

Rocket® UniData®

Deliver fast, flexible, and secure applications with low overhead

Organizations worldwide rely on the Rocket® UniData® application platform for building fast, flexible, and secure applications. As part of the Rocket MultiValue family of solutions, Rocket UniData powers thousands of business-critical operations across industries including finance, healthcare, manufacturing, distribution, retail, and higher education.

UniData provides everything you need to develop and deliver secure, stable, data-driven applications that scale and evolve with your business needs. It combines a high-performance database engine, native and open programming languages, built-in security, and replication capabilities for high availability and disaster recovery (HA/DR). The platform supports desktop and mobile applications, as well as those residing on-premises and in the cloud. You get the performance, reliability, and security of an enterprise-class application, with low total cost of ownership.

Product benefits

- 1 Create, deploy, and maintain high-performing business applications, and get faster ROI
- 2 Implement industrial-strength data security
- 3 Ensure business continuity with robust HA/DR configurations
- 4 Minimize ownership costs with simple administration and light hardware requirements





Create, deploy, and maintain high-performing business applications, and get faster ROI

Rocket UniData is an ideal platform for delivering high-performance Online Transaction Processing (OLTP) applications with complex business rules. Because UniData mimics the way users think, applications are easy to develop and maintain, and developers without MV experience can get up to speed quickly.

In a MultiValue database, you can store data in a more natural structure than what SQL-based platforms allow, and can access all the information you need with one direct read. Dynamic, multi-level data structures result in fewer tables and fewer joins. Variable-length records save space compared to the set-table length of traditional relational databases. Your developers can alter business logic and storage formats quickly because you don't have to redesign a rigid database structure.

The UniData development environment provides everything you need to develop your application and open it to other applications—even on other platforms. You can utilize RESTful web services to easily access data and logic. The JSON data interchange format is particularly efficient for working with the dynamic array data structure at the heart of the MultiValue database. You can also extend applications using other open development standards such as ODBC, JDBC, and UniObjects.

You have the option to build applications using traditional integrated BASIC programming environments and the Rocket web and GUI tools, U2 Web DE and SB/XA. Additionally, the Rocket MultiValue Integration Server (MVIS) can expose your UniData data and logic as RESTful services and enable integration with modern web applications and services either on-premises or in the cloud. With UniData 8.2 and onward, you can introduce newer developers to UniData through the Python programming language. Python support also lets you leverage resources from the Python open-source community, including any prewritten standard modules.

Modern developers prefer current tools. Python is one of the most widely used open-source languages and runs natively on UniData 8.2. Using Python enables you to leverage a wealth of functionality available as open-source code.

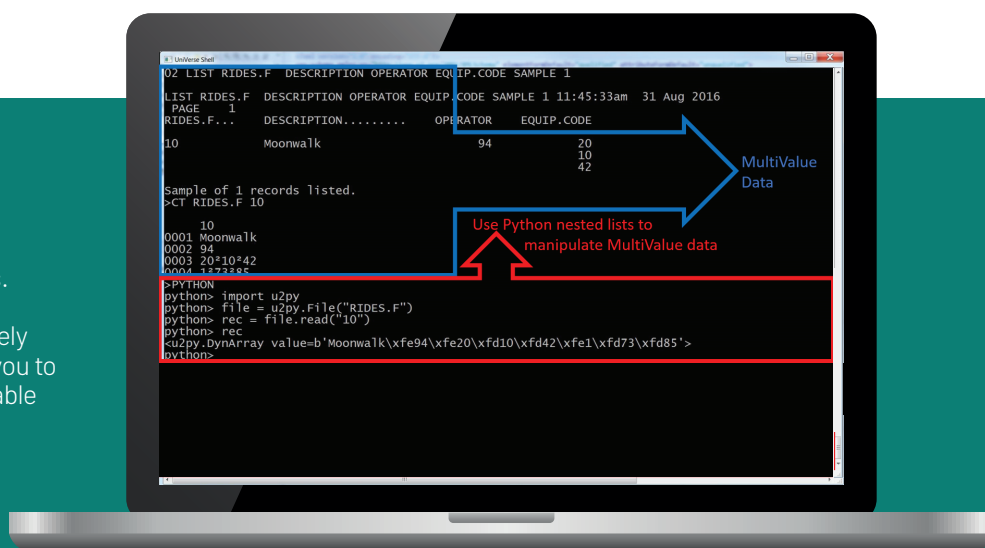


Figure 1: Working with Python from within UniData





Implement industrial-strength data security

UniData offers flexible security purpose-built for different deployment options. For cloud deployments, UniData includes its own credentials manager allowing for Single Sign-On (SSO) within UniData and without needing to expose back-end server credentials. For on-premises deployment, UniData can simply use the operating system credentials for end-user SSO.

Automatic data encryption ensures that if data is lost or stolen, it cannot be viewed without keys. To make encryption easier to maintain, Rocket has separated the maintenance of the OpenSSL libraries from UniData software updates, allowing you to update security independently from updating the UniData server.

Audit-logging capabilities let you easily establish configurable audit histories of assets and events. The automated production of these audit trails reduces the time required to document compliance with HIPAA, HITECH, PCI-DSS, GDPR, Basel III, SOX, and other regulatory mandates that require an understanding of who and what is accessing your data, and when. More granular audit data and access to chronologically generated data make it easier to respond quickly and accurately to spot audits. Audit logging also supports sequential file logs for improved performance without system interruptions.



This product answers almost every audit question. The Audit module can be configured from high-level system-wide activity to specific user file-level access and change logging, to program and process logging. If you can think of an audit question, UniData 8.2 Audit can be configured to provide the answer. //

Russell Patterson
IT Specialist, Rural Finance



Ensure business continuity with robust HA/DR configurations

Whether the need to deliver 24x7 application availability is driven by revenue or SLAs, it's imperative to keep data protected in the event of a disaster. You can easily achieve both high availability and the ability to recover quickly from an outage with UniData HA/DR configurations.

UniData replication is fast and flexible. It's based on a publisher/multi-subscriber model that makes it practical to deploy unified HA/DR and prevent system outages while limiting damage from disasters.

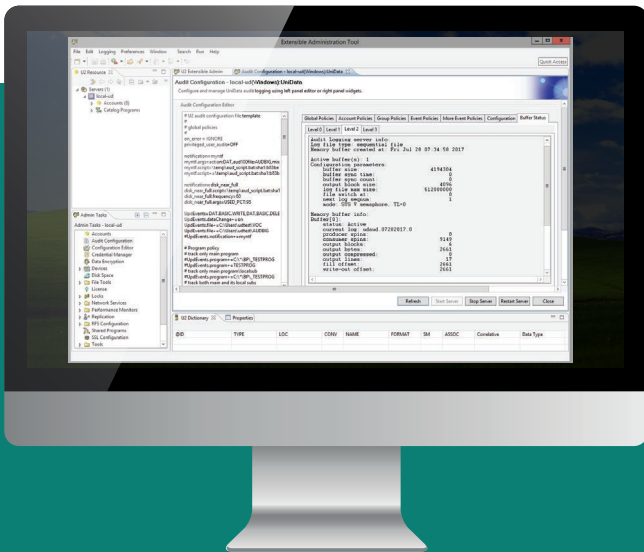
You also get precise control over replication with UniData. It lets you tune group transactions to boost performance when replicating large volumes of transaction data and multiple replication groups. You can also increase efficiency with Field-Level Replication, transmitting only fields that are modified, rather than the entire record. Configure a separate subscriber with Delayed Standby Replication to protect replicas from accidental or malicious changes by keeping subscribers a defined interval behind the publisher.





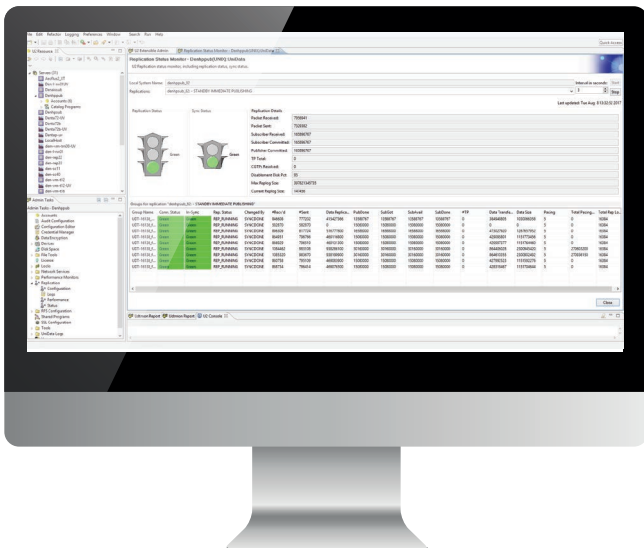
Minimize ownership costs with simple administration and light hardware requirements

Rocket UniData partners and customers report lower TCO with minimal database administrator (DBA) involvement, and faster application development and maintenance. The UniData database structure is inherently efficient, consuming fewer hardware and network resources, and requiring less supervision than a traditional relational database. Smaller sites can operate and scale with minimal DBA resources, and even large sites can maintain very small administrative teams. The inherent stability of the database, the use of dynamic files, and ease of redefining data without rebuilding tables all contribute to reduced maintenance overhead and lower TCO.



If you are responsible for supporting a department that handles compliance and audits, you need to be able to easily manage audit logging. XAdmin has a graphical administrative interface that helps you monitor and maintain your audit environment.

Figure 2: Configuring Audit Logging from the XAdmin administrative interface



You can easily monitor replication and sync status using the XAdmin interface. The replication status “green light” shown in Figure 3 indicates that the publisher and subscriber are connected for all groups involved in the replication. The green light sync status also indicates that publishing and subscribing databases are synchronized.

Figure 3: Monitoring replication status from XAdmin



Tech Specs

Server Specifications

- AIX 7.1, 7.2
- HP Intel Itanium 11.31
- Red Hat Enterprise Linux 6.1+, 7.0+, 8.0+
 - *Amazon Linux AMI 2017.09. 2018.03
 - *CentOS 6.1+, 7.0+, 8.0+
 - *Oracle Linux x86 7.3+, 8.0+
 - *SUSE Linux Enterprise Server 12(SP5), 15(SP1)
- Solaris SPARC 11.3 11.4
- Windows 10, 2016, 2019

*Paper certified platforms

For details, please see the Product Availability Matrix at:
<https://rbc.rocketsoftware.com/matrix.asp>

Supported Frameworks, Protocols & Languages*

- callHTTP support
- External Database Access (EDA) through SQL Server, Oracle, DB2, MySQL, PostgreSQL
- HMAC – SHA1/SHA2/SHA3 support in BASIC
- IPv4/IPv6 dual-stack enabled
- NLS/I18n support
- OAuth 2.0 support
- OpenSSL v1.1
- Python v3.7 (on Windows, AIX, LINUX, SOLARIS)
- TLS v1 / 1.1 / 1.2 / 1.3

*From UniData 8.2.2+

Supported Rocket Products*

- Rocket® Aldon Lifecycle Manager
- Rocket® DB Tools
- Rocket® MultiValue Integration Server (MVIS)
- Rocket® SB/XA
- Rocket® U2 Commons Clients
- Rocket® U2 Toolkit for .NET
- Rocket® U2 Web DE
- Rocket® UOPY
- Rocket® wIntegrate

*Please see the UniData Product Availability Matrix at:
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for version compatibility details.

Rocket U2 Common Clients

Easily connect to U2 databases using standard drivers and native APIs for Rocket U2 databases. Includes:

- ODBC (Open Database Connectivity), a standard API for many DBMSs
- JDBC (Java Database Connectivity), a pure NLS-capable Java driver
- UO.NET (UniObjects for .NET)
- UOJ (UniObjects for Java)
- InterCall, for any C client
- UCI (UniCall Interface), an SQL call-level interface

Rocket U2 DBTools

Eclipse-based tools for programming and administration. Includes:

- U2 RESTful Web Services Developer (U2 REST)
- U2 Basic Developer Toolkit (BDT)
- Extensible Administration Tool (XAdmin)
- U2 Web Services Developer (U2 WSD)
- U2 EDA Replication Config Tool
- U2 EDA Schema Manager
- U2 Metadata Manager
- U2 XML/DB Mapping Tool

Rocket Software empowers organizations to create legendary impact in the world through innovation in legacy technologies. With deep expertise in IBM Z, IBM Power, and database and connectivity solutions, Rocket solutions power tens of thousands of global businesses, solving real problems and making real-world impact.

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