location by the client will automatically move back to its original location.
- KHA product templates and calculation method libraries will be replaced.
- Process definitions will not be replaced. Process Manager will not currently work with the new system tables and web-based pages and utilities. Consequently, please plan on reviewing and potentially revising any Cost Accounting Process Definitions depending on the scope and what tasks have been created and are in use.
- Security roles and sub-systems will be reset to their configured settings for the Axiom defined roles. All security exceptions you may have made at the individual user level will remain intact.
- Specific items configured as part of your company or organization's implementation such as imports, exports, driver files, and process management files, will remain as is. Any required modifications to these areas are covered in the release notes, if required. For example, Process Manager defined processes for Cost Accounting will need to be modified by Client Success and has limitations with accessing web-based tasks.

Preparing for and scheduling upgrades

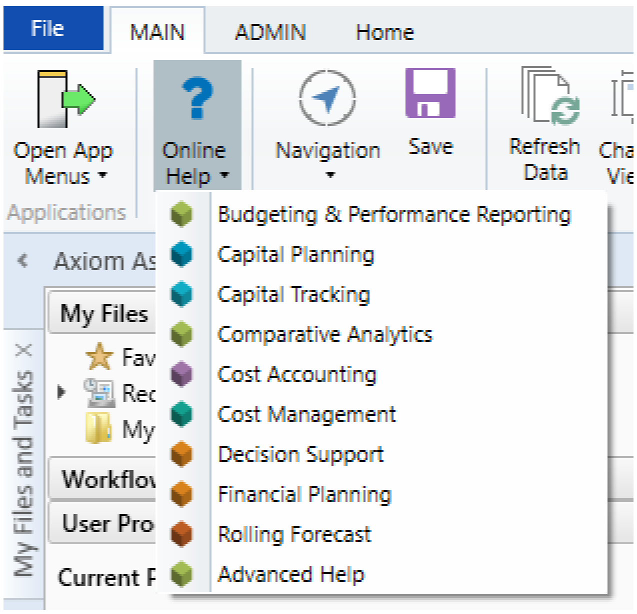
Summary of the upgrade process:

1. **Review product release notes** – Review this document to familiarize yourself with the new features and functionality.
2. **Schedule an installation date** – Submit a request to your organization's Axiom System Administrator to contact support@syntellis.com to schedule an installation date and time with at least three days of advance notice. The request should include the following information:
   - Desired Axiom Software platform version.
   - Desired Axiom for Healthcare product and version.
   - Indicate whether to first refresh the Axiom test sandbox with a copy of the production instance of Axiom and apply update(s) to it. If so, provide the soonest that Syntellis can do this.
   - Propose an approximate two-hour downtime window when Syntellis can apply update(s) to the production instance of Axiom during regular business hours, Monday through Friday 7 AM to 7 PM Central (except holidays recognized by Syntellis).
3. **Complete manual configuration updates** – After installing the upgrade, review any manual setup steps needed to enable features for this version.

Getting help and training

Syntellis provides world-class resources at your fingertips directly within the Axiom Software system. Axiom Help provides topics, knowledge base articles, documents, webinar/training announcements, and videos to guide you through managing your system. To access these resources, do any of the following:

- **Online help** - From the Main or Admin ribbon tab, click **Online Help**, and then select the product. Axiom Help opens in a new browser window. The online help will only open for products you are licensed to use.



- **Contextual help** - Form/web-enabled features include contextual help directly within the user interface. This information provides a quick summary and/or instructions specifically related to the screen you are using. You can access this information by clicking the question mark in the upper right corner of the screen. For more detailed information, open Axiom Help by clicking **Open Help** at the top of the contextual help dialog.

Syntellis Central

Syntellis Central provides centralized self-service content and resources for the Axiom Enterprise Decision Support platform and suite of products. Using Syntellis Central, you can:

- Search help across all Axiom products
- Access tips, tricks, and best practices in our knowledge base
- Find training & certification content including on-demand, video, webinars, labs, and instructor-led courses

- Submit a support issue, find suggested content, and manage any outstanding issues directly with us
- Review open Software Service project status and details

Issues resolved in 2021.2

The following tables list the resolutions for issues addressed in 2021.2, released on August 16th, 2021:

Issue	Description
Service line groups not available for reporting in version 2020.3 (TFS 84521)	**Issue:** Users cannot report on service line groups in the Desktop Client in the 2020.3 implementation of service lines. **NOTE:** This issue and resolution only affects clients who upgraded to Axiom 2020.3 AND migrated their service lines and groups to the 2020.3 service line model. **Resolution:** Corrected by adding columns to the ServiceLineAssignment table labeled Group 1 through Group 10. An install script is used to move Groups to the new fields in the ServiceLineAssignment table.
Duplicate records created after importing and saving data in the CostDetailBase table. (TFS 80059/80060)	**Issue:** When importing data that saves to CostDetailBase table using the final save routine could result in a duplicate record being created. **NOTE:** This issue and resolution affects clients running Axiom 2019.4, 2020.1, or 2020.3 and platform versions 2020.2, 2020.3, or 2020.4. **Resolution:**Added a new transformation to the beginning of the CostDetailStaging to CostDetail import that updates the serviceyrmo for any transactionid where the serviceyrmo coming in is different than the one stored in the database.
Sum CDCC to EDCC job is failing in large volume systems, with this error message: Import Failed: A transport-level error has occurred when receiving results from the server. (TFS 61745)	**Issue:** The semaphore timeout period expires, a result of maxing out the tempdb. **Resolution:** This issue was resolved by breaking down the insert into smaller batches by refactoring load records in the temp table into smaller batches.
Client unable to load patient record in the Encounter viewer; received a conversion error and incorrect syntax. (TFS 69384)	**Issue:** The query that populates the Encounter viewer to error out when it the recorded included a ZIP+4 ZIP code, because it was referencing the PatientZipCode internal ID, which was incorrect. **Resolution:** The query was fixed to reference PatientZipCode.PatientZipCode field.

Issue	Description
Client seeing error in cost assignment tables after upgrade to Axiom Platform version 2020.3.16. (TFS 73671)	**Issue:** Customer receives error message: Method not found: 'Boolean System.StringExtensions.IsNumeric (System.String)'. **NOTE:** Client was informed that they could upgrade to platform release 2020.3 with needing to upgrade Cost Accounting and DSS (CADSS) products (2019.4). However, this information was not entirely correct. **Resolution:** The existing 2019.4 CADSS was recompiled, using an update version of the platform SDK.
ServiceLine groups are not available for reporting in version 2020.3. (TFS 84521)	**Issue:** Clients unable to report on ServiceLine groups in the Windows/Excel client in the in the 2020.3 implementation of ServiceLines. **NOTE:** This affects any client who upgrades to Axiom 2020.3 and migrates their ServiceLines and groups to the 2020.3 ServiceLine model. **Resolution:** A script was written that, when ran, updated the fields on the ServiceLineAssignment table.

Issues resolved in 2021.2.1

The following tables list the resolutions for issues addressed in 2021.2.1, released on September 13th, 2021:

Issue	Description
Automated cost processing fails if payroll is not set up in data acquisition (TFS 104433)	**Issue:** When a client has set payroll to "No" on the Data Acquisition page and an automated cost processing task attempts to load CGL and payroll, the process fails. **Resolution:** Updated the process to check the payroll configuration before running. If payroll is set to "No" the task is not run.
Users with only the DSS Admin role are unable to access EDS. (TFS 105667)	**Issue:** Users with only the DSS Admin role are able to select EDS from the product selector (the "waffle" menu), but instead of the EDS dashboard, an error stating they must be an administrator to access the page is shown. **Resolution:** The DSS Admin role has been added to the appropriate controllers.

Issues resolved in 2021.2.2

No client-facing issues were addressed in 2021.2.2, released on October 11, 2021.

Issues resolved in 2021.2.3

No client-facing issues were addressed in 2021.2.32, released on November 8, 2021.

Technical considerations

No technical considerations or instructions needed for this release.