

REX101: Reporting, Dashboards, and Expression Writing

REX101 is an intermediate course geared to admins who are confident with basic configuration, comfortable with general application usage, and looking to gain mastery in writing custom reports, building dashboards, and doing a deep dive into expression writing. Topics covered in this course are solution agnostic - lessons learned in apply across any ProcessUnity solution.

Benefits

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

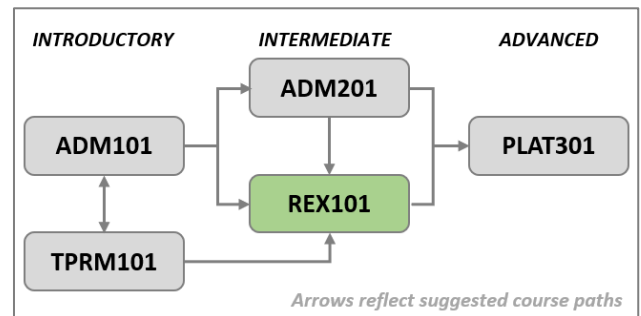


Format

- **Guided learning** through formal curriculum, demos, and classroom discussion – catered lunches daily.
- **Individual training environments** for completing quizzes, labs, and challenges (tips and answers provided).
- **Personal training booklets** of all class material, for note taking and future reference.
- Roll-up-your sleeves / **highly interactive**.

Prerequisites / Curriculum Path

- It is recommended that attendees are **proficient** with **basic administration topics** (i.e. **ADM101** or similar) and/or have experience using ProcessUnity (e.g. **TPRM101** or similar) before attending. This course is intended for admins or power users wishing to gain mastery of reporting / expression writing.
- Attendees who are **hand-on, detail-oriented, organized,** and **inquisitive** with any proficiency/comfort using **MS Excel** and/or **other reporting tools** will thrive in this course.



Day 1

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

- Welcome / Introductions
- Assignment of personal training environments

Topic 1 – Introduction to Custom Reporting: Before expecting quality reports, consider system design / source data. Understand best practices 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 reports in their various formats across the system.

- Type of Reports (Standard / Custom / Context)
- Basic Report Walkthrough
- Report Structure / Categories vs. Detail Rows
- Interactive Filtering / Report Toolbar / Drilldown
- Exporting Report Data
- Using Reports for Navigation
- Performance Considerations / Data Volume
- Custom Report Limits

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Topic 3 – Building Reports: Part 1: Steps to building a basic custom report that exercises the common features through creating dashboard charts.

- Custom Report Task Grid
- Creating a Custom Report
- Grouping / Sorting / Column Totals
- Column Formatting / Drilldown
- Introduction to Charting

Topic 4 – Building Reports: Part 2: A deeper-dive into the remaining features of custom reports that can be applied to your reports.

- Permissions / Publishing
- General Report-Level Features/Options
- Column Formatting / Color Coding
- Calculated Report Columns
- Realtime vs. Cached Report Data

12:30pm Break

- Onsite Lunch / Additional Lab Time

Group Project #1: Work with a partner to collaboratively implement a real-life (deep dive) project (1 to 2 hours).

- Build an interactive, visually appealing report(s).
- Incorporating Chart(s) / Adding to Dashboards

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

- Design-Time Filters vs. Run-Time Filters
- Positive and 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

5:30pm Session Ends

6:00pm 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 Output Types
- The Expression Language / 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 Outputs (Date, Number, Text, Logical)
- Function Signature / Function Parameters
- Nested Functions
- Syntax Awareness / Finding Syntax Errors

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

12:30pm Break

- Onsite Lunch / Additional Lab Time

Topic 11 – Logical Expressions: Most expressions an administrator will write are logical (true/false) to instruct the system when to do something.

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

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Topic 12 – Expressions – Real Life Examples: Discuss in detail some use cases and building blocks for writing expressions across a variety of real-life examples.

- Explore 16 expression examples solving real problems
- Good → Better → Best implementations
- Pro Tips

Group Project #2: Work with a partner to collaboratively implement a real-life (deep dive) project (1 to 2 hours).

- Expressions and Functions

5:30pm Session Ends

Day 3

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

Topic 13 – 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

Topic 14 – Dashboards: Explore ProcessUnity's dashboard capabilities, adding charts, and interacting with the data.

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

Group Project #3: Work with a partner to collaboratively implement a real-life (deep dive) project (1 to 2 hours).

- Charts and Dashboards

12:30pm Break

- Onsite Lunch / Additional Lab Time

Topic 15 – Historical Reporting / Trending: Steps to collecting historical data and writing trend-based custom reports.

- Overview of Historical Data Capture
- Property History Tracking
- Building a History Report
- Importing History
- Global (Program Level) Value Trending

Course Summary

- Reporting & Dashboards - Best Practice Summary
- Expression Writing - Best Practice Summary

Group Project #4: Work with a partner to collaboratively implement a real-life (deep dive) project (1 to 2 hours).

- 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
- Final Q&A / Discussion

Conclusion

- Feedback / Course Survey

5:30pm Session Ends

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 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 lunch or following the course each day is available for attendees as time permits.

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