



Location: Kurgan, Russia.

Education: BS degree in computer science, graduated from Kurgan State University in 2001.

Objective: Looking for an opportunity to work as a scripting assistant (with DBA and DevOps skills set using mentioned below technologies and only remotely from home) for your existing SRE specialist (another technical lead person, not me).

Skills

IaC, SCM & Deployment: Ansible

Scripting: Bash, PowerShell & C# (cross-platform .NET 5+ & Mono, AOT, dotnet-shell & cs-script.net), JavaScript, SQL, RegEx, Perl one liners

Containers: Docker, Docker Compose

Public cloud: Linode

On-premise private & hybrid cloud: OpenNebula & KVM

Security: Firehol, ARM single boards, hardware crypto tokens (Rutoken, Aladdin, Nitrokey, ESMART)

DBMS on Linux (SQL and HA): IBM Db2

DBMS on Linux (only basic administration without HA): PostgreSQL, MSSQL, Firebird, MySQL

DBMS libs & tools: nHibernate & DevArt Entity Developer

Data Cache: Redis

Storage: HBA, iSCSI, OpenZFS

Bare metal OS: Devuan, Alpine

VM guest OS: ^above, Ubuntu, Debian, AntiX

Container Linux distribution: ^above, Arch, Void, RHEL / AlmaLinux / Rocky Linux

GUI: DevExpress WinForms (on Linux WINE)

Preferred fields of work

- 1) Building custom OCI container images even for desktop GUI applications having VNC, SSH, X11 forwarding like an alternative for Flatpak (e.g. for applications like LibreOffice, Firefox, chat clients and also for Windows applications compatible with WINE, etc.). Such Linux containers can be run on macOS, Windows, and Linux (desktops or dedicated isolated hosts with Firecracker microVMs e.g. on K*S or OpenNebula) for the containerized applications.
- 2) Adding software copy protection like EnigmaProtector, Eazfuscator, and Guardant hardware tokens.
- 3) Automating administration of Linux, Free UNIX, DBMS, other services and activities by scripting them.
- 4) Writing scripts for syntax unification of CLI tools and utilities.
- 5) Scripting IaC and CircleCI.
- 6) Development of custom Bash and Ansible-based Kubernetes operators.

Work Experience

**Customer from SP,
Russia**

*Kurgan, Russia,
remotely part-time at home*

FREELANCE DEVELOPER

2021 June - 2021 July

- Created Ansible playbooks to deploy and configure linuxserver.io SWAG containers as reverse proxies connected to a backend by Wireguard in another container. Docker Compose orchestration was used.
- Created OCI container images for GUI applications like LibreOffice Base with SSH, VNC, and X11 access.



Pension Fund of Russia

*Kurgan, Russia,
onsite full-time*

DBA, LINUX ADMINISTRATOR

2004, February - 2020, February

Installed, configured, and managed the following servers serving federal region load including up-grades:

- Two storages with NFS and iSCSI blocks.
- Control & boot server: Debian, Firehol+bridging, DNS, PXE, schedules for tens of custom remote automatic maintenance tasks for other servers.
- Backup server: SystemRescueCD(Gentoo), made autostart scripts for configuring LiveCD after each reboot (network, mounting, sharing Samba+NFS), about 24 Tb of physical space presented as 12Tb of redundant logical mirrored space.
- Regional Component of ASV DBMS: VMWare ESXi, RedHat EL, IBM Db2:
Fine-tuned Db2 DBMS according to the best practices, database size over 300 Gb
Wrote scripts for convenient user TUI for running vendor's application scripts and script for automatic installation of new versions of the custom application.
- Regional Component of ASV: VMWare ESXi, RedHat EL, IBM WebSphere.
- Remote Electronic Information Exchange: VMWare ESXi, Firebird, database size over 200 Gb.
- Mail server: Devuan v3+QEMU+KVM, Debian v7, PostgreSQL, Dovecot, Postfix, RSPAMD, Firehol.
- Other servers of a workmate (I had a role of an emergency reserve admin): RedHat Linux, IBM TSM.

EPM Solutions, USA, CA

*Kurgan, Russia, remotely
part-time in the evening at home*

FREELANCE DEVELOPER

2003 June - 2013 August

Developed an online education application for authoring and organizing interactive courses on automatically prepared Windows desktops featured by MS Project Server Web Access and related tools.

- Iteratively collected requirements of the company for the required system.
- Designed data and database models, a class hierarchy for the models.
- Developed custom subscription management using tokens with very flexible subscription terms.
- Developed web GUI for student users (with RDP web access to PWA sessions) and desktop GUI (with RDP web access too) for learning course makers and subscription managers.
- Developed services for provisioning required user's resources by definitions in the database and corresponding templates providing IaC on demand by current specifications in the database.
- Made installation program for deployment to the main control servers.
- Continuously added new features and made adjustments when requested by the company.

Used tools: hosted MS Project Server environment, VB.NET, MyGeneration, nHibernate, DevExpress, XMLRPC, WebForms, JavaScript, JSON, WinForms, SOAP, Web services, Eazfuscator obfuscator, Enigma Protector, Git, MSSQL, InnoSetup, Web Terminal Services, Redmine tracker, MS SSRS (reporting), automation of MS Office, ADS, SharePoint, PSI(PS API).



Customer from USA, CA

*Kurgan, Russia,
remotely part-time at home*

FREELANCE DEVELOPER

2000 April – 2003 May

www.usaleonline.com, www.kissmatchmaker.com websites, and related software tools for a convenient search experience (for a good deal & match).

- Developed KissMatchmaker.com with the following features: Login, member join, member control panel, placing bio, 5 different search forms and flexible search engine generating complex SQL statements automatically, ASP component for multi-page results rendering with navigation, resizing uploading pictures.
Used Tools: ASP, ADO, VBScript, JavaScript, and MSDE (free Microsoft SQL Server).
- Created GUI admin interface: editor for all drop-down values used on web pages. Created stress tests scripts and self-diagnostic features.
Used Tools: VB6, ADO, Microsoft SQL Server (Free MSDE).
- Created the user interface for membership payments. Integrated PayPal payment processing service into the website. Created admin reports for the paid invoices and totals. Made encryption for credit card information recurring payments and database connection parameters.
Used tools: ASP, VBScript, JavaScript, VB6, ADO, Microsoft SQL Server (Free MSDE), PayPal ActiveX.
- Created web admin control panel. Created template engine.
Used tools: ASP, VBScript, JavaScript, VB6, ADO, Microsoft SQL Server (Free MSDE).
- Created ASP pages for displaying help. Wrote help content.
- Developed installation program for KissMatchmaker.com. Developed configuration scripts for IIS, default permissions, database, mail server, scheduled tasks.
Used tools: Windows Installer, VBScript, ADO, ADSI, Microsoft SQL Server (Free MSDE), SQL-DMO.
- Moved the features common for all classified ad systems to the separated module implemented as COM library written in VB6. Used tools: VB6, ADO, Microsoft SQL Server (Free MSDE).
- Developed a marketplace website www.usaleonline.com which was based on the www.kissmatchmaker.com engine. Created ad placing, search and search results forms specifically for each of several ad categories. The system consisted of about 80 ASP pages.
Used tools: VB6, VBScript, ASP, ADO, Microsoft SQL Server (Free MSDE).
- Configured Microsoft IIS and Windows 2000 on the production server according to MS best practices.
Used Tools: MSDN, Firewall, VBScript for IIS tweaking.
- Created custom conversion tool from ASP to VB6 code which used regular expressions to parse the VBScript code. The tool automatically generated required VB6 project and class files and ASP files wrappers containing only a call to the COM DLL. This custom tool was very unique at that time because generated VB code for included asp files only once. This allowed to limit the size of DLL file to 1M compared to ASP Lightning could generate a larger file if it would be able to pass without errors. The conversion added a level of protection for the system because it was not possible to get the source code of ASP files remotely even if the server was eventually hacked. An additional advantage was the execution speed because native code executes about 10-30 times faster than interpreted VBScript. Both KissMatchmaker.com and UsaleOnline.com have been converted to VB6 using the above tool. Used tools: VB6, regular expressions.
- Made deep research of about 20 existing software copy protection products and methods. Protected the developed software.
Used tools: "PC Guard for Win32".
- Created data extraction, collection, and conversion tool. Its previous version was used to collect lists for all dropdowns of the websites and build a tree-like structure to store the information. Capable to visit sites using corresponding plugins and emulate the behavior of a human when collecting information using IE sessions.
Used tools: VB.NET, ADO.NET, Microsoft SQL Server 2000 (Free MSDE), IE DOM, Regular Expressions.



My Personal Hobby Projects

*Kurgan, Russia
in the evening at home*

DEVELOPER

2000 – Present

- **Aulix.Common7** library as a wrapper for DevExpress GUI and nHibernate ORM.

Used tools: PostgreSQL, MSSQL, IBM Db2, nHibernate, ADO.net, C#, VB.NET, .NET 5, Mono, XML-RPC, DevExpress for WinForms, ASP.NET WebForms, Bash, Git.

- **Aulix Agreement Generator** to create complex juridical documents (multilayer document assembly tool).

Used tools: C#, VB.NET, Aulix.Common7, PostgreSQL, git.

- **Aulix.UTILS** is a set of many scripts to make my home hobby more productive and pleasant, making it easier to work with my servers and VPSs.

Used tools: Bash, Perl, Ansible, many userspace programs and services from Linux distributions like Firehol, ZFS, SSH.

A few examples:

supersend.sh – a utility for automatic ZFS replication for backups and synchronization.

rsync.sh – a utility to simplify work with the rsync tool.

apm.sh – a utility to simplify work in a unified way with package managers in different distributions.

keys.sh – a utility for managing SSH keys, verification, etc.

Many more, hundreds of small scripts, tens of significant for me scripts.

Certificates

Available in my LinkedIn profile: <https://www.linkedin.com/in/alexander-prokopyev-dev>

Interests

- 1) Information, network, physical, and health security.
- 2) Evaluation, comparing, and selection of good ready software products and effective methods of solving problems & tasks.
- 3) Performance optimization.

Social networks:

<https://www.linux.org.ru/people/sanyo1234/profile>

<https://forum.rutoken.ru/search/advanced/> **sanyo**

<https://support.nitrokey.com/search?expanded=true&q=%40sanyo>