

REX101: Reporting and Expression Writing

REX101 describes the full workflow and best practices of custom report writing, dashboard creation, as well as an introduction into effective expression writing.

Course Objectives:

- Provide thorough, hands-on training for ProcessUnity application administrators.
- Ensure attendees build confidence and expertise using ProcessUnity's platform.
- Allow attendees to learn by doing, discussing, experimenting, and collaborating with peers.



Format:

- Formal presentations and product demos.
- Attendees will complete labs, quizzes, and challenges via a private ProcessUnity training instance (environment).
- All attendees will receive a course booklet of the slides for note taking.

Day 1

7:30am Breakfast

8:30am Session Begins

- Welcome / Introductions
- Assign personal training environments

Topic 1 – Introduction to Reporting: Before expecting quality reports, consider the source data. Begin with the end in mind.

- ProcessUnity's Underlying Object Model
- Best practices with Property Configuration
- Considering the Dataset before Writing Reports
- Garbage In / Garbage Out
- ProcessUnity's Position on Advanced Analytics

Topic 2 – Reporting Overview: A high level overview (and examples) of the capabilities and considerations of authoring custom reports and dashboards.

- Types of Reports
- Basic Report Walkthrough
- Using Reports for Navigation
- Reporting Considerations / High Volume
- Limits

Topic 3 – Reporting Part 1: Steps to building a basic custom report that exercises the commonly used features.

- Step-By-Step: Creating your first Custom Report
- Custom Reports Task / Categorizing Reports
- Report and Data Permissions
- Report Layout / Format / Toolbars
- Adding Columns
- Adding Groups and Column Sorts
- Adding Column Totals
- Formatting Column Data
- Adding Column Filters
- Adding Charts

12:00pm Break

- Onsite Lunch / Additional Lab Time

Topic 4 – Reporting Part 2: A deep-dive look at the remaining features of custom reports that can be applied to your reports.

- Permissions / Ownership / Row Filtering by Owner
- Column Formatting (Labels, Column Groups, Tooltips)
- Column Color Formatting / Conditional Color
- Column Totals
- Column Drilldown Options
- Calculated Report Columns / Data Transformation
- Realtime vs. Cached Reports / Automatic Refresh

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Topic 5 – Report Filtering: Applying thoughtful pre- and post-filters to custom reports for enhanced performance and interactive flexibility.

- Design Time Filters (Database Filters)
- Run Time Filters (Interactive Filters) / Filter Bar
- Using Required Pre-Filters
- Filter Examples
- Examples (Search, Missing Data Filters, Outer Joins)
- High-Volume Reporting / Filter Best Practices

Topic 6 – Multi-Level Reports: Details and considerations for designing multi-level reports.

- Data Relationships / Related Items
- Single Level Reports
- Multi-Level Reports
- Multi-Level Considerations / Best Practices

Topic 7 – Report Sharing / Publishing: As a report author, share reports with others by publishing them to report task groups, or as context reports.

- Default Report Access / Application Admin Access
- Sharing Reports
- Publishing Reports
- Context Reports / Reports tab
- Assessment Detail / Vendor Portal Reports

5:30pm Session Ends

6:00pm Happy Hour

Day 2

7:30am Breakfast

8:30am Session Begins

Topic 8 – Intro to Expression Writing: Learn the use cases and building blocks of expression writing for building better workflows, validations, configurations, and custom reporting.

- What are Expressions?
- Expression Output Types
- Building Blocks of Expressions
- Expression Language
- Incorporating Emojis / Icons

Topic 9 – Introduction to Functions: What are functions, how are they used, and why are they needed? A dive into the ProcessUnity Function toolkit.

- Intro to Functions
- Number Functions
- Date Functions
- Logical Functions
- Conversion Functions

12:00pm Break

- Onsite Lunch / Additional Lab Time

Topic 10 – Expression Examples: Discuss in detail some use cases and building blocks for writing expressions across a variety of real-life examples.

- IF / CASE / CASEX
- Validation Rules – Business Days
- Stripping down Text
- Find First Non-Blank Value in a list of values
- Auto Update Rules / Enforce Naming Convention
- Create a Text-based Naming Convention
- Assign Numeric Values to Range Pick Lists
- Deriving Month and Year from a Date
- Deriving Quarter and Year from a Date
- Zip Code validation
- Calculated Report Columns based on Pick Lists
- Auto Update Rules – Timestamps and Workflow

5:30pm Session Ends

Day 3

7:30am Breakfast

8:30am Session Begins

Topic 11 – Charting: Tips and techniques for building charts on custom reports, including pie, bar, column, line, gauges, and geographical maps.

- Charting Overview / This by That
- X-Axis - Reporting Grouping
- Y-Axis – Column Totals (Series)
- Single Series Charts (Pie, Bar, Line, Area, Spline...)
- Multi Series Charts (Stacked Column/Bar/Area)
- Gauges
- Geographical Maps

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Topic 12 – Dashboards: Explore ProcessUnity’s dashboard capabilities, personal and public, adding charts, and interacting with the data.

- Dashboard Overview / Chart Components
- Adding Components
- Managing Dashboard Layout
- Personal Dashboard
- Custom Dashboards / Publishing

Topic 13 – Historical Reporting / Trending: Steps to collecting historical data, and writing trend-based custom reports.

- Change Log vs. Capture History
- Property History Tracking
- Historical Data Report / Custom Reports
- Trending / Time Series Considerations
- Importing / Editing Historical Data
- Global Value Trending

Topic 14 – Excel™ Connector: A brief review of the robust import/export capabilities using the Microsoft Excel add-on for ProcessUnity.

- Enabling / Installing Excel Connector
- Excel Pull (Custom Reports)
- Excel Push (Import Templates)

12:00pm Break

- Onsite Lunch / Additional Lab Time

Topic 15 – Microsoft Word Connector: An overview of single-click generation of Microsoft Word docs via reports using customer supplied templates.

- Microsoft Word Document Templates (.DOTX)
- Microsoft Word Content Controls
- Adding Word Templates to ProcessUnity
- Generating Word Documents / Templates Tab

Topic 16 – Analytics Database: A tutorial on pulling ProcessUnity data to a cloud-based reporting database for external reporting or integration.

- Configuring and Refreshing AnalyticsDB
- External Access via Other Tools
- Roundtrip Business Intelligence Capabilities
- External Components

Topic 17 – Ideas and Best Practices: A summary of best practices and considerations using ProcessUnity’s Reports and Dashboards.

- Organize / Group / Categorize
- Pivoting / Transforming Data with Calculated Columns
- Using Filter Options Wisely
- Use Color
- Emojis / Icons
- Use Column Totals
- Drilldown and Navigation / Context Reporting
- Charts and Dashboards
- History and Trending
- Consider Custom Objects
- Extend to External Reporting Sources

Parking Lot Items / Lab Time

- Cover other topics requested by attendees
- Deeper Dive demos upon request
- Finish any open labs
- Final Q&A / Discussion

Conclusion

- Feedback / Course Survey

5:30pm Session Ends

This course officially ends at 5:30pm on the final day, though the topics in the afternoon are less structured. ProcessUnity trainer(s) will be available for the entire time. Custom or personalized Q&A following the course is also available for attendees as time permits.

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