**OSIRIS Version 2.0: INTELLIGENT DNA PROFILE ANALYSIS AND QUALITY ASSURANCE SOFTWARE**

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**Stand-alone Open Source Software**


**OSIRIS Uses**

- DNA Profile Analysis
- DNA Profile QC
- Automating Sample Reanalysis
- Process monitoring
- Training

**Software Architecture**

- Source Software - Encapsulates knowledge base
- State Message Book - flexibility and stability wording and SOP

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**Expanded Laboratory Settings**

- Laboratories settings include:
  - A. Artifact RLU thresholds default to tissue
  - B. Minimum number of ventral and ventral errors
  - C. Analyzer thresholds for samples, blanks, G5, G6, and standard DP
  - D. Analyte accepted by lab, lab specific control alleles, and thresholds

**Expanded Artifact Recognition**

- Recognizes 108 different patterns - false artifact identification sensitive and specific
- Pattern recognition:
  - Artifact specific key
  - Artifact specific threshold

**Intelligent Sample Reanalysis**

- Intelligent Reanalysis Prediction
- Analytical criteria for automated reanalysis: an automated reanalysis recommendation

**Artifact Identification**

- Graph View
  - In OSIRIS, RLU peaks: peak height above/below the ladder
  - In D2S1338, D5S818, S100, and many other loci

**Data Export**

- **Data Export Formats**
  - LIMS report
  - CSV/WEB
  - Discovery project files
  - Spreadsheet

- Sample artifact list
- Artifactual sample project files
- User defined text, XML or HTML

**Data Export to LIMS**

- 4 formats for export of direct LIMS input
- 9 formats for creation of an extensive artifact (since priority above)
- 2 formats for priority and quality of positive/negative controls

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**LIMS Import File**

- Spoiled samples. A new feature of the OSIRIS database allows the user to import failed samples.

**OSIRIS Features**

- Table Graph view and classical graphic view
- Sort by sample or by artifact severity
- Flexible display - user preferences retained
- Artifacts and peaks can be edited
- Artifacts not required for export if artifacts present

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