The software included in ARDENSUITE provides clinicians and other medical personnel in your hospital with highly efficient medical-knowledge-based support in their daily decision-making processes. Its clinical decision support (CDS) is patient-specific, as it is based on a person’s latest data. For quality management and study support, it can be extended to population-specific analyses.

UNIQUE AND VERSATILE SOLUTION

The ARDENSUITE technology platform is a highly innovative and unique CDS solution: It has been developed for clinical contexts and is thus specifically tailored to meet the requirements needed to support doctors and medical staff in their daily work. Its clinical knowledge components are written in Arden Syntax, an established medical knowledge representation and processing language that is an up-to-date HL7 International industry standard and approved by the American National Standards Institute (ANSI).

The software based on this standardized syntax is applicable in every medical discipline. Initially without specific clinical content, it represents a highly flexible and versatile platform, waiting to be applied to medical tasks or to solve specific clinical problems, when endowed with proper knowledge.

INTEGRATION INTO EMRs

Integrated into electronic medical record (EMR) systems like i.s.h.med, Epic, or others, the ARDENSUITE accesses the system’s collected medical data and applies rules or procedures to this data. These algorithms derive from clinical expert knowledge and collections of medical data. They are written in Arden Syntax and stored in medical logic modules (MLMs) which are then bundled to medical knowledge packages. In close cooperation with clinical experts, these MLMs are constantly being developed by Medexter’s development team as well as on-site by hospitals using the ARDENSUITE as their development tool, meeting site-specific requirements.

FUZZY LOGIC FEATURE

A powerful feature of the ARDENSUITE is its possibility to additionally accommodate the high degree of uncertainty often found in real-life medicine. Due to the integration of fuzzy concepts, linguistic as well as propositional uncertainty can be taken into account. The implementation of fuzzy concepts is a globally unrivaled feature, as it allows to model human decision-making processes more closely to the circumstances of patient-care medicine than conventional CDS systems, which only allow simple yes/no outcome results.
**REFERENCE INSTALLATIONS**

At locations where our CDS solution is implemented, ARDEN SUITEs are integrated in or connected to the EMR systems and use structured data as input. In Austria’s largest University Hospital (about 2100 beds) in Vienna, i.s.h.med runs as EMR system with the ARDEN SUITE as integrated CDS solution. At the University of Colorado Health System, U.S.A., the ARDEN SUITE has been integrated into Epic in several hospitals, and at the University Hospital Erlangen, Germany, the ARDEN SUITE is connected to Dräger’s intensive care solution ICM.

**ARDEN SUITE FOR EMRs—IMPLEMENTATION**

Medexter’s ARDEN SUITE CDS solution includes implementation concepts in three areas:

1. The ARDEN SUITE platform
2. MLM medical knowledge packages
3. User interfaces

**1. THE ARDEN SUITE PLATFORM**

- applicable to a vast variety of clinical knowledge representation and processing tasks
- high flexibility, scalability, and integratability
- installed without specific clinical content

**COMPONENTS**

<table>
<thead>
<tr>
<th>ARDEN SUITE integrated development and test environment (IDE)</th>
<th>ARDEN SUITE server</th>
<th>ARDEN SUITE server connector</th>
</tr>
</thead>
<tbody>
<tr>
<td>As simple and intuitive development environment, the ARDEN SUITE IDE was specifically designed to meet your needs when writing and compiling MLMs in Arden Syntax. The compiled modules can then be tested in the integrated test environment.</td>
<td>With the ARDEN SUITE server we are proud to present the key solution for MLM routine processing and —last but not least—stress-free MLM management. Practical features such as user management, MLM management, and the implementation of standardized interfaces (e.g., REST, SOAP) contribute to a convenient and efficient knowledge base maintenance.</td>
<td>Our server connector serves as an add-on for the ARDEN SUITE server and provides access to external databases from within an MLM (e.g., to SQL databases). With this tool, connections to various databases can be defined and stored directly in the ARDEN SUITE server. Thus, the server connector provides practical access to all necessary data sources and the possibility to switch between them, facilitating the management of database connections significantly.</td>
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</table>
**ARDEN SUITE LICENSING OPTIONS**

<table>
<thead>
<tr>
<th>Options available:</th>
<th>one-time fee</th>
<th>yearly fee</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>OPTION 1</strong></td>
<td>License</td>
<td>✔</td>
</tr>
<tr>
<td></td>
<td>Maintenance</td>
<td>✔</td>
</tr>
<tr>
<td><strong>OPTION 2</strong></td>
<td>License and</td>
<td>✔</td>
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<tr>
<td></td>
<td>Maintenance</td>
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</tbody>
</table>

Maintenance includes updates, upgrades, new releases, and innovation guarantee in both options.

We also offer site, enterprise, and campus licenses.

**ARDEN SUITE Package Deal**

Our package deal includes 5 ARDEN SUITE IDEs, 3 servers (for production, quality assurance, and development), and 3 server connectors.

**ARDEN SUITE Individual Packages**

Please contact us with details on your hospital’s size and requirements. We will prepare an individual offer.

**CUSTOMER SERVICES**

Medexter Healthcare provides ARDEN SUITE user training and ARDEN SUITE integration support.

**MEDICAL LOGIC MODULES (MLMs)—MEDICAL KNOWLEDGE PACKAGES**

- Knowledge packages consisting of bundles of MLMs written in Arden Syntax
- Applicable to various clinical situations

**MLM OPTIONS**

**IN-HOUSE MLM DEVELOPMENT**

Our ARDEN SUITE IDE represents an excellent and easy-to-use tool for you to write and test MLMs. In-house MLM development may have the benefit of a close cooperation between your skilled hospital IT department and the clinical staff for whose patient care routine MLMs are written. This setup works excellently in many of our ARDEN SUITE installations—for example, at the Erlangen University Hospital in Germany. There, MLMs that support the clinicians in over 20 clinical situations have been written by the hospital’s clinical and development staff using the ARDEN SUITE IDE.
CUSTOMIZED MLM DEVELOPMENT BY MEDEXTER
Medexter’s team of knowledge engineers works in close cooperation with experienced clinicians. We offer development of custom-built MLMs suited for your hospital’s unique medical tasks and requirements with full support every step of the way.

READY-TO-USE MLM PACKAGES BY MEDEXTER
Application-ready MLM packages for various clinical tasks can be purchased individually. Please inquire for more information.

As the ARDEN SUITE is a highly flexible CDS solution, there are several user interface options:

- Areas in your EMR’s user interface that are intended for functions like clinical reminders, risk factors, work lists, and others can be easily adapted and used as ARDEN SUITE user interface. CDS results provided by your custom-built ARDEN SUITE solution are sent to the EMR system and displayed in these areas.
- Your EMR vendor and/or your hospital’s IT staff may develop user interfaces for your ARDEN SUITE CDS solution in-house.

CUSTOMER SERVICES

Medexter Healthcare offers MLM authoring training as well as support by Medexter’s research and development team.

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By default, all customer services by Medexter such as user and authoring training, integration and MLM development support, and interface design support are provided by remote communication (skype or e-mail). Please inquire for in-house customer services and trainings.