

REX101: Reports, Dashboards, and Expression Writing

REX101 is an intermediate course geared to admins who are confident with basic configuration, comfortable with general application usage, property types, and looking to gain mastery in writing custom reports, building dashboards, and doing a deep dive into expression writing (solution agnostic).

Benefits

- Receive thorough, **hands-on training** for Application Administrators, Power Users, and Program Architects.
- **Build confidence and expertise** using and configuring ProcessUnity as an application administrator.
- Learn by doing, experimenting, discussing, and **collaborating**.
- **Certificate of Completion** provided to all attendees.



Format

- **Guided learning** via formal curriculum, demos, quizzes, group projects, and classroom discussion – catered lunches daily.
- **Individual training environments** for completing individual and group projects.
- **Personal training book** of class material, for note taking and future reference.
- Roll-up-your sleeves / **highly interactive**. Content supplemented via online LMS!

Suggested Prerequisites

- It is recommended that attendees are **proficient** with **basic administration topics** (i.e. **ADM101** or similar experience) before attending. This course is intended for admins who wish to dive deep into reports, dashboards, and expression writing.
- Attendees who are **hands-on, detail-oriented, organized, and inquisitive** with any proficiency/comfort using **MS Excel** will thrive as a ProcessUnity admin.

Course Focus:

- Heavy
- Moderate
- Light

	ADM101	ADM201	REX101	TPRM201	AA301
Course "Level"	1	2	2	1	1
Hands-On Labs	H	H	H	M	M
General Admin	H	H	M	M	M
Workflow	L	H	L	L	M
Report Writing	L	L	H	L	M
Expression Writing	L	L	H	L	M
TPRM / Config	L	L	L	H	M

Day 1

8:00am training room opens / 8:30am Session Begins

- Welcome / Introductions
- Assignment of personal training instances

Topic 1 – Introduction to Custom Reporting: Before you can build quality reports, understand object design / source data. Envision your needs and begin with the end in mind.

- ProcessUnity Overview
- ProcessUnity Data Model / Data Relationships
- Configuration Best Practices
- ProcessUnity vs. Business Intelligence Reporting Tools

Topic 2 – Invoking Reports: A synopsis for finding, running, and interacting with ProcessUnity reports in their various formats.

- Report Types (Std / Custom / Context / Dashboard)
- Custom Report Walkthrough / Report Structure
- Levels vs. Groups / Detail Rows
- Interactive Filtering / Report Toolbar / Drilldown
- Exporting Report Data
- Using Reports for Navigation
- Performance Considerations / Data Volume

Lab #1: Getting Familiar with ProcessUnity Reports

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Topic 3 – Building Reports: Part 1: Step-by-step method to building Custom Reports using the key features, charting, then adding report components to a Dashboard.

- Custom Report Task Grid
- Creating a Custom Report / Levels
- Adding Columns / Grouping / Sorting
- Column Formatting / Drilldown
- Introductory Charting / Dashboards

Topic 4 – Building Reports: Part 2: A review of the secondary features of custom reports.

- Adding Calculated Columns
- Column Formatting / Color Coding
- General Report-Level Options
- “Automatic Refresh” (Realtime vs. Cached data)

12:30pm Break

- Onsite Lunch / Additional Lab Time

Group Project (A) Report Building 101: Work with a partner to collaboratively implement a real-life (deep dive) project.

- Build interactive, visually appealing reports
- Incorporate charts, add charts to dashboard

Topic 5 – Report Filtering: Applying data filters to Custom Reports for enhanced performance and interactive flexibility.

- Design-Time Filters vs. Run-Time Filters
- Positive vs. Negative Filters (Performance Tips)
- Run Time Filter Types (pre/post)
- Filter Examples / Best Practices / Tips for High Volume

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

- When are multi-level reports required?
- Adding Columns from multiple Levels
- Layout considerations for multi-level reports

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

- Report Ownership / Defaults
- Sharing Reports (“Publishing”) to Roles/Teams
- Context Reports (Reports Tab) / Automatic Filtering
- Portal Reports / Automatic Filtering

Lab #2: Advanced Reporting / Filtering / Publishing

5:30pm End of Day 1

6:30pm -7:30pm Happy Hour

Day 2

8:00am training room opens / 8:30am Session Begins

Topic 8 – Intro to Expression Writing: Understand the details and techniques of expression writing in ProcessUnity.

- Intro / Comparisons to MS Excel Formula writing
- Expression Language / Output Types / Syntax
- Expression Examples to gain Familiarity

Topic 9 – Intro to Functions: What are functions, how are they used. A dive into the ProcessUnity Function toolkit.

- Intro to Functions / Function Signature
- Function Outputs / Nested Functions
- Syntax Awareness / Finding Syntax Errors

Lab #3: Expression Writing 101

Topic 10 – Spotlight: IF/CASE/CASEX: A summary of the big three (often interchangeable) conditional functions and best practices for their usage.

- Examples / Differentiators / Usage Best Practices

Topic 11 – Logical Expressions: Most expressions that an admin will write are those that return (true/false) values.

- Exploring Logical Functions
- Logical Operators / Truth Tables
- Using Logical Expressions / Common Examples

12:30pm Break

- Onsite Lunch / Additional Lab Time
- **Lab #4: Conditional Expressions**

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Topic 12 – Date Math: A summary of useful date functions to automate your program.

- Date Functions / Business-day Aware calculations
- Spotlight: NEXTSCHEDULEDATE
- **Lab #5: Date Math**

Topic 13 – Expressions – Real Life Examples: Discuss in detail use cases and examples of a variety of real-life examples.

- Explore several real-world expression examples
- Good→Better→Best implementations / Pro Tips

Group Project (B) Expression Writing: Work with a partner to collaboratively implement a real-life (deep dive) project.

- **Eight (8) challenges requiring Expression Writing**

5:30pm End of Day 2

Day 3

8:00am training room opens / 8:30am Session Begins

Topic 14 – Charting: Tips and techniques for building charts on existing custom reports, including pie, bar, column, line, gauges, tables, and geographical maps.

- Visualizing Data with Charts
- Groups and Totals
- Single-series Charts (Pie, bar, column...)
- Multi-series Charts (Stacked column, bar, area...)
- Table Charts (list, summary)
- Gauges / Number Boxes / Geographical Maps
- **Lab #6: Stacked Charts via Calculated columns**

Topic 15 – Custom Dashboards: Custom Dashboard capabilities, adding charts, and interacting with the data.

- Dashboard Overview
- Personal vs. Custom (Shared) Dashboards
- Dashboard layout / Adding Components
- Copying and Publishing Dashboards

Group Project (C) Charts & Dashboards: Work with a partner to collaboratively implement a real-life (deep dive) project.

- **Creating several charts (various types)**
- **Creating a Custom Dashboard**

12:30pm Break

- Onsite Lunch / Additional Lab Time

Topic 16 – Historical Reporting / Trending: Steps to collecting historical data and writing trend-based custom reports.

- Property History Tracking / Building a History Report
- Importing History
- Global (Program Level) Value Trending

Group Project (D) Trending: Work with a partner to collaboratively implement a real-life (deep dive) project.

- **Historical Data Reporting / Trending**
- **Loading Historical Data via Import**

Parking Lot Items / Lab Time

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

Conclusion

- Review of other Public Training courses/options
- General Feedback / Course Survey

5:30pm End of Day 3

This course officially ends at 5:30pm on the final day. Formal training content may end earlier, allowing for less structured discussion, experimentation, and additional time to work on labs, group projects, and configuration exercises. ProcessUnity trainer(s) will be available every day until 5:30pm, even when class ends early. Custom or personalized Q&A during daily lunch breaks or following the course each day is available for attendees as time permits.

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