Business Rules Engine: Arrangements

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Rules Engine Modules

• Arrangements: Used to define rules that govern creation of arrangements on all platforms.

• Collections: Smart routing of collection records to give special attention to priority service/collared meters/etc.

• Service Orders: Allows for system defined routing of service orders.
Rules Engine – Arrangements

• When Rules Engine is enabled, UPN will not check for any existing parameters to create an arrangement, instead UPN will execute the rules, if all rules pass, then UPN will populate the arrangement information. If accepted by the user, the arrangement will be created.

• If at least one rule fails, the rules result dialog will display and allow the user to override the results. (permission is required).

• When Rules Engine is not in use, the software will
Rules Engine Set Up

- Rules Engine is available when $619 = 1$ (Proprietary)
- Module (ex: Arrangement) will be in use, if it is enabled on the License Maintenance screen under the Control Options menu.
- Utility is able to control how the rules are configured.
Rules Engine Class Maintenance

• Under CA Main Menu
  - Rules Control File Inquiry
  - Rules Control File Update

• Under System Options
  - Holiday Calendar
  - Rules Override
Holiday Calendar

- Control Options → Holiday Calendar
- Utility holidays can be configured in this dialog box. The holiday calendar is used for calculation of installments.
Rules Engine Access

- Select UPN-> Control File-> Rules Control File
Step 1. Rules Set Up

- Enable required variables by clicking on ‘Edit’ button
Step 1. Rules Set Up (cont)

- Check the box to enable the variable.
- Populate input value as needed for variables.
Step 2. Understanding the Options Variables & Operators
Step 2. Understanding the Operators

Relational
- Is Equal to (==)
- Is Not Equal to
- Is Greater than
- Is Less than
- Is Greater than or Equal to
- Is Less than or Equal to

Logical
- And
- Or

Relational
- Used to compare two or more Numeric fields.

Logical
- Needed to compare more than one item.
## Step 2. Understanding the Operators (cont)

<table>
<thead>
<tr>
<th>Assignment</th>
<th>Assignment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assign(=)</td>
<td>Used to set a value to calculate against.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Boolean</th>
<th>Boolean</th>
</tr>
</thead>
<tbody>
<tr>
<td>True</td>
<td>Operators for if then questions.</td>
</tr>
<tr>
<td>False</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Arithmetic</th>
<th>Arithmetic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plus (+)</td>
<td>Mathematical Tools supplied for calculations.</td>
</tr>
<tr>
<td>Minus (-)</td>
<td></td>
</tr>
<tr>
<td>Multiply(*)</td>
<td></td>
</tr>
</tbody>
</table>
### Step 2. Understanding the Operators (cont)

<table>
<thead>
<tr>
<th>Functions Misc</th>
<th>Functions Misc</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pass</td>
<td>1=1 is used to create a situation that is always a pass.</td>
</tr>
<tr>
<td>Fail</td>
<td>Halt is not used for Arrangements.</td>
</tr>
<tr>
<td>Halt</td>
<td></td>
</tr>
<tr>
<td>1=1</td>
<td></td>
</tr>
<tr>
<td>Machine Date</td>
<td></td>
</tr>
<tr>
<td><strong>Temp Variables</strong></td>
<td><strong>Temp Variables</strong></td>
</tr>
<tr>
<td>Temp Amount, 1, 2</td>
<td>Temporary variables supplied to do computational math that can be used in multiple rules.</td>
</tr>
<tr>
<td>Temp Bool, 1, 2</td>
<td></td>
</tr>
<tr>
<td>Temp Date, 1, 2</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Step 3. Add Rules

• Set up Rules by clicking on ‘Add’ button
• Name the rule so it is easily understood
• Expand the tree “+” to see all options
• Variables can be added to rule block by double clicking on variable or drag and drop
• Enable rule by entering the start date.
• Rule can be edited by clicking on edit button or by clicking rule link on rules tab.
Step 3. Add Rules (cont)

• Select the ‘Rules’ tab, then click ‘Add’.
Step 3. Add Rules (cont)

• Create the rule using available options.
Step 4. Set Up Rule Level Messages

• Setup Rule Level Messages by clicking on the rule to edit the rule you would like to change.

• Select the ‘Settings’ tab to view the modules and add a message to any as desired.

• Special messages can be enabled for UPN, Portal or IVR.

• If enabled, the special message for each rule will
Step 4. Set Up Rule Level Messages (cont)
Step 4. Set Up Rule Level Messages (cont)
Step 5. Module Level Messages

• Set up Module Level Messages by clicking on ‘Settings’ tab.

• Special messages can be enabled for UPN, Portal or IVR.

• If enabled, the applicable message for each module will be provided to the consumer instead of rule name or rule level message.
Step 5. Set Up Module Level Messages (cont)
Step 5. Set Up Module Level Messages (cont)
Step 5. Set Up Module Level Messages (cont)
Print Rules and View History

- Select the module (ex. Arrangement) and click on ‘Rules’ tab. Select rule to view history.
Print Module Rules

• Click the ‘Print’ button and select local printer for a hard copy of the module’s rules.
Rule History

- Provides information about who added/edited the rule.
- Changed information will be displayed in red.
Import/Export

Import/Export the configured rules from preview/casystem.
Work Flow for Arrangements

• Arrangement creation in action (Portal)
Work Flow for Arrangements

- When OK is selected, arrangement is created.
Work Flow for Arrangements

- When the arrangement is created, the confirmation number (arrangement number) is displayed.
Work Flow for Arrangements

- Arrangement creation in action (UPN)
Work Flow for Arrangements

• Arrangement creation in action (UPN)

• Override (based on security) allows user to continue and create arrangement.
Work Flow for Arrangements

• Click on the rule that failed to view details.
Work Flow for Arrangements

- Audit trail for Rules Execution History
- Drill down to each rule

Audit trail

Details on execution results
Arrangement Alerts & Reminders

- Alerts & Reminders can be set up for:
  - Installment Due
  - Create Arrangement
  - Change Arrangement
  - Denied Arrangement

- Configuration can be set up in the Alerts & Reminders Service Control
Interactive Exercises
Questions?